

Original Research Article

Prevalence of Anxiety and Depression among Patients with Chronic Lumbar Spondylosis

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ABSTRACT

Objective: To study the prevalence of symptoms of depression and anxiety in individuals with Chronic Lumbar Spondylosis.

Method: Cross sectional study was conducted with sample size of 40 patients. The prevalence of anxiety and depression among Chronic Lumbar spondylosis patients was studied for specified age group with gender difference using Hospital Anxiety and Depression Scale (HADS).

Results: The study included 40 patients with chronic Lumbar spondylosis in age group of 45 to 75 years who provided valid response to survey questions. Out of 40 there were 15 (37.5%) women and 25 (62.5%) men in the study sample. The Mean age of patients was 61.67 years with standard deviation of 8.582. The mean duration of symptoms was 2.392 years with standard deviation of 0.78197 with a minimum of 1 year and maximum of 4 years. The study found abnormal levels of anxiety and depression among patients with 65% and 55% for anxiety and depression respectively. 27.5% and 30% were Borderline abnormal for anxiety and depression and 37.5% and 25% were abnormal for anxiety and depression as per HADS scale.

Conclusion: In patients with chronic Lumbar spondylosis, the psychological factors are important, as patients with chronic Lumbar spondylosis are at risk of experiencing anxiety and depression.

Key Words: Chronic Lumbar Spondylosis, Depression, Anxiety, Low Back pain, Psychological

INTRODUCTION

Low back pain (LBP) is common with up to 80% of people reporting LBP over their life time. A small number of disorders (10-40%) become chronic and represent a major cost burden for society. [1,2] up to 50% will have more than one episode in their life time. Low back pain is not a specific disease; rather it is a symptom that may occur from variety of different processes. [3] One of the common process as

a major cause of LBP is Lumbar Spondylosis. In spine, both the presence of intervertebral disc degeneration and osteophyte formation at the same vertebral level has been used to define Lumbar spine O.A otherwise known as Spondylosis. [4] Spondylosis is a degenerative condition affecting the disk, vertebral bodies and /or associated joints of lumbar spine. [5] Chronic Low Back pain is viewed as a bio psychosocial phenomenon in which all these

factors dynamically interact with each other. [6] Psychological factors such as distress, depressed mood and somatisation were reported to be associated with Low back pain. Their presence could predict the transition from acute to chronic Low back pain as well. [7] 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] There are different studies available on prevalence of psychological factors in cases of Chronic LBP but scant data is available on prevalence of anxiety and depression specifically in case of Chronic Lumbar Spondylosis. Given that these psychological factors are not well identified by the health professionals, the health professionals need to take responsibility for identifying these factors that delay recovery. In addition the longer these factors are left undetected the greater the likelihood of prolonged treatment and increased disability. This situation perpetuates the negative state of mind leading to more anxiety and depression in patients with Chronic Lumbar Spondylosis. Hence the purpose of the study is to identify symptoms of depression and anxiety using HADS scale in individuals with Chronic Lumbar Spondylosis.

METHODOLOGY

Research Approach: Cross sectional study using convenient sample selection

Study Setting: Outpatient physiotherapy department, Jammu College of Physiotherapy Hospital, Janipur, Jammu.

Sample size: 40 patients with Chronic Lumbar spondylosis.

Inclusion criteria: Age group between 45 to 75 years. Patients with Lumbar Spondylosis of more than 1 year duration.

Exclusion criteria: Age < 45 or > 75 years. Low back pain due to any other cause other than Lumbar spondylosis. Psychiatric problems or any congenital problems.

Material used: Hospital Anxiety and Depression (HAD) Scale is to identify Anxiety and Depression among patients with Chronic Lumbar Spondylosis.

Procedure: After thorough review of literature, Socio demographic and medical details of the subjects were collected followed by selection of patients with diagnosed case of Lumbar spondylosis and those fulfilling the inclusion criteria. HAD Scale was then explained to each patient personally and their responses were recorded. The level of Anxiety and Depression of patients were calculated based on HADS score. HADS score were used as a measure of severity of anxiety and depression subscales. The score ranges were classified as Normal 0-7, Borderline abnormal 8-10 and Abnormal 11-21.

OBSERVATION AND DATA ANALYSIS

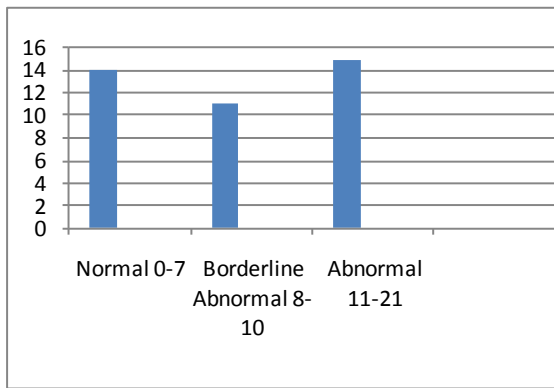
The qualitative analysis of data revealed the following:

The study includes 40 patients with chronic Lumbar spondylosis in age group of 45 to 75 years who provided valid response to survey questions. Out of 40 there were 15 (37.5%) women and 25 (62.5%) men in the study sample. The Mean age of patients was 61.67 years with standard deviation of 8.582. The mean duration of symptoms was 2.392 years with standard deviation of 0.78197 with a minimum of 1 year and maximum of 4 years.

The varying HADS score were noted for both anxiety and depression in Table 1.

HADS Sub Class	Anxiety Sub Scale	Depression Sub Scale
Normal 0-7	35%(14)	45%(18)
Borderline abnormal 8-10	27.5%(11)	30%(12)
Abnormal 11-21	37.5%(15)	25%(10)

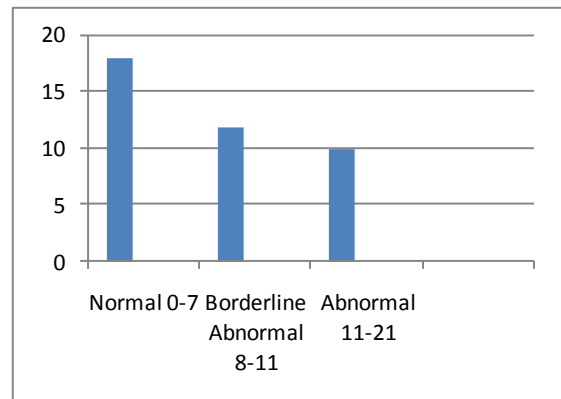
HADS (Anxiety Score)



INFERENCE

35% (14 people) fall in to the normal criteria for anxiety according to HADS score,
 27.5% (11people) account for borderline abnormal,
 37.5% (15 people) account for abnormal.

HADS (Depression Score)



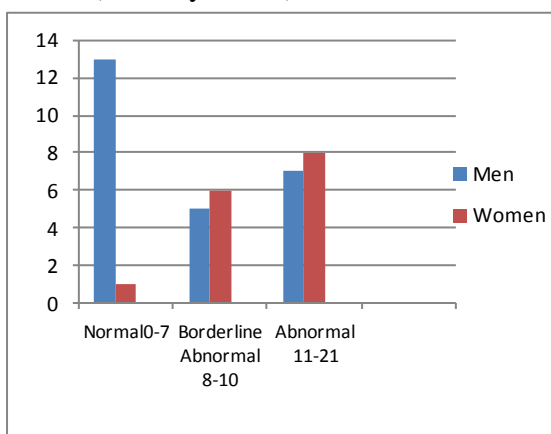
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45% (18 people) fall in to the normal criteria for depression according to HADS score,
 30% (12people) account for borderline abnormal,
 25% (10 people) account for abnormal.

HADS Score with respect to Gender Distribution for Anxiety and Depression in Table 2.

Gender	HADS Subclass	Anxiety Subscale		Depression Subscale	
		Patients	%age	Patients	%age
Male	Normal 0-7	13	52%	15	60%
	Borderline Abnormal 8-10	5	20%	5	20%
	Abnormal 11-21	7	28%	5	20%
Total		25		25	
Female	Normal 0-7	1	6.66%	3	20%
	Borderline Abnormal 8-10	6	40%	7	46.6%
	Abnormal 11-21	8	53.33%	5	33.3%
Total		15		15	

HADS (Anxiety Score) Men/Women

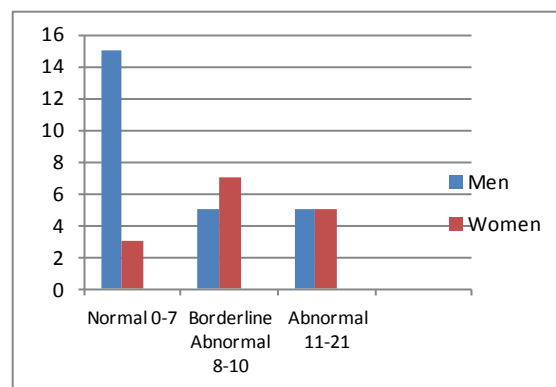


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Out of total 25 men and 15 women, 52% (13 men) and 6.66% (1 woman) fall in to the normal criteria for anxiety according to HADS score,
 20% (5 men) and 40% (6 women) account for borderline abnormal,
 28% (7men) and 53.33% (8 women) account for abnormal.

20% (5 men) and 40% (6 women) account for borderline abnormal,
 28% (7men) and 53.33% (8 women) account for abnormal.

HADS (Depression Score) Men/Women



INFERENCE

Out of total 25 men and 15 women,

60% (15 men) and 20% (3 women) fall in to the normal criteria for depression according to HADS score, 20% (5 men) and 46.66% (7 women) account for borderline abnormal, 20% (5 men) and 33.3% (5 women) account for abnormal.

DISCUSSION

The present study found high prevalence of anxiety and depression among patients with chronic lumbar spondylosis with aberrant levels of anxiety and depression were found among patients with 65% and 55% for anxiety and depression respectively. 27.5% and 30% were Borderline abnormal for anxiety and depression and 37.5% and 25% were abnormal for anxiety and depression as per HADS scale. Polatin et. al. studied that in case of chronic low back pain, somatoform disorder was the commonest psychiatric co morbidity with chronic low back pain followed by depression, substance abuse and anxiety disorder. [10] Symptoms of anxiety occur at a relatively high frequency in patients with chronic low back pain. [11] Similarly studies have shown that depression to be prevalent among people with chronic pain. [9,12] Depression is common in people with low back pain and is associated with increased pain intensity, increased physical and psychosocial disability, increased medication use and increased likelihood of unemployment. [13] A study of 70 German patients with back pain reported 36% patients with abnormal anxiety (HAD-A >10) and 29% with abnormal depression (HAD-D>8). Abnormal anxiety and/or depression were noted in 47% patients. [14] In present study 28% and 20% of men and 53.3% and 33.3% of women had abnormal anxiety and depression. Both depression and pain disorders occur more frequently in women than men. Women suffer from depression at nearly twice the rate of men. [15] Tangestani et.al. reported anxiety and somatization in women is higher than men and anti social behavior and impulsivity is more common

in men. [16] A study on 140 Pakistani patients reported 14.28% and 16.42% male patients had abnormal levels of anxiety and depression respectively, while abnormal levels of anxiety and depression were found in 40.71% and 32.14% female patients respectively. [17] It seems that gender difference in anxiety of patients with chronic pain is due to difference in pain threshold and tolerance level, psychosocial factors and fear of movement and pain. [18] Biological evidence suggests that women and men may experience chronic low back pain differently. The biological model predicts that women will experience more pain and will experience more psychological dysfunction because they are in more pain and will demonstrate less adaptive function because they expect more pain. Psycho social evidence suggests that women are at disadvantage when coping with chronic low back pain. [19]

CONCLUSION

The study clearly indicates that in treating the patients with chronic Lumbar spondylosis, the psychological factors are important, as patients with chronic Lumbar spondylosis are at risk of experiencing anxiety and depression. In these patients the condition gets complicated due to co morbid conditions such as anxiety and depression which are required to be addressed by appropriate therapy. Also it is important to keep in mind the gender variations which are also required to be addressed, with respect to psychological understanding of differences between men and women and how they react to pain.

REFERENCES

1. Dillingham T. Evaluation and management of Low back pain and overview. State of the Art Reviews 1995; 9(3):559-74.
2. Croft P, Macfarlane G, Papageorgiou A, Thomas E, Silman A. Outcome of Low back pain general practice: a prospective study. BMJ 1998;316;2 (May):1356-9.
3. Deyo RA, Cherkin D, Lonard D et.al. Cost, Controversy, Crisis: Low back pain and

- health of the public. *Annu Rev Public Health* 1991; 12:141-56.
4. Maruki S, Akuna T, et.al. Incidence and risk factors for radiographic lumbar Spondylosis and lower back pain in Japanese men and women: the road study. *Osteoarthritis and cartilage*. 2012; 20(7); 712-718 doi:10-1016/j.joca.2012.03.009.Epub 2012 April 4.
 5. Schnack CD. The Anatomy of lumbar spondylosis. *Clin Orthop Relat Res*. 1985; 193:20-36.
 6. Dersh J., Gatchel RJ, Polatin P. Chronic Spinal Disorders and psychopathology: research findings and theoretical considerations *Spine* 2001:21:88-94.
 7. Linton SJ- A Review of psychological risk factors in back and neck pain. *Spine* 2000:25:1148-56.
 8. Kinney RK et.al. Prevalence of psychopathology in acute and chronic low back pain patients. *J Occup Rehab* 1993; 3:95-103.
 9. Rush AJ, Polatin P, Gatchel RJ. Depression and chronic low back pain. Establishing priorities in treatment. *Spine* 2000; 25:2566-2571.
 10. Polatin PB, Kinney RK, Gatchel RJ et.al- Psychiatric illness and chronic low back pain. *Spine* 1993:18; 66-71.
 11. Krishnan K.R, France R.D, Pelton S, et.al (1985) chronic pain and depression. II. Symptoms of anxiety in chronic low back pain patients and their relationship to subtypes of depression. *Pain*. 22,289-294.
 12. Dworkin SF, Gitlin MJ. Clinical aspects of depression in chronic pain patients. *Clin J Pain* 1991; 7:79-94.
 13. P.Sathya et.al. Prevalence of depression; Anxiety and stress in patients with Mechanical Low Back Pain .*Int J of Therapies and Rehab Research* 2015,4 (4),67-72.
 14. Herrman C. International experiences with the Hospital Anxiety and Depression Scale. A review of validation data and clinical results. *J. Psychosom Res* 1997; 42:17-41.
 15. Meana M. (1998).The meeting of pain and depression. Comorbidity in women. *Canadian Journal of Psychiatry*.43, 893-899.
 16. Tangestani et.al. Investigating the relationship between anxiety and pain catastrophizing in people with Chronic Low Back pain. *Asian J. Med. Pharm. Res*, 2(2):26-29,2012.
 17. M.A Sagheer, M.F Khan, S Sharif. Association between Chronic Low Back Pain, anxiety and depression in patients at a tertiary care centre. *J Pak Med Assoc* .Vol 63, No 6, June 2013.
 18. Vlaeven JW, Linton SJ,(2000).Fear avoidance and its consequences in chronic musculoskeletal pain: a state of art. *Pain*: 85(3):317-32.
 19. Sheffer et.al. Sex differences in presentation of Chronic Low Back Pain. *Psychology of Women Quarterly*, 26 (2002), 329-340. Blackwell Publishing. Printed in USA.

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