PREVALENCE OF DEPRESSION IN PATEINTS WITH CHRONIC BACKACHE

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ABSTRACT

INTRODUCTION

Backache is a common problem with about 70% of people in developed countries experience low back pain at some time in their lives. A number of studies done previously shows that there is high prevalence of depression in patients with chronic backache. This study was carried out to find out the prevalence of depression in patients with chronic backache in Nepalese subjects.

MATERIAL AND METHODS

This was a cross-sectional descriptive study conducted in Universal College of Medical Sciences, Bhairahawa, Nepal. Patients presenting to Orthopaedics OPD with history of backache lasting for more than 12 weeks were referred for psychiatric evaluation. One hundred cases were included in the study based on inclusion / exclusion criteria in six months period (from 1st Jan 2019 to 30th June 2019). Detailed evaluation was done by a psychiatrist to find out the presence of depression. Diagnosis of depression was made based on ICD-10 DCR. Data was analysed using SPSS.

RESULTS

Out of total 100 subjects, more than half (56%) were females. Majority of the subjects (61%) were below 45 years of age. The average age of the subjects was 45 years minimum age being 16 and maximum 77. About 59% were also suffering from depressive disorder.

CONCLUSION

This study concludes that significant number of patients with chronic backache attending OPD of tertiary care hospital suffers from depression. It is therefore essential to screen for depression in these patients.

KEYWORDS Depression, Chronic Backache, Nepal

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INTRODUCTION

Back pain is a common problem with about 70% of people in developed countries experience low back pain at some time in their lives.[1] Any kind of pain which lasts for longer than three months, that accompanies a disease process, or that is associated with a bodily injury that has not resolved over time may be referred to as chronic pain.[2] Many Individuals suffering from chronic pain often find it difficult and report that pain interferes with their ability to engage in occupational, social, romantic, or recreational activities, which is consistent with a bio-psychosocial model of illness. Their inability to engage in these reinforcing activities may contribute to increased isolation, feelings of worthlessness, and depressed mood. A number of studies done concludes that approximately 27% of patients with pain in primary care clinics meet criteria for major depression.[3] This study was done to explore the prevalence of depression in patients with chronic low backache in Nepalese population.

MATERIAL AND METHODS

This was a cross-sectional descriptive study conducted with convenient sampling method in Universal College of Medical Sciences, Bhairahawa, Nepal in six months period (from 1st Jan 2019 to 30th June 2019). Patients presenting to Orthopaedics OPD with history of backache lasting for more than 12 weeks were referred for Psychiatric evaluation and included in the study based on inclusion / exclusion criteria. One hundred consecutive patients were enrolled for the study after receiving written informed consent from each individual. Ethical clearance was obtained from the Institutional Review Board. The information were kept confidential.

A semi-structured performa designed for the purpose was used to record the basic socio-demographic details. Detailed psychiatric work-up was done in all subjects. The final psychiatric diagnoses were made according to the International classification of disease and infirmity, 10th edition (ICD-10) criteria. Data were entered into a computer and analyzed using Statistical Package for Social Science (SPSS) software.

RESULTS

Majority of the subjects (61%) were below 45 years of age. The average age of the subjects was 45 years minimum age being 16 and maximum 77. More than half (56%) of the subjects were females. Most of the subjects were Hindu (81%) by religion and belong to middle socio-economic status (66%). Significant proportions of these Nepalese patients were illiterate or less educated. About half (44%) of the subjects were housewives and living in semi-urban area. Many of the subjects (53%) were living in a joint family. Details of the sociodemographic profile is shown in Table 1.

Table 1. Showing socio-demographic distribution of subjects

		No of cases (n=100) Percentage (%)
Age group	18-44	61
	45-64	31
	>65	8
	Total	**100**
Gender	Male	44
	Female	56
	Total	**100**
Religion	Buddhist	2
	Hindu	81
	Islam	17
	Total	**100**
Marital status	Married	97
	Unmarried	3
	Total	**100**
Socio-economic status	High	7
	Low	27
	Middle	66
	Total	**100**
Education	Illiterate	39
	Primary	13
	Secondary	31
	Higher Secondary	6
	Above Higher Secondary	11
	Total	**100**
Occupation	Housewife	44
	Job holder	22
	Farmer	15
	Business	16
	Student	3
	Total	**100**
Domicile	Rural	41
	Urban	13
	Semi-urban	46
	Total	**100**
Family type	Extended	6
	Joint	54
	Nuclear	40
	Total	**100**

The average duration of backache was 25.2 months and maximum duration being 20 years. Asking about the severity of backache, 31% of subjects had severe backache and 42% had moderate backache. There were severe dysfunction due to backache in about 25% subjects and moderate dysfunction in about 46% subjects. Among 100 subjects suffering from chronic backache, 60% were also suffering depressive disorder. Thirty-nine percent were suffering from mild depression, 16% moderate depression and 5% subjects were suffering from severe depression. Detail of the clinical profile is seen in Table 2.

Table 2. Showing clinical profile of patients with chronic low backache

Duration of backache	**Upto 6 months**	45
	6 - 12 months	18
	1-2 yrs	13
	2-3 yrs	8
	>3 yrs	16
	Total	**100**
Severity of backache	mild	27
	moderate	42
	Severe	31
	Total	**100**
Degree of dysfunction	Mild	25
	Moderate	46
	Severe	29
	Total	**100**
Depression	Mild	39
	Moderate	16
	Severe	5
	Total	**100**

Depression showed significant association with degree of dysfunction (p=0.018) and severity of backache (p=0.017). Detail of the bivariate analysis is shown in Table 3.

Table 3. Showing bivariate analysis between depression and socio-demographic and clinical profile

		Depression		Total	Percentage	P-value
		Absent	Present			
Degree of dysfunction	Mild	16	9	25	25	**0.018***
	Moderate	15	31	46	46	
	Severe	9	20	29	29	
Severity of backache	Mild	17	10	27	27	**0.017***
	Moderate	13	29	42	42	
	Severe	10	21	31	31	
Duration of backache	up to 6 months	18	27	45	45	0.066
	-12 months	3	15	18	18	
	-2 yr	9	4	13	13	
	-3 yr	3	5	8	8	
	3 or more	7	9	16	16	
Family type	Nuclear	20	20	40	40	0.17
	Joint	17	37	54	54	
	Extended	3	3	6	6	
Socio economic status	Low	10	17	27	27	0.726
	Middle	28	38	66	66	
	High	2	5	7	7	
Education	Illiterate	13	26	39	39	0.109
	Primary	7	6	13	13	
	Secondary	16	15	31	31	
	Higher Secondary	0	6	6	6	
	More than Higher Secondary	4	7	11	11	
Marital status	Unmarried	0	3	3	3	0.151
	Married	40	57	97	97	
Occupation	Housewife	13	31	44	44	0.146
	job holder	10	12	22	22	
	farmer	5	10	15	15	
	Business	10	6	16	16	
	Student	2	1	3	3	
Domicile	Rural	16	25	41	41	0.336
	Urban	3	10	13	13	
	Semi Urban	21	25	46	46	
Mean age		41.225	42.616			0.6398

DISCUSSION

Low back pain is something that almost all people experience at some point in their lives. It is something common across sexes, age groups, countries, socioeconomic groups, education levels and occupation.

Study by Chou R et al[4] suggested that chronic pain is a debilitating condition with loss of productivity, decreased quality of life, and increased morbidity are some of the known effects of this condition.

This study found that there is a very high prevalence of depression in patient with chronic backache. The result of this study support the study done by Reddy et al.[5]

Chronic pain and depression most likely have a bidirectional association: depression is a predictor of persistent pain and pain is a predictor of the persistence of depression.[6] A possible explanation is that impaired functioning caused by pain can lead to social isolation, which in turn can lead to a negative effect on depressive symptoms, and vice versa.[7]

Depression and anxiety have been associated with magnification of medical symptoms whereas emotional distress has been connected to physical symptoms by means of autonomic arousal, vigilance and misinterpretation of somatic amplification.

The severity of the depressive and anxiety symptoms are significantly associated with pain-related disability and limiting pain, with more severe symptoms having higher odds for highly disabling and severely limiting pain.[8]

Depressive and anxiety disorders may add to pain as they increase the likelihood of social isolation, increased attention towards threat and avoidance of physical exertion.[9,10]

Depression and anxiety disorders also share the same pathophysiological pathways as pain.[11-13] They facilitate the central modulation of the pain response, in the periaqueductal gray, amygdala, and hypothalamus,[14,15] and when deficits

occur in these areas, modulation of signals from the body are disturbed, leading to a more severe experience of pain. Although these brain areas all play a role in depression, anxiety, and pain, not every individual responds the same to pain stimuli.[16-18] Some individuals are more sensitive to pain than others.

Furthermore, depression and anxiety induce stress and increases the production of pro-inflammatory cytokines, which may increase pain.[19,20] The finding showing higher pain-related disability in co-morbid depression and anxiety in our study is similar to findings from the STAR*D studies.[21,22]

Taken together, these data indicate that depression is a common comorbidity in chronic backache and that the presence of depression significantly reduces the efficacy of a standard chronic pain treatment program. These findings suggest that psychiatric comorbid disorders need to be screened for and diagnosed. Results of this study do not indicate whether treatment of these disorders will impact treatment outcomes. However, until results from outcome studies are clear, these patients should be offered aggressive psychiatric treatment. The impact of early recognition and treatment of comorbid psychiatric disorders in the chronic pain management setting is, therefore, an important area that needs to be investigated further, since the importance of psychiatric care may be overlooked in many chronic pain programs.

CONCLUSION

Depression is a very common comorbidity in chronic backache. It suggests that every patient with Chronic backache needs to be screened for psychiatric illnesses.

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