

## Original article :

### Prevalence of Depression in Arthritis Patients:

#### An Institutional Based Study

Nand Kishore<sup>1</sup>, Ashok Kumar<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Psychiatry, Santosh Medical College and Hospital, Ghaziabad, Uttar Pradesh, India.

<sup>2</sup>Assistant Professor, Department of Medicine, Santosh Medical College & Hospital, Ghaziabad, Uttar Pradesh, India.

**Corresponding Author:** Dr. Nand Kishore, Assistant Professor, Department of Psychiatry, Santosh Medical College and Hospital, Ghaziabad, Uttar Pradesh, India.

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#### Abstract

**Background:** Arthritis is of the joint inflammation condition that often co-exists with pain and structural damage. Psychological parameters have been shown to be the most important predictors of presence of pain. Hence; the present study was conducted for assessment of prevalence of depression in arthritis patients.

**Materials & Methods:** A total of 80 patients with arthritis were included in the present study. Complete demographic details of all the patients were obtained. Psychological screening of all the patients was done. Hamilton Depression Rating Scale was used for identifying depression among arthritis patients. Modified Kupuswamy scale was used for assessing the socio-economic status of all the patients. All the results were compiled in Microsoft excel sheet and were analyzed by SPSS software.

**Results:** Depression was found to be present in 18.75 percent of the patients (15 patients). 8 arthritis patients with depression were less than 45 years of age, while 7 patients with depression were more than 45 years of age. Significant higher prevalence of depression was seen among rural residence patients. 10 arthritis patients with depression were of lower class. Significant results were obtained while assessing the distribution of arthritis patients with depression divided on the basis of socio-economic status.

**Conclusion:** Depression is quiet common among arthritis patients, especially among patients with lower socioeconomic status.

**Keywords:** Arthritis, Depression, Socioeconomic Status.

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#### INTRODUCTION

Arthritic pain is common and is associated with worse functional outcomes and poorer quality of life when compared with a range of other chronic conditions. A bewildering array of guidelines and other evidence-based resources are available, but the variability of therapeutic responses can lead to frustration and disappointment for both patients and health professionals. Chronic medical conditions are associated with an increased risk of depression and suicide.<sup>1-3</sup>

Depression or depressive symptoms can be easily measured in arthritis using a variety of measures, from screening tools, but rheumatologists rarely communicate about depression with their arthritis patients who have moderately severe-to-severe depressive symptoms. The reported prevalence of depression ranged from as low as 4.1% to as high as 61.3% in individuals with Arthritis. Rheumatologists seldom enquire about depression in their patients of arthritis. As a result of this mild to moderate depression patients go undiagnosed

and untreated. The implication is that the burden of disease due to depression remains largely intact and is not adequately addressed by current health regimens. Addressing both the physical and psychological factors of arthritis during clinic visits is important because, as noted above, depression can impact mortality, health service utilization, and adherence to medications and self-care regimens.<sup>4-6</sup>

Hence; under the light of above mentioned data, the present study was conducted for assessment of prevalence of depression in arthritis patients.

### MATERIALS & METHODS

The present study was conducted in the Department of Psychiatry, Santosh Medical College and Hospital, Ghaziabad, Uttar Pradesh (India) with the aim of assessing the prevalence of depression among arthritis patients. Ethical clearance was obtained from institutional ethical committee and written consent was obtained after explaining in detail the entire study protocol. Inclusion criteria for the present study included:

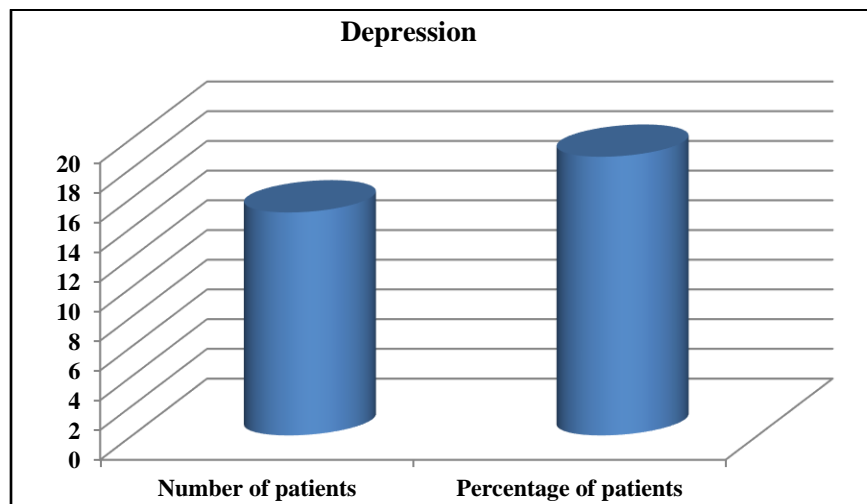
- Patients within age group of 25-60 years,

- Patients with negative history of any other systemic illness,
- Patients with negative history of diabetes or hypertension

Residents and faculty of Department of Medicine of Santosh Medical College & Hospital, Ghaziabad were sensitized about significance of screening of arthritis patients for depression. Patients attending Medicine OPD who were found to have depressive symptoms on clinical questioning were referred to the Psychiatry OPD for further assessment and to take part in the study.

A total of 80 patients with arthritis were included in the present study. Complete demographic details of all the patients were obtained. Psychological screening of all the patients was done. Hamilton Depression Rating Scale was used for identifying depression among arthritis patients.<sup>6</sup> Modified Kupuswamy scale was used for assessing the socio-economic status of all the patients.<sup>7</sup> All the results were compiled in Microsoft excel sheet and were analyzed by SPSS software. Mann-Whitney u test and unpaired t test was used for assessment of level of significance. P- value of less than 0.05 was taken as significant.

**Graph 1: Prevalence of depression among arthritis patients**



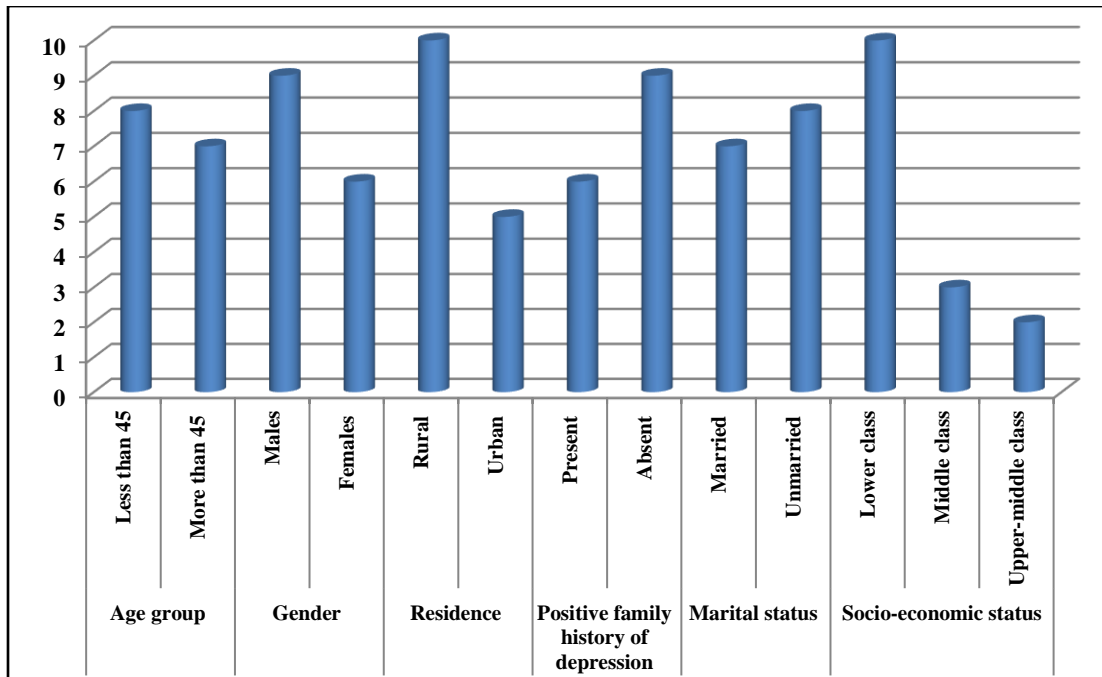
**Table 1: Demographic parameters of arthritis patients with depression**

Parameter		Number of patients	p- value
Age group	Less than 45	8	0.19
	More than 45	7	
Gender	Males	9	0.75
	Females	6	
Residence	Rural	10	0.00 (significant)
	Urban	5	

**Table 2: Profile of arthritis patients with depression**

Parameter		Number of patients	p- value
Positive family history of depression	Present	6	0.75
	Absent	9	
Marital status	Married	7	0.19
	Unmarried	8	
Socio-economic status	Lower class	10	0.00 (Significant)
	Middle class	3	
	Upper-middle class	2	

**Graph 2: Profile of arthritis patients with depression**



**RESULTS**

The present study was undertaken for assessing the prevalence of depression in arthritis patients. A total of 80 arthritis patients were analyzed.

Among these 80 patients, depression was found to be present in 18.75 percent of the patients (15 patients). 8 arthritis patients with depression were

less than 45 years of age, while 7 patients with depression were more than 45 years of age. 9 arthritis patients with depression were males while the remaining were females. 10 arthritis patients with depression had rural residence while the remaining had urban residence. Significant higher prevalence of depression was seen among rural residence patients (p- value < 0.05).

In the present study, 6 arthritis patients with depression had positive family history of depression. 7 arthritis patients with depression were married while the remaining was unmarried. 10 arthritis patients with depression were of lower class. Significant results were obtained while assessing the distribution of arthritis patients with depression divided on the basis of socio-economic status.

## DISCUSSION

At a local level, mediators released from synovium, bone or other tissues will induce the sensitization of articular pain receptors. The clinical correlate of sensitization at this peripheral level is that musculoskeletal symptoms will be localized, with a relatively close relationship to mechanical stimuli such as walking or standing. Treatment with systemic or topical therapies designed to reduce inflammatory mediators might be expected to have a beneficial effect, which is in accord with clinical experience.<sup>7,8</sup> Hence; the present study was conducted for assessment of prevalence of depression in arthritis patients.

The present study was undertaken for assessing the prevalence of depression in arthritis patients. A total of 80 arthritis patients were analyzed. Among these 80 patients, depression was found to be present in 18.75 percent of the patients (15 patients). 8 arthritis patients with depression

were less than 45 years of age, while 7 patients with depression were more than 45 years of age. 9 arthritis patients with depression were males while the remaining were females. 10 arthritis patients with depression had rural residence while the remaining had urban residence. Significant higher prevalence of depression was seen among rural residence patients. Dickens C et al assessed the relative strength of the association of physical characteristics and social stresses with a diagnosis of depression in patients with rheumatoid arthritis. Depression and social difficulties were assessed in 74 patients with rheumatoid arthritis by using standardized research interviews. Rheumatoid arthritis activity, damage related to rheumatoid arthritis, and subjective functional disability were assessed with well-validated methods. Twenty-nine patients (39.2%) were depressed. Compared to nondepressed patients, depressed patients had more marked social difficulties related to rheumatoid arthritis (72.4% versus 46.7%, respectively) and more marked social difficulties independent of rheumatoid arthritis (55.2% versus 31.1%, respectively). With logistic regression, social difficulties, independent of rheumatoid arthritis, was the only variable significantly associated with depression. Demographic characteristics and rheumatoid arthritis were not associated with a diagnosis of depression. Recognition by clinicians of the importance of social stresses, independent of disease state, should lead to more appropriate and specific psychological and social treatment of depression in rheumatoid arthritis.<sup>9</sup>

In the present study, 6 arthritis patients with depression had positive family history of depression. 7 arthritis patients with depression were married while the remaining was unmarried. 10 arthritis patients with depression were of lower class. Significant results were obtained while assessing the distribution of arthritis patients with depression divided on the basis of socio-economic

status. Hawley DJ et al investigated psychological and clinical factors in patients with rheumatoid arthritis (RA) by studying 400 patients at 6 month intervals over a mean 3.1 (1.2 SD) years utilizing the Arthritis Impact Measurement Scales psychological scales. Entry clinical and demographic variables explained 25% of the variance in psychological scores. Patients with RA had scores similar to those with other rheumatic disorders (n = 441), and scores remained stable over the study period. Development of depression was associated with socioeconomic not clinical factors, and disease activity appeared to have a limited effect on psychological status. Initial psychological scores were associated with subsequent pain levels and number of physician visits.<sup>10</sup>

It is estimated that 15%-20% of people with diabetes are struggling with depression, more likely moderate to severe form of depression.<sup>11</sup> The clinical data from past literature shows that approximately one-third (21.3%) of hypertensive patients have depressive symptoms.<sup>12</sup> Ozcetin A et al measured the effects of depression and anxiety on quality of life (QoL) in patients with

rheumatoid arthritis (RA), knee osteoarthritis (OA) and fibromyalgia syndrome (FMS). One hundred and fifty-four patients with RA, knee OA, and FMS who presented to the physical medicine and rehabilitation department were studied. Twenty-two per cent of patients (n = 34) were diagnosed with of RA, 52.6% (n = 81) knee OA and 25.3% (n = 39) FMS. Except for the subscales, of physical and emotional role, there were statistically significant differences among diagnostic groups in the rest of the SF-36 subscales. In the physical functioning subscale, the highest score was obtained in the fibromyalgia group and the lowest in the RA group. Quality of life is significantly low in patients with RA, knee OA and FMS, whose depression and/or anxiety scores are high.<sup>13</sup>

## CONCLUSION

Depression is quite common in arthritis patients but due to busy clinical schedule of Rheumatologists, it goes undiagnosed and untreated. This increases morbidity and mortality of both arthritis and depression. Further studies and sensitization of Rheumatologists are required. However; further studies are recommended.

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