

# Prevalence, Severity, and Impact of Arthritis on Physical Functioning and Quality of Life Among Senior Citizens: A Cross-Sectional Study

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## ABSTRACT

**Background:** Arthritis is a leading cause of disability among senior citizens, yet its burden in Indian communities remains understudied. This study assessed the prevalence, severity, and impact of arthritis on physical and psychosocial well-being.

**Methods:** A cross-sectional survey of 100 senior citizens (aged  $\geq 55$  years) was conducted using a structured interview schedule. Data on demographics, arthritis diagnosis, symptoms, pain severity, daily limitations, and treatment effectiveness were analysed descriptively and inferentially.

**Results:** 81% of participants were diagnosed with arthritis, predominantly osteoarthritis (50%). Over 90% reported active symptoms, with 73.6% experiencing knee involvement. Pain severity was moderate (53.9%) or severe (30.3%), significantly limiting daily activities (walking: 67.1%; climbing stairs: 57.8%). Emotional well-being was moderately affected in 36.8%, and 39.4% reported reduced social participation. Only 28.6% found treatments "very effective."

**Conclusion:** Arthritis imposes substantial physical and psychosocial burdens on seniors, underscoring the need for targeted interventions, improved treatment efficacy, and holistic care models.

**Keywords:** Arthritis, elderly, quality of life, Physical functioning

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## INTRODUCTION

Arthritis is defined as inflammation of the joints. Many different diseases may cause arthritis. Joint pain, stiffness, and swelling are symptoms of arthritis, a collection of rheumatic illnesses and other related ailments. Arthritis may take several forms, including those caused by normal cartilage degradation (osteoarthritis) and those caused by inflammation brought on by an overactive immune system (rheumatoid arthritis). Early research on the pathogenesis of rheumatoid arthritis focused on immune complexes and autoantibodies. Other hypothesized reasons include T cell-mediated antigen-specific responses, aggressive tumour-like behaviour in rheumatoid synovium, and cytokine networks independent of T cells. The function of autoantibodies has recently gained attention again. Targeted therapeutic approaches that lessen inflammation and joint degradation in rheumatoid arthritis may be developed using the disease's pathogenic mechanisms.

Joint discomfort, limited mobility, and the possibility of deformity and instability are prominent symptoms experienced by patients with arthritis. Education of the patient, alteration of their activities, and treatment with anti-inflammatory drugs are the basis of nonoperative therapy. Arthritis may have noninflammatory, inflammatory, haemorrhagic, osteonecrosis, or infectious origins, depending on the underlying foundation of the illness.

According to the World Health Organization (WHO), around 350 million individuals throughout the world are affected by arthritis. The elderly are disproportionately affected by arthritis due to age-related degenerative changes. According to Bhattacharya (2017), the old population in India is expected to reach 19% by the year 2050. Despite this, arthritis continues to be a significant public health concern that is not given the priority it deserves. According to previous research (Lalitha, 2012; Amiri, 2018), there is a correlation between arthritis, functional impairment, and a decrease in quality of life. However, there is a lack of data from India that is specific to the country. In order to fill this void, this study investigates

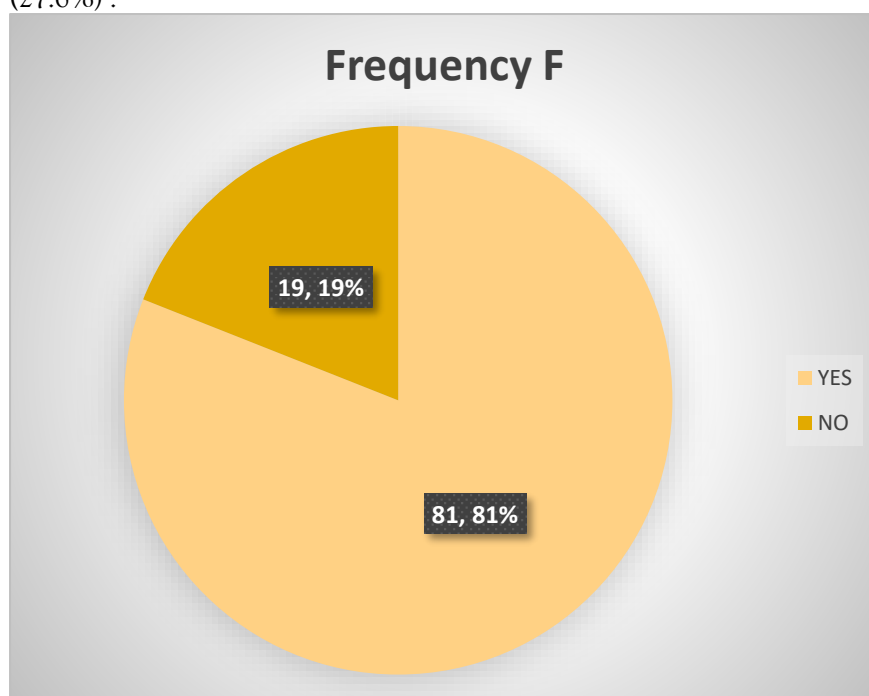
the prevalence of arthritis, the severity of the condition, and the multifaceted impact it has on elderly citizens in Vadodara.

## METHODS

This cross-sectional quantitative study was conducted across hospitals, settings. A total of 100 seniors aged 55 years and above were selected using convenience sampling to participate in the study a systematic interview schedule was used in the research project in order to collect information on demographic features, the diagnosis of arthritis, and the physical and psychological effects of arthritis. Details were submitted by participants on their ages, genders, living circumstances, and the exact forms of arthritis they suffer from. When evaluating the influence on both physical functioning and psychological well-being, a standardized scale consisting of sixty items was used. Given that the scale shown a high level of internal consistency (Cronbach's  $\alpha = 0.82$ ), it can be concluded that it is a trustworthy instrument for measuring the construct.

## RESULTS

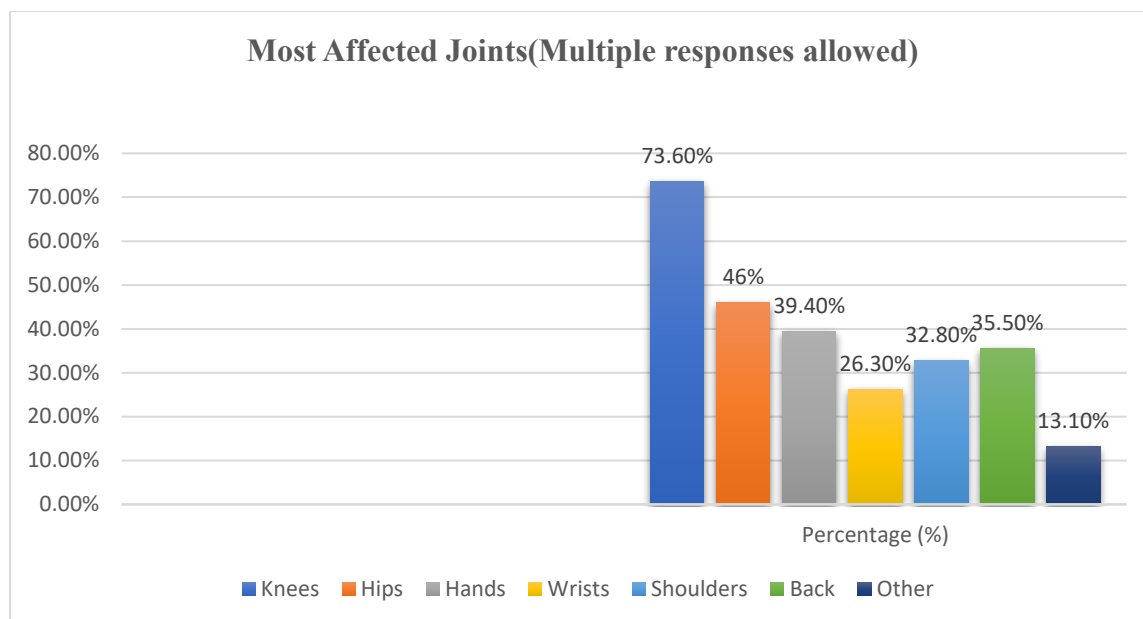
As per objective to assess the prevalence and severity of arthritis among senior citizens. Supported by 81% had arthritis diagnoses, primarily osteoarthritis (50%) and rheumatoid arthritis (27.6%) .



Only 19% of respondents (19 individuals) said that they had never been diagnosed with arthritis, while 81% of respondents (81 people) stated that they had obtained a diagnosis of arthritis from a healthcare practitioner. The findings of this research clearly show that the community under observation had a significant frequency of arthritis. It is of the utmost importance to promote awareness, identify arthritis at an early stage, and treat it consistently owing to the significant number of instances that have been proven. Additionally, the data demonstrates that a significant number of individuals in the sample are affected by arthritis, which necessitates the use of a mix of medical and community-based therapies.

- 92.1% of people reported experiencing symptoms at the present time, with the knees (73.6% of cases) and hips (46%) being the most impacted.

As per second objective to examine the impact of arthritis on physical functioning and quality of life Supported by Most Affected Joints



Arthritic symptoms manifest in a variety of ways in the most often affected joints. The knees, which bear the brunt of the body's weight, are the most affected joint type, affecting 73.6% of the 56 individuals. Many persons report impaired mobility and fine motor function due to problems with their hips (46%) hands (39.4%), and backs (35.5%). Among the joints that are considerably affected, 32.8% are the shoulders and 26.3% are the wrists; nevertheless, 13.1% (10 people) reported other joints that were not included. Arthritis, as this distribution indicates, may impact several joints at once, restricting mobility and daily activities and hence quality of life. According to the results, therapies for arthritis should center on medications that target certain joints.

Type of Arthritis	Frequency (f)	Percentage (%)
Osteoarthritis	38	50%
Rheumatoid Arthritis	21	27.6%
Gout	9	11.8%
Others	8	10.6%

#### Type of Arthritis (Among Diagnosed Patients, n = 76)

The 76 diagnosed arthritis patients are shown in this table by kind. Most common is osteoarthritis, involving 50% (38 individuals). This shows that degenerative joint disease, potentially caused by age or mechanical stress, is the most common arthritis. At 27.6% (21 cases), rheumatoid arthritis is the second most prevalent cause of joint inflammation. High uric acid levels are connected with metabolic illnesses including gout, which 11.8% (9 patients) reported. As Furthermore, 10.6% (8 patients) had different forms of arthritis, indicating a modest but significant prevalence of rarer disorders. Because individuals have different forms and causes of arthritis, the research underscores the necessity for multiple treatment interventions.

Pain Level	Frequency (f)	Percentage (%)
1-3 (Mild)	12	15.8%
4-6 (Moderate)	41	53.9%
7-10 (Severe)	23	30.3%

#### Pain & Functional Impact/ Pain Severity (Scale 1-10)

On a range from 1 to 10, Table shows how the people who took part ranked how bad their arthritis pain was. The data shows that most of the people who answered (53.9%) said they were in mild pain (score between 4 and 6). About 30.3% of the people who took the survey said they were in serious pain (numbers between 7 and 10), which means that almost one-third of them are in severe pain because of arthritis. Only 15.8% said they were in mild pain (numbers between 1 and 3), which suggests that a smaller group

is less uncomfortable. These results show that most of the people with arthritis in the study are in mild to serious pain, which may have a big impact on their quality of life and ability to do daily tasks.

## DISCUSSION

Osteoarthritis is the most frequent kind of arthritis among the elderly, according to the research. But there are holes in treatment, such insufficient pain management and obstacles to adherence. Additionally, the research emphasizes the psychological effects of arthritis, tying it to feelings of sadness and loneliness. Research, administration, practice, and nursing education may all benefit from the results. Osteoarthritis and rheumatoid arthritis were shown to impact 81% of the elderly in the research. Data also showed that there was a lot of stiffness, restricted movement, and severe discomfort.

Arthritis significantly impacts physical and psychosocial well-being, with 58% of cases in 61-70-year-olds. The prevalence is linked to age, with 55% female and 45% male. 88% live with family, suggesting potential caregiver support may influence treatment adherence. However, convenience sampling limits generalizability and self-reported data may introduce bias.

## CONCLUSION

Arthritis significantly impacts seniors' physical and psychosocial well-being. To improve treatment efficacy, multidisciplinary care, community-based interventions, and patient education are needed. Despite these efforts, 50% report interventions as "somewhat effective." Enhanced nursing education on arthritis management, community-based interventions, and long-term educational strategies are needed. Addressing these gaps through multidisciplinary approaches could mitigate arthritis-related disability and improve seniors' well-being, aligning with global priorities for healthy aging (WHO, 2021).

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