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Depression and Anxiety among Arthritis Patients in Nigeria Review

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ABSTRACT

Arthritis is a leading cause of chronic pain, disability, and reduced quality of life globally, with significant prevalence in Nigeria. Patients with arthritis frequently experience comorbid depression and anxiety, which exacerbate pain perception, impair functional ability, reduce treatment adherence, and worsen overall outcomes. This review synthesizes current evidence on the prevalence, risk factors, mechanisms, and clinical consequences of depression and anxiety among arthritis patients in Nigeria. Findings indicate high rates of psychological distress, influenced by biopsychosocial factors including pain severity, functional limitations, disease duration, social support, and systemic inflammation. Health-system challenges, sociocultural barriers, and limited mental health resources further compound the burden. Effective management requires integrated biopsychosocial approaches, routine mental health screening, culturally validated tools, task-shifted psychological interventions, rehabilitation support, and strengthened healthcare policies. Identified research gaps highlight the need for population-based studies, longitudinal research, and locally adapted interventions. Addressing these challenges is crucial to optimizing arthritis care, reducing disability, and improving quality of life in the Nigerian context.

Keywords: Arthritis, Depression, Anxiety, Nigeria, Mental health, Comorbidity, Biopsychosocial.

INTRODUCTION

Arthritis is a broad term that encompasses more than 100 conditions affecting the joints, bones, and surrounding tissues. The most common forms include osteoarthritis, rheumatoid arthritis, psoriatic arthritis, gout, and juvenile idiopathic arthritis [1]. These conditions are associated with chronic pain, stiffness, functional limitations, and progressive disability. Globally, arthritis is one of the leading causes of disability, affecting millions of people across all age groups, though it is more prevalent in older adults and women. In Nigeria, arthritis has been recognized as a major public health concern, particularly because of its impact on quality of life, productivity, and economic burden on patients, families, and the healthcare system [2].

In recent years, there has been growing recognition of the complex relationship between chronic physical illnesses and mental health disorders. Patients with arthritis often experience depression and anxiety due to the persistent pain, functional impairments, and social limitations imposed by the disease [3]. Depression is characterized by persistent sadness, loss of interest, low energy, and hopelessness, while anxiety is marked by excessive worry, tension, and fear. Both conditions are highly prevalent among people with chronic illnesses and can significantly affect disease outcomes. The burden of depression and anxiety among arthritis patients in Nigeria is particularly concerning. First, the healthcare system in Nigeria is already overstretched, with limited resources devoted to mental health care [4]. Second, cultural beliefs and stigma surrounding mental illness often prevent individuals from seeking appropriate psychological support. Third, there is limited awareness among healthcare providers about

the need to integrate mental health screening into the routine management of arthritis. Consequently, many patients remain undiagnosed and untreated for these comorbid conditions [5].

The biopsychosocial model of health emphasizes that biological, psychological, and social factors interact to influence the course and outcomes of diseases. This is especially relevant to arthritis, where psychological distress can exacerbate physical symptoms. For instance, depression and anxiety can heighten pain perception, reduce adherence to medications, impair coping strategies, and lead to social withdrawal [6]. Without proper recognition and treatment, these comorbidities can undermine the effectiveness of arthritis management.

Given Nigeria's growing population, the increasing prevalence of non-communicable diseases, and the limited focus on mental health in chronic disease care, it becomes imperative to study the interplay between arthritis and psychological disorders. Understanding this relationship will not only improve patient outcomes but also guide healthcare policy, resource allocation, and research priorities in the Nigerian context [7]. Although arthritis is widely acknowledged as a significant cause of disability in Nigeria, the psychological dimensions of the disease remain under-researched and under-addressed. Studies conducted in other parts of the world have consistently shown that people with arthritis are at higher risk of developing depression and anxiety compared to the general population. However, in Nigeria, there is limited systematic documentation of the prevalence, risk factors, and impact of these mental health comorbidities [8].

The problem is compounded by several factors. First, mental health care remains underfunded in Nigeria, receiving less than 5% of the national health budget. Specialized services are scarce, and mental health professionals are concentrated in urban centers, leaving rural patients with limited access. Second, cultural perceptions often frame depression and anxiety as spiritual or moral weaknesses rather than medical conditions, leading to underreporting and delays in seeking care [9]. Third, healthcare professionals who manage arthritis may lack adequate training in recognizing psychological distress in their patients, resulting in missed opportunities for early intervention. Furthermore, depression and anxiety can negatively influence arthritis management. Patients with untreated mental health conditions are less likely to adhere to medications, participate in physiotherapy, or adopt lifestyle modifications. This worsens their physical symptoms and increases healthcare costs. Additionally, the absence of structured psychosocial support in arthritis clinics contributes to poor treatment outcomes [10]. Therefore, there is a pressing need to review existing evidence on depression and anxiety among arthritis patients in Nigeria. Such a review will highlight the scope of the problem, identify knowledge gaps, and propose strategies for integrating mental health care into routine arthritis management. Without this, patients will continue to experience suboptimal health outcomes, and the broader public health burden of arthritis will remain inadequately addressed [11].

The primary objectives of this review are to provide a comprehensive examination of the prevalence, correlates, and impacts of depression and anxiety among patients with arthritis in Nigeria. Specifically, the review seeks to summarize existing evidence on how widespread these psychological conditions are in this population, while identifying socio-demographic, cultural, and clinical factors that contribute to their development. It further explores the mechanisms through which depression and anxiety influence arthritis outcomes, including pain perception, functional disability, treatment adherence, and overall quality of life. In addition, the review evaluates current practices for screening and managing these mental health conditions in arthritis care settings, highlighting areas where healthcare provision may be lacking or inconsistent. By synthesizing available data, the study aims to identify gaps in knowledge, clinical practice, and policy, providing evidence-based recommendations to guide future research and improve patient care. Addressing these objectives is particularly significant because the intersection of chronic physical illness and mental health remains underexplored in Nigeria, where arthritis management often neglects psychological well-being. The findings are expected to raise awareness among healthcare providers of the high prevalence of depression and anxiety in this population, emphasizing the importance of routine mental health screening and early intervention to enhance patient outcomes. Moreover, the review has implications for health policy, supporting the integration of mental health services into non-communicable disease programs in alignment with World Health Organization guidelines. By highlighting research gaps, proposing culturally appropriate interventions, and demonstrating the broader societal consequences of unmanaged psychological distress, this study aims to improve holistic care for arthritis patients, reduce disability, enhance productivity, and promote overall public health and national development in Nigeria.

Prevalence in Nigeria: what the data show

Data from Nigeria indicate that depression and anxiety are common comorbidities among individuals living with arthritis, though prevalence estimates vary widely due to differences in study populations, arthritis subtypes, settings, diagnostic tools, and sample characteristics. Recent evidence from clinic-based cohorts of older adults highlights particularly high rates of depressive symptoms, with over 50–57% of participants affected [12]. Higher prevalence in these groups has been linked to factors such as female sex, widowhood, lower educational attainment, longer duration of illness, and repeated hospitalizations. Hospital-based studies focusing on osteoarthritis or rheumatoid arthritis also demonstrate substantial burdens of depression, often ranging from approximately 30% to 40%, though some reports indicate higher or lower rates depending on the specific assessment scales and diagnostic

cut-offs applied. Major depression among rheumatoid arthritis outpatients has been reported at nearly 30%, underscoring the clinical significance of psychological distress in this population. Anxiety is less consistently quantified but remains elevated compared with general population estimates, with systematic reviews of African studies highlighting variability across contexts. Contextual factors, including global and regional trends such as the psychosocial impacts of the COVID-19 pandemic, may have further influenced these patterns. Overall, these findings indicate that depression and anxiety are highly prevalent among Nigerian arthritis patients, emphasizing the need for routine screening and integrated mental health support within arthritis care services [13].

Risk factors and correlates

In Nigeria, the risk of depression and anxiety among arthritis patients is shaped by a complex interplay of biopsychosocial factors. Pain and physical disability are among the most significant contributors, with higher pain intensity and impaired functional ability strongly correlating with depressive symptoms. Chronic pain often leads to activity restriction, sleep disturbances, and loss of independence, amplifying psychological distress. Disease duration and multimorbidity further increase vulnerability, as patients with longer-standing arthritis, multiple medications, or comorbid chronic illnesses experience higher rates of depression. Sociodemographic factors also play a critical role; women, older adults in some cohorts, individuals with lower educational attainment, unemployed persons, and widows are more likely to report depressive symptoms [14]. Social isolation and limited social support act as important modifiers, exacerbating the mental health burden. Biological mechanisms, particularly systemic inflammation associated with inflammatory arthritides such as rheumatoid arthritis and psoriatic arthritis, may directly influence mood through cytokine-mediated pathways. Although research on the Nigerian population remains limited, international evidence suggests that these biological processes interact with psychosocial stressors to increase susceptibility to depression and anxiety. Understanding these multidimensional risk factors is essential for developing holistic care strategies that address both physical and mental health needs in Nigerian arthritis patients.

Mechanisms: how arthritis and mental health interact

The interaction between arthritis and mental health is complex, bidirectional, and influenced by multiple interrelated mechanisms. Chronic pain, a hallmark of conditions such as rheumatoid arthritis and osteoarthritis, plays a central role by increasing vulnerability to depression and anxiety. In turn, mood disorders can amplify pain perception, promote catastrophizing, and reduce pain tolerance, creating a self-reinforcing pain–mood loop that perpetuates both physical and psychological suffering [15]. Functional limitations resulting from arthritis including reduced mobility, difficulty in performing daily activities, and impaired occupational or social participation further exacerbate mental health risks. Loss of independence and diminished social roles contribute to feelings of helplessness, frustration, and lowered life satisfaction, increasing susceptibility to depressive and anxious states. Biological pathways also link arthritis and mental health: systemic inflammation characteristic of autoimmune diseases leads to elevated proinflammatory cytokines, which can disrupt neurochemical signaling and affect mood regulation. Evidence from large-scale international studies indicates that individuals with autoimmune disorders experience higher rates of affective disorders, underscoring the biological dimension of this comorbidity. Additionally, health-system and sociocultural factors, particularly in Nigeria, compound these challenges. Limited mental health workforce, pervasive stigma, and poor integration of mental and physical healthcare services hinder timely recognition, diagnosis, and treatment of psychiatric conditions among arthritis patients, highlighting the need for comprehensive, context-specific interventions [16].

Clinical consequences

Unrecognized and untreated depression and anxiety in patients with arthritis can have profound clinical consequences, significantly affecting both disease progression and overall patient well-being. Mental health comorbidities often exacerbate the perception of pain, leading to worse pain control and higher reported pain levels, which complicates clinical management and reduces patient comfort. These psychological conditions also negatively impact adherence to essential treatments, including disease-modifying therapies and physiotherapy regimens, resulting in suboptimal disease management and poorer long-term outcomes. Beyond treatment adherence, depression and anxiety contribute to lower health-related quality of life, increasing functional limitations and daily disability [17]. Patients with these comorbidities frequently require more healthcare resources, including more frequent clinic visits, hospitalizations, and interventions, placing additional strain on healthcare systems. Emerging evidence from inflammatory arthritis cohorts suggests that depression may also be associated with increased long-term mortality, highlighting the critical need for early identification and integrated management of mental health in arthritis care to improve both physical and psychological outcomes.

Management approaches and evidence

Management of depression and anxiety in patients with arthritis is most effective when approached through an integrated biopsychosocial framework, which simultaneously addresses physical, psychological, and social dimensions of the disease [18]. Central to this approach is the effective treatment of the underlying arthritis, as adequate pain control through analgesics, physiotherapy, and the judicious use of disease-modifying antirheumatic

drugs (DMARDs) or biologics can directly alleviate pain-driven distress, subsequently reducing depressive symptoms. Complementing this, psychological interventions such as cognitive-behavioural therapy (CBT), pain-coping skills training, and problem-solving therapies have been shown to improve both mood and functional outcomes. In low-resource settings, adaptations like task-shifted delivery or group-based therapy have demonstrated promise in improving accessibility and adherence. Pharmacotherapy, including selective serotonin and serotonin-norepinephrine reuptake inhibitors (SSRIs and SNRIs), may be indicated when psychological interventions alone are insufficient; careful monitoring is essential to manage potential interactions with rheumatologic medications and comorbidities. Social and rehabilitation support, encompassing enhanced social networks, vocational rehabilitation, and community-based resources, addresses risk factors such as isolation and unemployment, further mitigating depressive symptoms. Finally, integrated care models that embed mental health services within primary or rheumatology care leveraging task-shifting to nurses or community health workers have proven effective globally and represent a feasible strategy for adaptation and scale-up in Nigerian healthcare systems, ensuring comprehensive, sustainable management for arthritis patients [19].

Health-system and sociocultural barriers in Nigeria

In Nigeria, addressing mental health challenges faces a complex interplay of health-system and sociocultural barriers that significantly limit access to care, particularly for patients with comorbid chronic conditions such as rheumatologic disorders. The country has a severe workforce shortage, with fewer than 300 psychiatrists serving a population exceeding 200 million, alongside a limited number of psychologists and other allied mental health professionals, creating substantial gaps in service provision and accessibility. Sociocultural factors further exacerbate the problem, as pervasive stigma surrounding mental illness discourages individuals from disclosing symptoms or seeking professional help, necessitating targeted public awareness campaigns and community engagement initiatives to improve mental health literacy [20]. Health-system fragmentation also impedes care delivery; mental health services are often poorly integrated with chronic disease management programs, including rheumatology, and formal referral pathways remain sparse, reducing continuity of care. Additionally, resource constraints restrict the availability of advanced biologic therapies and structured psychological interventions, with such services typically concentrated in tertiary hospitals and urban centers. Collectively, these systemic and sociocultural challenges underscore the urgent need for comprehensive, accessible, and culturally sensitive mental health strategies across Nigeria.

Research Gaps and Practical Recommendations

Despite growing recognition of the interplay between arthritis and mental health in Nigeria, several critical research gaps remain. Large, population-based studies are urgently needed to establish nationally representative prevalence estimates, stratified by arthritis subtype, age, gender, and geographic region, as current data are largely clinic-based and heterogeneous [21]. Longitudinal studies are also essential to clarify the directionality of the relationship between depression and arthritis, determining whether depressive symptoms exacerbate arthritis outcomes or vice versa. Validating culturally and linguistically appropriate screening tools across major Nigerian languages and primary care settings is crucial to ensure accurate identification of mood disorders. Implementation research should focus on scalable integrated-care models, including task-sharing and collaborative care approaches, alongside culturally adapted psychological interventions. Additionally, biological research exploring inflammatory biomarkers and their association with mood in Nigerian cohorts could bridge local findings with global evidence linking inflammation and depression. For clinicians and policymakers, practical strategies include routine mental health screening using brief validated tools such as PHQ-9, GAD-7, or HADS, particularly among patients with severe pain or functional limitations [22]. Establishing integrated care pathways connecting rheumatology, primary care, and mental health services is recommended, leveraging task-shifting where specialist availability is limited. Training healthcare teams on psychosocial interventions, linking patients to rehabilitation and social support services, and increasing mental health funding while supporting culturally appropriate research are also essential to improve outcomes.

CONCLUSION

Depression and anxiety are highly prevalent and clinically significant comorbidities among arthritis patients in Nigeria, profoundly impacting pain perception, functional ability, treatment adherence, and overall quality of life. The bidirectional interaction between psychological distress and arthritis underscores the need for holistic, integrated care approaches that address both physical and mental health dimensions. Current evidence highlights substantial gaps, including limited population-based data, scarce culturally validated screening tools, and inadequate integration of mental health services within routine arthritis care. Sociocultural barriers, pervasive stigma, and workforce shortages further restrict access to effective interventions. To improve patient outcomes, routine mental health screening, implementation of integrated care pathways, and targeted training for healthcare providers are essential. Additionally, scalable interventions such as task-shifted psychological support, rehabilitation programs, and community-based resources should be prioritized. Strengthening research, funding, and policy support for

culturally appropriate strategies will facilitate early identification and management of depression and anxiety, ultimately enhancing quality of life, reducing disability, and optimizing arthritis care in the Nigerian context.

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