



<https://doi.org/10.5281/zenodo.17761149>

Prevalence and Pattern of Knee Osteoarthritis in a Rural Southwestern Nigerian Community (Ede South LGA, Osun State)

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ABSTRACT

This study examined how widespread symptomatic knee osteoarthritis is in Ede South Local Government Area of Osun State, Southwest Nigeria and described the common patterns in which it occurs within the community. A community-based cross-sectional descriptive survey was conducted among adults aged ≥ 30 years. Using multistage cluster sampling, participants were screened through interviews and clinical examinations based on the American College of Rheumatology (ACR) clinical criteria. Severity was assessed using the Lequesne Algofunctional Index. Out of approximately 1,400 surveyed residents, 229 met the ACR criteria, giving a prevalence of 16.4% among adults ≥ 30 years and 20.6% among those ≥ 40 years. Female prevalence (40.1%) was significantly higher than male prevalence (13.5%). Prevalence peaked at 38.6% in the 60–69 years age group. Severity was strongly associated with obesity and age. Most affected individuals had unilateral knee involvement, and cultural beliefs such as attributing OA to old age, evil spirits and heredity influenced healthcare-seeking behaviour. The findings of this study reveal that knee osteoarthritis is highly common in rural parts of Southwest Nigeria, affects women more than men and is a significant cause of disability in Ede South. The study therefore recommends strengthening public health education, promoting early screening, encouraging lifestyle changes and improving access to primary services to help prevent and manage knee osteoarthritis effectively.

Keywords: Knee osteoarthritis, prevalence, Ede South, Rural Community, Disability

INTRODUCTION

Osteoarthritis (OA) is the most common joint disease worldwide and the leading cause of disability in adults, particularly those over 50 years of age (Cross et al., 2024; Guo et al., 2025). Knee osteoarthritis (KOA), the most frequent and disabling form, affects over 374 million people globally and is projected to rise sharply due to ageing populations and increasing obesity (Guo et al., 2025). In low- and middle-income countries, the burden is amplified by physically demanding occupations, limited healthcare access, and cultural beliefs that normalise joint pain as part of ageing (Maduagwu et al., 2022).

In Africa, rural communities bear a particularly high burden because of livelihoods involving repetitive squatting, kneeling, heavy lifting, and prolonged standing (Adebajo & Cooper, 2023). Nigeria, with its large rural population, mirrors this pattern. Community-based studies in Southwest and Northeast Nigeria report symptomatic KOA prevalence of 16.3–19.6%, significantly higher than hospital-based estimates, indicating substantial under-detection (Akinpelu et al., 2021; Maduagwu et al., 2022). Despite this, there remains a dearth of epidemiological data from rural Southwestern Nigeria, particularly Osun State, where farming and trading dominate.

Ede South LGA exemplifies typical rural Nigerian communities: agrarian economy, poor road networks, limited healthcare facilities, and strong traditional beliefs about illness causation. These factors likely drive high KOA prevalence, late presentation, and heavy reliance on traditional healers. This study therefore determined the prevalence, socio-demographic patterns, clinical severity, and health-seeking behaviour of symptomatic KOA in Ede South LGA to provide locally relevant evidence for public health planning and intervention.

LITERATURE REVIEW

Global Perspective on Knee Osteoarthritis

Knee osteoarthritis (KOA) is a major global contributor to disability, especially among older adults. The Global Burden of Disease Study ranks OA among the top ten causes of years lived with disability (YLDs) worldwide, with knee OA responsible for the highest population (Cross et al., 2024). In high-income countries, around 12% of adults over 69 are affected by symptomatic knee OA (Guo et al., 2025). The disease burden continues to rise in tandem with aging populations, increased life expectancy, and the global obesity epidemic. In the United States, Felson (2013) argued that symptomatic knee OA affects nearly one in five adults over 45 years, while in East Asia, similar prevalence trends have been observed, with studies in China and Japan showing rapid increases due to urbanization and sedentary lifestyles (Xing et al., 2020). These global studies demonstrate that KOA is not only a health issue but also a socioeconomic challenge due to its impact on healthcare costs, work productivity and quality of life.

African Context

The African experience of knee OA is shaped by distinct demographic, occupational, and cultural realities. As reiterated by Maduagwu et al., (2022) conducted a seminal study in South Africa, reporting a 29.5% prevalence of symptomatic knee OA in rural populations, rising to 55.1% in urban populations, and as high as 82.7% among individuals above 65 years. These findings indicate that urbanization may increase the risk of osteoarthritis through lifestyle changes such as decreased physical activity and higher rates of obesity. In contrast, studies from various parts of Africa have consistently associated KOA with physically demanding rural occupations like farming and trading, which involve frequent squatting, kneeling and lifting activities that place significant stress on the knee joint (Adebajo & Cooper, 2023). Moreover, access to medical care in rural African communities is often limited, leading to reliance on traditional remedies and late presentation at health facilities. This contributes to the high disability burden of OA across the continent.

Nigerian Context

In Nigeria, knee OA is increasingly being recognized as a major public health concern, though community-based data remain limited. Akinpelu et al. (2021) conducted one of the earliest community-based studies in Igbo-Ora, Southwestern Nigeria, and found a prevalence of 19.6%. Women were disproportionately affected, with a female-to-male ratio of 1.2:1, suggesting the influence of gender-related factors such as hormonal changes and obesity. In Northeastern Nigeria, Maduagwu et al. (2022) reported a prevalence of 16.3% in a rural community, increasing to 20.6% among individuals aged 40 years and above. The study also highlighted that cultural perceptions and low awareness of OA contributed to late health-seeking. Hospital-based studies further support these findings. Oyamakinde et al. (2019) used high-resolution ultrasound in Ile-Ife, Southwestern Nigeria, and documented common radiological findings such as osteophytes and joint effusion, particularly among late presenters. These Nigerian studies highlight the dual challenge of a significant disease burden and poor health-seeking behavior, particularly in rural populations.

Risk Factors for Knee Osteoarthritis

Several risk factors for KOA have been identified, both globally and within Nigeria. Age remains the most consistent predictor, with prevalence rising sharply after the age of 40 and peaking in the sixth and seventh decades of life (Felson, 2013). Gender is another important determinant, as women consistently report higher prevalence and greater severity of symptoms compared to men, a finding attributed to hormonal influences, biomechanical factors, and differences in fat distribution (Akinpelu et al., 2021). Obesity is a particularly important modifiable risk factor, as excess body weight increases mechanical loading on the knee joint and accelerates cartilage degeneration (Zhou et al., 2019). In Nigerian rural communities, occupational strain is a significant contributor. Farming, trading, and artisanal labor often require prolonged standing, heavy lifting, and repetitive squatting, all of which predispose individuals to KOA (Oyamakinde et al., 2020). Additionally, genetic predisposition and previous joint injuries are recognized contributors, though they are less frequently studied in African populations.

Cultural Beliefs and Health-Seeking Behaviour

The perception of KOA in Nigerian rural communities is shaped by cultural and social beliefs that often hinder timely medical intervention. Studies have shown that many individuals view OA as an inevitable consequence of aging rather than a medical condition requiring treatment (Maduagwu et al., 2022). Others attribute joint pain to spiritual causes such as witchcraft or divine punishment, leading them to seek traditional healers instead of biomedical care. Similar trends in older populations in the UK, where cultural perceptions influenced reporting and treatment of joint pain. In Nigeria, reliance on herbal remedies, self-medication, and spiritual healing is common, and these practices delay access to formal healthcare systems. Consequently, many patients present at hospitals only when disability is advanced, limiting the effectiveness of medical interventions. This highlights the need for culturally sensitive health education campaigns that address misconceptions and promote early diagnosis and treatment.

Diagnostic Approaches

The diagnosis of KOA is often based on a combination of clinical and radiological criteria. The American College of Rheumatology (ACR) clinical criteria, which include persistent knee pain, bony tenderness, crepitus, and limited morning stiffness, are widely used in both clinical and research settings (Altman et al., 1986). In rural community studies, clinical criteria are often preferred due to the limited availability of radiological facilities. However, imaging techniques such as X-rays and high-resolution ultrasound remain valuable in confirming diagnosis and grading severity. Oyamakinde et al. (2020) demonstrated the utility of ultrasound in Nigerian settings, revealing osteophytes and joint effusion among affected individuals. In community-based surveys, functional assessment tools such as the Lequesne Algofunctional Index are also used to evaluate disability levels, providing insights into the impact of KOA on daily living.

Theoretical Framework

The Biomedical Model of Health

The Biomedical Model offers one of the earliest and most widely used frameworks for understanding osteoarthritis, focusing on its mechanical and physiological causes. In this view, diseases arises from clear biological dysfunction such as cartilage breakdown, bone spur (osteophyte) formation and inflammation of the joint lining (Wade & Halligan, 2017). Originally proposed by Rene Dubos, the model assumed that diseases is the result of identifiable biological abnormalities. For knee osteoarthritis, the model centres on structural damage to the joint as a source of symptoms like pain, stiffness and loss of mobility. This aligns with medical imaging and pathological evidence showing joint space narrowing, bone changes and eventual deformity

A key strength of biomedical model is its usefulness in diagnosing and managing the disease. Treatments like pain medication, physiotherapy, weight loss and even knee replacement surgery are all based on this understanding of how KOA develops and progresses (Hunter & Bierma-Zeinstra, 2019). This model explains why KOA prevalence increases with age, obesity, and repetitive mechanical loading on the knee joint, all of which contribute to physical joint damage.

The Health Belief Model (HBM)

The Health Belief Model (HBM) offers a broader perspective for understanding how individuals interpret illness and make decisions about seeking care. Developed in the 1950s by social psychologists including Irwin Rosenstock, the HBM suggests that health behaviours are shaped by one's belief about susceptibility to illness, perceived severity, benefits of action and potential barriers to care (Rosenstock, 1974). In the context of knee OA, individuals' perception of whether knee pain is a normal part of aging or a treatable medical condition influences their likelihood of seeking formal healthcare.

The model is especially relevant in rural Nigerian communities where misconceptions about OA are common. People who attribute KOA to aging or supernatural forces may not see medical treatment as necessary or efficient. In addition, barriers such as high healthcare costs, long travel distance and strong trust in traditional healers often discourage timely medical intervention (Akinpelu et al., 2021). On the other hand, those who recognize the benefits of medical treatment, such as pain relief and improved mobility, are more likely to seek formal care.

By applying the HBM to KOA, the need for targeted public health education becomes clear. Addressing misconceptions, teaching the benefits of early care and reducing barriers like cost and access can shift health-seeking behaviours in positive directions. In this way, the HBM complements the Biomedical Model by focusing not just in disease processes but on the human decisions that influence outcomes.

RESEARCH METHOD

A community-based cross-sectional descriptive design was adopted for this study. The target population comprised all adults aged ≥ 30 years residing in Ede South Local Government Area, Osun State, Southwest Nigeria.

Multistage cluster sampling technique was employed. In stage one, 6 out of the 10 wards in the LGA were randomly selected. In stage two, two enumeration areas were randomly chosen from each selected ward. In stage three, all households in the selected enumeration areas were enumerated, and every consenting adult aged ≥ 30 years was recruited. A total of 1,400 eligible adults participated in the study, of which 229 were diagnosed with symptomatic knee osteoarthritis.

Data were collected using interviewer-administered semi-structured questionnaires, physical examination, and anthropometric measurements. Diagnosis of symptomatic knee osteoarthritis was based on the American College of Rheumatology (ACR) clinical criteria. Radiological confirmation was not sought due to the absence of X-ray facilities in the rural study settings and cost constraints associated with transporting participants to urban imaging centers. The ACR clinical criteria are validated for community-based epidemiological surveys and appropriate for identifying symptomatic KOA in resource-limited settings (Altman et al., 1986). Unlike hospital-based studies such as Oyamakinde et al. (2019) where imaging is more accessible, this community survey prioritized feasibility while maintaining diagnostic validity for symptomatic disease. Severity was assessed using the Lequesne Algofunctional Index. The Lequesne Index scores range from 0 to 24 points, with higher scores indicating greater severity. For this study, severity was classified as follows: Mild (1–7 points), Moderate (8–13 points), and Severe (≥ 14 points), consistent with established classification standards (Lequesne et al., 1987; Faucher et al., 2002). Body mass index (BMI) was calculated from measured height and weight using standard protocols.

Ethical approval was obtained from the Osun State Health Research Ethics Committee. Informed written consent was obtained from all participants. Data were analysed using IBM SPSS version 25. Descriptive statistics (frequencies, percentages, means $\pm$ SD) were used to summarise variables. Chi-square test and logistic regression were used to test associations at $p < 0.05$ level of significance.

RESULTS AND DISCUSSION

Table 1: Frequency Distribution of Participants by Socio-Demographic Variables

Variable	Frequency (n=1400)	Percentage (%)
Age Group (years)		
30–39	340	24.3
40–49	295	21.1
50–59	310	22.1
60–69	270	19.3
≥ 70	185	13.2

Variable	Frequency (n=1400)	Percentage (%)
Sex		
Male	605	43.2
Female	795	56.8
Occupation		
Farming	485	34.6
Trading	410	29.3
Artisan/Labour	300	21.4
Civil Servant	205	14.6

Table 1 showed the distribution of Participants by Socio-Demographic Variables of study respondents. The age distribution shows that the study population was predominantly middle-aged and older adults, consistent with the age groups most at risk of knee OA. Females represented a higher proportion (56.8%) of participants compared to males (43.2%), reflecting population demographics in rural Nigeria. Farming and trading were the dominant occupations, both of which involve strenuous physical activity that may predispose individuals to knee OA

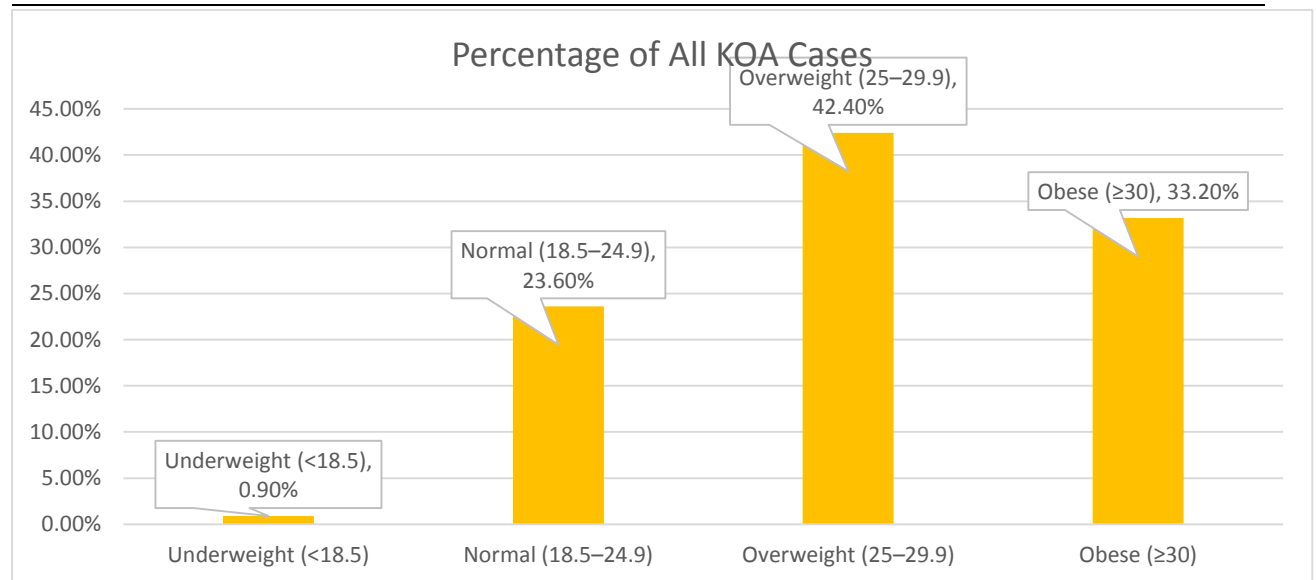
Table 2: Socio-Demographic Distribution of Total Sample and Individuals with KOA

Variable	Total Sample (n=1400)	KOA Cases (n=229)	Prevalence (%)
Male	605	82	13.5
Female	795	147	18.5
Age 30–39	340	20	5.9
Age 40–49	295	52	17.6
Age 50–59	310	67	21.6
Age 60–69	270	104	38.6
≥70	185	86	46.5

The prevalence of symptomatic knee osteoarthritis rose significantly with age, starting at 5.9% among individuals those aged 30-39 and peaking at 46.5% in those aged 79 and above. Women were notably more affected than men, a trend consistent with both local and global studies. The steep rise in cases after age 50 reveals aging as a major contributor to disease development and progression. The total prevalence is 16.4% as reported in the table 3 below.

Table 3: Prevalence of KOA by Adiposity Indices**Table 3: Prevalence of Knee Osteoarthritis (KOA) by BMI Category in Ede South LGA (n=1,400)**

BMI Category	Total Participants	KOA Cases	Prevalence (%)	Percentage of All KOA Cases
Underweight (<18.5)	65	2	3.1%	0.9%
Normal (18.5–24.9)	590	54	9.2%	23.6%
Overweight (25–29.9)	470	97	20.6%	42.4%
Obese (≥30)	275	76	27.6%	33.2%
Total	1,400	229	16.4%	100%

**Figure 1: Prevalence of KOA by Adiposity Indices**

There was a long link between excess body weight and knee osteoarthritis. Nearly half of all KOA cases were doing among individuals who were overweight or obese, reinforcing obesity as a key modifiable risk factor. In contrast, underweight participants had a very low prevalence, which supports the mechanical loading hypothesis that exceed weight places increased stress on the knee joint, accelerating cartilage wear and joint degeneration.

Table 4: Frequency Distribution of Health-Seeking Behaviors among Participants with KOA

Health-Seeking Option	Frequency (n=229)	Percentage (%)
Traditional Healers	80	34.9
Self-Medication (Herbs/Drugs)	67	29.3
Hospital/Health Centre	58	25.3
No Treatment/Endurance	24	10.5

Over 60% of respondents relied on traditional healers and self-medication as their primary health-seeking options for knee pain. In contrast, only about 25% sought care at hospital or health centers. This pattern reflects both limited access to formal healthcare and cultural beliefs about illness. As a result, many individuals delay seeking appropriate treatment, contributing to high rates of late-stage KOA presentations observed in Nigeria

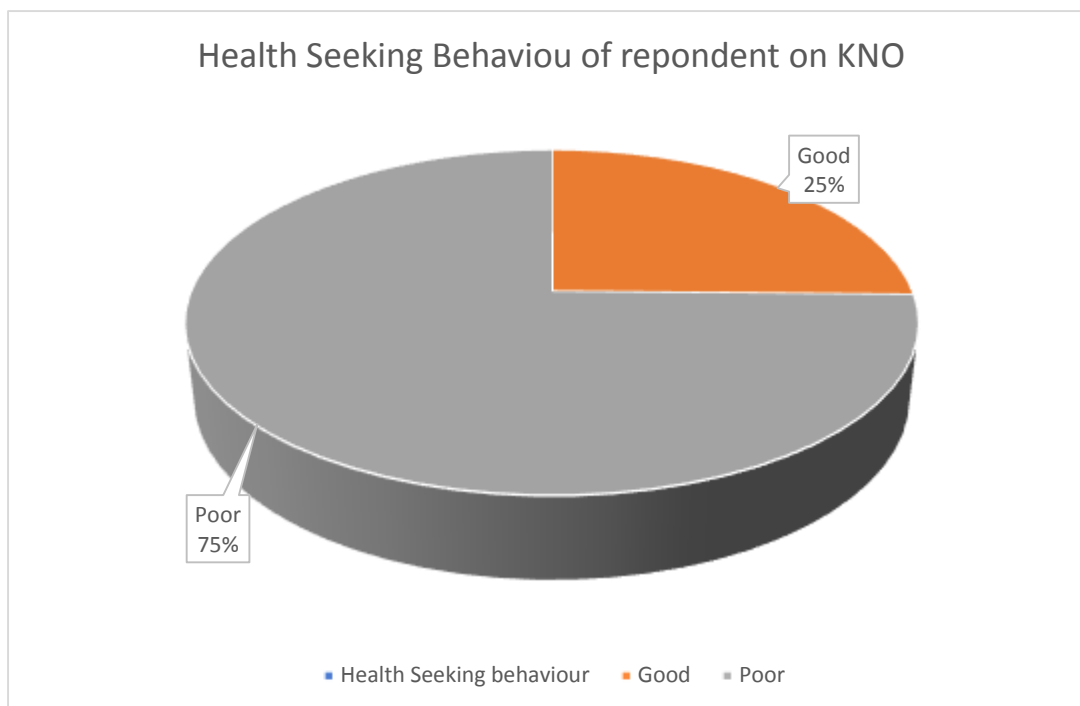


Figure 2 : Health Seeking Behaviour on KNO among repondents

Table 5: Influence of Socio-Demographic Variables on KOA Severity

Variable	Mild (%)	Moderate (%)	Severe (%)	p-value
Male	51.2	36.6	12.2	0.041
Female	28.5	49.7	21.8	
Age 30–49	72.1	20.3	7.6	0.032
Age ≥50	23.6	54.4	22.0	
Non-obese	58.8	29.5	11.7	0.017
Obese	19.7	56.8	23.5	

Statistically significant at $p < 0.05$

The severity of knee osteoarthritis showed significant associations with age, sex and body weight. Women reported more moderate to severe cases than men, while older adults and those who were obese were more likely to experience disabling symptoms. These findings reinforce the understanding that aging and excess weight are key drivers of KOA severity, especially among vulnerable groups.

Discussion of Findings

This study assessed the prevalence and pattern of symptomatic knee osteoarthritis (KOA) in a rural Southwestern Nigerian community, using Ede South Local Government Area as the study site. An overall

prevalence of 16.4% was observed (229 cases out of 1,400 participants), aligning with earlier comparable Nigerian community-based studies. For instance, Maduagwu et al. (2022) reported a prevalence of 16.4% in a rural Northeastern Nigerian community, while Akinpelu et al. (2021) observed 19.6% in Igbo-Ora, Southwestern Nigeria. This consistency across rural regions suggests a widespread and uniform burden of KOA, revealing its growing public health relevance in Nigeria.

Also, age emerged as a key determinant with KOA prevalence rising from 5.9% among individuals aged 30-39 to 46.5% in those 70 years and older. This finding corroborates global evidence that the risk of KOA increases with age due to cumulative joint stress, cartilage degeneration, and reduced regenerative capacity (Felson, 2013; Hunter & Bierma-Zeinstra, 2019). The Biomedical Model of Health provides a useful explanation for this trend, as it attributes OA progression to biological and mechanical wear-and-tear mechanisms. However, the high prevalence among older adults in rural Ede South also points to occupational and lifestyle exposures such as farming, trading and manual labor, which accelerate degenerative changes.

Gender disparities were also pronounced, with women experiencing a higher prevalence (18.5%) compared to men (13.5%). Women were more likely to present with moderate-to-severe KOA compared to men, echoing findings from Akinpelu et al. (2021). Biological explanations include hormonal changes after menopause, particularly estrogen decline, which has been linked to cartilage degradation and reduced bone density (Guo et al., 2025). Sociocultural explanations also play a role, as women in rural Nigerian settings often engage in physically demanding tasks such as farming, water carrying and prolonged squatting during household chores. The Health Belief Model (Rosenstock, 1974) helps to explain why women may also delay seeking care, as cultural perceptions often normalize joint pain in older women as a natural part of aging.

Obesity was identified as a major risk factor for KOA in this study, with prevalence reaching 27.6% among obese individuals compared to only 9.2% in those with normal body mass index (BMI). This reflects broader global findings that link obesity to KOA through both mechanical loading on the knee joint and systemic inflammation that accelerates cartilage breakdown (Guo et al., 2025). Within Nigeria, Oyamakinde et al. (2020) similarly found high KOA prevalence among overweight and obese individuals in Ile-Ife. The implication is that rising obesity trends in Nigeria, even in rural communities, could further exacerbate the KOA burden in the coming decades. Preventive interventions must therefore prioritize weight management programs alongside community health education.

Occupational exposure also played a significant role in KOA prevalence. The highest rates were recorded among farmers and traders' groups typically engaged in physically demanding tasks such as prolonged standing, repeated squatting, lifting heavy objects and walking long distances. This observation supports evidence from African studies that link rural manual labour to a higher risk of OA than sedentary occupations (Adebajo & Cooper, 2021). Beyond increasing risk, occupational demands also contribute to functional disability as individuals affected by KOA may struggle to maintain their livelihoods due to pain and reduced mobility.

Health-seeking behaviours observed in this study revealed a heavy reliance on traditional healers (34.9%) and self-medication with herbs or drugs (29.3%). Only 25.3% of respondents sought care at hospitals or health centers. This is consistent with earlier Nigerian findings that cultural perceptions and accessibility challenges shape how individuals respond to chronic joint pain (Maduagwu et al., 2022). The reliance on non-biomedical approaches carries significant negative consequences for disease management and patient outcomes. First, delayed diagnosis is a major concern, as traditional remedies and self-medication postpone engagement with the formal healthcare system, often until symptoms become severe or debilitating. This delay allows the disease to progress unchecked, resulting in advanced disease presentation when patients eventually seek biomedical care characterized by severe cartilage loss, joint deformity, chronic inflammation, and significantly reduced mobility that may be irreversible even with medical intervention. Second, many traditional remedies and over-the-counter medications used for self-treatment are ineffective for addressing the underlying pathophysiology of KOA, providing only temporary symptomatic relief while the degenerative process continues unabated. In some cases, inappropriate use of herbal preparations or non-steroidal anti-inflammatory drugs (NSAIDs) without medical supervision can lead to adverse effects including gastrointestinal complications, renal impairment, or drug interactions. Third, the prolonged reliance on ineffective treatments perpetuates unnecessary suffering, functional disability, and reduced quality of life that could have been mitigated through earlier access to evidence-

based interventions such as physiotherapy, weight management, analgesics, or surgical options for advanced cases. Finally, advanced disease presentation resulting from delayed care escalates healthcare costs and burden, as more complex and expensive interventions become necessary compared to early-stage management.

The Health Belief Model is highly relevant here, as many respondents likely did not perceive KOA as a medical problem requiring biomedical intervention, but rather as a natural outcome of aging or a spiritual issue requiring traditional remedies. These beliefs, while culturally embedded, directly contribute to the cycle of delayed diagnosis and advanced presentation observed in clinical practice. This behavioral dimension underscores why biomedical interventions alone may be insufficient in rural communities without addressing cultural beliefs and healthcare accessibility. Severity of KOA was strongly associated with socio-demographic variables, particularly age, sex and obesity. Women, older adults and obese participants were disproportionately represented among those with moderate-to-severe disability. This finding is significant because moderate-to-severe KOA often results in functional limitations such as difficulty in walking, squatting or performing daily chores. Globally, KOA is recognized as one of the leading causes of years lived with disability (Cross et al., 2024), and this study confirms its disabling impact in rural Nigerian communities. The consequences include reduced productivity, dependency on family caregivers and economic strain on households that rely on physical labor for survival.

Overall, these findings demonstrate that KOA in rural Southwestern Nigeria is shaped by a complex interplay of biological, occupational, and socio-cultural factors. The Biomedical Model explains the mechanical and degenerative processes, while the Health Belief Model accounts for the observed health-seeking behaviours and delayed medical interventions. The negative consequences of non-biomedical health-seeking patterns including delayed diagnosis, advanced disease at presentation, reliance on ineffective remedies, and preventable complications highlight the urgent need for culturally tailored interventions. The conceptual model developed in this study integrates these perspectives, showing that KOA is not merely a biomedical condition but also a socio-cultural phenomenon. Addressing the burden of KOA in rural Nigeria therefore requires a holistic approach that combines biomedical management with culturally sensitive health education, community engagement with traditional healers to facilitate appropriate referrals, improved healthcare accessibility, and policy interventions that bridge the gap between traditional beliefs and evidence-based care.

CONCLUSION

This study investigated the prevalence and pattern of symptomatic knee osteoarthritis (KOA) in a rural Southwestern Nigerian community, specifically Ede South Local Government Area of Osun State. The results showed that 16.4% of adults were affected, confirming that KOA is a major public health issue in similar rural settings. The condition was more common in women and older adults, especially those above 70 years. Obesity and occupations involving physical strain such as farming and trading were major contributing factor

In addition to these biological and occupational determinants, the study found that cultural beliefs and health behaviours strongly influenced how people managed KOA. A majority of participants relied on traditional healers or self-medication, with only a quarter seeking hospital-based care. This pattern demonstrates that cultural beliefs, limited healthcare access and low disease awareness contribute to late presentation and increased disability. By applying both the Biomedical Model and Health Belief Model, the study offers a complete view of KOA, interventions must go behind clinical care, combining early detection, lifestyle changes and health education tailored to rural communities ultimately, the study concludes that KOA in rural Nigerian communities is not merely a clinical condition but also a socio-cultural challenge with significant implications for disability, productivity and quality of life. Addressing this burden requires targeted interventions that combine biomedical treatment, preventive strategies and culturally sensitive health education.

RECOMMENDATIONS

Based on the findings, the following recommendations are made:

Community Health Education: There is a pressing need for sustained public health campaigns in rural areas to raise awareness that KOA is a medical condition that can be prevented and managed, rather than a normal part of aging. These campaigns must correct myths and encourage early visits to health facilities.

Promotion of Lifestyle Modification: Interventions to reduce obesity and overweight should be prioritized through community-based physical activity programs, dietary counseling and weight management initiatives. These efforts would help reduce the burden of KOA and improve overall health.

Integration of Traditional Healers: Since many people rely on traditional medicine, it is important to train traditional healers on how to recognize KOA and refer serious cases to health centres. These partnerships can bridge the gap between cultural practices and medical care.

Occupational Health Interventions: Farmers and traders should be taught safer work practices, such as how to lift properly, take breaks and avoid prolonged squatting to reduce knee strain and prevent KOA.

Improved Access to Healthcare Services: Expanding rural healthcare services and reducing the cost of treatment will make hospital care more accessible. Adding physiotherapy services to primary health centres is especially important for managing KOA.

Policy and Research Prioritization: KOA should be recognized as a significant cause of disability in Nigeria, warranting inclusion in national non-communicable disease (NCD) frameworks. Further longitudinal and interventional studies are recommended to guide effective policies and context-specific management strategies.

CONCLUSION

Symptomatic knee osteoarthritis affects 1 in 6 adults in rural Ede South, disproportionately burdening women, older persons, farmers/traders, and the obese. Cultural misconceptions and poor healthcare access drive late presentation and high disability. Immediate public health action is required: community education to dispel myths, promotion of weight control and safer work practices, integration of traditional healers into referral pathways, and upgrading rural primary care facilities with basic orthopaedic services. Without these interventions, KOA will continue to exact a devastating toll on productivity and quality of life in rural Nigeria.

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