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Anxiety and Depression in Patients with Rheumatoid Arthritis: A Narrative Review of Prevalence, Associated Factors, and Clinical Implications

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Abstract

Rheumatoid arthritis (RA) is a chronic autoimmune inflammatory disease that causes persistent joint pain, functional limitation, and disability, and it carries a substantial psychological burden. Anxiety and depression are increasingly recognized as common and clinically important comorbidities of RA that can adversely affect quality of life and disease management. This narrative review synthesizes the published literature on the prevalence of anxiety and depression among patients with RA and examines their relationship with selected demographic and clinical factors. Relevant literature was identified through a non-systematic search of PubMed, Scopus, and Google Scholar, supplemented by hand-searching of reference lists. Reported prevalence varied widely across studies: estimates of anxiety generally ranged from approximately 13.5% to 48% (with outlier estimates as low as 2.4% and as high as 77% reported within one systematic review), and estimates of depressive symptoms or disorders ranged from 14.3% to 87.2%, depending on the population studied, the diagnostic approach used, and the instruments and cut-off thresholds applied. Much of this variability reflects the distinction between structured clinical diagnoses of anxiety or depressive disorders and elevated symptom scores identified through screening instruments such as the Hospital Anxiety and Depression Scale (HADS) and the Patient Health Questionnaire-9 (PHQ-9), which are not equivalent to a clinical diagnosis. Across studies, greater pain, disease activity, functional disability, and poorer quality of life were consistently associated with higher anxiety and depression scores, and female sex and select socioeconomic factors were also frequently, though not universally, associated with psychological burden. Because nearly all of the available evidence is observational and cross-sectional, causal relationships cannot be inferred from these associations. Overall, the evidence supports incorporating routine, appropriately interpreted psychological screening into rheumatological care to enable earlier identification and more holistic, patient-centered management of RA.

Keywords: Rheumatoid Arthritis, Anxiety and Depression, Psychological Burden, Disease Activity, Functional Disability, Quality of Life

INTRODUCTION

Rheumatoid arthritis (RA) is a chronic autoimmune and inflammatory disease that predominantly affects the joints, causing pain, swelling, stiffness, and progressive limitation of movement; over time, it can lead to structural joint damage and disability. RA can affect individuals for many years and disrupt work, social relationships, and overall quality of life (WHO, 2023).

Living with a chronic painful condition affects emotional as well as physical health. Persistent pain, physical impairment, dependence on others, restricted occupational and everyday functioning, ongoing treatment burden, and uncertainty about disease trajectory are common challenges for people with RA, and these challenges can contribute to mental health difficulties such as anxiety and depression. The burden of RA should therefore not be viewed solely in terms of joint disease and physical disability, but also in terms of its impact on psychological well-being (Drakes et al., 2025).

Anxiety refers to a psychological state characterized by excessive worry, fear, and a persistent sense of being unable to cope with anticipated challenges. In patients with RA, anxiety may relate to persistent pain, unpredictable symptom flares, fear of worsening disability, concerns about treatment, and limitations in personal or professional functioning; it can also influence how pain and other physical sensations are experienced. When persistent, anxiety may disrupt sleep, concentration, and social functioning, and can impair a patient's capacity to manage a chronic illness effectively (Meade et al., 2024).

Depression is another psychological condition frequently associated with chronic illnesses such as RA and is characterized by persistent sadness, loss of interest or enjoyment, low energy, hopelessness, and difficulty with everyday activities. The physical symptoms of RA, including pain, stiffness, and functional limitation, may contribute to depressive symptoms, and depression may in turn reduce a patient's engagement with treatment, exercise, and other disease-management behaviors (Drakes et al., 2025).

Anxiety and depression frequently co-occur in patients with RA. Chronic pain may exacerbate psychological distress, and psychological distress may, in turn, intensify the perceived severity of pain, fatigue, and disability, producing a complex interplay between the physical and psychological dimensions of the disease. As a result, the degree of emotional distress experienced by patients with a similar extent of joint involvement can vary considerably, depending on individual coping capacity, social circumstances, and disease-related experience (Cox et al., 2025).

Ongoing emotional distress can diminish social engagement, interfere with occupational responsibilities, and strain relationships with family and others; for some patients this manifests as withdrawal from previously valued activities, while for others it manifests as persistent worry about health and future functioning, further complicating long-term disease management.

A substantial body of literature indicates that people with RA experience depression at rates that may exceed those of the general population, and that depressive symptoms are associated with greater disease burden and reduced quality of life; anxiety has similarly received increasing research attention, with evidence linking anxiety symptoms to pain, disease activity, and health-related quality of life (Matcham et al., 2013).

Anxiety and depression may therefore represent an important, and often under-recognized, component of comprehensive RA care. Conventional RA management focuses on controlling inflammation, relieving pain, and preventing joint damage and physical dysfunction; however, psychological well-being also warrants attention, since psychological distress can influence how patients perceive and manage their illness and adhere to long-term treatment. Identifying patients with psychological difficulties may allow clinicians to refer them for further assessment and support (Drakes et al., 2025; Hassen et al., 2025).

The prevalence of anxiety and depression is likely to vary across patient populations owing to differences in age, disease duration, symptom severity, functional disability, social support, and other individual factors. Estimating the burden of these conditions among people with RA can help clarify the scale of the problem and inform whether routine psychological evaluation should form part of standard rheumatological care (Meade et al., 2024).

Taken together, this evidence underscores that RA is not solely a disease of the joints: its physical burden and effects on daily functioning carry meaningful consequences for psychological well-being, and the anxiety and depression that frequently accompany RA can, in turn, worsen quality of life and complicate disease management. This narrative review therefore aims to (a) describe the reported prevalence of anxiety and depressive disorders and symptoms among patients with RA, (b) examine associations between these psychological outcomes and selected demographic and clinical characteristics, and (c) consider the clinical implications of this evidence for holistic, patient-centered management of RA.

LITERATURE REVIEW

This is a narrative, rather than systematic, review, undertaken to provide a broad, clinically oriented synthesis of the literature on anxiety and depression in RA rather than an exhaustive or quantitatively pooled analysis. Relevant publications were identified through searches of PubMed, Scopus, and Google Scholar, supplemented by manual screening of the reference lists of retrieved articles and relevant reviews. Search terms combined "rheumatoid arthritis" with terms including "anxiety," "depression," "psychological distress," "mental health," "disease activity," "pain," "functional disability," and "quality of life."

Articles were considered for inclusion if they reported original data, or synthesized existing data (for example, systematic reviews or meta-analyses), on the prevalence of

anxiety or depression — whether clinically diagnosed or identified as elevated symptoms on a validated screening instrument — among adults with a diagnosis of RA, or if they examined the association between these psychological outcomes and demographic or clinical characteristics. Articles were excluded if they did not concern RA, did not report relevant prevalence or association data, represented duplicate reports, or lacked sufficient methodological detail for interpretation. No restriction was placed on publication date, study design, or geographic region, and both peer-reviewed articles and, where clearly identifiable, preprints were considered; such distinctions are noted explicitly in the text where relevant.

Given the narrative design of this review, no PRISMA flow diagram, formal risk-of-bias assessment, or quantitative (meta-analytic) pooling of prevalence estimates was undertaken. Instead, findings from studies that differ substantially in population, design, sample size, and assessment method are synthesized narratively and organized thematically below, with particular attention to distinguishing structured diagnostic assessment of anxiety and depressive disorders from symptom-level findings derived from screening tools such as the HADS, the PHQ-9, and comparable instruments. The methodological heterogeneity of the included literature, and its implications for interpreting the estimates reported here, are discussed further in the Limitations section.

Anxiety in Rheumatoid Arthritis

Reported estimates of anxiety among patients with RA vary widely, in large part because studies differ in whether they assess a clinically diagnosed anxiety disorder or elevated anxiety symptoms captured by a screening instrument; these two types of estimate are not interchangeable and are considered separately below.

Diagnosed anxiety disorders. Using structured psychiatric or diagnostic assessment, a meta-analysis by Drakes et al. (2025) reported a current prevalence of anxiety disorders of 13.5% (95% CI: 9.2–17.3%) and a lifetime prevalence of 22.2% (95% CI: 15.9–29.1%) among people with RA. Two studies using standardized psychiatric evaluation, Ahmed et al. (2016) and Qaiser et al. (2020), each reported an identical prevalence of generalized anxiety disorder (GAD) of 38.5%, with both also linking GAD to greater disease activity. The correspondence of these two independently published estimates is notable; the available reports do not permit confirmation that these represent genuinely separate patient samples, and readers are advised to verify their independence before treating them as two distinct data points.

Anxiety symptoms on screening instruments. Studies using self-report tools such as the HADS-Anxiety subscale report a much broader range of anxiety symptom prevalence, reflecting differing cut-off thresholds and populations. A systematic review by Meade et al. (2024), covering 47 studies and 11,085 participants, found reported anxiety prevalence ranging from 2.4% to 77%, a range the authors attributed largely to the variety of self-report scales and cut-off points used. Other individual studies reported intermediate estimates: 32.4% in a multicenter Ethiopian sample, of whom 27.3% had mild and approximately 4% had severe anxiety symptoms (Dadi et al., 2025). 32.5% using the HADS-Anxiety subscale in a Romanian cross-sectional sample, alongside a considerably lower rate of 8.1% reporting a past clinical history of anxiety (Ionescu et al., 2025) a discrepancy that itself illustrates the gap between screening-detected symptoms and a documented diagnostic history; 22.1% (95% CI: 21.2–23.0%) in a large Danish nationwide cohort of more than 12,000 patients with inflammatory rheumatic disease (Vestergaard et al., 2024); 48% using the HADS (mean anxiety score 10.25) in a Tunisian sample of 100 patients (Feki et al., 2024); 19% (38 of 200 patients) in an Iranian sample (Moudi et al., 2023); 23.5% in a Portuguese cohort (Nicolau et al., 2023); 36.9% classified as "HADS anxious" in a Chinese sample, reported by the authors to be significantly higher than among healthy controls (Cheng et al., 2023); and 14.5% using a Thai-validated HADS cut-off of 8 or above (Katchamart et al., 2020). A narrative commentary by Sweet et al. (2025) similarly estimated anxiety symptom prevalence at approximately 37% and noted that adults with arthritis broadly have been reported to be roughly twice as likely as those without arthritis to experience anxiety or depression.

Clinical correlates specific to anxiety. Within this literature, anxiety was frequently, though not uniformly, associated with markers of clinical burden. Higher anxiety was associated with greater pain, physical disability, and disease activity in several samples (Ionescu et al., 2025; Meade et al., 2024; Moudi et al., 2023; Ahmed et al., 2016; Qaiser et al., 2020), and baseline anxiety was associated with a poorer subsequent response to biologic disease-modifying antirheumatic drugs (bDMARDs) in one cohort (Nicolau et al., 2023). By contrast, Feki et al. (2024) did not find a significant association between anxiety or depression scores and disease activity in their sample, illustrating that this relationship is not consistent across all studies. Anxiety has

also been associated with marital status, disease duration, and joint status (Cheng et al., 2023), and with female sex, younger age (under 55 years), shorter time since diagnosis, and lower educational attainment, as well as with poorer self-management behaviors such as reduced treatment adherence and physical activity (Vestergaard et al., 2024). All of these findings derive from cross-sectional or observational data and describe statistical associations rather than causal mechanisms.

Depression in Rheumatoid Arthritis

As with anxiety, reported depression estimates in RA differ substantially depending on whether studies assessed a diagnosed depressive disorder or depressive symptoms detected by a screening tool.

Diagnosed depressive disorders. The meta-analysis by Drakes et al. (2025) estimated a lifetime prevalence of depressive disorder of 32.4% (95% CI: 18.3–47.6%) and a current prevalence of 17.9% (95% CI: 10.1–27.1%), noting that certain subgroups, including younger adults with RA onset, were under-represented in the underlying literature. Using structured diagnostic evaluation, other studies reported diagnosed depression in 18.8% (75 of 400 patients) of a Romanian sample, with most diagnosed cases classified as mild (42%) or moderate (33%) and a smaller proportion as severe (7%) — percentages that, as reported in the source, do not sum to 100% of diagnosed cases; depression in this sample also predicted increased disease activity over subsequent follow-up (Ionescu et al., 2024). A Pakistani sample assessed with psychological testing identified a depressive disorder in 66.7% of patients (116 of 174) (Kareem et al., 2020), and an Argentinian sample reported major depression in 33.8% of patients, with mild, moderate, moderate-to-severe, and severe symptoms reported in 25.6%, 16.3%, 10.5%, and 7% of the sample, respectively — figures that do not align precisely with the 33.8% "major depression" estimate and are reproduced here as reported (Isnardi et al., 2021). Further diagnosis-based estimates include 14.3% (95% CI: 11–17%) in a large Italian cohort, where depression was associated with greater disease activity and disability (Pezzato et al., 2021); 29.7% current major depressive disorder in a Nigerian outpatient sample (Chijioke et al., 2022); 61.63% in the RA subgroup of a comparative epidemiological study spanning RA, systemic lupus erythematosus, and systemic sclerosis, where depression was associated with age, sex, education, quality of life, social support, and corticosteroid use (Rajaei et al., 2019); 68% in a Saudi sample, associated with age, sex, marital status, and rheumatoid factor positivity (Alharbi, 2023); and 22.2% in an Iranian sample, in which greater joint involvement was associated with more severe depressive symptoms (55.5% of depressed patients had severe, 16.7% moderate, and 27.8% mild depression) (Ghoreishi et al., 2016). A study of major depressive disorder among patients with either inflammatory bowel disease or RA — rather than an RA-only sample — reported a combined prevalence of 19.62%, with an apparent rise over a 19-year observation period, particularly among younger patients and women (Haider et al., 2023). A large Danish cohort study additionally reported that depression following incident RA was associated with a substantially increased risk of subsequent mortality (described by the authors as more than six-fold) over ten years of follow-up; because this is an observational association derived from cohort data, it should not be interpreted as evidence that depression directly causes increased mortality (Pedersen et al., 2022).

Depressive symptoms on screening instruments. Screening-based estimates of depressive symptoms span an especially wide range, reflecting differences in instruments and cut-offs. At the higher end, 87.2% of patients in a South African hospital sample reported mild-to-severe depressive symptoms, which were strongly associated with unemployment and food insecurity (Mabusela et al., 2022); 76.3% of a Vietnamese sample met screening criteria for depressive disorders, including moderate-to-severe depression in 49.4% (Pham et al., 2024); 96% of an Egyptian sample reported some depressive symptoms, distributed across minimal (43.3%), mild (19.7%), moderate (19.3%), and severe (13.7%) categories (Azzam et al., 2022); and a pooled estimate of 65.58% (95% CI: 56.53–74.62%) emerged from a systematic review and meta-analysis of Iranian studies (Jamshidi et al., 2019). Additional studies reported 55.4% with mild-or-worse and 22.8% with moderate-or-more depressive symptoms in the multicenter German VADERA II study (Englbrecht et al., 2019); 44.2% in an Indian observational study that also examined barriers to seeking professional psychological help (Panjrattan et al., 2023); 42.9% in an Ecuadorian sample, where depression was associated with disease activity (DAS-28) and functional disability (HAQ-DI) (Maldonado et al., 2017); a combined 28.4% depressive-symptom rate (13.5% mild, 9.5% moderate, 5.4% severe) in a Kenyan sample (Doshi et al., 2020); 48.5% moderate and 4.5% severe depression in an Egyptian hospital-based sample (Shoukry, 2021); PHQ-9-based depression identified in 39 of 50 RA patients compared with 22 of 50 healthy controls in a comparative study (Myhydeen, 2023); a two-stage screening result in

which 23% of a North Indian sample screened positive on the PHQ-2, and 69.8% of those who screened positive were subsequently found to have depression on the Depression Anxiety Stress Scale (Pai et al., 2023); 42%, with mild depression the most common category (23.2%), in a Serbian sample (Golubovic et al., 2023); and, from the widely cited systematic review and meta-analysis by Matcham et al. (2013), a pooled prevalence of major depressive disorder of 16.8% (95% CI: 10.0–24.0%) using diagnostic criteria, compared with a substantially higher pooled estimate of 38.8% (95% CI: 34.0–43.0%) when depression was defined by PHQ-9 screening. This direct within-study contrast is among the clearest illustrations in this literature that screening-tool estimates and clinician-diagnosed rates are not interchangeable and should not be combined into a single prevalence figure. A Libyan sample assessed with the PHQ-9 similarly showed depression distributed across minimal (12.7%), mild (20.4%), moderate (29.3%), moderately severe (19.7%), and severe (17.8%) categories (Boshalla et al., 2024).

Associated Factors

Across the anxiety- and depression-specific literature summarized above, several demographic, socioeconomic, and clinical factors recur as correlates of psychological burden in RA, although findings are not entirely consistent across populations. Because virtually all of this evidence derives from cross-sectional or observational designs, none of the associations described below should be interpreted as establishing a causal relationship.

Sex and age. Female sex was repeatedly associated with a higher likelihood of anxiety, including a significant association with anxiety risk ($p = 0.019$) in a Mexican rheumatology-clinic sample in which age and menopausal status were not significantly associated (Vega Sevilla et al., 2023), as well as associations with anxiety and/or depression in Danish (Vestergaard et al., 2024), Japanese (Tokunaga et al., 2023), and Portuguese (Nicolau et al., 2023) cohorts, in which women were disproportionately represented among those affected. Younger age was associated with greater anxiety in some samples (Vestergaard et al., 2024; Moudi et al., 2023) but not in others (Vega Sevilla et al., 2023), underscoring that this association varies by population and is not universal.

Disease activity, pain, and functional disability. The most consistent correlate across the reviewed literature was greater disease activity, pain, or functional disability, associated with higher anxiety and/or depression scores in multiple independent samples (Moudi et al., 2023; Nicolau et al., 2023; Ahmed et al., 2016; Qaiser et al., 2020; Maldonado et al., 2017; Pezzato et al., 2021; Sargın et al., 2022; Alaujan et al., 2022; Fragoulis et al., 2018; Matcham et al., 2016; Ionescu et al., 2024). Functional disability, measured with the Health Assessment Questionnaire, was also significantly associated with combined anxiety/depression symptoms, reported in approximately 54% of a Tunisian sample (Brahem et al., 2023). Not all studies found this relationship: Feki et al. (2024) found no significant association between anxiety or depression scores and disease activity, and Magalhães et al. (2023) found that the association between depression and RA lost statistical significance once pain was accounted for, suggesting that pain may partly explain rather than simply accompany some depression–RA associations. Because studies examining disease activity and psychological symptoms are almost entirely cross-sectional, the direction of this relationship — whether disease burden contributes to psychological distress, psychological distress amplifies the perceived severity of disease burden, or both operate together — cannot be determined from the available evidence. A prospective study by Matcham et al. (2016) that examined this question found that baseline anxiety and depression correlated strongly with subjective disease-activity measures, particularly tender joint count and patient global assessment, but the authors framed this as relevant to the interpretation of disease-activity measures rather than as evidence of a causal pathway.

Socioeconomic and educational factors. Lower socioeconomic status was associated with higher anxiety in a Mexican sample (odds ratio = 3.78), alongside an association between higher disease activity and anxiety (odds ratio = 3.19) (Juárez-Rojop et al., 2020). Depression was associated with unemployment and food insecurity in a South African sample (Mabusela et al., 2022), and educational level was associated with anxiety, and the presence of comorbidities with depression, in an Egyptian sample (Rabei & el Sonbaty, 2022). Sociodemographic factors including age, marital status, education level, and type of healthcare facility attended were significantly associated with anxiety and depression in a Saudi sample (Baghdadi & Alhassan, 2025), and marital status was among the factors associated with depression in another Saudi cohort (Alharbi, 2023). Barriers to seeking professional psychological help were examined specifically in an Indian sample, in which depression prevalence was substantial despite low rates of help-seeking (Panjrattan et al., 2023). Not all studies identified demographic associations: Sargın et al. (2022) found no statistically significant differences in

anxiety or depression scores by sex, education, marital status, employment, or economic status in their Turkish sample, although anxiety and depression were both associated with disease activity.

Comorbidities and other clinical factors. Depression was strongly associated with hypertension (odds ratio = 3.13) in the Mexican sample described above (Juárez-Rojop et al., 2020), and depression was positively correlated with body mass index in the Egyptian sample of Rabei and el Sonbaty (2022). In a Japanese sample, female sex, smoking history, lower body mass index, disease duration, and the specific region of joint involvement were each associated with mood disorders (Tokunaga et al., 2023), and greater joint involvement was similarly associated with more severe depression in an Iranian sample (Ghoreishi et al., 2016).

Treatment and longitudinal patterns. Patients with anxiety or depression reported greater pain (mean score 4.1 versus 2.8, $p < .001$) and were more likely to be treated with biologic therapy (52.6% versus 42.2%, $p = .002$) than patients without these conditions in a multinational sample (Peterson et al., 2019), and baseline anxiety was associated with a poorer subsequent response to bDMARD therapy in a Portuguese cohort (Nicolau et al., 2023). In an early-RA inception cohort, anxiety (19.0%) and depression (12.2%) were present at baseline and associated with disease activity (DAS28) and socioeconomic factors, but both showed a statistically significant decrease over 12 months of follow-up ($p = .004$ for anxiety, $p = .01$ for depression) (Fragoulis et al., 2018), suggesting that psychological symptoms in early RA may improve alongside disease control — an observation that, like the others in this section, is descriptive rather than causal. The COVID-19 pandemic period was examined specifically in two studies: higher anxiety was correlated with increased depression, disability, and pain intensity in a Saudi sample during this period (Alaujan et al., 2022), while a Turkish sample found that psychological symptoms were more closely related to disease activity than to demographic factors during the same period (Sargın et al., 2022).

Table 1. Summary of reported prevalence ranges by assessment approach

Category	Reported range	Illustrative sources
Diagnosed anxiety disorder (structured psychiatric/clinical assessment)	13.5%–38.5%	Drakes et al. (2025); Ahmed et al. (2016); Qaiser et al. (2020)
Anxiety symptoms on screening instruments (e.g., HADS)	14.5%–48% (2.4%–77% across one large systematic review)	Meade et al. (2024); Vestergaard et al. (2024); Dadi et al. (2025); Cheng et al. (2023)
Diagnosed depressive disorder (structured clinical assessment)	14.3%–68%	Pezzato et al. (2021); Kareem et al. (2020); Alharbi (2023)
Depressive symptoms on screening instruments (e.g., PHQ-9)	28.4%–96%	Doshi et al. (2020); Azzam et al. (2022); Mabusela et al. (2022)

Clinical Implications

This body of evidence carries several implications for the clinical management of RA. First, because anxiety and depression are common across virtually all populations and settings studied, and because they are consistently linked to pain, disease activity, functional disability, and reduced quality of life, mental health should be treated as a routine component of RA assessment rather than an incidental finding. Second, clinicians should be explicit about the distinction between screening and diagnosis: a positive result on an instrument such as the HADS, PHQ-9, or GAD-7 indicates clinically significant symptoms and should prompt further evaluation, but does not by itself constitute a diagnosis of an anxiety or depressive disorder. The marked differences between screening-based and diagnosis-based prevalence estimates observed in this review — most clearly in the within-study contrast reported by Matcham et al. (2013) — illustrate why this distinction matters for both clinical decision-making and for interpreting the research literature. Third, given the recurring, if inconsistent, associations between psychological symptoms and female sex, younger age, lower socioeconomic status, and greater disease activity or functional disability, clinicians may reasonably maintain a lower threshold for psychological screening in patients with these characteristics, while recognizing that anxiety and depression can occur in any patient with RA. Fourth, the overlap between somatic RA symptoms (fatigue, pain, reduced activity) and somatic features of depression, noted explicitly in some of the reviewed studies (e.g., Moudi et al., 2023), suggests that clinicians should remain alert to depression being masked by, or misattributed to, RA disease activity, and vice versa. Finally, integrated models of care that bring rheumatological and mental health services together, including structured referral pathways following a positive psychological screen, may support earlier identification and more holistic management of patients with RA, consistent with

recommendations made across much of the literature reviewed here.

LIMITATIONS

This review has several limitations that should be considered when interpreting its conclusions. First, as a narrative rather than systematic review, the literature search was not exhaustive, was not independently duplicated by multiple reviewers, and was not accompanied by a formal risk-of-bias assessment; some relevant studies may not have been captured, and the selection and framing of evidence inevitably reflect a degree of interpretive judgment. Second, the reviewed studies differ substantially in population, sample size, study design (cross-sectional, prospective cohort, or meta-analytic), diagnostic approach, and assessment instrument, which precludes any meaningful quantitative synthesis or pooling of prevalence estimates; the wide ranges reported here (approximately 13.5–48% for anxiety and 14.3–87.2% for depression) reflect this heterogeneity rather than a single, precisely defined prevalence. Third, the great majority of the included studies are cross-sectional, so the associations between anxiety, depression, and clinical or demographic factors described in this review reflect relationships observed at a single time point and cannot establish direction of effect or causation. Fourth, several studies relied on self-report screening instruments rather than structured diagnostic interviews, and symptom overlap between RA (e.g., fatigue, sleep disturbance, reduced activity) and depression may inflate screening-based estimates in ways that are difficult to quantify. Fifth, several sources used in this review warrant independent verification: two publications (Ahmed et al., 2016; Qaiser et al., 2020) reported an identical 38.5% prevalence of generalized anxiety disorder and could not be confirmed as representing wholly independent patient samples; two other sources (Dadi et al., 2025; Ionescu et al., 2025) appear to be preprints whose peer-review status could not be confirmed at the time of writing; and one citation used in the original source material to support a general statement about the psychosocial impact of RA (attributed to "Malti et al., 2017") could not be verified as topically related to rheumatoid arthritis or psychological comorbidity and has been flagged rather than retained as supporting evidence. Readers and any submitting authors should independently verify these items before relying on them. Finally, the included literature is geographically uneven, with a substantial concentration of studies from South Asia, the Middle East, and parts of Africa, and comparatively fewer from North America, Western Europe, and East Asia; this pattern may limit the generalizability of the impressions of prevalence summarized here to all RA populations globally.

FUTURE RESEARCH

Future research in this area would benefit from several methodological improvements. Greater standardization of diagnostic criteria and assessment instruments, including clearer separation of clinician-confirmed diagnoses from screening-based symptom counts, would substantially improve comparability across studies. Longitudinal and prospective designs are needed to clarify the temporal, and potentially bidirectional, relationships between disease activity, pain, and psychological symptoms, since the current literature is dominated by cross-sectional designs that cannot address this question. Larger, well-powered studies from regions currently underrepresented in this literature, including much of North America, Western Europe, and East Asia, would help establish whether the prevalence estimates and associated factors identified here generalize across diverse healthcare and cultural contexts. Intervention research testing structured psychological screening and integrated rheumatology–mental health care pathways is also needed to determine whether earlier identification of anxiety and depression translates into improved patient-reported and disease-activity outcomes. Finally, further work is needed to disentangle the overlap between somatic symptoms of RA and somatic features of depression, so that screening tools and clinical practice can more accurately distinguish disease activity from comorbid psychological illness.

CONCLUSION

Anxiety and depression are common and clinically important comorbidities among patients with rheumatoid arthritis, though the wide range of prevalence estimates reported across the literature, from roughly 13.5% to 48% for anxiety and 14.3% to 87.2% for depression, reflects substantial variation in study populations, diagnostic approaches, and assessment instruments rather than a single, precisely defined burden of disease. Distinguishing formally diagnosed anxiety and depressive disorders from elevated symptoms detected by screening tools such as the HADS and PHQ-9 is essential to interpreting this literature responsibly, since these two types of estimate are not interchangeable. Despite this heterogeneity, the evidence consistently points to associations between psychological symptoms and greater pain, disease activity, functional disability, and reduced quality of life, and, less consistently, with female sex, younger age, and socioeconomic disadvantage; because these associations derive

predominantly from observational and cross-sectional data, they should be understood as correlational rather than causal. These findings support the view that management of RA should extend beyond control of inflammation and joint symptoms to include attention to psychological well-being. Routine, appropriately interpreted screening for anxiety and depression, embedded within an integrated model of rheumatological and mental health care, may help ensure that psychological comorbidities in RA are identified and addressed as part of comprehensive, patient-centered management.

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