

Mapping Research on Anorexia Nervosa: A 25-Year Bibliometric Analysis (2000-2025)

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Abstract: *Anorexia nervosa is a serious psychiatric disorder with considerable physical and psychological consequences. This study offers a comprehensive bibliometric analysis of the top 100 most cited articles on anorexia nervosa published between 2000 and 2025. Drawing data from the Scopus database, the analysis explores publication trends, citation metrics, thematic distributions, and institutional productivity. The United States and the United Kingdom emerged as the leading contributors, with most research published in high-impact psychiatric and medical journals. Themes such as mortality, treatment efficacy, comorbidity, and genetic factors dominated the scholarly landscape. The study reveals a notable geographic and thematic imbalance, emphasizing the need for broader inclusion, particularly regarding underrepresented populations and emerging influences such as social media. These findings underscore the evolving nature of research in this domain and point to areas warranting greater scholarly attention.*

Keywords: anorexia nervosa, bibliometric analysis, eating disorders, citation trends, research visibility

1. Introduction

Anorexia nervosa is a psychiatric eating disorder associated with a distorted body image, low body weight, fear of gaining weight and persistent food restriction. (1). This disorder predisposes patients to several endocrine disturbances such as hypogonadotropic hypogonadism, growth hormone resistance, hypercortisolemia, hyponatremia and hypoxycytinemia, thereby increasing morbidity and decreasing quality of life (1). It is also associated with coexisting psychiatric conditions, treatment resistance, and an increased risk of death. (2). Anorexia nervosa has the highest mortality rate associated with any psychiatric disorder (3). Individuals with eating disorders also exhibit reduced workforce participation, increased healthcare expenditures, and higher rates of both presenteeism and absenteeism compared to non-affected individuals (4). The disease also places a significant strain on healthcare systems due to its chronic and complex nature, and associated mortality.

Anorexia nervosa is associated with a significant health burden. Globally, reported incidence rates of anorexia nervosa vary widely, ranging from about 5 to 320 per 100,000 person-years (5). Although this disorder affects both sexes, it is more common in females (6). Rates tend to peak around age 15, with recent data suggesting a rise in incidence among girls under 15 years (5). According to the National Institute of Mental Health, the lifetime prevalence of anorexia nervosa in adults was 0.6% (7). These numbers, coupled with its high morbidity and mortality, make it an important public health concern.

A bibliometric analysis is a rigorous and popular method to analyze large volumes of scientific data to understand the evolutionary nuances and emerging areas of the subject (8). It can statistically analyze trends in publications, and study hotspots and the intellectual structure of a certain topic (9).

However, to the best of our knowledge, no bibliometric analysis to date has focused exclusively on anorexia nervosa. Our study aims to fill this research gap by performing a comprehensive bibliometric analysis of global research on anorexia nervosa to evaluate publication trends in the last 25 years, and identifying the most productive themes, institutions, countries, and journals. Given the scarcity of focused bibliometric studies in this area, this analysis provides timely insights into how scholarly attention has evolved, where critical gaps remain, and which institutions and themes dominate the discourse.

2. Methods

A comprehensive literature search was done using the Scopus database to identify the top 100 cited articles on anorexia nervosa published between 2000 and 2025 (10). The search was carried out using the term “anorexia” in the title of the paper and filters for time frame, English language and papers involving humans were applied. No additional filters, such as article type, were applied. The results were sorted on the basis of the number of citations (from highest to lowest). These articles were then screened for their relevance to the subject, and top 100 citation-wise entries were included in our analysis. We excluded any articles not specifically on anorexia nervosa such as those on anorexia-cachexia due to cancer, leptin or insulin induced anorexia, and anorexia of aging.

Data was systematically extracted from all of the included publications using Microsoft Excel. This included both article and journal level variables such as study title, journal’s impact factor, number of citations, country of publication, year of publication, number of authors, study design, country of source of data, data of the first author and corresponding author, and the theme of the article. The address/affiliation of the corresponding author was used; we used the affiliated university in case the correspondence address was a hospital.

For articles covering multiple themes, the primary focus was recorded. Most of this information was extracted either from the website of the journal itself or Scopus. The impact factors of journals were collected from the website of Observatory of International Research (11). Data analysis was done using the bibliometrix package in R and Microsoft Excel.

3. Results

Publication Trends

Within the 25 year span (2000–2025), the 100 most cited articles on anorexia nervosa were published between 2000 and 2021, collectively amassing 37,790 citations (mean 378 citations per article; range 223–2184) (1,5,12–16,16–108). The distribution for the most cited papers was skewed toward the early 2000s: 62 of the top 100 appeared during 2000–2009, compared to only 9 in the second half of the 2010s (2016–2021). (Figure 1)

Most Cited Articles

The top 20 most-cited articles are listed in Table 1, along with their citation numbers. The single highest-cited work was a meta-analysis by Arcelus et al. on anorexia nervosa mortality rates (2184 citations) published in 2011 (12). The next most-cited was a systematic review by Steinhausen examining long-term outcomes of anorexia nervosa (1425 citations) published in 2002 (13). Several other highly cited papers were notable for their diverse foci: Kaye et al. (2004) on anxiety disorder comorbidities in anorexia (959 citations) (14), Schmidt and Treasure (2006) proposing a cognitive-interpersonal maintenance model of anorexia (761 citations) (24), and Watson et al. (2019) reporting the first genome-wide association study (GWAS) identifying genetic risk loci for anorexia (755 citations) (108).

Geographic Distribution

As shown in Table 2, the United States led by a wide margin in high-impact publications on anorexia nervosa, contributing 52 of the top 100 cited articles, with a cumulative 18,658 citations. The United Kingdom was the second-most prolific country with 19 articles (7,850 citations). Together, the US and UK accounted for approximately 71% of both the articles and total citations in the top 100. Germany ranked third with 10 articles (3,894 citations), followed by Canada with 6 articles (1,750 citations). Several other countries had one or two top-cited papers each: Switzerland (1 article, 1,425 citations), the Netherlands (2 articles, 1,159 citations), Sweden (2 articles, 614 citations), and France (2 articles, 612 citations), among others.

Institutional Contributions

The analysis of author affiliations revealed that a relatively small number of institutions were associated with a large portion of the top-cited anorexia nervosa research (Table 3). King's College London (UK) emerged as the top contributing institution, involved in 18 of the 100 most-cited papers (5,666 citations). Harvard University (USA) was a close second, linked to 17 top papers (5,067 citations). The University of North Carolina at Chapel Hill (USA) ranked third with 7

papers (2,804 citations). Other notable contributors included the University of Pittsburgh (USA) with 5 papers (2,163 citations), Ludwig Maximilian University of Munich (Germany) with 4 papers (1,559 citations), and Stanford University (USA) with 3 papers (1,321 citations). Several institutions appeared with fewer publications but high citation counts: notably, Loughborough University (UK) had a single-top cited paper, but the article amassed the highest number of citations overall (2,184 citations by Arcelus et al.) (12).

Journal and Impact Analysis

The most cited papers on anorexia nervosa were published in a broad range of journals, though a few high-impact psychiatric journals featured prominently (Table 4). The American Journal of Psychiatry was the most common venue, with 15 of the top-cited articles (totaling 6,719 citations). Archives of General Psychiatry, now renamed to JAMA Psychiatry published 5 of these top articles (3,911 citations). This was followed by the Journal of Clinical Endocrinology and Metabolism, with 7 top-cited papers (1,962 citations). General medical journals with a high impact factor also published several articles: The Lancet published 4 of the top 100 articles (1,368 citations). In contrast, specialty eating-disorder journals had a smaller share of the top-cited list: International Journal of Eating Disorders accounted for 4 articles (1,361 citations) and Journal of Eating Disorders for 3 articles (1,049 citations).

Themes

The most cited articles center around the course and outcome of anorexia nervosa. This includes research on mortality rates, long-term prognosis over 20 years, relapse and recovery, and population level incidence and/or prevalence. Natural history and mortality risk are among the most cited themes. This is followed by articles on anxiety and mood disorders, diagnostic crossover, and shared liability with depression and autism spectrum disorders. Classic and modern randomized controlled trials (RCTs) of family-based therapy, psychodynamic therapy, and behavioural therapy are also highly cited. An article about caregiving experience and health misinformation through YouTube content also makes the list of the top 100 cited articles.

4. Discussion

To the best of our knowledge, this is the only bibliometric analysis solely focusing on mapping research on anorexia nervosa in the last 25 years. Our study highlights the most impactful themes, and the scholarly influence of individual studies and institutions. Given the substantial burden associated with this disorder, examining the evolution and distribution of research in this field is crucial for enhancing our understanding and improving the management of anorexia nervosa (109).

Our results show that articles with higher citations were published in the early 2000s. This could be because articles published earlier have had a longer duration of exposure, enabling more opportunities for readership and citation. However, recent publications have also rapidly risen in

impact, for example a genome-wide association study exploring metabo-psychiatric origins for anorexia nervosa published in 2019 (108). Despite this, the top 100 articles spanning from 2000-2021 reflects ongoing momentum.

While a number of other nations, primarily in Europe and other English-speaking regions, have made notable contributions, the most highly cited publications demonstrate a prominent Anglo-American influence. Most of the research originated from top tier and highly funded institutions like King's College London and Harvard University. This is similar to trends in research across various disciplines, as the US and UK disproportionately share the world's top 1% most cited papers (110). This pattern likely reflects the combination of well established research infrastructures, greater availability of resources, and more extensive funding opportunities in these countries. Economic wealth and investments in research, such as in the US and UK, are closely linked to the production of highly quality papers (111). The prevalence of eating disorders also varies geographically with Western countries having a higher burden compared to non-Western countries (112). This may further drive research output. However, body image perceptions differ substantially across cultural and geographic contexts; this imbalance may limit the generalizability of findings (113). Therefore, further research in diverse populations is essential to identify potential variations and deepen our understanding of the disorder.

Many of the most cited studies on anorexia nervosa are published in general psychiatry and broad biomedical journals, such as American Journal of Psychiatry, The Lancet, and Nature Genetics. This suggests that important research in this field often reaches a wider audience, highlighting its cross-disciplinary relevance. (114). In comparison, journals focused solely on eating disorders appear less frequently among top-cited works. This may indicate that findings shared through higher impact, general journals gain more visibility.

Most cited themes span epidemiological studies (e.g. mortality, outcome trajectories), clinical treatment advances, and neurobiological or genetic discoveries. This underscores the multifaceted nature of anorexia nervosa research. One of the articles addressed the spread of health misinformation via social media. This is particularly relevant to anorexia nervosa,

as distorted body image is a core feature of the disorder and social media is known to significantly influence body image perceptions (115). Given the growing use of social media over time, further research in this area is warranted, as it holds both practical significance and the potential for meaningful impact on understanding and managing anorexia nervosa.

Our study has a language and database limitation. The analysis may be biased toward English language journals indexed in specific databases, potentially excluding relevant non-English or regional studies. Additionally, citation counts do not inherently reflect the methodological rigor or practical relevance of the studies, limiting our ability to draw conclusions about their overall quality. Similarly, open-access publications, which often require authors to pay publication fees, tend to receive greater visibility and subsequently more citations than subscription based articles, which are more commonly produced by researchers with limited funding. This discrepancy may introduce bias when assessing the true influence and scholarly impact of an article.

5. Conclusion

While the field has matured significantly, with notable progress in both clinical and biological domains, there still remains a pronounced geographic and thematic imbalance. Emerging areas including prevention, underrepresented populations, social media impact and global health perspectives are underexplored. Future research should emphasize inclusivity and foster cross-disciplinary application of findings.



Figure 1: Total Number of Citations by Publication Year

Table 1: Top 20 most cited articles on anorexia nervosa between 2020-2025

Rank	1st Author	Title	Year	Journal	Citations
1	Arcelus, J.	Mortality rates in patients with anorexia nervosa and other eating disorders: A meta-analysis of 36 studies	2011	Archives of General Psychiatry	2184
2	Steinhausen, H.-C.	The outcome of anorexia nervosa in the 20th century	2002	American Journal of Psychiatry	1425
3	Kaye, W.H.	Comorbidity of anxiety disorders with anorexia and bulimia nervosa	2004	American Journal of Psychiatry	959
4	Schmidt, U.	Anorexia nervosa: Valued and visible. A cognitive-interpersonal maintenance model and its implications for research and practice	2006	British Journal of Clinical Psychology	761
5	Watson, H.J.	Genome-wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa	2019	Nature Genetics	755
6	Stice, E.	Development and validation of the eating disorder diagnostic scale: A brief self-report measure of	2000	Psychological Assessment	754

		anorexia, bulimia, and binge-eating disorder			
7	Lock, J.	Randomized clinical trial comparing family-based treatment with adolescent-focused individual therapy for adolescents with anorexia nervosa	2010	Archives of General Psychiatry	710
8	Hoek, H.W.	Incidence, prevalence and mortality of anorexia nervosa and other eating disorders	2006	Current Opinion in Psychiatry	706
9	Kaye, W.H.	New insights into symptoms and neurocircuit function of anorexia nervosa	2009	Nature Reviews Neuroscience	698
10	Zipfel, S.	Anorexia nervosa: Aetiology, assessment, and treatment	2015	The Lancet Psychiatry	601
11	Otto, B.	Weight gain decreases elevated plasma ghrelin concentrations of patients with anorexia nervosa	2001	European Journal of Endocrinology	594
12	Kaye, W.H.	Neurobiology of anorexia and bulimia nervosa	2008	Physiology and Behavior	531
13	Treasure, J.	The cognitive-interpersonal maintenance model of anorexia nervosa revisited: A summary of the evidence for cognitive, socio-emotional and interpersonal predisposing and perpetuating factors	2013	Journal of Eating Disorders	527
14	Eisler, I.	Family therapy for adolescent anorexia nervosa: The results of a controlled comparison of two family interventions	2000	Journal of Child Psychology and Psychiatry and Allied Disciplines	523
15	Strober, M.	Controlled family study of anorexia nervosa and bulimia nervosa: Evidence of shared liability and transmission of partial syndromes	2000	American Journal of Psychiatry	468
16	Zipfel, S.	Long-term prognosis in anorexia nervosa: Lessons from a 21-year follow-up study	2000	The Lancet	467
17	Bulik, C.M.	Prevalence, heritability, and prospective risk factors for anorexia nervosa	2006	Archives of General Psychiatry	462
18	van Eeden, A.E.	Incidence, prevalence and mortality of anorexia nervosa and bulimia nervosa	2021	Current Opinion in Psychiatry	453
19	Bulik, C.M.	Anorexia nervosa treatment: A systematic review of randomized controlled trials	2007	International Journal of Eating Disorders	440
20	Kaye, W.H.	Nothing tastes as good as skinny feels: The neurobiology of anorexia nervosa	2013	Trends in Neurosciences	427

Table 2: Countries of publications

Country Name	No. of papers	Total citations
United States	52	18658
United Kingdom	19	7850
Germany	10	3894
Canada	6	1750
Switzerland	1	1425
Netherlands	2	1159
Sweden	2	614
France	2	612
New Zealand	1	388
Finland	1	383
Hungary	1	302
Taiwan	1	272
Italy	1	245
Australia	1	238

Table 3: Top Institutions producing the most cited papers on anorexia nervosa (2000-2025)

Journal Name	No. of papers	Total citations
King's College London	18	5666
Harvard University	17	5067
University of North Carolina, Chapel Hill, NC	7	2804
Loughborough University	1	2184
University of Pittsburgh	5	2163
University of California, San Diego	3	1656
Ludwig Maximilian University of Munich (LMU Munich)	4	1559
University of Zurich, Zurich, Switzerland	1	1425
Stanford University	3	1321
University of Tübingen, Tübingen, Germany	3	1173
Parnassia Psychiatric Institute, Hague, Netherlands	2	1159
University of North Dakota	3	962
Columbia University	3	931
University of Toronto	3	918

Table 4: Top 25 Journals where the most cited research on anorexia nervosa is published (2000-2025)

Journal Name	No. of papers	Total citations	Impact Factor
American Journal of Psychiatry	15	6719	14.7
Archives of General Psychiatry	5	3911	17.1
Journal of Clinical Endocrinology and Metabolism	7	1962	5.1
Current Opinion in Psychiatry	3	1483	4.9
The Lancet	4	1368	88.5

International Journal of Eating Disorders	4	1361	4.3
British Journal of Psychiatry	4	1208	7.6
Psychological Medicine	4	1131	5.5
Journal of Eating Disorders	3	1049	4.5
Journal of Child Psychology and Psychiatry and Allied Disciplines	2	781	7.0
British Journal of Clinical Psychology	1	761	3.1
Nature Genetics	1	755	29.0
Physiology and Behavior	2	754	2.5
Psychological Assessment	1	754	3.3
Clinical Psychology Review	2	742	12.2
Neuropsychopharmacology	3	721	7.1
Nature Reviews Neuroscience	1	698	34.7
Biological Psychiatry	2	655	9
The Lancet Psychiatry	1	601	24.8
European Journal of Endocrinology	1	594	5.2
Neuroscience and Biobehavioral Reviews	2	479	7.9
Journal of Psychiatric Research	2	475	3.2
Trends in Neurosciences	1	427	14.6
Peptides	1	389	2.9
Journal of the American Academy of Child and Adolescent Psychiatry	1	381	9.5

Compliance with Ethical Standards

- **Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.
- **Conflict of Interest:** No conflicting relationship exists for any author.
- **Ethical Approval:** N/A
- **Informed consent:** N/A

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