

Publishing practices in non-recommended journals in thoracic field - implications for scientific integrity

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Abstract

Publishing in non-recommended journals (NRJs) threatens scientific integrity by prioritizing financial gain over rigorous peer review, editorial transparency, and research quality. Although documented in several medical fields, NRJs in thoracic research remain under-explored. This study aimed to assess the prevalence, geographic distribution, and key characteristics of NRJs in the thoracic field. A cross-sectional analysis was conducted using the Kscien List to identify thoracic NRJs. Journals were included if their scope or title referenced thoracic disciplines. Data were collected on publication practices, article processing charges, editorial leadership, indexing status, and the geographic distribution of corresponding authors and editorial board members. Descriptive statistics were used to summarize findings. Seventy-five NRJs were identified, publishing 7,656 articles with 3,098 corresponding authors from 82 countries. Authorship was concentrated in the United States (21.76%) and India (15.36%). Editorial boards included 1,912 members, 70.3% from eight countries, led by the United States (29.39%). Most journals (84.0%) charged fees, with 29.4% exceeding USD 2,000. Poor editorial practices were common, and none were indexed in Web of Science, Scopus, or DOAJ. The presence of numerous NRJs represents a critical and often overlooked threat to the integrity of thoracic research.

Key words: predatory publishing; non-recommended journal; thoracic research; Kscien's list; research integrity.

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Introduction

The integrity of scientific publishing is fundamental to the advancement of medical knowledge, evidence-based practice, and patient safety. In recent years, however, the academic community has faced a growing threat from non-recommended journals (NRJs), a phenomenon characterized by journals and publishers that prioritize financial gain over rigorous peer review, editorial transparency, and research quality, previously known as predatory journals and recently renamed to NRJs.¹⁻⁴ These outlets frequently exploit the open-access model, soliciting manuscripts through aggressive email campaigns and offering rapid publication with minimal or nonexistent editorial scrutiny.⁵

The expansion of NRJs has reached concerning levels, with the number of articles appearing in these journals rising dramatically from approximately 53,000 in 2010 to more than 420,000 by 2014, and the upward trend has continued thereafter.⁶ This rapid growth is largely fueled by persistent and aggressive recruitment strategies that disproportionately target early-career investigators and researchers working in resource-limited environments, who

are often attracted by assurances of fast acceptance and broad visibility.⁷ Many of these outlets conceal their publication charges and provide little or no legitimate editorial or peer-review services, thereby degrading the scientific record while financially exploiting vulnerable authors.⁸

Thoracic medicine and surgery represent highly specialized fields in which clinical decisions are often guided by emerging evidence from case reports, observational studies, and clinical trials. The infiltration of NRJs into this domain therefore carries risks, as low-quality or unvetted research may directly influence diagnostic pathways, surgical techniques, and oncological management strategies.^{8,9} Unlike other medical disciplines, thoracic research frequently involves rare diseases, complex interventions, and limited patient populations, making it especially vulnerable to the dissemination of misleading or irreproducible findings.

The expansion of NRJs has been facilitated by the exponential growth of open-access platforms, the pressure on researchers to publish, and the discontinuation or limited updating of traditional blacklists such as Beall's List.^{1,10} Although several tools and whitelists such as the Directory of Open Access Journals (DOAJ)

and Think. Check. Submit., have been developed to guide authors, many clinicians and early-career researchers remain inadequately trained to differentiate legitimate journals from deceptive ones.^{2,11}

Recent studies focusing on thoracic and cardiothoracic literature have demonstrated a substantial proportion of articles originating from journals with questionable editorial practices, non-transparent peer-review processes, and fabricated impact metrics.^{8,12} This study aims to determine the prevalence, identify key characteristics of NRJs, and examines the publishing practices in thoracic field.

Methods

Search strategy

This cross-sectional investigation was designed to detect and characterize NRJs operating within the thoracic sciences. The search process was primarily based on the Kscien List, an extensively curated and widely acknowledged registry of suspected NRJs, developed as an updated alternative to the former Beall's List.^{13,14} To maximize the sensitivity of the search and ensure comprehensive identification of relevant titles, the keyword thoracic was systematically applied, thereby capturing journals covering the full spectrum of thoracic-related research domains.

Eligibility criteria

Journals were eligible for inclusion if they appeared in the Kscien database either as standalone titles or as part of listed publishers and if their journal title or stated scope explicitly incorporated one or more of the predefined search keywords. Titles that could not be clearly classified as belonging to the thoracic field or closely related specialties, based on their declared aims and scope, were excluded from the analysis.

Data extraction and collection

The extraction process focused on NRJs quality indicators describing the structural, editorial, and operational characteristics of each journal. For every included title, information was collected on the journal name and whether it operated as a standalone entity or as part of a larger publishing group. Financial attributes were assessed by recording the presence and amount of article processing charges, including instances in which fees were not disclosed. Editorial integrity was evaluated through documentation of the presence or absence of an editor-in-chief, the existence of fake impact factors, and whether the journal title was incongruent with its declared scope or combined unrelated scientific disciplines.

Publication history of NRJs quality indicators included the year of the first published issue, the year of the most recent issue, the number of published volumes, the number of issues released per year, and the total number of issues, providing an overview of the journal's publishing activity. Indexing status was examined to determine whether journals were listed in major bibliographic databases, specifically Web of Science, Scopus, and the DOAJ. Additional quality indicators, such as the clarity of peer-review policies and other misleading practices captured in the dataset, were also recorded. The processes of literature review, data extraction, and statistical analysis were conducted between October 1, 2025, and November 1, 2025. All cited references were thoroughly reviewed, and their eligibility was confirmed.¹⁵

Statistical analysis

Statistical analyses were conducted to characterize the distribution and key features of NRJs identified in the thoracic field. Continuous NRJs quality indicators, including article processing charges, number of published articles, publication duration, number of issues published per journal, and editorial board size, were summarized using medians and interquartile ranges or ranges, as appropriate. Categorical NRJs quality indicators such as indexing status, presence of an editor-in-chief, existence of fake impact factors, and the geographical distribution of journals, corresponding authors, co-authors, and editorial board members were reported as frequencies and percentages. Descriptive statistical methods were applied to explore publication patterns, editorial structures, and global authorship trends, thereby illustrating the worldwide scope of NRJs in thoracic research.

Results

Journal identification and geographic distribution of corresponding authors

A total of 75 NRJs in the thoracic specialty were identified, operating under an open-access model. These journals published 7,656 articles, with contributions from 3,098 corresponding authors representing 82 countries.

The United States was the leading contributor, accounting for 674 corresponding authors (21.76%), followed by India with 476 authors (15.36%). Other major contributing countries included China 161 authors (5.20%), Italy 136 authors (4.39%), Japan 124 authors (4.00%), and the United Kingdom 120 authors (3.87%). Collectively, these six countries comprised approximately 54.6% of all corresponding authors. Nevertheless, corresponding authorship demonstrated broad geographic representation, spanning a wide range of countries (Table 1).

Geographic distribution of editorial board members

A total of 1,912 editorial board members from a wide range of countries were identified across the included NRJs. The United States accounted for the largest proportion, with 562 editorial board members (29.39%), followed by India 167 members (8.73%) and Italy 153 members (8.00%). Other countries with substantial representation included China 131 members (6.85%), Turkey 94 members (4.92%), Egypt 88 members (4.60%), Spain 78 members (4.08%), and the United Kingdom 71 members (3.71%). Collectively, these eight countries accounted for approximately 70.3% of all editorial board members. Nonetheless, editorial board members were drawn from a diverse set of regions worldwide (Table 2).

Characteristics of NRJs in the thoracic field

Among the included NRJs, 63 journals (84.0%) reported charging an Article Processing Charge (APC), while APC information was not disclosed for 12 journals (16.0%). Of those reporting APCs, 22 journals (29.4%) charged fees exceeding USD 2,000, whereas lower APC categories were variably represented and categorized using 500 and 1000 USD increments. The median year of first publication was 2017 (quartile range [QR]: 2015–2019), and the median year of the most recent issue was 2024 (QR: 2021–2025). Journals published a median of 7 volumes (QR: 2–10) and 9 issues (QR: 2–32), collectively accounting for 7,656 published articles.

Editorial governance indicators revealed notable deficiencies. An identified Editor-in-Chief was absent in 44 journals (58.7%), and congruence between journal scope and editor specialty was observed in only 38 journals (50.7%). Furthermore, 41 journals (54.7%) reported a fake impact factor, while 39 journals (52.0%) claimed indexing in unrecognized or non-existent databases. Indicators of substandard publishing practices

were common, including poorly developed websites in 52 journals (69.3%), email-based manuscript submission systems in 54 journals (72.0%), and promises of rapid publication in 49 journals (65.3%). Importantly, none of the journals were indexed in Web of Science, Scopus, or the DOAJ, further supporting their classification as non-recommended journals (Table 3).

Table 1. Geographic distribution of corresponding authors of non-recommended journals in thoracic field.

Rank	Country	Count	%	Rank	Country	Count	%
1	USA	674	21.76	41	Zambia	10	0.32
2	India	476	15.36	42	Romania	9	0.29
3	China	161	5.20	42	Lebanon	9	0.29
4	Italy	136	4.39	43	Denmark	8	0.26
5	Japan	124	4.00	43	Kenya	8	0.26
6	United Kingdom	120	3.87	44	Senegal	7	0.23
7	Thailand	92	2.97	44	Ukraine	7	0.23
8	Spain	82	2.65	45	Hungary	6	0.19
9	Turkey	76	2.45	45	Qatar	6	0.19
10	Saudi Arabia	71	2.29	45	Côte d'Ivoire	6	0.19
11	Egypt	63	2.03	46	Bulgaria	5	0.16
12	Brazil	62	2.00	46	Ireland	5	0.16
13	Canada	61	1.97	46	Mali	5	0.16
14	Australia	60	1.94	46	Nepal	5	0.16
15	Germany	48	1.55	47	Ghana	4	0.13
16	Iran	44	1.42	47	Norway	4	0.13
17	Tunisia	41	1.32	47	Armenia	4	0.13
18	South Africa	37	1.19	47	Bosnia and Herzegovina	4	0.13
19	Pakistan	36	1.16	48	Latvia	3	0.10
20	Bangladesh	35	1.13	48	Trinidad and Tobago	3	0.10
21	Malaysia	32	1.03	48	Cameroon	3	0.10
22	France	31	1.00	48	Philippines	3	0.10
23	Morocco	29	0.94	48	Zimbabwe	3	0.10
24	Netherlands	28	0.90	48	Burkina Faso	3	0.10
25	Nigeria	27	0.87	48	Congo	3	0.10
26	Portugal	26	0.84	48	Azerbaijan	3	0.10
27	Switzerland	25	0.81	49	Malawi	2	0.06
28	South Korea	23	0.74	49	Paraguay	2	0.06
29	Poland	22	0.71	49	Kazakhstan	2	0.06
30	UAE	21	0.68	49	Bolivia	2	0.06
31	Greece	20	0.65	49	Niger	2	0.06
32	Mexico	19	0.61	49	Tanzania	2	0.06
33	Indonesia	18	0.58	49	Serbia	2	0.06
34	Jordan	17	0.55	50	Rwanda	1	0.03
35	Colombia	16	0.52	50	Namibia	1	0.03
36	Sri Lanka	15	0.48	50	Guyana	1	0.03
37	Belgium	14	0.45	50	Suriname	1	0.03
38	Austria	13	0.42	50	Libya	1	0.03
38	Ethiopia	13	0.42	50	Bhutan	1	0.03
39	Algeria	12	0.39	50	Estonia	1	0.03
40	Iraq	11	0.36	—	Total	3,098	100
41	Chile	10	0.32				

Table 2. Geographic distribution of editorial board members of non-recommended journals in thoracic field.

Rank	Country	Count	%	Rank	Country	Count	%
1	USA	562	29.39	27	Peru	6	0.31
2	India	167	8.73	27	Mexico	6	0.31
3	Italy	153	8.00	27	Tunisia	6	0.31
4	China	131	6.85	27	Russia	6	0.31
5	Turkey	94	4.92	28	Netherlands	5	0.26
6	Egypt	88	4.60	28	Argentina	5	0.26
7	Spain	78	4.08	29	New Zealand	4	0.21
8	United Kingdom	71	3.71	30	Denmark	3	0.16
9	Brazil	57	2.98	30	Azerbaijan	3	0.16
10	Greece	49	2.56	30	Chile	3	0.16
11	Iran	45	2.35	31	Norway	2	0.10
12	Canada	32	1.67	31	Slovakia	2	0.10
13	Japan	29	1.52	31	Serbia	2	0.10
14	France	26	1.36	31	Bulgaria	2	0.10
15	Taiwan	24	1.26	31	Kuwait	2	0.10
16	Germany	23	1.20	32	Ghana	1	0.05
17	Saudi Arabia	21	1.10	32	Jordan	1	0.05
18	Bangladesh	17	0.89	32	Bolivia	1	0.05
19	Ukraine	15	0.78	32	Georgia	1	0.05
20	Portugal	14	0.73	32	Armenia	1	0.05
20	Poland	14	0.73	32	Côte d'Ivoire	1	0.05
21	Switzerland	12	0.63	32	Sudan	1	0.05
22	South Africa	11	0.58	32	Cameroon	1	0.05
22	UAE	11	0.58	32	Ireland	1	0.05
23	Iraq	10	0.52	32	Sweden	1	0.05
23	Thailand	10	0.52	32	Kazakhstan	1	0.05
24	Austria	9	0.47	32	Paraguay	1	0.05
24	Colombia	9	0.47	32	Singapore	1	0.05
25	Moldova	8	0.42	32	Costa Rica	1	0.05
26	Qatar	7	0.37	32	Syria	1	0.05
26	Nigeria	7	0.37	32	South Korea	1	0.05
26	Romania	7	0.37	32	Morocco	1	0.05
26	Pakistan	7	0.37	—	Not available	14	0.73
27	Malaysia	6	0.31		Total	1912	100

Table 3. Characteristics and publication details of non-recommended journals in thoracic field.

Variables	n (%)	Variables	n (%)
Standalone journal n (%)	75 (100)	Last published issue (year), median (QR)	2024 (2021–2025)
Yes	0	Published volumes, median(QR)	7 (2–10)
No	75 (100)	Published issues, median (QR)	9 (2–32)
Article Processing Charge-status n (%)	75 (100)	Number of published papers, n	7,656
Yes	63 (84)	Number of editorial board members, median (QR)	16 (7–33)
Not mentioned	12 (16)	Presence of Editor-in-Chief n (%)	75 (100)
Article Processing Charge (APC) Categories (USD) n (%)	75 (100)	Yes	31 (41.3)
≤500	16 (21.3)	No	44 (58.7)
501–1000	12 (16)	Congruence between journal scope and editor specialty n (%)	75 (100)
1001–2000	13 (17.3)	Yes	38 (50.7)
>2000	22 (29.3)	No	31 (41.3)
Not mentioned	12 (16)	N/A	6 (8.0)
First published issue (year), median (QR)	2017 (2015–2019)		

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Table 3. Continued from previous page.

Variables	n (%)
Fake impact factor n (%)	75 (100)
Yes	41 (54.7)
No	34 (45.3)
Claiming of unindexed index n (%)	75 (100)
Yes	39 (52.0)
No	36 (48.0)
Poorly developed website n (%)	75 (100)
Yes	52 (69.3)
No	23 (30.7)
Email-based submission n (%)	75 (100)
Yes	54 (72.0)
No	21 (28.0)
DOI available n (%)	75 (100)
Yes	42 (56.0)
No	33 (44.0)

QR, quartile range.

Variables	n (%)
Promise of rapid publication n (%)	75 (100)
Yes	49 (65.3)
No	26 (34.7)
Indexed in Web of Science n (%)	75 (100)
Yes	0 (0.0)
No	75 (100)
Indexed in Scopus n (%)	75 (100)
Yes	0 (0.0)
No	75 (100)
Indexed in DOAJ n (%)	75 (100)
Yes	0 (0.0)
No	75 (100.0)
Journal name incongruent with scope n (%)	75 (100)
Yes	18 (24.0)
No	57 (76.0)
Combined names with different fields n (%)	75 (100)
Yes	71 (94.7)
No	4 (5.3)

Discussion

Non-recommended journals have been increasingly recognized as a significant threat to scientific integrity, emerging alongside the rapid expansion of the open-access publishing model. Described NRJs as profit-driven entities that prioritize article processing charges over academic standards, often providing minimal peer review, weak editorial oversight, and limited transparency.¹⁶ Additionally, NRJs exploit the pressure to publish by presenting themselves as legitimate scholarly outlets while bypassing established quality-control mechanisms.¹⁷

Several studies have documented the broad disciplinary spread of NRJs with extensive penetration within oncology, and thousands of articles and authors originating from a wide range of countries.¹⁸ Omer *et al.* identified a comparable pattern in psychiatry, demonstrating that NRJs are not confined to isolated specialties but represent a cross-disciplinary phenomenon affecting multiple areas of medicine.¹⁷ Chung and Kim further demonstrated, through bibliometric analysis, that publishing in NRJs involves researchers from both developed and developing regions, highlighting its global reach.¹⁹

Earlier perceptions in literature frequently framed publishing in NRJs as a problem primarily affecting researchers from low- and middle-income countries, often attributing this vulnerability to limited awareness and restricted access to reputable journals.^{8,15} However, more recent field-specific investigations have reported substantial contributions from high-income countries, suggesting a shift in understanding regarding the demographics of authors engaging with these journals.^{17,18}

In the present study, 3,098 corresponding authors from 82 countries contributed to NRJs in thoracic field. The United States was the leading contributor, accounting for 674 corresponding authors (21.76%), followed by India with 476 authors (15.36%). Other major contributing countries included China (161 authors; 5.20%), Italy (136 authors; 4.39%), Japan (124 authors; 4.00%), and the United Kingdom (120 authors; 3.87%). These six countries comprised approximately 54.6% of all corresponding authors indi-

cate a strong representation from high-income research environments.

Editorial board composition represents another critical indicator of journal legitimacy. Richtig *et al.* noted that NRJs often list editorial board members primarily to enhance perceived credibility, frequently without evidence of meaningful editorial involvement.¹⁶ Kakamad *et al.* similarly reported weak governance structures and lack of accountability among editorial boards in NRJs in surgical field.⁹ Despite these observations, relatively few studies have quantitatively examined the geographic distribution of editorial board members across these journals.

The current analysis identified 1,912 editorial board members from a wide range of countries were identified across the included NRJs. The United States accounted for the largest proportion, with 562 editorial board members (29.39%), followed by India (167 members; 8.73%) and Italy (153 members; 8.00%). Other countries with substantial representation included China (131 members; 6.85%), Turkey (94 members; 4.92%), Egypt (88 members; 4.60%), Spain (78 members; 4.08%), and the United Kingdom (71 members; 3.71%), these eight countries accounted for approximately 70.3% of all editorial board members. This concentration suggests that NRJs may strategically assemble editorial boards to project international legitimacy while maintaining limited geographic diversity in governance.

Publishing practices observed in this study further align with established characteristics of NRJs. Richtig *et al.*¹⁶ and Kakamad *et al.*¹⁵ both emphasized the routine use of misleading impact metrics, lack of transparent editorial leadership, and exclusion from recognized indexing services as defining features of predatory publishing. Tomlinson *et al.* additionally highlighted how NRJs aggressively solicit authors and editorial board members through unsolicited communications, reinforcing deceptive publishing practices.²⁰

Consistent with prior investigations of non-recommended journals, the present study identified widespread reliance on APCs, with 84.0% of journals disclosing APCs and nearly one-third (29.4%) requiring fees exceeding USD 2,000. In addition, none of the journals were indexed in Web of Science, Scopus, or the

DOAJ, reinforcing their classification as NRJs. Substantial shortcomings in editorial governance were also observed, as 58.7% of journals lacked an identified Editor-in-Chief, and only half demonstrated alignment between journal scope and editor expertise. Furthermore, more than half of the journals reported fake impact factors (54.7%) or claimed indexing in unrecognized or non-existent databases (52.0%), indicating persistent deficiencies in transparency and editorial accountability. These findings are consistent with reports from other disciplines, including anesthesiology and oncology, where NRJs have similarly exhibited weak governance structures and questionable publishing practices.^{17,19}

The implications of these findings are particularly relevant for thoracic medicine and surgery. Recent correspondence in *The Lancet Respiratory Medicine* highlighted the growing threat posed by NRJs and paper mills to the quality of evidence in respiratory research, warning that the dissemination of inadequately reviewed studies may influence clinical guidelines and patient care.²¹ Given the volume of NRJs identified in the thoracic field, this specialty appears similarly vulnerable to the spread of low-quality and insufficiently vetted research.

This study has several limitations. The analysis relied on publicly available information from journal websites, which may be incomplete, inaccurate, or misleading due to the lack of transparency commonly associated with NRJs. Geographic classification of authors and editorial board members was based on reported affiliations and may therefore be subject to misclassification. In addition, the cross-sectional design did not permit assessment of citation impact, article quality, or temporal changes in these practices.

Conclusions

Publishing in thoracic NRJs, more so than the fact that such journals exist, constitutes a critical, frequently underestimated threat to the integrity of thoracic research.

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