

Sixteen Years of 'Journal of Neurosciences in Rural Practice': A Bibliometric Analysis

BM Gupta¹, Shri Ram^{2,*}

¹Formerly with CSIR-NISTADS, Pusa, New Delhi, INDIA.

²Central Library, Thapar Institute of Engineering and Technology, Patiala, Punjab, INDIA.

ABSTRACT

Background and Objectives: The 'Journal of Neurology in Rural Practice' is one of the popular journal in the field of neurology being published by Asociación Ayuda Enfermo Neuroquirúrgico (AAEN) since 2010. To assess the nature of research published in this journal, the objective is carrying out a bibliometric assessment of publication over a period of sixteen years. **Methodology:** The bibliographic data for the bibliometric assessment has been obtained from SCOPUS database. The bibliometric assessment carried out for annual productivity, key authors, institutions and country collaboration, thematic analysis based on author keywords and topical modelling using network analysis. **Results:** The study is based on 2294 documents indexed in SCOPUS database. Though India is major affiliating countries, the collaboration from United States, Nigeria, Italy, Thailand, Columbia are prominent. Among the institutions, National Institute of Mental Health and Sciences is most productive institutions. Most of the author among top ranking are from India wherein, Author from Columbia is found to be among with prominence in citation impact. **Conclusion:** The journal publishing papers in the field of neurology and allied fields consistently with an annual growth rate of 6.38% per year. Though the popularity and scope of the journal is international in nature however, regional centrality is common. The research impact in terms of citation is 6.133 citations per paper as compared to other neurological journals. This necessitated the foreword looking approach to increase the research impact and visibility to international community. The publications covering the modern technology such as Artificial Intelligence is lacking which may be made a part in the future publications.

Keywords: Journal of Neurology in Rural Practice, Bibliometric Studies, Research Impact, Artificial Intelligence in Medicine.

Correspondence:

Dr. Shri Ram

Central Library, Thapar Institute
of Engineering and Technology,
Patiala-147004, Punjab, INDIA.

Email: shriram020576@gmail.com

ORCID: 0000-0002-2002-753X

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INTRODUCTION

In the field of neurology, many scholarly and academic journal are published. These journals have coverage of both national and international scope. These journals have wide scope covering different aspects of neuroscience and neurology (neuroanatomy, neurophysiology, neurochemistry, neurogenetics) (Barker & Cicchetti, 2012). Among these journals, Journal of Neurosciences in Rural Practice (JNRP) ISSN (Print): 0976-3147; (Online): 0976-5155), published by 'Asociación Ayuda Enfermo Neuroquirúrgico' (AAEN), committed to publish high quality research in the field of neurology. The JNRP started publishing since 2010 with two issues in a year. The inaugural issues had published 21 papers. Initial two years, each volume published two issues, where as volume three published three issues. From the

year 2013 (Vol. 4), the journal started publishing four issues in a year, making it a quarterly journal. Until October 10, 2025 (Vol. 15, No. 4), the journal has published 2294 articles. The journal is indexed in SCOPUS with CiteScore₂₀₂₄ of 1.4; SJR₂₀₂₄=0.348 and SNIP₂₀₂₄=0.448. In the year 2024, the journal also included in Emerging Source Citation Index (ESCI) with value of 0.9 published by Clarivate Analytics. The journal is indexed by PubMed, Scientific Scholar, CrossRef, and PORTICO databases for greater visibility. The journal is fully open access; therefore, it is also included in Directory of Open Access Journals (DOAJ) – an intensive platform that index peer reviewed open access journals. On the parameter of journal quartile, it falls under Q3 as per SCOPUS CiteScore Quartile and Q4 as per Emerging Source Citation Index Quartile. A few past journal specific neurology and neuroscience journals for which bibliometric studies have been published discussing the research trends of these. These includes the journal 'Neuroinformatics' highlighting the emerging area of machine learning, neuroimaging and data sharing within twenty years research (Guillén-Pujadas *et al.*, 2025); five years bibliometric analysis of 'Cuban Journal of Neurology and Neurosurgery' (Landrove-Escalona *et al.*, 2022), 'Polish Journal of Neurology and Neurosurgery' (Wszolek *et al.*,



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2021) and, 'American journal of neuroradiology' (Wszolek *et al.*, 2021). Fundamentally, all these studies referred to productivity aspects of research including thematic analysis. So, despite of growing importance of neurology and publication trends, rural neurology research addressing neurological disease burden has not been part of any studies. Though productivity and thematic studies have been studies but not rural neurology journal. So, the study aimed at covering rural neurology research as one of the studies covering longitudinal, journal specific bibliometric analysis spanning over a period of sixteen years. The purpose of this paper is two folded, one to identify the publication output in the form of annual trends, key output from authors, institutions and country with their citation impact and other to identify and analyse key themes through keyword analysis to mine the trends of research published in the journal. Unlike other studies assessing primarily the general neurology journal performance, the study offers a multidimensional evaluation in rural neurological context. It integrates the temporal analysis of publication, citation dynamics, performance of author, institutions and country level productivity and impact; and thematic mapping of research focus based on author keywords. These objectives align to the purpose of bibliometric studies aimed at use statistical methods in scientific publication in a given domain (Pritchard, 1969). The bibliometric analysis helps in understanding the temporal growth and trends over a period.

METHODOLOGY

The Journal of Neuroscience in Rural Practice is a SCOPUS indexed journal and its indexing in the databases started from 2010. The data was downloaded from the database using the search string SRCITITLE ("Journal of Neurosciences in Rural Practice") AND PUBYEAR > 2010 AND PUBYEAR < 2025.

The downloaded data was analysed using Bibliomagika (v.2.10.3) (Ahmi, 2024). Furthermore, there are many missing data in the bibliographic records noticed. These pertains to missing author, institutions, country; duplicate author, abbreviated or short institutional name, variant form of keywords. These missing data leads to inaccurate analysis of the results. So, all these missing data were manually analysed using Bibliomagika and the variant form of institutions or keywords were harmonized using OpenRefine software (Ahmi, 2023). For the purpose of creating visualization network, VOSViewer bibliometric analysis tool was used (Van Eck & Waltman, 2010). After cleaning and harmonising, the following bibliometric indicators were analysed:

- Temporal analysis of publication and citation trends.
- Publication by authors, institutions and country.
- Thematic analysis based on author keywords.

RESULTS

Publication Trends

The indexing of articles published in 'Journal of Neurosciences in Rural Practice' started from 2010. The temporal trend of publication shows a steady and dynamic growth pattern and given in Table 1. Over sixteen years, the journal has published 2294 documents where 381 (16.61%) as single author publication and 1910 (83.26%) as multiauthor publication. This indicates that over the period there is a strong culture of collaborative and multiauthor publications in the field published in this journal. The contribution came from 8702 authors with an average of 3.79 authors per paper. A notable feature is that 74.46% of these publications (1708 papers) have been cited, indicating significant academic impact in terms of citation, and the cited 1708 document accumulated 14069 citations. The overall citations per paper have been found to be 6.13 citations whereas cited publication has averaged 8.24 citations per cited papers tending to a meaningful impact. The benefits of longer citation windows and citation trends is prominently reflected for initial years (2012–2020) with citation averaging one thousand or more, whereas more recent years reflect a surge in publication numbers and lower citation averages due to shorter exposure time (Figure 1). Overall, the bibliometric profile of the journal highlights its growing influence in neurosciences, particularly in rural and applied health contexts (Table 2).

Type of publications

The Majority of (1403, 61.16%) publications were articles, followed by letter (377; 16.43%), note (249; 10.85%), editorial (135;5.88%), review (111;4.84%), short survey (11;0.48%), erratum (1;0.31%) and retracted (1;0.04). These document types

Table 1: Characteristics of publication.

Main Information	Data
Publication Years	2010-2024
Total Publications	2294
Citable Year	16
Number of Contributing Authors	8702
Number of Cited Papers	1708
Total Citations	14,069
Citation per Paper	6.13
Citation per Cited Paper	8.24
Citation per Year	1004.93
Citation per Author	1.62
Author per Paper	3.79
Citation sum within h-Core	6,575
h-index	39
g-index	59
m-index	2.438

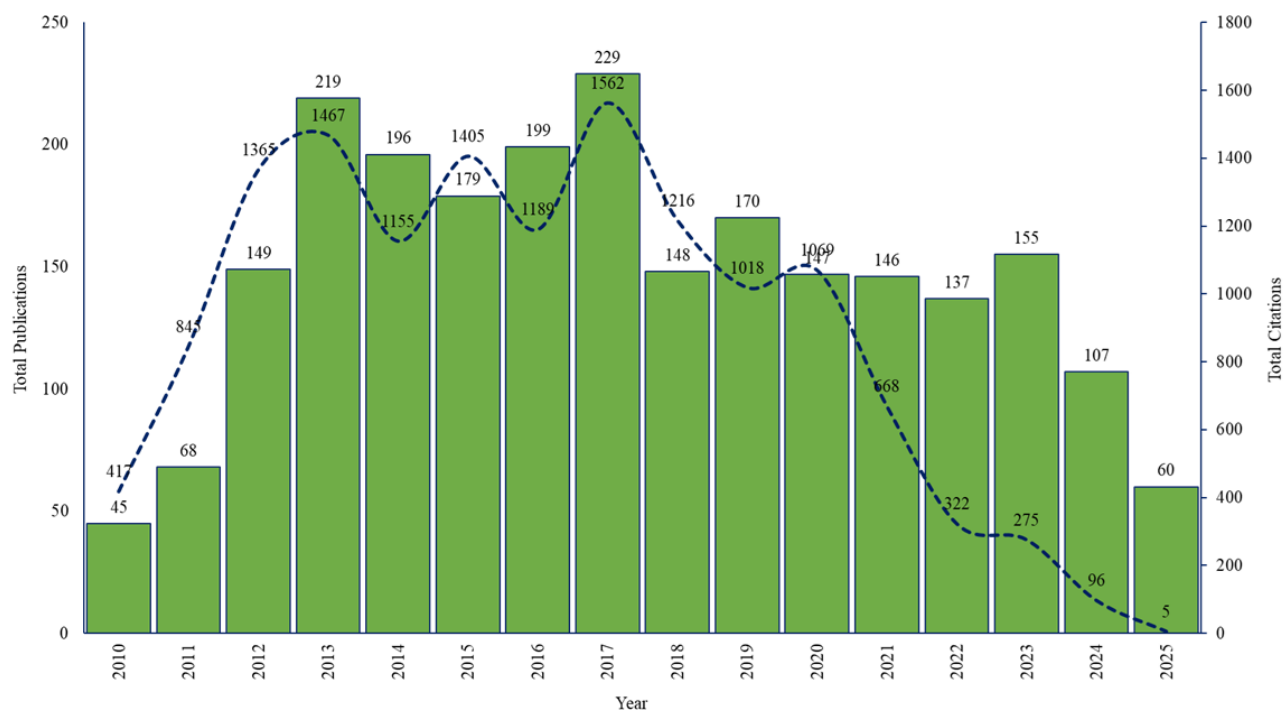


Figure 1: Temporal growth of publication in JNRP and citation trends.

are general guidelines of the journal in which author can publish paper. However, the retraction is a concern for both author and journal to demerit the reputation (Mallapaty, 2025).

Geographical Distribution

The authors from 89 countries published their papers in Journal of Neuroscience in Rural Practice. Table 3 presents top 14 countries contribution to the journal with 21 or more publications. These publication ranges maximally (21 to 1427 publications). The maximum contribution came from India (1427 publications), United States (192 publications) and Turkey (89 publications). The results indicates that the India leads significantly in terms volume of publications and also the Number of Contributing Authors (NCA = 5689). These papers accumulated 9268 citations with Average Citations Per Paper (ACPP = 6.52) and average citation per cited paper (C/CP = 8.12). The citation data shows a reasonable modest compared impact to other countries. It indicates that though India contributed high volume of research the global impact and visibility is comparatively moderate. The United States ranked 2nd in volume of publications (TP = 192; TC=1267), shows relatively high citation influence (C/CP = 9.60), indicating better quality or more impactful outputs per paper. Similarly, Turkey (ACPP = 8.42, C/CP = 11.18) and Nigeria (ACPP = 8.82, C/CP = 9.80), despite lower productivity (TP < 100), demonstrate stronger citation performance, which reflects higher international visibility and recognition of their publications relative to their output.

The country like Italy (TP=48) and Germany (TP30) from European region) produced a moderate number of publications.

However, their citation averages remain below the global leaders, indicating limited impact. In contrast, the United Kingdom (TP=48) shows notable influence with a high C/CP = 14.50, demonstrating that its research, though modest in volume, is particularly impactful.

A striking outlier is Colombia, with only 26 publications but an exceptionally high Average Citations Per Paper (ACPP = 20.42) and average Citation of Cited Publications (C/CP = 22.13), reflecting high-quality outputs that attract significant international citations, possibly due to highly specialized or groundbreaking contributions. Similarly, Thailand and Malaysia contribute moderate publications with mid-range impact values, reflecting steady participation but limited global visibility. Brazil has shown least impact for its 23 publications.

Co-Citation Network of Top Countries

The country collaboration was analysed with the help of VOS Viewer Network diagram and it can be concluded that the India has been a central collaborating country with its strong linkage between United States, United Kingdom, Nigeria, Thailand, and Malaysia. This collaborative network indicates a leading international collaboration which has been majorly published in the journal (Figure 2). It also an indication that the Journal is focussing on not only local research, but rather international research are also well covered in the journal. The strong collaboration network can be viewed between (India-centered collaboration) Bangladesh, Canada, Nigeria, Thailand, Nepal, and Malaysia which can inferred as South-South and Commonwealth collaborations. The second cluster where (US-centered

collaboration) United States, Mexico, Ecuador, New Zealand, and Malaysia, suggesting North–South collaboration pattern. The third cluster (UK-centered collaboration) represented by United Kingdom, Ireland, Portugal, Kenya, and Benin represented by academic and colonial-link research networks. The European collaboration includes Italy, Germany, Iran, and Austria indicating intra-European and Middle Eastern collaborations. The final cluster represented by Latin American collaboration which includes Brazil, Colombia, Mexico, and Serbia reflecting emerging Latin American network. These collaboration patterns

underscore the journal's strong South Asian foundation with increasing global integration. In conclusion, the degree of centrality and betweenness metrics position India as a bridge country to global connector.

Profile of Top 25 Organizations

Table 4 show top 25 institutions having contributions ranging from 14 to 124 publications, with together totalling 901 publications (39.01% share). These institutions have accumulated 5684 citations. All these most productive institutions having

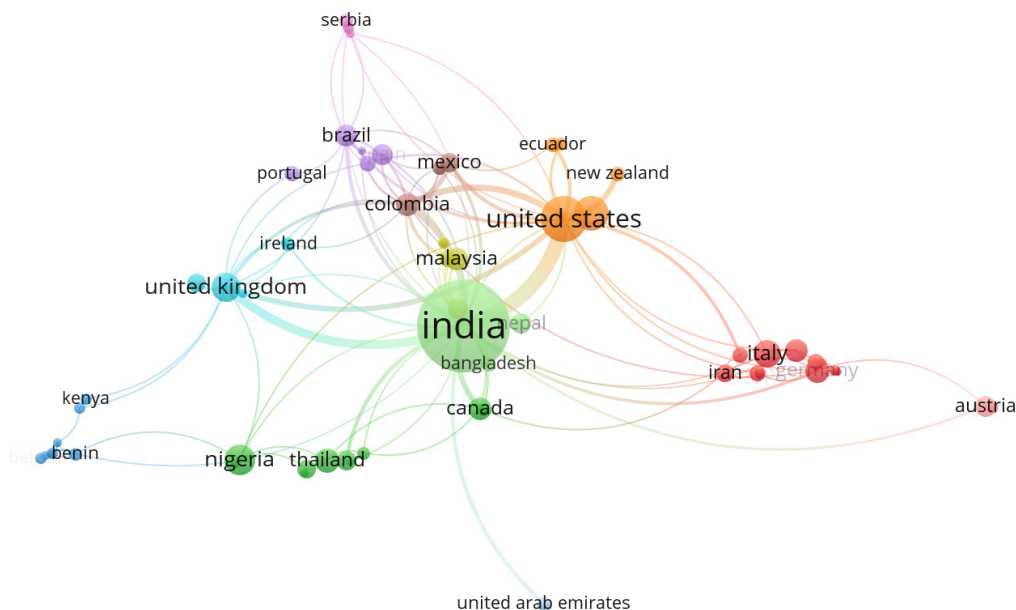


Figure 2: Co-Citation network of top countries.

Table 2: Annual growth of publication and citation trends.

Year	TP	NCA	NCP	TC	ACPP	C/CP
2010	45	147	42	417	9.27	9.93
2011	68	200	48	845	12.43	17.60
2012	149	423	99	1365	9.16	13.79
2013	219	655	145	1467	6.70	10.12
2014	196	584	144	1155	5.89	8.02
2015	179	649	144	1405	7.85	9.76
2016	199	734	162	1189	5.97	7.34
2017	229	849	178	1562	6.82	8.78
2018	148	593	130	1216	8.22	9.35
2019	170	687	144	1018	5.99	7.07
2020	147	635	115	1069	7.27	9.30
2021	146	692	122	668	4.58	5.48
2022	137	611	98	322	2.35	3.29
2023	155	730	96	275	1.77	2.86
2024	107	513	41	96	0.90	2.34
Total	2294	8702	1708	14069	6.13	8.24

TP=Total Publication; NCA=Number of Contributing Authors; NCP=Number of Cited Publications; TC=Total Citations; ACPP=Average Citation per paper; C/CP=Average citation of cited publications.

Table 3: Country wise productivity of publications.

Country	TP	NCA	NCP	TC	ACPP	C/CP
India	1427	5689	1145	9298	6.52	8.12
United States	192	476	132	1267	6.60	9.60
Turkey	89	301	67	749	8.42	11.18
Nigeria	60	240	54	529	8.82	9.80
Italy	48	180	27	236	4.92	8.74
United Kingdom	48	87	26	377	7.85	14.50
Thailand	32	106	26	198	6.19	7.62
Germany	30	51	16	142	4.73	8.88
Greece	27	83	20	127	4.70	6.35
Japan	26	72	12	60	2.31	5.00
Colombia	26	70	24	531	20.42	22.13
Malaysia	25	66	17	131	5.24	7.71
Canada	25	59	20	118	4.72	5.90
Brazil	23	46	14	57	2.48	4.07

TP=Total Publication; NCA=Number of Contributing Authors; NCP=Number of Cited Publications; TC=Total Citations; ACPP=Average Citation per paper; C/CP=Average citation of cited publications.

their publication in the journal are from India. The overall data shows the contribution from 1490 institutions from 88 countries. Other than India, Institutions from United States (157 institutes), Turkey (87 institutions), Italy (47 institutions), and United Kingdom (45 institutions) are prominent countries. The top three Institutions are National Institute of Mental Health and Neuro Sciences, India (TP=204; TC=1414 citations), All India Institute of Medical Sciences New Delhi, India (TP=87; TC=662 citations) and Postgraduate Institute of Medical Education and Research, India (TP=87; TC=683 citations).

The Network diagram created for institutional collaboration, the National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru appears as the largest and most central node in the network (Figure 3). It signifies the highest publication frequency. Similarly, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, and the All India Institute of Medical Sciences (AIIMS), New Delhi & Bhopal) also emerge as prominent secondary hubs, suggesting substantial contributions and partnerships within the Indian neurology research landscape. There are intense intra-institutional collaborations which is quite prominent among AIIMS and NIMHANS suggesting strong collaborative research among these. Few peripheral institutions, such as Sher-i-Kashmir Institute of Medical Sciences and Nizam's Institute of Medical Sciences showing occasional collaboration. These network collaborations present three key insights in terms of density. The moderate density reflects collaboration shows institution-centric rather than nationally integrated. The high-density network reflects dominance collaboration between the institutions, and the low-density network reflects dispersed collaboration. It can be argued that the knowledge flow from predominantly vertical (from premier institutions to smaller

institutions) i.e. elite institutions such as NIMHANS, AIIMS, and PGIMER plays anchoring roles than the other institutions such as Nizam Institutes, Ramaiah Medical College, Shere Kashmir Institute of Medical Science.

Profile of Top Authors

Table 5 presents the profile of top 20 authors individually contributed 14 or more publications in the journal. These authors contributed 391 publications (TC=3452; ACPP=8.83 Citations). Though journal has international scope, most of the authors have their affiliation from India (showing regional centrality), except Luis Rafael Moscote-Salazar from Universidad de Cartagena, Colombia. The analysis of authors productivity has been analysed based on Total Publication (TP), Total Citation (TC), Average Citation Per Paper (ACPP) and *h*-Index. The leading author is Dhaval Prem Shukla Prem Shukla (NIMHANS, India) with 50 publications, 248 citations, and an *h*-index of 8. Though the author has dominance in publication but ACPP of 4.96 citations suggest moderate research impact. Second most productive author Prasad Krishnan (31 Papers) has lower citation impact (ACPP = 1.81), showing high productivity but limited citation influence. The third most productive author Amit Agrawal (AIIMS Bhopal) stands out for high impact - 420 citations for 30 papers with ACPP = 14.00 citations. It indicates influential and widely cited research. This combination of quantity and quality marks him as a key thought leader within the journal's authorship network. The average citation per paper varies from ACPP of 1.81 (Indian authors) to ACPP of 18.11 citations (International Authors), indicating strong international collaboration or publication in globally relevant subfields in contrast regionally focused Indian authors. In terms of author's affiliation, NIMHANS, AIIMS (New Delhi, Bhopal), Raimaiya Medical College are the leading. The

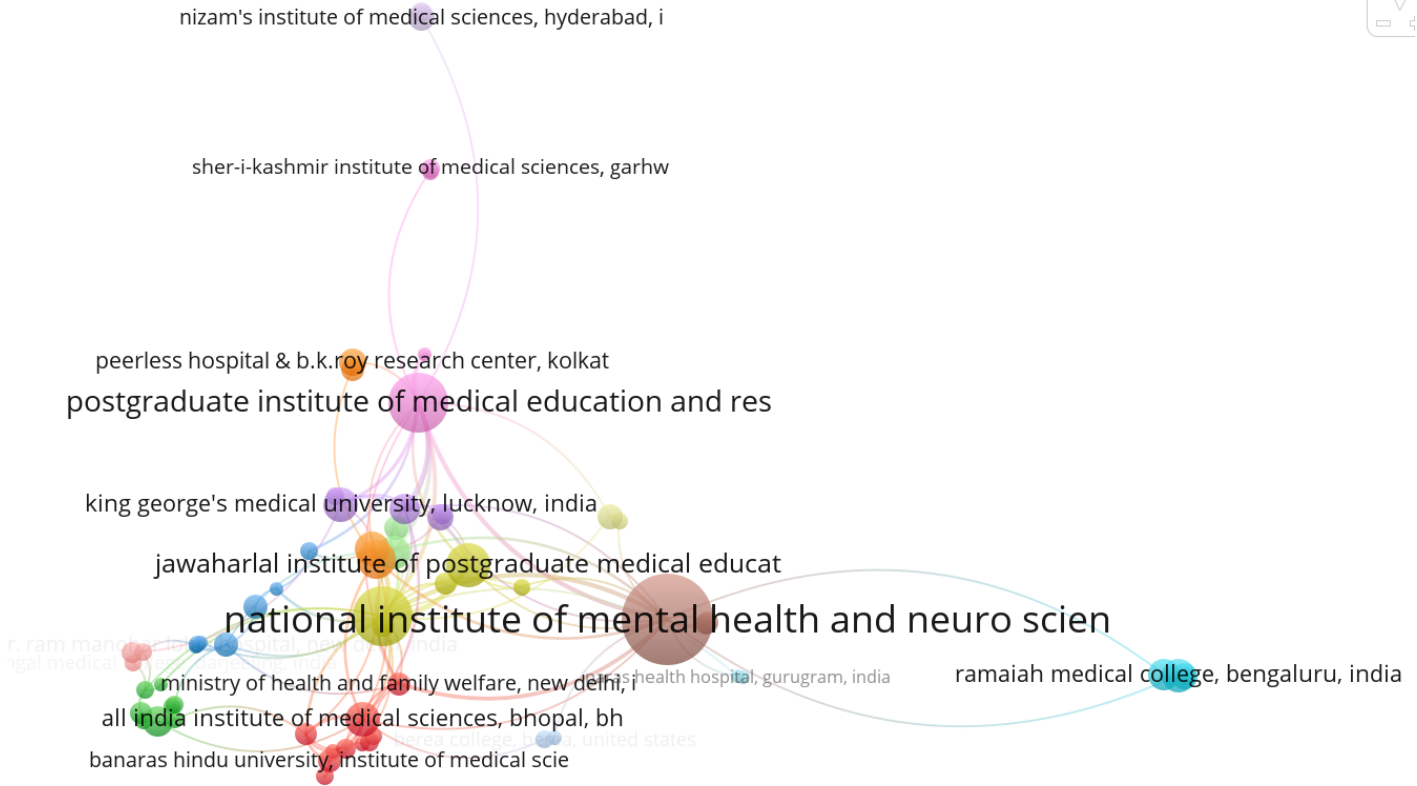


Figure 3: Co-citation network of top institutions.

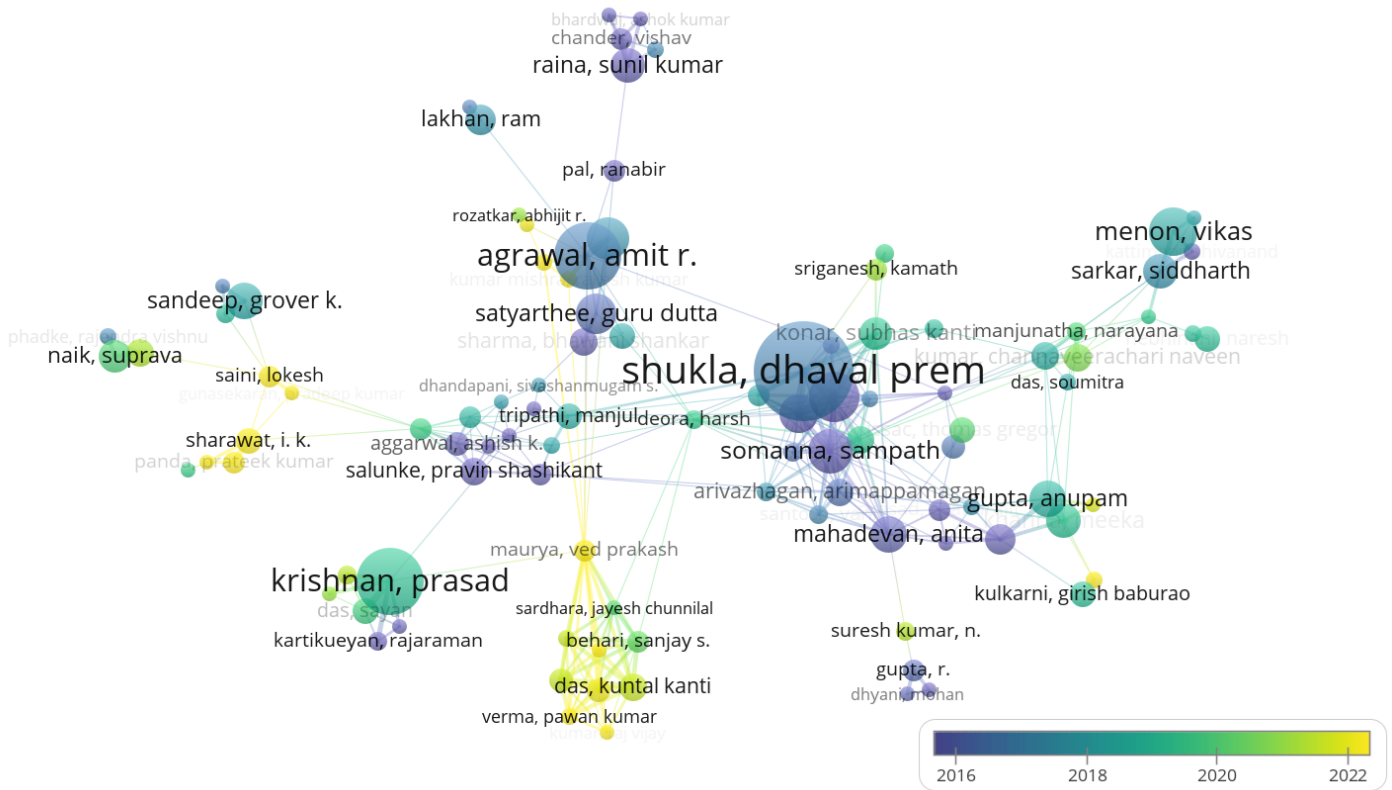


Figure 4: Co-citation network of most productive authors.

authors like Sandeep Grover (ACPP = 16.87) and Moscote-Salazar (ACPP = 18.11) shown high citation averages with moderate output inferring quality-focused research output. Conversely, author like Prasad Krishnan (TP=31; ACPP=1.81) and Guru Dutta Satyarthee (17; ACPP=2.53) have high productivity with lower ACPP reflects breadth of contribution but limited scholarly impact. So, in terms of Productivity–Impact Relationship, it can be inferred that the papers published in the journal does not reflects the high productivity and high impact specially in case of Indian Authors (Shukla; TP=50, ACPP=4.96), but it is true in case of International authors where moderate productivity with high impact (Moscote-Salazar; TP=18, ACPP=18.11). Not many authors have strong collaboration network except (Shukla, Dhaval Prem), and some of the recently active authors Kuntal Kanti Das, showing recent research are more collaborative than older research (Figure 4).

Highly-Cited Papers

The concepts citation analysis given by Eugene Garfield (1962) has been a popular choice for measuring the research impact in scientific domain. Since then many other authors have advocated citation based research impact assessments of individual, research groups or institutions (Aksnes *et al.*, 2019; Leydesdorff *et al.*, 2016; Moed, 2005). The journal reputation is also based on citations in the form of journal impact factor proposed by Garfield (1999). The articles which are published in journals decides the reputation being referred widely by the academic and research community making them highly cited works, representing landmark contributions, setting trends and future direction. The assessment of highly cited publications reflects the trend setting and superior research quality (Joshi, 2014; Waltman, 2016). The 2294 publication in JNRP accumulated 14069 citations with an average of 6.13 citations per paper. The analysis of highly cited

Table 4: Top 25 productive institutions.

Institution Name	Country	TP	NCP	TC	ACPP	C/CP	h
National Institute of Mental Health and Neuro Sciences	India	204	162	1414	6.93	8.73	20
All India Institute of Medical Sciences New Delhi	India	87	76	662	7.61	8.71	13
Postgraduate Institute of Medical Education and Research	India	87	74	683	7.85	9.23	13
Jawaharlal Institute of Postgraduate Medical Education and Research	India	49	40	378	7.71	9.45	10
Sanjay Gandhi Postgraduate Institute of Medical Sciences	India	39	32	114	2.92	3.56	6
King George's Medical University	India	31	25	187	6.03	7.48	7
All India Institute of Medical Sciences Bhubaneswar	India	30	24	143	4.77	5.96	6
All India Institute of Medical Sciences Bhopal	India	29	22	381	13.14	17.32	6
Kasturba Medical College	India	28	20	169	6.04	8.45	8
Ramaiah Medical College	India	28	21	177	6.32	8.43	8
All India Institute of Medical Sciences Jodhpur	India	27	20	102	3.78	5.10	6
Datta Meghe Institute of Higher Education & Research (Deemed to be University)	India	25	19	127	5.08	6.68	7
Sree Chitra Tirunal Institute for Medical Sciences and Technology	India	25	19	126	5.04	6.63	7
SMS Medical College	India	23	17	105	4.57	6.18	7
All India Institute of Medical Sciences Rishikesh	India	21	18	63	3.00	3.50	5
Dr. Rajendra Prasad Government Medical College	India	21	20	157	7.48	7.85	7
Peerless Hospital & B.K. Roy Research Center	India	19	13	52	2.74	4.00	5
Christian Medical College	India	19	14	96	5.05	6.86	7
Banaras Hindu University	India	18	17	104	5.78	6.12	6
Nizam's Institute of Medical Sciences	India	17	17	97	5.71	5.71	6
National Neurosciences Centre	India	16	7	25	1.56	3.57	3
Govind Ballabh Pant Institute of Postgraduate Medical Education and Research	India	15	11	60	4.00	5.45	6
Dr. Ram Manohar Lohia Hospital	India	15	11	82	5.47	7.45	6
Ministry of Health and Family Welfare	India	14	10	29	2.07	2.90	4
Dr. Sampurnanand Medical College	India	14	14	151	10.79	10.79	7

TP=Total Publication; NCP=Number of Cited Publications; TC=Total Citations; ACPP=Average Citation per paper; C/CP= Average citation of cited publications; h=h-Index.

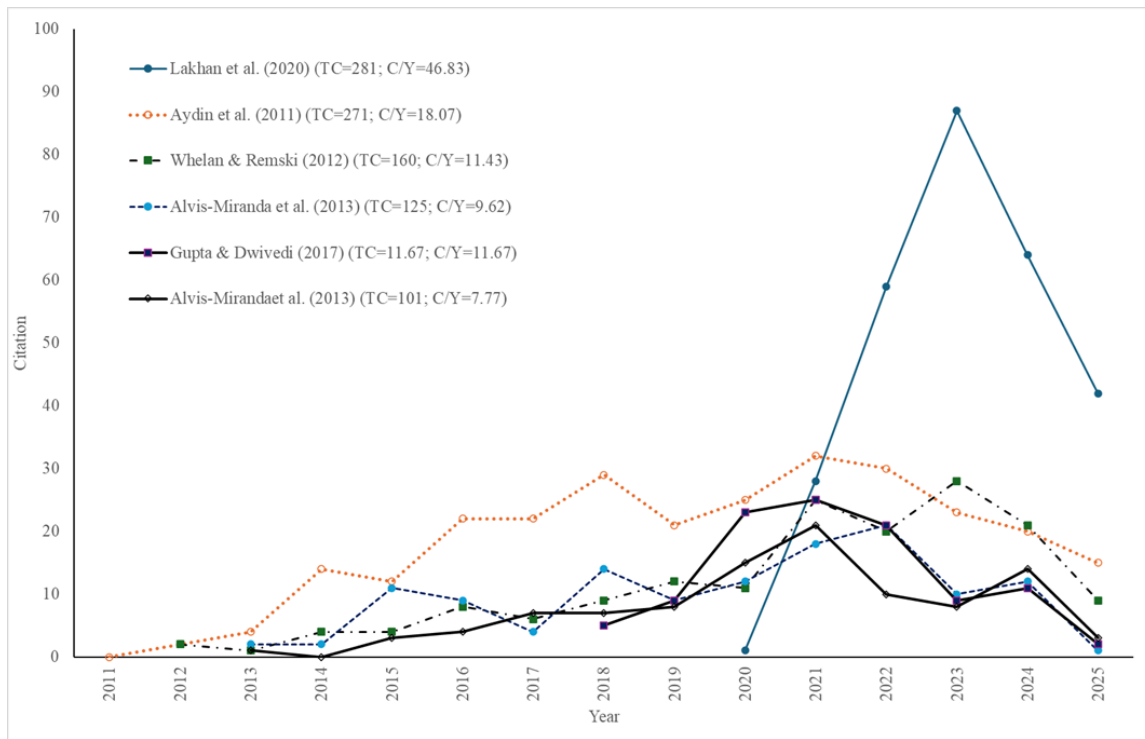


Figure 5: Citation life cycle of highly cited publications.

papers with more than one hundred citations and their life cycle in terms of total citation received since its publication and average citation per year. Table 6 gives an overview of six most cited publications with more than 100 citations. The citation pattern is highly skewed to only one article Lakhan *et al.* (2020) (TC=281 citations) showing rapid burst of citation pattern. While older publications such as Aydin *et al.* (2011) (TC = 271) and Whelan & Remski (2012) (TC = 186) remain influential, but no other items approach the outlier's impact, which affirms the Lotka-type distribution as a few papers attract most citations, while the majority accumulate modest counts (Lotka, 1926) (Figure 5).

Thematic Analysis based on Author's Keyword

The frequencies of the co-keywords or co-word analysis provides an overview of intellectual structure through thematic trends, hotspot of the research, mapping of intellectual structure which facilitate knowledge organization and review (Callon *et al.*, 1983, 1991). The visualization using author keywords co-occurrence specifically focus on key concepts published in the paper on the subject domain and effective in information retrieval (Li, 2018). Figure 6 gives the author keywords cluster analysis for the articles published in Journal of Neuroscience and Rural Research reflected by the network analysis shows following clusters and themes. There were over all 13 clusters, out of which five major clusters is described as follows.

Cluster 1: Neuroimaging and Brain Injury (Red Cluster). The cluster represented by core terms such as magnetic resonance imaging, traumatic brain injury, outcome, headache, mortality,

intracranial pressure. The cluster dominates within the network highlighting the importance of diagnostic imaging and outcome based studies.

Cluster 2: Stroke and Cerebrovascular Disorders (Yellow Cluster) – represented by keywords stroke, ischemic stroke, prognosis, meningitis, hypertension. It convey the theme related to stroke and cardiovascular diseases a major research focus. Further, its linkage with the keywords co-occurrence with *prognosis*, *mortality*, and *risk factors* highlights the research focus on epidemiological and clinical outcome studies. Furthermore, the prominent interconnection with the keywords *telemedicine* and COVID-19 suggesting the innovative care delivery models published in the journal.

Cluster 3: Mental Health and Psychiatric Comorbidities (Green Cluster) – represented by core terms like depression, anxiety, stress, suicide, mental health, children, elderly which a strong research focused on psychological and behavioral aspects of neurological disorders. The cluster reveals a growing intersection between neurology and psychiatry. It is a strong indication that the journal publishes more specially on this theme. Most of the research with high citation impact related to mental health discusses COVID-19 related work.

Cluster 4: Epilepsy and Seizure Disorders (Blue Cluster) is concentrated on epilepsy, seizure, antiepileptic drugs, pediatric, psychiatry which indicates the epilepsy management is a recurring and significant theme on which many authors publishing their work published in this journal. It also gives an insight about

Table 5: Productive authors with 14 or more publications in the journal.

Full Name	Current Affiliation	Country	TP	TC	ACPP	h
Shukla, Dhaval Prem	National Institute of Mental Health and Neuro Sciences	India	50	248	4.96	8
Krishnan, Prasad	National Neurosciences Centre	India	31	56	1.81	5
Agrawal, Amit	All India Institute of Medical Sciences Bhopal	India	30	420	14.00	7
Menon, Vikas	Jawaharlal Institute of Postgraduate Medical Education and Research	India	21	190	9.05	8
Devi, Bhagavathula Indira	National Institute of Mental Health and Neuro Sciences	India	21	255	12.14	10
Mehta, Anish	Ramaiah Medical College	India	19	127	6.68	6
Mahale, Rohan R.	Ramaiah Medical College	India	18	130	7.22	6
Moscote-Salazar, Luis Rafael	Universidad de Cartagena	Colombia	18	326	18.11	6
Somanna, Sampath	National Institute of Mental Health and Neuro Sciences	India	18	161	8.94	7
Satyarthee, Guru Dutta	All India Institute of Medical Sciences New Delhi	India	17	43	2.53	4
Srinivasa, Rangasetty	Ramaiah Medical College	India	17	134	7.88	7
Bhat, Dhananjaya Ishwar	Aster RV Hospital	India	16	141	8.81	7
Mahadevan, Anita	National Institute of Mental Health and Neuro Sciences	India	15	140	9.33	7
Gupta, Anupam	National Institute of Mental Health and Neuro Sciences	India	15	171	11.40	7
Sandeep, Grover K.	Postgraduate Institute of Medical Education and Research	India	15	253	16.87	7
Sarkar, Siddharth	All India Institute of Medical Sciences New Delhi	India	14	141	10.07	7
Acharya, Purushottam Thammaya	Ramaiah Medical College	India	14	127	9.07	7
Khanna, Meeka	National Institute of Mental Health and Neuro Sciences	India	14	116	8.29	7
Raina, Sunil Kumar	Dr. Rajendra Prasad Government Medical College	India	14	129	9.21	6
Javali, Mahendra Vishwanath	Ramaiah Medical College	India	14	144	10.29	8

TP=Total Publication; TC=Total Citations; ACPP=Average Citation per paper; h=h-Index.

Table 6: Highly Cited Articles from the Journal of Neuroscience in Rural Practice.

Authors	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total	Citation per Year
Lakhan <i>et al.</i> , (2020)										1	28	59	87	64	42	281	46.83
Aydin <i>et al.</i> , (2011)	0	2	4	14	12	22	22	29	21	25	32	30	23	20	15	271	18.07
Whelan & Remski (2012)		2	1	4	4	8	6	9	12	11	25	20	28	21	9	160	11.43
Alvis-Miranda <i>et al.</i> , (2013)			2	2	11	9	4	14	9	12	18	21	10	12	1	125	9.62
Gupta & Dwivedi (2017)								5	9	23	25	21	9	11	2	105	11.67
Alvis-Miranda <i>et al.</i> , (2013)			1	0	3	4	7	7	8	15	21	10	8	14	3	101	7.77

interdisciplinary research between neurology, pharmacology, and public health.

Cluster 5: Neurosurgical and Structural Disorders (Light Blue Cluster) covers prominent keywords hydrocephalus, cranioplasty,

spinal cord injury, meningioma, decompressive craniectomy. It shows the research focus concentrated on neurosurgical interventions and complications. The linkage between keywords such as *MRI* and *outcome*, suggesting a clinical evaluation of surgical procedures (Table 7).

Table 7: Thematic analysis and future direction.

Thematic Area	Research Orientation	Future Research Direction	Key References Aligned to the theme
Neuroimaging & Trauma	Diagnostic and outcome studies	AI-based imaging and predictive analytics	(Shukla & Devi, 2010; Yue <i>et al.</i> , 2020)
Stroke & Cerebrovascular Diseases	Clinical prognosis and risk factor studies	Preventive neurology and tele-stroke networks	(Alvis-Miranda <i>et al.</i> , 2013; Tiwari <i>et al.</i> , 2021)
Mental Health	Depression, anxiety, and stress comorbidities	Integration of mental health in primary neurological care	(Lakhan <i>et al.</i> , 2020; Shah <i>et al.</i> , 2020)
Epilepsy	Pharmacological and pediatric focus	Digital adherence tools and genetic studies	(Shetty <i>et al.</i> , 2011; Zafar <i>et al.</i> , 2019)
Neurosurgery	Surgical management and complications	Minimally invasive and simulation-based surgery in rural setups	(Moiyadi & Shetty, 2011)

The thematic and research focus based on the published literature in the *Journal of Neurology in Rural Practice* demonstrates a multidimensional research focus that integrates clinical neurology (stroke, trauma, epilepsy); Mental health (depression, anxiety, stress), and Technological innovation (telemedicine, imaging). The theme emerged through the network analysis shows a balance between disease-oriented and service-delivery research. Furthermore, the new direction of research emerges and can be considered for future research includes AI based imaging and predictive analysis to minimally invasive and simulation techniques in surgery, which can demonstrate how neurology practice is evolving toward interdisciplinary, patient-centered, and technology-driven care models. The publication area missing in the journal includes artificial intelligence application in imaging, preventive neurology, minimally invasive and simulation-based research. It gives an indication of future scope for inclusion of such research work in upcoming issues of the journals.

CONCLUSION

The bibliometric analysis of the article published in the journal of neurology and rural practice shows a constant publication pattern with moderate citation impact. The concentration of contributions is more reflected within select Indian medical institutions. There is a mix of productive and high-impact authors, suggesting both breadth of participation and depth of influence. It also gives an indication that the journal is maturing into a specialized niche platform of neurological research. However, the journal also consider the emerging areas of research such as artificial intelligence to expand its horizon into multidimensional scope.

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ABBREVIATIONS

AI: Artificial Intelligence; **CSIR-NISTADS:** Council of Scientific and Industrial Research-National Institute of Science Technology and Development Studies; **ORCID:** Open Researcher and Contributor ID; **ISSN:** International Standard Serial Number; **VOSViewer:** Visualization of Similarities Viewer; **OpenRefine:** Open-source data cleaning software; **TP:** Total Publication; **NCA:** Number of Contributing Authors; **NCP:** Number of Cited Publications; **TC:** Total Citations; **ACPP:** Average Citation Per Paper; **C/CP:** Average Citation of Cited Publications; **h-index:** Hirsch index; **g-index:** Egghe's g-index; **m-index:** Modified h-index; **NIMHANS:** National Institute of Mental Health and Neurosciences; **AIIMS:** All India Institute of Medical Sciences; **PGIMER:** Postgraduate Institute of Medical Education and Research; **JIPMER:** Jawaharlal Institute of Postgraduate Medical Education and Research; **SGPGIMS:** Sanjay Gandhi Postgraduate Institute of Medical Sciences; **KGMU:** King George's Medical University; **KMC:** Kasturba Medical College; **RMC:** Ramaiah Medical College; **DMIMS -** Datta Meghe Institute of Higher Education & Research; **SCTIMST -** Sree Chitra Tirunal Institute for Medical Sciences and Technology; **SMS:** Sawai Man Singh Medical College; **DRPGMC:** Dr. Rajendra Prasad Government Medical College; **CMC:** Christian Medical College; **BHU:** Banaras Hindu University; **NIMS:** Nizam's Institute of Medical Sciences; **GBPIMS:** Govind Ballabh Pant Institute of Postgraduate Medical Education and Research; **RML:** Dr. Ram Manohar Lohia Hospital; **MOHFW:** Ministry of Health and Family Welfare; **DSMC:** Dr. Sampurnanand Medical College; **MRI:** Magnetic Resonance Imaging; **COVID-19:** Coronavirus Disease 2019; **ADHD:** Attention Deficit Hyperactivity disorder; **CNS:** Central Nervous System.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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