



CONTRIBUTION BY ASIAN COUNTRIES IN PSYCHIATRY AND MENTAL HEALTH RESEARCH- AN ANALYSIS

Neurosciences

Aswin K. P

Central Library, Institute of Mental Health and Neurosciences (IMHANS), Kozhikode

ABSTRACT

The growth of a country's research output indicates the nation's research interests and advancement in that specific field. This study presents an analysis of research publications in the field of psychiatry and mental health across the Asiatic region using SciMago journal and country rank. This is a bibliometric analysis, and the data for this study was taken from SciMago Journal and the country's rank. The collected data were analyzed using XLSTAT. The Anderson - Darling normalcy test and basic descriptive statistics were applied for this study.

KEYWORDS

Psychiatry and Mental Health, Asia, Bibliometric, SciMago Journal and Country Rank, Publications

1. INTRODUCTION

The Asian country is recognized for its wide diversity, including geography, languages, religions, and culture, and it is home to almost fifty percent of the world's population. Hence, this region's psychiatry and mental health research, education, and training are important. (Roche et al., 2021). Europe has an extensive heritage in psychiatry, encompassing a rich tradition of knowledge and practices, and European contributions to the field have been significant (Hermans, 2020). In contrast, psychiatry lacked popularity as a medical specialty in the Asiatic region during earlier times. However, the post-graduate education and training programs in psychiatry and mental health in the Asiatic region have laid the foundation for the mental health workforce's growth and advancement in low-income and high-income countries (Singh & Ng, 2008). In recent years, psychiatry and mental health research has been facing rapid growth in Asian countries, such as India, South Korea, China, Japan, etc., As evidenced by the increasing number of research publications in the field. This publication's growth indicates the interest and commitment to advancing psychiatry and mental health in the Asiatic region. Research publications are important to scientific research, particularly in medicine and psychiatry. These publications play an important role in advancing the understanding and helping to identify new research trends within psychiatry. The number of publications indicates scientific productivity, allowing for quantitative analysis of national or regional contributions to the field. (Zhang et al., 2017), this quantitative evaluation of published data is known as bibliometrics (Sevukan et al., 2007). The bibliometric analysis employs statistical methods to assess the publication patterns, identify publishing trends in a scientific field, and evaluate the resource impact of the journal, article, and researcher (McBurney & Novak, 2002)

This study aims to conduct a bibliometrics analysis of the research publications of Asian regions in psychiatry and mental health using SCImago Journal and Country Rank data. This study addresses the following research questions.

Research Questions

1. RQ1. What countries in the Asian region have the highest number of publications and citations in psychiatry?
2. RQ2. Do any variations exist in the metrics related to publications in psychiatry within the Asian region?
3. RQ3. Which psychiatry journal in the Asian region exhibits the highest percentage value of international collaboration?

2. MATERIALS AND METHODS

2.1 Database

The data for this study was taken from SCImago Journal and Country Rank, an open-access web portal that provides scientific indicators for journals and countries as of August 23, 2023. The following search terms were utilized to retrieve the information: subject area - Medicine, subject category - Psychiatry and Mental Health, and region - Asiatic-2022.

2.2 Indicators

1. Total Number of Publications and citations
2. H-Index, also known as the Hirsch index
3. SJR-Scientific Journal Rankings
4. Citation per Documents

2.3 Statistics

Anderson-Darling normality test and Basic descriptive statistics were used for this study. For the statistical analysis, the software XLSTAT was chosen.

3. RESULTS

3.1 Publications and citations

Table 1 outlines the Scimago Journal Rank for Psychiatry and Mental Health in Asian regions, ranking countries by document volume and citations. China tops the list with 27,067 documents (29.8%) and 420,304 citations (25.6%). Japan, India, South Korea, and Taiwan follow. Notably, North Asian countries, particularly China and Japan, have a higher research impact and citations. India stands as the sole South Asian representative in the top five. The table underscores the dominance of North Asian countries in psychiatry and mental health research, evident in both document production and citation counts.

Table 1. Countries with the Highest Number of Publications and citation

Rank	Country	Documents	%	Citations	%
1	China	27067	29.8%	420304	25.6%
2	Japan	18907	20.8%	402586	24.6%
3	India	12470	13.7%	162449	9.9%
4	South Korea	8837	9.7%	162415	9.9%
5	Taiwan	6489	7.1%	137979	8.4%
6	Hong Kong	5355	5.9%	147008	9.0%
7	Singapore	3075	3.4%	71049	4.3%
8	Malaysia	1616	1.8%	22121	1.3%
9	Thailand	1492	1.6%	31270	1.9%
10	Pakistan	1173	1.3%	20070	1.2%
11	Other Countries	4399	4.6%	62144	3.6%

3.2 Psychiatry and Mental Health Journals

In 2022, the Scimago Journal and Country Rank indexed 546 psychiatry and mental health journals, with 14 from the Asiatic region. Eight were open-access, and five were Web of Science indexed. The H-Index distributions of Asiatic journals were non-normally distributed ($p < 0.002$). Notably, South Korea's Psychiatric Investigation led with an H-Index of 48, followed closely by India's Indian Journal of Psychiatry at 46. The Anderson-Darling normality test indicated non-normal SJR distributions for the Asiatic region ($p < 0.007$). The World Journal of Men's Health topped SJR values at 0.920, followed by Indian Journal of Psychiatry at 0.771, with other journals below 0.500.

3.3 Country-wise Analysis Self-citations

Based on the Anderson-Darling normality test, it can be inferred that the self-citation distributions across countries in the Asiatic Region follow a normal distribution ($p < 0.360$) (Table 2). Similarly, South Korea leads the rankings with 102 self-citations, followed by India with 93, and China in the third position with 36 self-citations. Singapore has the lowest number of self-citations, with only 8.

Table 2. Country-wise Comparison Self-citations

Country		South Korea	India	China	Singapore
Self-Citation		102	93	36	8
P-value	0.360				

Mean	59.750				
Std. deviation	45.213				

3.4 Journal-wise Analysis of Percentage of International Collaboration

This section presents the percentage of international collaboration in Psychiatry and Mental Health journals in the Asiatic region over ten years (2012-2022). The findings include the World Journal of Men's Health, which achieved the highest level of international collaboration, 38.64% in 2021. In 2020, Sleep and Vigilance secured the second-highest percentage, with 35.48% among these journals. Indian Journal of Psychiatry achieved its highest percentage in 2020 (14.60%). Clinical Psychopharmacology and Neuroscience achieved 26.19% international collaboration in 2021, while Psychiatry Investigation recorded 24.00% in 2014. The Journal of the Korean Academy of Child and Adolescent Psychiatry achieved a 4.00% collaboration rate in 2021, and the East Asian Archives of Psychiatry reached 29.63% in 2014. Sleep Medicine Research gained 28.57% international collaboration in 2021. According to the Journal of the Indian Association for Child and Adolescent Mental Health, 2017 exhibited the highest percentage of international collaboration, amounting to 13.33%. Archives of Mental Health showcased a collaboration rate of 12.90% in 2021. In 2022, the Journal of the Korean Academy of Psychiatric and Mental Health Nursing secured 2.17% international collaboration, while the Journal of Neurocritical Care, Chinese Journal of Psychiatry, and Chinese Journal of Neuromedicine showed high levels of collaboration in 2021 and 2022.

4. DISCUSSIONS AND CONCLUSION

4.1 Publication and Citation

Based on data from SCImago, China has the highest number of research publications and citations. China stands out as the top country contributing to psychiatry and mental health research publications and citations in the Asian region, and it has held third place globally since 2020. This result is not entirely surprising, as similar findings were also observed in the bibliometric analysis of research publications on schizophrenia and inflammation (Sun et al., 2022). The researcher found that China has a higher number of publications on Mental health-related subjects like schizophrenia and inflammation. It could be concluded that being the second-most populous nation in the world, China understands the importance of psychiatry and mental health research, education, and training. The study showed a significant increase in psychiatric publications, particularly in China and other Asian countries.

4.2 Psychiatry and Mental Health Journals

According to the Scimago data, South Korea has more research journals in Psychiatry and Mental Health in the Asiatic region. Seven journals affiliated with South Korea are included in the SCImago Journal and Country Rank.

4.3 Analysis of Metrics

The Asiatic region's journal-wise analysis of the H-index reveals that psychiatric investigations exhibit the highest H-index value of 48. Regarding the SJR analysis, the "World Journal of Men's Health" (WJM) from South Korea attains the highest SJR value of 0.920. Moving on to the country-wise analysis of citations, South Korea stands out as the most productive country in the Asiatic region, with 3057 citations from its seven journals, particularly notable for its contributions to psychiatric publications. Regarding self-citation, South Korea ranks first with 103 self-citations, followed by India with 93, China with 36, and Singapore with 8. When considering international collaborations, the period from 2019 to 2022 shows the highest level of engagement in the Asiatic region. Notably, almost all fourteen journals engaged in international collaborations between 2021 and 2022.

In conclusion, the scientific literature in psychiatry and mental health from the Asiatic region has experienced rapid growth. Asiatic countries such as China, Japan, India, South Korea, and others are producing a high volume of research publications in psychiatry and mental health.

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