

# Evolution of Mental Health Nursing Research in Indonesia Over Two Decades: A Comprehensive Bibliometric Analysis

Fandro Armando Tasijawa<sup>1,2\*</sup>, Ah Yusuf<sup>1</sup>, Joan Herly Herwawan<sup>2</sup>

<sup>1</sup>Faculty of Nursing, Universitas Airlangga, Surabaya, East Java 60115, Indonesia

<sup>2</sup>Faculty of Health Science, Universitas Kristen Indonesia Maluku, Kota Ambon, Maluku 97115, Indonesia

\*Corresponding Author's Email: fandro.armando.tasijawa-2025@fkp.unair.ac.id

## ABSTRACT

**Background:** Mental health nursing research in Indonesia has shown substantial growth, yet it continues to encounter challenges related to research infrastructure, limited resources, regional disparities, and funding constraints. **Objectives:** To capture the trajectory of this development, a bibliometric analysis was undertaken using data from the Web of Science Core Collection spanning 2006–2025. **Methods:** A total of 310 publications were examined through the WoS Analysis Tool, VOSviewer, MapChart, and Microsoft Excel. The analysis covered publication and citation trends, disciplinary focus, journal distribution, institutional contributions, authorship patterns, international collaborations, and keyword co-occurrence. **Results:** Results indicated a marked increase in output beginning in 2018, peaking at 54 publications in 2024. The dataset received a total of 2,167 citations, with an average of 6.99 citations per article, reflecting a growing international scholarly presence. The primary research domains included nursing (34.51%), psychiatry (20.95%), and public health (18.38%). The leading institutions were Universitas Indonesia, Universitas Airlangga, and Universitas Gadjah Mada. International collaboration extended across 60 countries, with Australia, the United Kingdom, and the United States as the most frequent partners. **Conclusion:** The findings underscore an evolving research landscape in Indonesia, highlighting the importance of strengthening research capacity, diversifying methodological approaches, and fostering global partnerships to advance evidence-based practice and inform mental health nursing policy.

**Keywords:** Bibliometric; Indonesia; Mental Health; Nursing; Research

## INTRODUCTION

Nursing research in mental health in Indonesia is an emerging field, with various studies highlighting the geographical and cultural challenges that affect the equitable distribution of services and research productivity across regions (Mun *et al.*, 2025; Tasijawa & Yusuf, 2025). These conditions have prompted efforts to strengthen educational capacity and clinical practice; however, the development of this research area has not yet been systematically mapped using a bibliometric approach (Cristea *et al.*, 2025; Saljan *et al.*, 2025). In practice, mental health nurses operate across multiple levels of care – from health promotion to acute psychiatric treatment – making robust scientific literature essential. Bibliometrics is an important method for evaluating research dynamics, identifying thematic trends, and assessing academic contributions within a discipline (Xie & Kang, 2025; Yosep *et al.*, 2025).

Globally, bibliometric analysis has been widely applied to map disciplinary developments in nursing and to highlight research opportunities and gaps (De Gagne *et al.*, 2025; Monaco *et al.*, 2025). Therefore, such mapping is highly relevant for understanding Indonesia's position within the international research landscape. Previous mental health nursing research in Indonesia has focused on issues such as schizophrenia care, stigma, family support, recovery, and digital interventions (Amin *et al.*, 2025; Astuti *et al.*, 2020).

However, publication output remains fragmented and uneven across institutions and regions (Marriott *et*

*Received: September 20, 2025 Received in revised form: November 30, 2025 Accepted: December 3, 2025*

al., 2023; Munira *et al.*, 2023). Compared with Western countries that possess more established research infrastructures, Indonesia is still in a developmental phase and faces challenges related to resources and research capacity (Warrender *et al.*, 2024; Santangelo *et al.*, 2018). Moreover, Indonesia's thematic emphasis on stigma, family involvement, and community-based services reflects a research profile that differs from Western nations, which more often prioritize digital innovation and recovery-oriented practices (Comparcini *et al.*, 2025; Horton *et al.*, 2025).

In this context, a bibliometric analysis can provide a comprehensive overview of productivity, collaboration networks, and thematic orientations within Indonesian mental health nursing research. The findings are expected to strengthen national research capacity, foster international collaboration, and support the development of mental health nursing practices that are more responsive to community needs.

## **Research Gap**

Mental health nursing research in Indonesia has demonstrated notable progress but still faces several gaps, including the absence of a comprehensive bibliometric mapping to evaluate productivity, regional disparities, collaboration patterns, contributions to global trends, and thematic evolution. Fragmented topics and limited international visibility make it difficult to assess the trajectory of research development and its alignment with practice needs. Therefore, bibliometric analysis is crucial for providing a holistic understanding of the position, patterns, and potential of mental health nursing research in Indonesia.

## **METHODOLOGY**

### **Data Source**

The bibliographic data for this study were obtained from the Web of Science Core Collection (WoSCC). WoS indexes over 34,000 journals and contains more than 271 million metadata records, encompassing 254 disciplines across the sciences, social sciences, and the arts and humanities. Given its extensive citation coverage, WoS is particularly well-suited for bibliometric studies, including co-citation analyses.

### **Search Strategy and Data Retrieval**

An advanced search was performed in the Web of Science (WoS) on September 7, 2025, using the query TS = (Mental health) AND TS = (Nurs) AND TS = (Indonesia). The initial search identified 1,034 records. To enhance accuracy, two researchers independently conducted the search, two others verified the dataset, and an additional reviewer validated the final results. All researchers involved in searching, screening, reviewing, and data extraction worked independently.

This study targeted research articles published between 2006 and 2025. Only documents classified as “articles” were included, while other publication types – such as review articles, proceedings papers, letters, editorials, abstracts, early access items, book chapters, and book reviews – were excluded. The review was further restricted to English-language publications indexed in the Science Citation Index (SCI), Social Sciences Citation Index (SSCI), and Social Sciences Citation Index-Expanded (SSCI-E). Each record was manually screened to confirm relevance, and non-eligible studies were removed. Additional details are presented in Table 1.

In total, 310 articles satisfied the inclusion criteria and were retained for final analysis (Figure 1). The bibliographic data were exported in the “full records with cited references” format for subsequent analysis using VOSviewer.

### **Data Analysis and Visualization**

The dataset was analyzed and visualized using multiple bibliometric applications, including the Web of Science (WoS) Analysis Tool, VOSviewer (version 1.6.20), and Microsoft Excel 2021. Additionally, MapChart was applied to display the geographic distribution of publications on a global scale.

### **Web of Science Analysis**

A descriptive evaluation was carried out to highlight major trends related to leading authors, countries, institutions, journals, and annual publication output. The WoS Analysis Tool was utilized to generate graphical

representations of these findings.

### VOSviewer

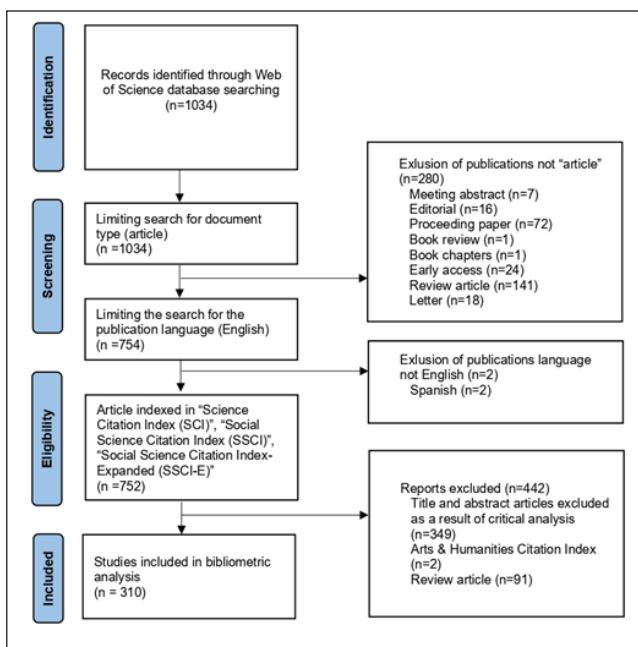
VOSviewer facilitated the construction of bibliometric maps derived from network data. This tool was employed to visualize international collaboration networks, co-authorship relationships, and keyword co-occurrence patterns within the body of literature on mental health nursing research in Indonesia. The visual outputs used distinct colors to denote clusters, connecting lines to show relational strength (with corresponding numerical values), and circle sizes to indicate the magnitude of link strength.

### Map Chart

Geographical maps were created using MapChart.net to depict the distribution of published articles by country (MapChart, 2025). Each country was color-coded according to its publication volume, allowing for clear identification of relative contributions across nations. This visualization provided a simple yet informative representation of the global distribution of publications on mental health nursing research in Indonesia.

### Microsoft Excel

In addition to the WoS Analysis Tool, VOS viewer, and MapChart, Microsoft Excel 2021 was employed for basic descriptive analyses. Bibliographic data exported from WoS were processed in Excel to generate tabulated datasets, which were subsequently visualized as bar charts and line graphs. These visualizations offered a straightforward depiction of publication dynamics before being further mapped through VOS viewers.



**Figure 1: PRISMA Diagram Illustrating the Process of Study Identification and Selection**

**Table 1: Inclusion and Exclusion Criteria**

Criteria	Inclusion	Exclusion
Study type	Peer-reviewed original research articles	Review articles, conference proceedings, letters, editorials, abstracts, book reviews, book chapters
Publication period	2006-2025	Publication outside this period
Database	Indexed in Web of Science Core Collection (WoSCC)	Not indexed in WoSCC
Language	English-language publications	Non-English publications
Discipline coverage	Articles classified in SCI, SSCI, SSCI-E relevant to nursing, psychiatry, and mental health	Articles irrelevant to nursing or mental health domains
Relevance	Directly related to mental health nursing research in Indonesia	Studies outside the scope (general medical research without nursing focus, or mental health studies unrelated to Indonesia)

## RESULTS

### Annual Distribution of Publications

**Table 2: Publication Metrics**

Year	Total Number of Articles	Total Number of Citations	Percentage (%)
2006	1	0	0.32
2007	0	0	0.00
2008	0	0	0.00
2009	2	2	0.65
2010	0	1	0.00
2011	2	5	0.65
2012	1	3	0.32
2013	0	10	0.00
2014	3	9	0.97
2015	8	15	2.58
2016	4	26	1.29
2017	3	17	0.97
2018	14	22	4.52
2019	25	36	8.06
2020	17	94	5.48
2021	43	188	13.87
2022	42	331	13.55
2023	45	385	14.52
2024	52	555	16.77
2025	48	468	15.48

Trends in mental health nursing research publications in Indonesia from 2006 to 2025 show several important shifts that are closely linked to national and global events influencing mental health discourse and research priorities (Table 2). During the period 2006–2014, publication output remained low and inconsistent, with an average of only one to two articles per year. This pattern reflects the limited national investment in mental health research infrastructure at the time, as well as the absence of strong mental health policy initiatives in Indonesia.

A gradual increase began to emerge in 2015, with a more notable rise observed in 2018. This development was driven by two key factors. First, the expansion of postgraduate nursing programs across major universities in Indonesia, which strengthened academic capacity and increased research output in the field of mental health nursing. Second, the growth of international collaborations, particularly with institutions in Australia, the United Kingdom, and the United States.

The most significant surge occurred between 2020 and 2024, coinciding with the COVID-19 pandemic – a global event that heightened attention to mental health issues across health systems worldwide. During this period, there was an urgent need for research on psychological distress, coping mechanisms, resilience, challenges in mental health services, and the impact of the pandemic on healthcare workers, including nurses. The rise in Indonesian publications during this time aligns with the global increase in mental health and nursing research output observed throughout the pandemic.

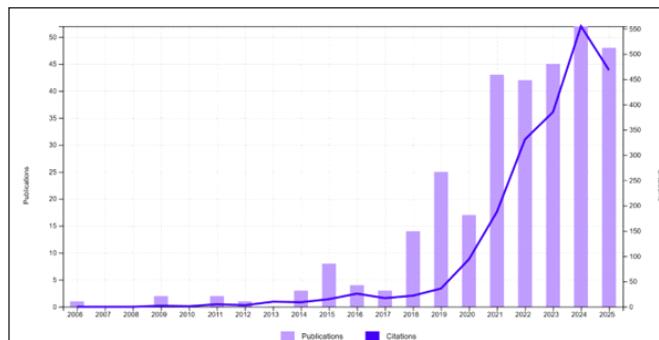
### Citation Trends

In terms of citation count, mental health nursing research in Indonesia demonstrates an increasingly significant scientific impact. A total of 2,167 citations were recorded between 2006 and 2025, with an average of 6.99 citations per article. Prior to 2018, citation numbers were relatively low due to limited international visibility and a research scope still dominated by local contexts. However, the sharp increase in citations after 2020 can be attributed to two main factors.

First, there was a heightened global scientific focus on mental health during the COVID-19 pandemic. Studies from Indonesia published during this period received greater scholarly attention, aligning with the increased global demand for evidence related to mental health. Second, the strengthening of international

collaborations – particularly with researchers from Australia, the United Kingdom, and the United States – enhanced cross-citation patterns and increased the global visibility of Indonesian research. Publications resulting from international collaboration are known to have higher citation impacts, a trend clearly reflected in the list of the ten most-cited articles (Table 3).

This indicates that mental health nursing research in Indonesia is not only growing in quantity but is also gaining broader recognition for its contributions to the global body of literature (Figure 2).



**Figure 2: Publications and Citation Trends in Mental Health Nursing Research in Indonesia**

**Table 3: Top 10 Cited Studies**

Rank	Title	Authors and Year	Source	Average Citation per year	Total Citation
1	Types of stigmas experienced by patients with mental illness and mental health nurses in Indonesia: a qualitative content analysis	Subu <i>et al.</i> (2021)	International Journal of Mental Health Systems	18.2	91
2	The effect of mindfulness-based training on stress, anxiety, depression and job satisfaction among ward nurses: A randomized control trial	Ghawadra <i>et al.</i> (2020)	Journal of Nursing Management	11.83	71
3	COVID-19: Factors associated with psychological distress, fear, and coping strategies among community members across 17 countries	Rahman <i>et al.</i> (2021)	Globalization and Health	10.6	53
4	Family caregivers' involvement in caring for a hospitalized patient with cancer and their quality of life in a country with strong family bonds	Effendy <i>et al.</i> (2015)	Psycho-Oncology	4.55	50
5	Perceived barriers on mental health services by the family of patients with mental illness	Tristiana <i>et al.</i> (2018)	International Journal of Nursing Sciences	5.75	46
6	The prevalence of long-term post-traumatic stress symptoms among adolescents after the tsunami in Aceh	Agustini <i>et al.</i> (2011)	Journal of Psychiatric and Mental Health Nursing	3.07	46
7	Work from home: Indonesian employees' mental well-being and productivity during the COVID-19 pandemic	Sutarto <i>et al.</i> (2021)	International Journal of Workplace Health Management	7.6	38
8	Traditional, religious, and cultural perspectives on mental illness: a qualitative study on causal beliefs and treatment use	Subu <i>et al.</i> (2022)	International Journal of Qualitative Studies on Health and Well-being	9	36
9	Mediating effect of resilience on association among stress, depression, and anxiety in Indonesian nursing students	Devi <i>et al.</i> (2021)	Journal of Professional Nursing	7.2	36
10	Quality of life, depression, and anxiety of patients undergoing hemodialysis: Significant role of acceptance of the illness	Marthoenis <i>et al.</i> (2021)	The International Journal of Psychiatry in Medicine	6	36

Table 3 presents the ten most cited mental health nursing studies in Indonesia between 2006 and 2025. The article with the highest citation count is by Subu *et al.* (2021), entitled “Types of stigmas experienced by patients with mental illness and mental health nurses in Indonesia: A qualitative content analysis”, published in the International Journal of Mental Health Systems. The study has accumulated 91 citations, averaging 18.2 citations annually, which underscores the prominence of stigma among patients and mental health nurses as a research topic that has attracted substantial international interest.

### Research Area

**Table 4: Top 10 Research Areas in Mental Health Nursing Research in Indonesia**

Research Area	Number of Publications	Percentage (%)
Nursing	107	32.72
Psychiatry	65	19.88
Public Environmental Occupational Health	57	17.43
Health Care Sciences Services	32	9.79
Medicine General Internal	21	6.42
Multidisciplinary Sciences	14	4.28
Pediatrics	14	4.28
Health Policy Services	6	1.83
Psychology Clinical	6	1.83
Environmental Sciences	5	1.53

According to the research areas categorized in WoS, more than one-third of the publications were classified under Nursing, which accounted for 107 articles (32.72%), followed by Psychiatry (19.88%) and Public, Environmental, and Occupational Health (17.43%) (Table 4). These findings suggest that mental health nursing research in Indonesia is largely situated within nursing practice, clinical psychiatry, and the broader domains of public and occupational health. At the same time, the evidence points to a gradual shift toward a multidisciplinary perspective, with growing contributions from fields such as health sciences, policy studies, and environmental research.

### Most Prolific Journals

**Table 5: Top 10 Journals in Mental Health Nursing in Indonesia**

Journal	Number of Publications	Citations	Percentage (%)	Journal Impact Factor <sup>a</sup>
Belitung Nursing Journal	26	92	26.53	1.4
Journal of Public Health Research	12	40	12.24	1.8
Enfermeria Clinica	11	44	11.22	1.1
Journal of Liaquat University of Medical and Health Sciences	10	1	10.20	0.2
Healthcare in Low-Resource Settings	10	7	10.20	0.2 <sup>b</sup>
PLOS One	7	46	7.14	2.6
Child and adolescent psychiatry and Mental Health	7	29	7.14	4.6
International Journal of Nursing Sciences	5	107	5.10	3.1
International Journal of Environmental Research and Public Health	5	53	5.10	4.614
BMC Nursing	5	36	5.10	3.9

<sup>a</sup>based on 2024 Journal Citation Reports-Clarivate Analytics

<sup>b</sup>based on 2023 Journal Citation Reports-Clarivate Analytics

As shown in Table 5, WoS recorded a total of 152 journals that published at least one article on mental health nursing in Indonesia. Table 5 lists the ten journals with the highest publication counts in this area. The Belitung Nursing Journal, published by the Belitung Raya Foundation, ranked first with 26 publications (26.53%), making it the most prolific journal to date in disseminating research on mental health nursing in Indonesia.

## Most Prolific Organizations

**Table 6: 10 Leading Organizations Contributing to Mental Health Nursing Research in Indonesia**

Organizations	Number	Citations	Percentage (%)
University of Indonesia	64	421	20.64
Gadjah Mada University	57	251	18.38
Airlangga University	48	443	15.48
Padjadjaran University	32	236	10.32
University of Syiah Kuala	32	98	10.32
University of Manchester	20	149	6.45
Andalas University	14	33	4.51
Brawijaya University	13	31	4.19
Taipei Medical University	13	113	4.19
University of Muhammadiyah Malang	12	25	3.87

Table 6 lists the top 10 organizations with the highest research output on mental health nursing in Indonesia. Among them, eight are located in Indonesia, while one institution is based in the United Kingdom and another in Taiwan.

## Most Prolific Authors

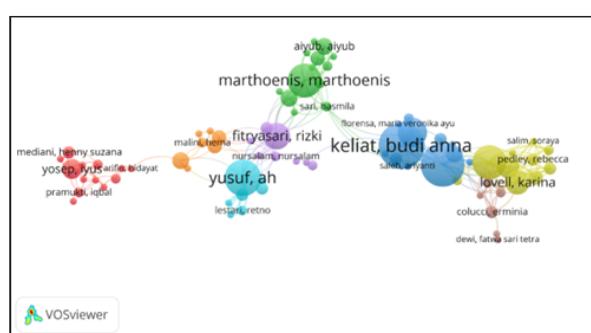
**Table 7: 10 Leading Authors in Mental Health Nursing Research in Indonesia**

Authors	Country of Affiliation	Affiliated Institution	Total Number of Published Articles	Total Number of Citations	Percentage (%)
Budi Anna Keliat	Indonesia	University of Indonesia	25	119	17.48
Herni Susanti	Indonesia	University of Indonesia	18	70	12.59
Marthoenis	Indonesia	University of Syiah Kuala	17	106	11.89
Ah Yusuf	Indonesia	Airlangga University	16	158	11.19
Helen Brooks	England	University of Manchester	14	118	9.79
Rizky Fitryasari	Indonesia	Airlangga University	12	111	8.39
Ice Yulia Wardani	Indonesia	University of Indonesia	12	64	8.39
Karina Lovell	England	University of Manchester	11	108	7.69
Penny Bee	England	University of Manchester	9	66	6.29
Achir Yani S. Hamid	Indonesia	University of Indonesia	9	24	6.29

Table 7 lists the authors with the highest publication output on mental health nursing in Indonesia as indexed in WoS. Among these scholars, Ah Yusuf emerges as the most frequently cited, with 158 citations across 15 publications.

## Collaborations among Authors

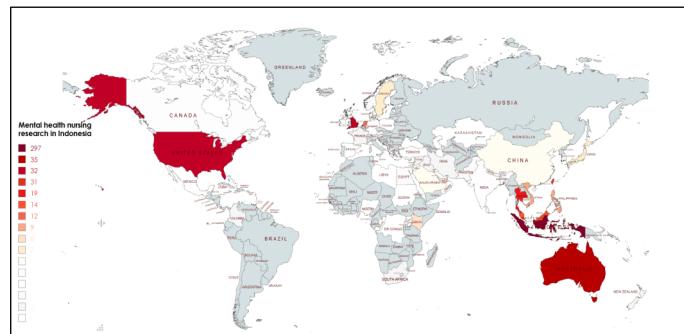
Figure 3 depicts the co-authorship network involving 100 authors, selected from a total of 1,121 based on their collaboration links. Using VOSviewer, eight distinct clusters of authors were identified. The three researchers with the strongest collaborative ties were Helen Brooks (total link strength = 74), Karina Lovell (total link strength = 60), and Mengmeng Li (total link strength = 51).



**Figure 3: Co-authorship Network of the Top 100 Authors Based on Collaboration Strength**

## Most Prolific Countries

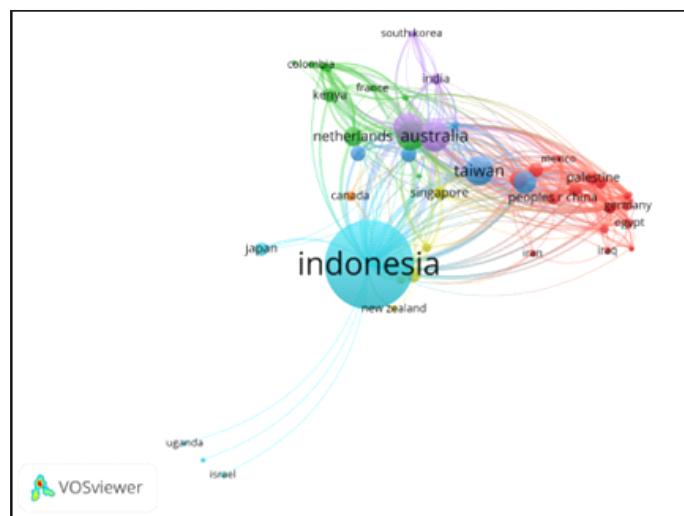
Among the 60 countries identified as contributing to this study, Indonesia accounted for the largest share of research output (95.80%) overall (Figure 4). Notably, several countries from Europe and the Americas have also shown growing interest in mental health nursing research in Indonesia, including Australia (11.29%), England (10.32%), and the United States (10.32%).



**Figure 4: Scientific Production by Country**

## Collaboration between Countries

International research collaborations were mapped using VOSviewer based on co-authorship data (Figure 5). Indonesia exhibited the highest number of connections with other countries (total link strength = 301), followed by Australia (161) and the United States (151). The co-authorship network across countries revealed four distinct clusters. The largest cluster included Indonesia, Australia, England, Taiwan, and the United States. The strongest bilateral collaborations were observed between Indonesia–Australia (link strength = 33), Indonesia–England (30), Indonesia–Taiwan (30), and Indonesia–United States (29).



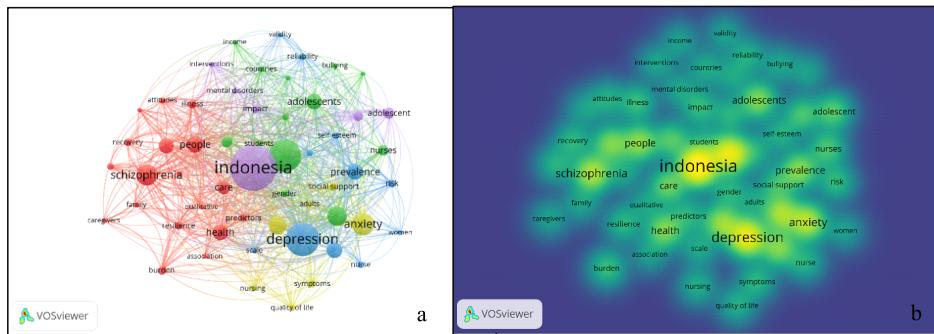
**Figure 5: Collaboration Networks among Countries Contributing to Research on Mental Health Nursing in Indonesia**

## Keywords

Co-occurring keywords in studies on mental health nursing in Indonesia were mapped using VOSviewer (Figure 6). Five distinct keyword clusters were identified. The first cluster (red) included terms such as schizophrenia, barriers, mental illness, people, recovery, resilience, and stigma. The second cluster (green) comprised mental health, nurses, adolescents, bullying, gender, students, and COVID-19. The third cluster (blue) encompassed depression, nurse, prevalence, quality of life, self-esteem, and stress. The fourth cluster

included anxiety, nursing, social support, and symptoms. The fifth cluster consisted of Indonesia, mental disorder, and children.

The ten most frequently co-occurring keywords were Indonesia (link strength = 274), depression (228), mental health (167), anxiety (151), people (128), prevalence (127), schizophrenia (114), mental-health (108), stress (107), stigma (95), and COVID-19 (92).



*Figure 6: Keyword Co-occurrence Clusters in Mental Health Nursing Research in Indonesia*

Five clusters are represented in different colors: (a) network visualization and (b) density visualization.

## DISCUSSION

The findings of this bibliometric study indicate that the field of mental health nursing in Indonesia has experienced steady yet uneven development. This trajectory has been shaped by broader structural dynamics, policy reforms, and global health developments. The increase in publication output over the past two decades reflects not only rising academic productivity but also the maturation of a research community responding to evolving national priorities and external pressures. This upward trend is closely linked to the national momentum following the implementation of the Mental Health Act No. 18 of 2014, which enhanced the visibility of mental health issues, strengthened the regulatory framework, and encouraged academic institutions to develop research agendas related to mental health (Bikker *et al.*, 2021). These policy shifts created a more supportive environment for the advancement of mental health nursing research across various academic centers (Eweida *et al.*, 2025). Moreover, the sharp rise in publications during the COVID-19 period illustrates how a crisis can accelerate scholarly engagement, particularly in fields where evidence gaps have long existed.

One of the key findings from the thematic mapping is the persistent concentration of Indonesian research on the psychosocial dimensions of mental health, particularly patient experiences, nurse well-being, family involvement, and community dynamics. This pattern reinforces enduring systemic and cultural realities. Indonesia's mental health system relies heavily on the role of families and community health workers, with limited access to formal psychiatric services in many regions (Tasijawa & Yusuf, 2025; Yosep *et al.*, 2021). The prominence of topics such as interpersonal stigma, emotional distress, and coping mechanisms reflects the practical issues nurses encounter daily in both clinical and community settings. This research focus demonstrates how mental health nursing scholars respond to service gaps and the need for contextually appropriate, culturally relevant care approaches. However, this emphasis contrasts with international trends that focus more on digital mental health innovations, advanced nursing roles, and policy-driven models of care (Dornan, 2025; Wu *et al.*, 2023). The absence of these themes in Indonesian publications highlights a developmental gap that represents both a challenge and an opportunity. Mental health nursing research in Indonesia remains closely tied to foundational psychosocial issues; however, to align with global innovations, it is necessary to expand research toward system-level interventions, technology-based services, and nurse-led policy initiatives. Such diversification would not only harmonize Indonesia with international advancements but also support the modernization of national mental health services in line with ongoing health system reforms.

The institutional dynamics observed in this analysis provide additional important insights. The concentration of research output within a small number of universities reflects disparities in research

infrastructure, funding availability, and mentorship capacity across regions. While these leading institutions function as centers of scientific productivity, this geographic imbalance raises concerns about the representativeness and inclusivity of knowledge production. Strengthening research ecosystems in institutions across central and eastern Indonesia, along with expanding mentorship networks, will be essential for developing a more equitable body of knowledge that reflects national realities. Similarly, international collaboration patterns remain dominated by major Indonesian universities. Partnerships with foreign institutions have contributed to the recent rise in citations, highlighting the importance of expanding global collaborations and strengthening Indonesia's academic presence in international mental health research networks (Eweida *et al.*, 2025).

Overall, the findings of this bibliometric analysis reveal that the field of mental health nursing in Indonesia is undergoing a transitional phase. This phase is marked by increasing visibility, expanding collaboration, and growing recognition of the essential role of mental health nursing within the Indonesian health system. Nevertheless, significant challenges remain. Reducing regional disparities, supporting early-career researchers, enhancing methodological rigor, and aligning national research priorities with global innovations are critical next steps. By addressing these challenges, mental health nursing research in Indonesia can continue to progress, generating greater domestic impact in shaping the future of mental health care and contributing more substantially to global scientific knowledge through culturally grounded and internationally recognized research.

## Limitations

This study relied solely on the Web of Science Core Collection, which may have excluded relevant publications indexed in Scopus, PubMed, or Indonesian national journals (SINTA). Dependence on a single database may limit the representativeness of the findings, as publications available in other databases were not captured. Therefore, the generalizability of these results should be interpreted with caution, since the dataset may not fully reflect the breadth of mental health nursing research in Indonesia or its global visibility. Only English-language publications were considered, which may underrepresent important locally relevant studies published in Bahasa Indonesia. Third, the deliberate exclusion of review articles, conference proceedings, and grey literature, while intended to ensure methodological consistency, may have omitted influential sources beyond traditional journal articles. Finally, bibliometric analysis primarily captures quantitative patterns of knowledge production and collaboration, without directly assessing the quality of the research or its clinical impact.

## CONCLUSION

The findings of this study reveal several important implications for advancing mental health nursing in Indonesia. In the area of education, there is an urgent need to incorporate recovery-oriented perspectives, strengthen digital literacy, and build telepsychiatry competencies to align with global developments. Equitable research capacity-building is also essential, particularly for the underrepresented eastern regions. In clinical practice, the strong concentration of research on depression, anxiety, stigma, and resilience highlights the need for contextually adaptable guidelines and interventions. Mental health nurses should be empowered to take leadership roles in community-based initiatives and apply task-shifting strategies, especially in resource-constrained settings. At the same time, supporting nurses' psychological well-being through organizational initiatives – such as mindfulness programs, peer support, and resilience training – remains critical for sustaining workforce performance. At the policy level, strengthening research infrastructure and ensuring fair resource distribution are key to reducing regional disparities and enhancing Indonesia's global contribution to mental health nursing. A national framework is needed to connect research evidence with practice guidelines and community-based care models. Policies should also encourage international collaboration, integrate digital innovation, address stigma reduction, and foster a more responsive and sustainable mental health system.

Over the past two decades, mental health nursing research in Indonesia has grown significantly, especially during the COVID-19 pandemic, with a predominant focus on psychosocial issues. Despite this progress, challenges such as regional inequality in research capacity, limited study designs, and a narrow thematic range persist. Future research should expand its data sources, employ thematic modeling and trend analysis, and

explore emerging areas such as digital psychiatry, integrative care, and nurse-led policy initiatives. Combining bibliometric analysis with systematic reviews or meta-analyses may further strengthen understanding of how evidence informs practice and policy.

### Conflict of Interest

The authors declare that they have no conflicts of interest related to the publication of this study.

### ACKNOWLEDGEMENT

The authors are thankful to the Indonesia Endowment Fund for Education (Lembaga Pengelola Dana Pendidikan – LPDP) for providing financial support for this research.

### REFERENCES

Agustini, E. N., Asniar, I., & Matsuo, H. (2011). The prevalence of long-term post-traumatic stress symptoms among adolescents after the tsunami in Aceh. *Journal of Psychiatric and Mental Health Nursing*, 18(6), 543–549. <https://doi.org/10.1111/j.1365-2850.2011.01702.x>

Amin, S. M., Mohamed, M. A. E., Metwally El-Sayed, M., & El-Ashry, A. M. (2025). Nursing in the digital age: The role of nursing in addressing cyberbullying and adolescents' mental health. *Journal of Psychiatric and Mental Health Nursing*, 32(1), 57–70. <https://doi.org/10.1111/jpm.13085>

Astuti, H. W. Y., Agustin, M., Sari, S. P., Wijayanti, D. Y., Sarjana, W., & Locsin, R. C. (2020). Effects of mindfulness on stimulating hope and recovery among people with schizophrenia. *Nurse Media Journal of Nursing*, 10(2), 119–129. <https://doi.org/10.14710/nmjn.v10i2.28775>

Bikker, A. P., Lesmana, C. B. J., & Tiliopoulos, N. (2021). The Indonesian mental health act: Psychiatrists' views on the act and its implementation. *Health Policy and Planning*, 36(2), 196–204. <https://doi.org/10.1093/heapol/czaa139>

Comparcini, D., Simonetti, V., Tomietto, M., Pastore, F., Totaro, M., Ballerini, P., Trerotoli, P., Mikkonen, K., & Cicolini, G. (2025). The relationship between nurses' digital health literacy and their educational levels, professional roles, and digital attitudes: A cluster analysis based on a cross-sectional study. *Journal of Clinical Nursing*, 34(7), 2885–2897. <https://doi.org/10.1111/jocn.17484>

Cristea, F., Aryani, P., Duchow, S., Semedi, P., & Stodulka, T. (2025). Research on severe mental illness in Indonesia: A scoping review. *Transcultural Psychiatry*. <https://doi.org/10.1177/13634615251342638>

De Gagne, J. C., Randall, P. S., Koppel, P. D., Cho, E., Blackwood, E. R., & Kang, H. S. (2025). Online learning in nursing education: A 21<sup>st</sup> century bibliometric analysis. *Nurse Education Today*, 151, 106740. <https://doi.org/10.1016/j.nedt.2025.106740>

Devi, H. M., Purborini, N., & Chang, H.-J. (2021). Mediating effect of resilience on association among stress, depression, and anxiety in Indonesian nursing students. *Journal of Professional Nursing*, 37(4), 706–713. <https://doi.org/10.1016/j.profnurs.2021.04.004>

Dornan, M. (2025). Every nurse an AI nurse: A framework for integrating artificial intelligence across nursing practice, education, research and policy. *Digital Health*, 11. <https://doi.org/10.1177/20552076251377939>

Effendy, C., Vernooij-Dassen, M., Setiyarini, S., Kristanti, M. S., Tejawinata, S., Vissers, K., & Engels, Y. (2015). Family caregivers' involvement in caring for a hospitalized patient with cancer and their quality of life in a country with strong family bonds. *Psycho-Oncology*, 24(5), 585–591. <https://doi.org/10.1002/pon.3701>

Eweida, R. S., Mohamed Hamad, N. I., Abdelrahman, M. M., Shalhoub, A. A. Bin, Elsmalosy, M. F. A., Othman, A. A., & Atta, M. H. R. (2025). Leaving no one behind: Gender inequality, economic inequality, and organizational

entrenchment of nurses in remote areas of Egypt. *International Nursing Review*, 72(1). <https://doi.org/10.1111/inr.13090>

Ghawadra, S. F., Lim Abdullah, K., Choo, W. Y., Danaee, M., & Phang, C. K. (2020). The effect of mindfulness-based training on stress, anxiety, depression and job satisfaction among ward nurses: A randomized control trial. *Journal of Nursing Management*, 28(5), 1088–1097. <https://doi.org/10.1111/jonm.13049>

Horton, M., Dixon, J., Turi, E., Balusu, C., Paikoff, R., Maier, C. B., & Poghosyan, L. (2025). Advanced practice nurses in primary care and their impact on health service utilisation, costs and access globally: A scoping review. *Journal of Clinical Nursing*, 34(5), 1592–1601. <https://doi.org/10.1111/jocn.17614>

Marriott, S. C., Grov, E. K., & Gonzalez, M. T. (2023). Nurse educators' pedagogical approaches addressing student nurses' mental health care competence: A qualitative study. *Issues in Mental Health Nursing*, 44(3), 152–161. <https://doi.org/10.1080/01612840.2022.2163440>

MapChart. (2025). World Map: Simple. <https://www.mapchart.net/world.html>

Marthoenis, M., Syukri, M., Abdullah, A., Tandi, T. M. R., Putra, N., Laura, H., Setiawan, A., Sofyan, H., & Schouler-Ocak, M. (2021). Quality of life, depression, and anxiety of patients undergoing hemodialysis: Significant role of acceptance of the illness. *The International Journal of Psychiatry in Medicine*, 56(1), 40–50. <https://doi.org/10.1177/0091217420913382>

Monaco, F., Andretta, V., Bellocchio, U., Cerrone, V., Cascella, M., & Piazza, O. (2025). Bibliometric analysis (2000-2024) of research on artificial intelligence in nursing. *Advances in Nursing Science*, 48(3), 228–239. <https://doi.org/10.1097/ANS.0000000000000542>

Mun, M., Kim, M., & Woo, K. (2025). Advancements in simulation-based nursing education: Insights from a bibliometric analysis of temporal trends. *Nurse Education Today*, 151, 106719. <https://doi.org/10.1016/j.nedt.2025.106719>

Munira, L., Liamputpong, P., & Viwattanakulvanid, P. (2023). Barriers and facilitators to access mental health services among people with mental disorders in Indonesia: A qualitative study. *Belitung Nursing Journal*, 9(2), 110–117. <https://doi.org/10.33546/bnj.2521>

Rahman, M. A., Islam, S. M. S., Tungpunkom, P., Sultana, F., Alif, S. M., Banik, B., Salehin, M., Joseph, B., Lam, L., Watts, M. C., Khan, S. J., Ghozy, S., Chair, S. Y., Chien, W. T., Schönfeldt-Lecuona, C., El-Khazragy, N., Mahmud, I., Al Mawali, A. H., Al Maskari, T. S., ... Cross, W. M. (2021). COVID-19: Factors associated with psychological distress, fear, and coping strategies among community members across 17 countries. *Globalization and Health*, 17(1), 117. <https://doi.org/10.1186/s12992-021-00768-3>

Saljan, M., Tukayo, I. J. H., Hardy, S., & Sahiddin, M. (2025). Public understanding and perceptions of mental health nurses' care for schizophrenia: A study from Indonesia. *International Journal of Environmental Sciences*, 11(3), 206–213. <https://doi.org/10.64252/v8wt7139>

Santangelo, P., Procter, N., & Fassett, D. (2018). Mental health nursing: Daring to be different, special and leading to recovery focused care? *International Journal of Mental Health Nursing*, 27(1), 258–266. <https://doi.org/10.1111/inm.12316>

Subu, M. A., Holmes, D., Arumugam, A., Al-Yateem, N., Maria Dias, J., Rahman, S. A., Waluyo, I., Ahmed, F. R., & Abraham, M. S. (2022). Traditional, religious, and cultural perspectives on mental illness: A qualitative study on causal beliefs and treatment use. *International Journal of Qualitative Studies on Health and Well-Being*, 17(1). <https://doi.org/10.1080/17482631.2022.2123090>

Subu, M. A., Wati, D. F., Netrida, N., Priscilla, V., Dias, J. M., Abraham, M. S., Slewa-Younan, S., & Al-Yateem, N. (2021). Types of stigma experienced by patients with mental illness and mental health nurses in Indonesia: a

qualitative content analysis. *International Journal of Mental Health Systems*, 15(1), 77. <https://doi.org/10.1186/s13033-021-00502-x>

Sutarto, A. P., Wardaningsih, S., & Putri, W. H. (2021). Work from home: Indonesian employees' mental well-being and productivity during the COVID-19 pandemic. *International Journal of Workplace Health Management*, 14(4), 386–408. <https://doi.org/10.1108/IJWHM-08-2020-0152>

Tasijawa, F. A., & Yusuf, A. (2025). Unpacking recovery in mental health: Limited understanding among healthcare workers and students in southeast Asia. *Journal of Psychiatric and Mental Health Nursing*, 32(6), 1421–1422. <https://doi.org/10.1111/jpm.70044>

Tristiana, R. D., Yusuf, A., Fitryasari, R., Wahyuni, S. D., & Nihayati, H. E. (2018). Perceived barriers on mental health services by the family of patients with mental illness. *International Journal of Nursing Sciences*, 5(1), 63–67. <https://doi.org/10.1016/j.ijnss.2017.12.003>

Warrender, D., Connell, C., Jones, E., Monteux, S., Colwell, L., Laker, C., & Cromar-Hayes, M. (2024). Mental health deserves better: Resisting the dilution of specialist pre-registration mental health nurse education in the United Kingdom. *International Journal of Mental Health Nursing*, 33(1), 202–212. <https://doi.org/10.1111/inm.13236>

Wu, T., Xiao, X., Yan, S., Fang, Y., Wang, M., Zu, F., Zhang, Y., & Qian, R. (2023). Digital health interventions to improve adherence to oral antipsychotics among patients with schizophrenia: A scoping review. *BMJ Open*, 13(11), e071984. <https://doi.org/10.1136/bmjopen-2023-071984>

Xie, H., & Kang, B. (2025). Mental health of nursing students: A bibliometric review based on cite space visual analysis. *Journal of Nursing Management*, 2025(1). <https://doi.org/10.1155/jonm/2169094>

Yosep, I., Mardhiyah, A., Suryani, S., Hikmat, R., Kurniawan, K., & Purnama, H. (2025). Experiences of mental health nurses who give nursing intervention among child and adolescent with cyberbullying: A qualitative study. *BMC Nursing*, 24(1), 527. <https://doi.org/10.1186/s12912-025-03182-x>

Yosep, I., Mediani, H. S., & Lindayani, L. (2021). Working alliance among mental health nurses in Indonesia: A comparative analysis of socio-demographic characteristics. *Belitung Nursing Journal*, 7(2), 125–130. <https://doi.org/10.33546/bnj.1259>