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Review Article

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Bibliometric analysis of the application of nursing care with an ethical and empathetic approach

Darmasta Maulana[1], Farenzi Budi Setiaprabhawa[1]

[1] Nursing Departement, Faculty of Health Science, Yayasan Pendidikan Imam Bonjol University, Majalengka, West Java, Indonesia

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Abstract

Ethical and empathetic nursing care is essential for high-quality, patient-centered healthcare, yet its consistent integration into nursing practice remains a challenge. This study aimed to identify publication trends, research patterns, and emerging topics related to ethical and empathetic approaches in nursing care using bibliometric analysis. Bibliographic data were retrieved from the Dimensions database on 22 November 2025. The search was limited to articles published between 2022 and 2025 in Health Sciences, Health Services, Nursing, and Clinical Sciences. Eligible records were analyzed using VOSviewer to generate bibliometric maps and visualize term relationships. Of 226,127 records initially identified, 13,799 articles met the eligibility criteria. Publication output increased from 135 articles in 2023 to 187 in 2024, then slightly decreased to 178 in 2025. Term co-occurrence analysis identified 121 terms grouped into four clusters. "Empathy" occurred 42 times, with 89 links and a total link strength of 307, indicating its prominent role within the research network. These findings demonstrate growing research interest in ethical and empathetic nursing care. Future studies should explore underrepresented topics and peripheral variables, particularly in developing countries, to strengthen the evidence base and identify new directions for ethical and empathetic nursing practice.

INTRODUCTION

Care nursing become attention special in development knowledge nursing (Espejo-Fernández Care nursing become attention special in development knowledge nursing [1–3]. Attention special given to care nursing become more varies Good from fellow power nursing, profession others, and patients nursing [3–5]. Corner view new given in evaluation care nursing specifically student - focused nursing and how sensitivity feeling nurse in give care nursing [2,6–8].

Development mark ethics No Again just connection between man in a way physique or verbal but Already leading to morals in social or digital (Hashish, 2025; Jakobsen et al., 2023).media (Ethics becomes sensitive

Corresponding author:
Farenzi Budi Setiaprabhawa
Email: setiaprabhawa@gmail.com
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issue when nurse or student nursing No apply it care nursing [11–13]approach ethics in giving care nursing Still not optimal in its application (Dehkordi et al., 2024; Zia et al., 2023). Nurses and students nursing Still need done socialization related implementation ethics in giving care nursing That Very good in support healing patient n (Hamzehpour et al., 2023; Li et al., 2025). Care nursing with bring up characteristic empathy can influence feelings and healing patient, often empathetic appear at the time giving care nursing care for patients certain like patient child or pain [18,19]. Research related approach ethics in give care nursing Still seldom found other research proves relatedness between ethics and empathy, where students who are given learning related ethics will give care nursing with empathy (Fan et al., 2025; Wu et al., 2023b). Giving care nursing with implementation ethics and empathy Still become canyon separator in service optimal nursing care. The abyss separator that's what's interesting researchers for do study related to " Implementation Care Nursing with Ethical and Empathetic Approach."

Increasing research varied make researchers must jelly looking for the latest trends in A phenomenon or incident. Research with method bibliometrics become a trend for look for references latest or phenomenon latest with an interesting approach. Bibliometrics is also often used become tool help researchers in determine topic or trends unique for investigated so that researchers can find renewal in his research.

METHODS

Study Design

Research design data analysis has many kinds of Types: Bibliometrics, Scientometrics, Altemetrics, Cybermetrics, and Infometrics [22]. This study employed a bibliometric analysis design to examine the research landscape of nursing care with ethical and empathetic approaches. Bibliometric analysis was used to quantitatively map the characteristics and development of the scientific literature by identifying publication trends, frequently occurring terms, co-occurrence relationships, thematic clusters, and temporal patterns [23]. The bibliometric analysis was conducted using bibliographic records retrieved from the Dimensions database and subsequently analyzed using VOSviewer. A structured identification and filtering procedure was applied to transparently report the process of retrieving, screening, and selecting the bibliographic records. A PRISMA 2020-style flow diagram was used to present the data identification and filtering process.

Setting and Period

The study focused on publications published between 2022 and 2025, with bibliographic records retrieved from the Dimensions database on 22 November 2025.

Population, Sample, and Sampling

Bibliographic data were retrieved from the Dimensions database (app.dimensions.ai). The search was conducted on 22 November 2025 using the topic "Application of Nursing Care with an Ethical and Empathetic Approach." The retrieved publications were subsequently filtered by publication year, covering the period from 2022 to 2025.

Following the initial search, the records were refined according to the research fields specified in the search process, namely Health Sciences, Health Services, Nursing, and Clinical Sciences. The publication type was restricted to Article. These filters were applied to obtain publications relevant to the topic of nursing care with ethical and empathetic approaches.

The resulting bibliographic records were exported from Dimensions in RIS format on 22 November 2025 and subsequently prepared for bibliometric analysis using VOSviewer. A PRISMA 2020-style flow diagram was used to transparently present the identification and filtering of bibliographic records. [24].

Data Collection

Bibliographic data were collected from the Dimensions database on 22 November 2025. The search was initiated using the topic "Application of Nursing Care With an Ethical And Empathetic Approach." The retrieved records were then filtered according to the publication year (2022–2025), research fields (Health Sciences, Health Services, Nursing, and Clinical Sciences), and publication type (Article).

Following the application of these filters, the resulting records were reviewed for their relevance to the research topic. Records that did not meet the predefined criteria were excluded. The bibliographic records meeting the eligibility criteria were exported in RIS format and subsequently prepared for bibliometric analysis using VOSviewer. Explanation based on the PRISMA diagram will show in **Figure 1.**

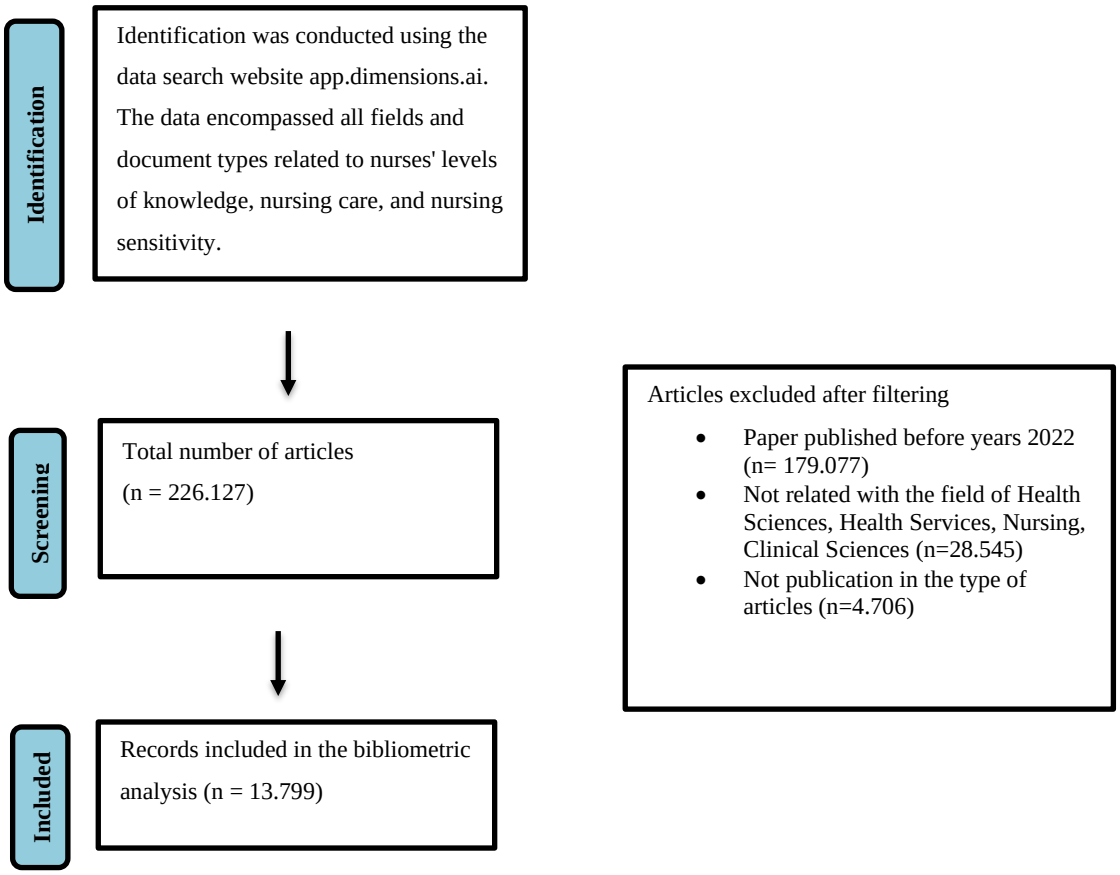


Figure 1 PRISMA Diagram

The identification and filtering process is presented in Figure 1. The number of records retained at each stage was documented to ensure that the exclusion counts were mathematically consistent

with the final dataset used for bibliometric analysis.

Data Analysis

The bibliographic records obtained from Dimensions were analyzed using VOSviewer to construct and visualize bibliometric networks. The analysis focused on term co-occurrence to identify the main concepts and thematic relationships represented in the retrieved publications.

The text data were analyzed based on terms extracted from the bibliographic records. Terms meeting the predefined minimum occurrence threshold were included in the analysis. The resulting terms were mapped based on their co-occurrence relationships and grouped into clusters using VOSviewer. The analysis generated network and density visualizations to describe the prominence, connectivity, and thematic distribution of terms within the research literature.

In the network visualization, the size of a node represents the relative occurrence of a term, while links between nodes represent co-occurrence relationships. The total link strength indicates the cumulative strength of the co-occurrence relationships between an item and other items in the network. Cluster colors represent groups of terms with relatively stronger associations with one another.

The resulting bibliometric map was interpreted descriptively to identify prominent terms, thematic clusters, and relationships among concepts related to nursing care, ethics, and empathy. The analysis was not used to determine the clinical effectiveness or causal effects of ethical or empathetic nursing care.

Bibliographic data were analyzed using VOSviewer to construct and visualize a term co-occurrence network. A map was created based on text data by importing the bibliographic records exported from the Dimensions database in RIS format through the Read data from reference manager files option. Terms were extracted from the title and abstract fields of the retrieved publications. Binary counting was selected as the counting method, in which the presence or absence of a term in a publication was considered rather than its frequency of occurrence within the same publication. A minimum occurrence threshold of 10 was applied to identify terms that occurred at least ten times in the dataset. The resulting terms were mapped according to their co-occurrence relationships and grouped into clusters based on the strength of their associations. The network visualization was used to describe the prominence and thematic relationships among terms, while the overlay visualization was used to examine the temporal distribution of terms based on their average publication year. Density visualization was used to display the concentration of term occurrence and link strength within the network. The analysis was descriptive and exploratory and was not intended to determine clinical effectiveness, causality, or the optimality of nursing interventions. Type of analysis used for make map bibliometrics based on text data (van Eck & Waltman, 2010).

Text Preparation and Term Selection

Text data were extracted from the title and abstract fields of the bibliographic records imported from the RIS file. VOSviewer automatically identified terms from these text fields and generated a list of candidate terms for mapping. The terms were then screened according to their occurrence in the dataset using a minimum occurrence threshold of 10 occurrences. Binary counting was applied so that each term was counted once per publication in which it appeared. Terms meeting the minimum occurrence criterion were retained for the co-occurrence analysis. This procedure resulted in 121 terms (items) included in the final visualization. The 121 items were

subsequently grouped by VOSviewer into clusters according to their co-occurrence relationships.

RESULTS

Figure 2 Figure 2 presents the network visualization of the term co-occurrence analysis. The map consisted of 121 items grouped into four clusters, with a total of 4,513 links and a total link strength (TLS) of 11,549. In this analysis, a link represents a co-occurrence relationship between two terms, whereas total link strength represents the cumulative strength of the co-occurrence links connecting an item with other items in the network.

Figure 3 is forming visualization from study latest and updated related to various research variables. Figure **3** explain study related giving care nursing with approach ethics /morals and empathy enter become a trend in research, giving care nursing that is still put aside mark ethics /morals and empathy become phenomena that occur good for students nursing or nurse That Alone [20,25–29].

The annual publication distribution showed that 135 articles were published in 2023, 187 articles in 2024, and 178 articles in 2025. The highest publication output was observed in 2024 (n = 187), followed by 2025 (n = 178) and 2023 (n = 135). Thus, 2024 represented the peak publication year within the analyzed publication period.

Figure 4 presents the density visualization of the term co-occurrence network. The density visualization illustrates the relative concentration of items and their associated link strength within different areas of the bibliometric map. Areas with higher visual density indicate a greater concentration of frequently occurring and strongly connected terms, whereas areas with lower density indicate a lower concentration of items and link strength. In this study, the density visualization was used to describe the distribution and concentration of terms within the network. It was not interpreted as an indicator of whether a topic was routine, rare, novel, or more likely to be published. Therefore, the density map should be interpreted as a visualization of the structural concentration of terms and their relationships within the analyzed literature rather than as a measure of research novelty, research gaps, or publication potential.

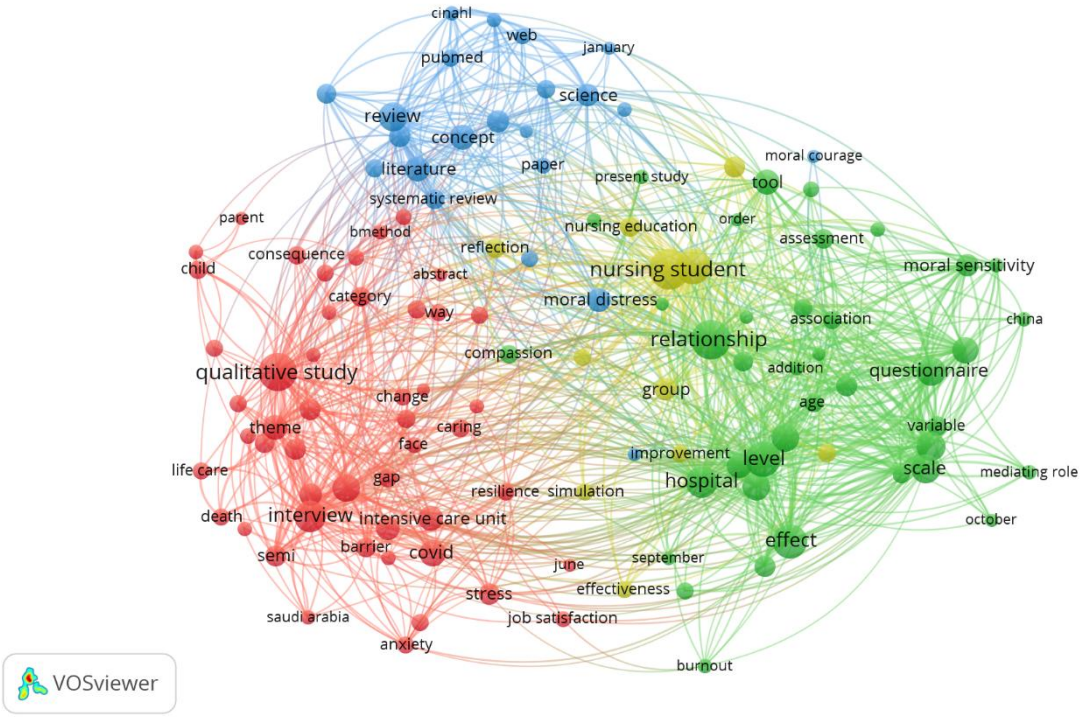


Figure 2 Network Visualization (VOSviewer)

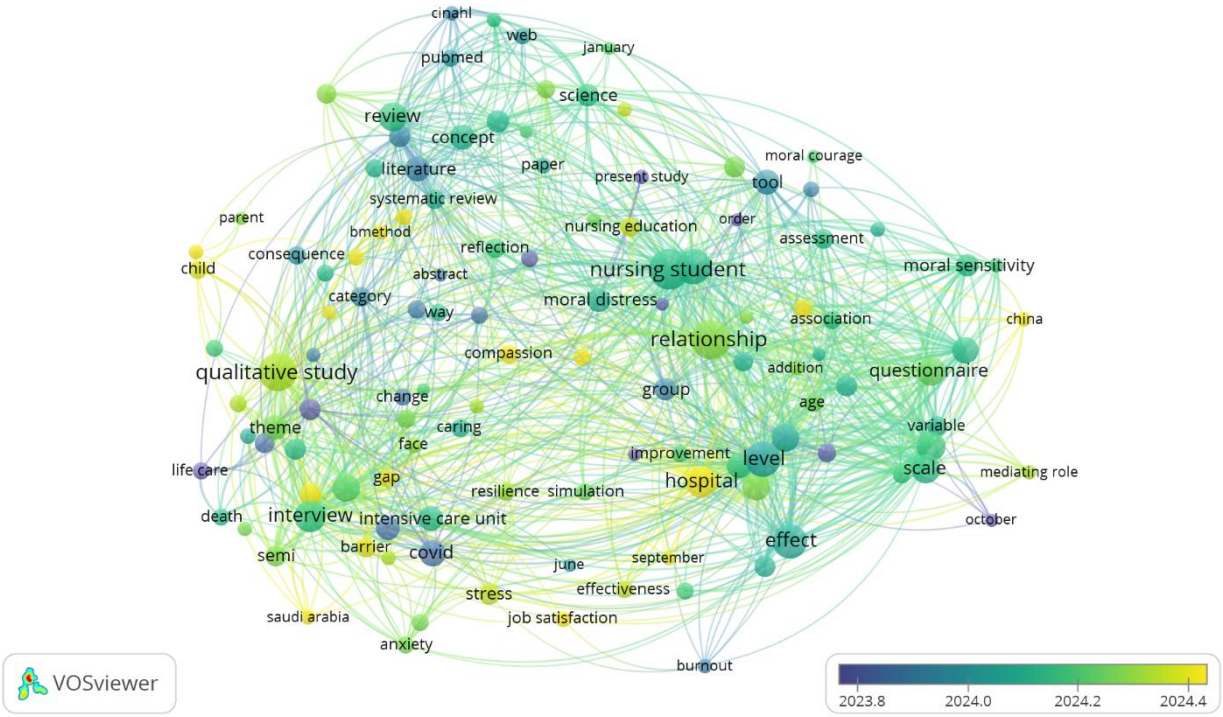


Figure 3 Overlay Visualization (VOSviewer)

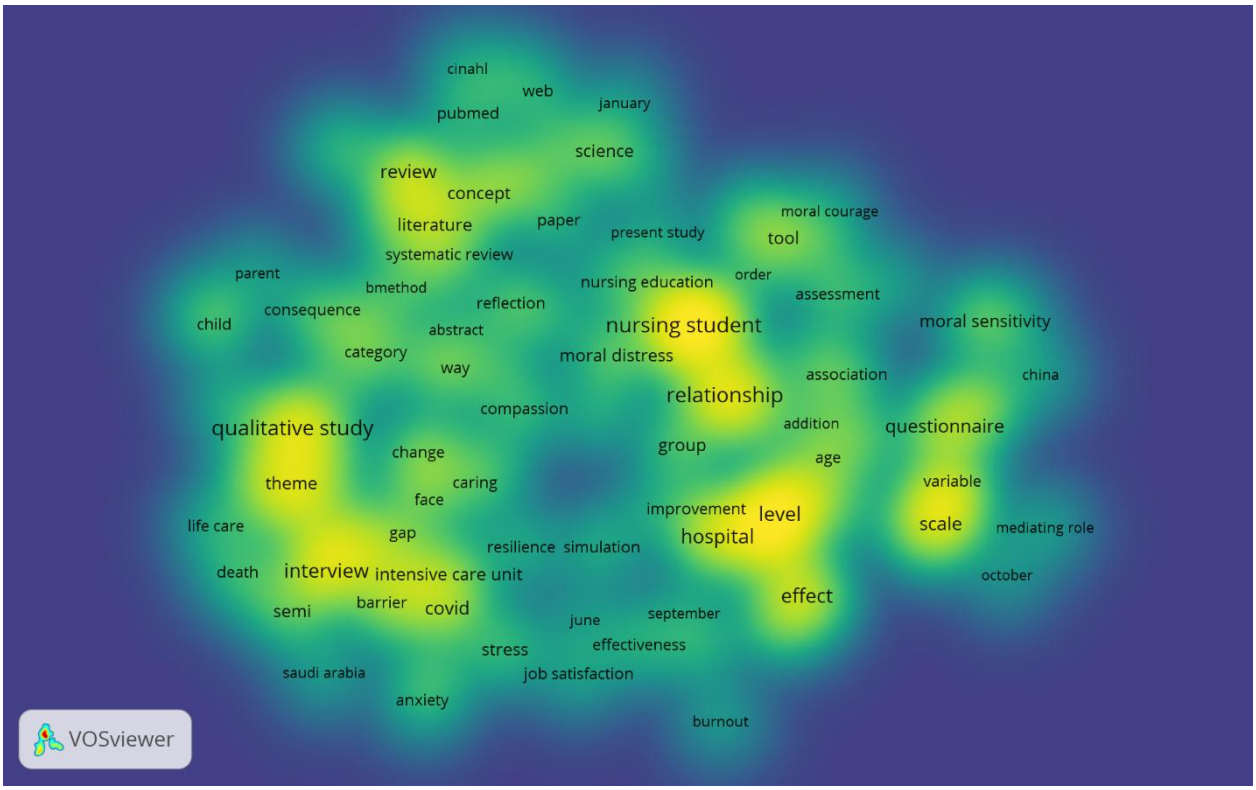


Figure 4 Density Visualization (VOSviewer)

DISCUSSION

This study provides an overview of publications from 2022 to 2025 retrieved from the Dimensions database. Because bibliographic databases are continuously updated, future bibliometric analyses may yield different results when the search is repeated at a later date.

Cluster 1 contained 49 items and included terms predominantly associated with qualitative research and patient-care contexts, such as qualitative study, interview, caring, family, child, cancer, and COVID. Cluster 2 contained 39 items and included terms related to empathy, ethical and caring concepts, and empirical assessment, including empathy, ethical sensitivity, caring behavior, compassion, assessment, hospital, and effect. Cluster 3 contained 22 items and comprised terms associated with conceptual and review-oriented research, including concept, ethical challenge, moral courage, moral distress, nursing practice, literature, scoping review, and systematic review. Cluster 4 contained 11 items and was characterized by terms related to nursing education and student development, including nursing student, nursing education, educator, reflection, simulation, and student. These clusters represent patterns of term co-occurrence within the analyzed literature and should not be interpreted as mutually exclusive research domains or evidence of causal relationships.

Figure 3 shows that the variables that are often investigated in topic implementation care nursing with approach ethics /morals and empathy is student nursing, home pain, moral sensitivity, and assessment [28,30–36]. Ethics/morals can become a very powerful bridge in build communication and development connection each other believe that becomes beginning in giving care nursing [28,37–40]. Good communication become optimal introduction in giving care nursing especially in cases palliative and cancer [7,41,42]cases

Empathy is the most optimal approach in implementation care nursing [43–46]. Implementation empathy effective in giving care nursing critical, palliative, pediatric, and cancer [18,47–50]. Application care nursing with approach ethics /morals and empathy are very effective in the healing process patients and the bonding process with patient [48,51–54].

The results of this study are bibliometrics for mapping related to interesting themes for another research. Research This recommend for carry out studies forward or study other need add other data sources that are broader to deepen understanding about implementation care nursing with approach ethics and empathy.

CONCLUSION

Publication output peaked in 2024, with 187 publications, compared with 135 publications in 2023 and 178 publications in 2025. The bibliometric analysis showed that research on nursing care with ethical and empathetic approaches was represented by several interconnected themes, including empathy, moral sensitivity, nursing students, nursing education, caring, and qualitative research. Publication output peaked in 2024, while the co-occurrence analysis identified four clusters of related terms. These findings provide an overview of the thematic structure and development of research in this area and may serve as a reference for identifying topics for further investigation. Future bibliometric studies may consider expanding the data sources and search strategies to obtain a broader representation of the literature on ethical and empathetic approaches in nursing care.

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