Correlation between Meditation and Religion: Bibliometric Analysis

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A B S T R A C T

With increasing globalization and cultural exchange, meditation practices from various religious traditions have spread to various parts of the world. Therefore, this study aims to find a correlation between meditation and religion through bibliometric analysis. Bibliometric analysis methods were used in this research. We carried out a systematic literature search and data extraction by searching through the reference's manager application, namely Publish or Perish version 7 with the data source coming from Google Scholar for articles published from 2018 to 2024 with the search keywords "("meditation") AND (" religion")". We analyzed bibliometric indicators, including the number of publications and total citations. The research results show that the highest growth in publications on related topics occurred in 2020 with a total of 188 publications. This is because in 2020 the public's interest in mental well-being increased, especially as a result of the Covid-19 pandemic. This research also found that the relationship between meditation and religion can vary depending on the particular religious tradition and the way meditation is practiced which can be influenced by the culture of a society. It is hoped that this research will provide broader insight into the contribution of meditation to human spiritual development.

A R T I C L E I N F O

1. INTRODUCTION

Meditation has long historical roots in a religious context. With increasing globalization and cultural exchange, meditation practices from various religious traditions have spread to various parts of the world. Meditation has strong historical roots in religious contexts, including traditions such as Hinduism and Buddhism (Ditrich, 2016). The study of the relationship between meditation and religion requires understanding how these cultural exchanges influence meditation practices and how meditation can be integrated into diverse contexts. Currently, there has been a lot of research examining meditation, including systematic review research regarding adverse events in meditation-based practices and therapies (Farias *et al.*, 2020). Other research conducted by Behan (2020) regarding the benefits of meditation and mindfulness practices during Covid-19, research that meditation can influence feelings of guilt and prosocial improvement (Hafenbrack *et al.*, 2022), research regarding the prevalence of adverse effects related to meditation in the United States (Goldberg *et al.*, 2022) and research on the impact of spiritual meditation on recovery and well-being for people addicted to drugs (Kadri *et al.*, 2020).

However, based on previous research, there has been no research that has looked for a correlation between meditation and religion using bibliometric analysis methods. Bibliometric analysis is a method used to find and analyze large amounts of scientific data (Donthu *et al.*, 2021). There have been many previous studies that have examined bibliometrics as shown in **Table 1**. Therefore, this research was carried out to find a correlation between meditation and religion through bibliometric analysis. Research on the correlation between meditation and religion involves comparisons between religious traditions. It is hoped that this research will provide broader insight into the contribution of meditation to human spiritual development.

Table 1. Previous studies on bibliometric.

No	Author	Title
1	Shidiq *et al.,* (2021)	The use of simple spectrophotometer in STEM education: A bibliometric analysis
2	Nordin, (2022a)	Correlation between process engineering and special needs from bibliometric analysis perspectives.
3	Bilad, (2022)	Bibliometric analysis for understanding the correlation between chemistry and special needs education using VOSviewer indexed by Google.
4	Riandi *et al.,* (2022)	Implementation of Biotechnology in Education towards Green Chemistry Teaching: A Bibliometrics Study and Research Trends
5	Nordin, (2022b)	A bibliometric analysis of computational mapping on publishing teaching science engineering using VOSviewer application and correlation.
6	Wirzal & Putra, (2022)	What is the correlation between chemical engineering and special needs education from the perspective of bibliometric analysis using VOSviewer indexed by Google Scholar?
7	Nandiyanto & Al Husaeni, (2021a)	A bibliometric analysis of materials research in Indonesian journal using VOSviewer
8	Maryanti *et al.,* (2022)	Sustainable development goals (SDGs) in science education: Definition, literature review, and bibliometric analysis.
9	Nandiyanto *et al.,* (2021)	A bibliometric analysis of chemical engineering research using VOSviewer and its correlation with covid-19 pandemic condition.
10	Al Husaeni and Al Husaeni (2022)	Computational bibliometric analysis of research on science and Islam with VOSviewer: Scopus database in 2012 to 2022.
11	Al Husaeni, (2022)	Bibliometric analysis of briquette research trends during the Covid-19 pandemic.

Table 1 (Continue). Previous studies on bibliometric.

No	Author	Title
12	Ragadhita & Nandiyanto, (2022)	Computational bibliometric analysis on publication of techno-economic education.
13	Al Husaeni & Nandiyanto, (2022)	Bibliometric computational mapping analysis of publications on mechanical engineering education using VOSviewer
14	Al Husaeni *et al.,* (2022)	How Language and Technology Can Improve Student Learning Quality in Engineering? Definition, Factors for Enhancing Students Comprehension, and Computational Bibliometric Analysis
15	Fauziah *et al.,* (2022)	Strategies in Language Education to Improve Science Student Understanding during Practicum in Laboratory: Review and Computational Bibliometric Analysis
17	Chano *et al.,* (2023)	Correlation between Meditation and Buddhism: Bibliometric Analysis

2. METHOD
2.1. Article Retrieval and Data Extraction

We carried out a systematic literature search and data extraction by searching through the reference's manager application, namely Publish or Perish version 7 with the data source coming from Google Scholar for articles published from 2018 to 2024. We used the search keywords "("meditation") AND ("religion")" to retrieve articles and reviews related to the relationship between meditation and religion. All publications were retrieved on January 29, 2024. Only English-language articles were included in the analysis, while other forms of publication were journals. Publications with incomplete metadata are removed. A total of 978 journal articles were collected and analyzed.

2.2. Bibliometric Analysis

We analyzed bibliometric indicators, including number of publications and total citations, obtained from the Google Scholar database. We use statistical computing, graphical, and data visualization tools with the VOSviewer application. We carry out two types of visualization, namely network and overlay visualization. We used VOSviewer to extract, analyze, and visualize potential information from the collected article data.

3. RESULTS AND DISCUSSION
3.1. Research Developments

The development of growth in publications related to the correlation between meditation and religion is presented in **Figure 1** which is summarized from 2018-2024. Based on **Figure 1**, the highest growth in publications on related topics occurred in 2020 with a total of 188 publications. Several factors caused a lot of research on meditation and religion to be carried out in 2020. In 2020, public interest in mental well-being increased, especially as a result of the Covid-19 pandemic (Pfefferbaum & North, 2020). In situations of stress and uncertainty, interest in non-pharmacological methods, such as meditation, to manage stress and improve mental well-being is rapidly increasing (Sachdeva *et al.*, 2015).
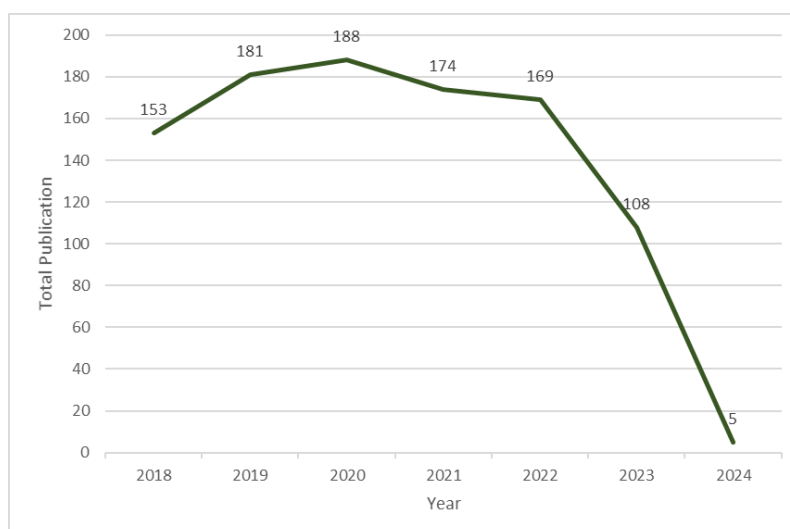
Figure 1. Development of publications.

Additionally, the pandemic has pushed many people to seek meaning and spiritual balance in their lives. Meditation, often associated with the spiritual dimension, offers a powerful tool for exploring and developing this aspect of one's self. Another reason why research on this theme increased in 2020 is that meditation is often associated with increasing mental resilience and adaptability to life's challenges. The year 2020, with multiple crises involving health, economic, and social issues, stimulated interest in ways to develop resilience and adaptability.

The number of publications in other years was 153 publications in 2018, 181 publications in 2019, 174 publications in 2021, 169 publications in 2022, and 108 publications. Meanwhile, in 2024 there will only be 5 publications because data collection was carried out in January 2024, so the total number of publications cannot be seen in 2024.

The bibliometric analysis provides information about the author and the number of citations for each article published by the 20 researchers with the most citations on the research theme "correlation between meditation and religion". The article entitled "Psilocybin-occasioned mystical-type experience in combination with meditation and other spiritual practices produces enduring positive changes in psychological functioning and in trait measures of prosocial attitudes and behaviors" published in 2018 received the highest citations of 461 citations, with an average of 461 citations. The average citation per year is 76.83 and the average citation per author is 154 (Griffiths et al., 2018). In more detail, the top 20 citations in related research are summarized in **Table 2**. Based on the data in **Table 2**, it can be seen that the highest number of citations is 461 and the lowest is 91 citations.

Table 2. Top 20 articles with the highest number of citations.

No	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref
1	461	Psilocybin-occasioned mystical-type experience in combination with meditation and other spiritual practices produces enduring positive changes in psychological functioning and in trait measures of prosocial attitudes and behaviors	2018	76.83	154	Griffiths *et al.,* (2018)
2	250	Maintaining health and well-being by putting faith into action during the COVID-19 pandemic	2020	62.50	250	Koenig (2020)

Table 2 (Continue). Top 20 articles with the highest number of citations.

No	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref
3	244	Integrating clients' religion and spirituality within psychotherapy: A comprehensive meta-analysis	2018	40.67	49	Captari *et al*. (2018)
4	236	Religion, spirituality and depression in prospective studies: A systematic review	2019	47.20	118	Braam (2019)
5	225	Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies	2021	75.00	75	Garssen *et al*. (2021)
6	199	Lean production, Toyota Production System and Kaizen philosophy: A conceptual analysis from the perspective of Zen Buddhism	2018	33.17	66	Chiarini *et al*. (2018)
7	178	Rethinking religion: Toward a practice approach	2020	44.50	178	Ammerman (2020)
8	169	Critical literature review on the definition clarity of the concept of faith, religion, and spirituality	2020	42.25	85	Paul & Treschuk (2020)
9	168	Associations of religious upbringing with subsequent health and well-being from adolescence to young adulthood: An outcome-wide analysis	2018	28.00	84	Chen & VanderWeele (2018)
10	163	The role of spiritual leadership in reducing healthcare worker burnout	2018	27.17	82	Yang & Fry (2017)
11	157	Belief, behavior, and belonging: How faith is indispensable in preventing and recovering from substance abuse	2019	31.40	79	Grim & Grim (2019)
12	120	Why religion helps and harms families: A conceptual model of a system of dualities at the nexus of faith and family life	2018	20.00	40	Dollahite *et al*. (2018)
13	116	Substance use, anxiety, and depressive symptoms among college students	2018	19.33	29	Walters *et al*. (2018)
14	113	Relationships among meditation, perfectionism, mindfulness, and performance anxiety among collegiate music students	2018	18.83	113	Diaz (2018)
15	111	Religion, spirituality & chronic illness: A scoping review and implications for health care practitioners	2018	18.50	56	Roger & Hatala (2018)
16	106	Mindfulness meditation for primary headache pain: a meta-analysis	2018	17.67	35	Gu *et al*. (2018)
17	99	Effects of progressive muscle relaxation and mindfulness meditation on fatigue, coping styles, and quality of life in early breast cancer patients: An assessor blinded, three-arm, randomized controlled trial	2019	19.80	20	Metin *et al*. (2019)
18	96	Critical perspectives on corporate mindfulness	2018	16.00	96	Purser (2018)
19	94	Religiosity/spirituality and physiological markers of health	2020	23.50	47	Shattuck & Muehlenbein (2020)

No	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref
3	244	Integrating clients' religion and spirituality within psychotherapy: A comprehensive meta-analysis	2018	40.67	49	Captari *et al.* (2018)
20	91	Meditation buffers medical student compassion from the deleterious effects of depression	2018	15.17	18	Mazcaro *et al.* (2018)

3.2.   Bibliometric Item Mapping Analysis

We carried out 3 types of data visualization mapping terms that are usually used in meditation and religion research, namely Network visualization (**Figure 2**) and overlay visualization (**Figure 3**). Based on the data in **Figure 2**, it is known that there were 5638 terms found from the 978 articles analyzed. We determined the minimum number of occurrences of each term 5 times so we found 279 terms. After that, only terms with the 60% most relevant were used. Thus, 167 terms were found. We filtered each term used in the visualization mapping analysis with a total of 88 Item Cluster terms. Each term is then grouped into 10 clusters, namely as follows:

- Cluster 1 (13 items): assessment, cancer, cancer patient, daily meditation, insight meditation, Malaysia, meditation center, meditation method, Nepal, resilience, vipassana, vipassana meditation, workplace spirituality.
- Cluster 2 (12 items): Buddhist practice, contemplative practice, devotion, Hinduism, interaction, Jainism, japan, language, mantra, meditation exercise, morality, and wisdom
- Cluster 3 (10 items): Buddhist religion, Christianity, comparison, control group, Hindu, Hindu religion, Islam, a particular religion, spiritual care, and west.
- Cluster 4 (10 items): Consciousness, Dhyana, meditation course, meditation room, mediator, neuroscience, principle, qualitative study, race, and randomized controlled trial.
- Cluster 5 (9 items): Adolescent, contemplation, heart, memory, nature, reflection, relaxation, social work practice, and traditional religion.
- Cluster 6 (9 items): emphasis, frequency, happiness, life satisfaction, meditation program, older adult, religious belief, religious meditation, and Thailand.
- Cluster 7 (8 items): Adult, depression, problem, religion spirituality, sex, soul, spiritual belief, and strength.
- Cluster 8 (6 items): brain, China, college student, enlightenment, implication, and India.
- Cluster 9 (6 items): Buddha, compassion meditation, dialogue, politics, psychotherapy, and Sri Lanka.
- Cluster 10 (5 items): Buddhist meditation, death, philosophy, ritual, and Theology.

Figure 3 shows the visualization overlay. The visualization overlay illustrates the novelty of the discussion of research topics found based on analysis using the VOSviewer application (Al Husaeni & Nandiyanto, 2022). Based on the data shown in **Figure 3**, it is known that the number of discussions on related topics is in the range of 2019 to 2021. The terms most frequently associated with research on meditation and religion are Buddhist meditation, Philosophy, Religion spirituality, Buddha, Hinduism, Nature, Ritual, Relaxation, and College Student. Apart from that, there are several terms used in research on meditation and religion that are considered to have high novelty based on the results of the overlay visualization analysis, namely meditation method, mediator, strength, wisdom, Jainism, and principle.
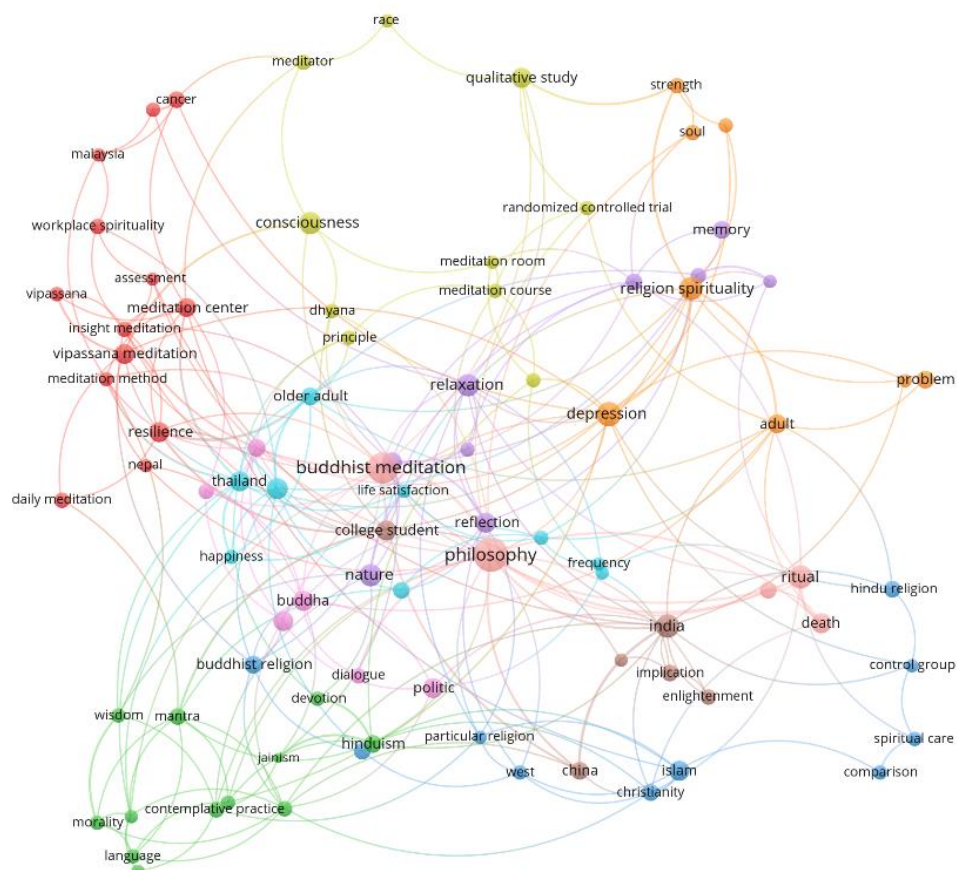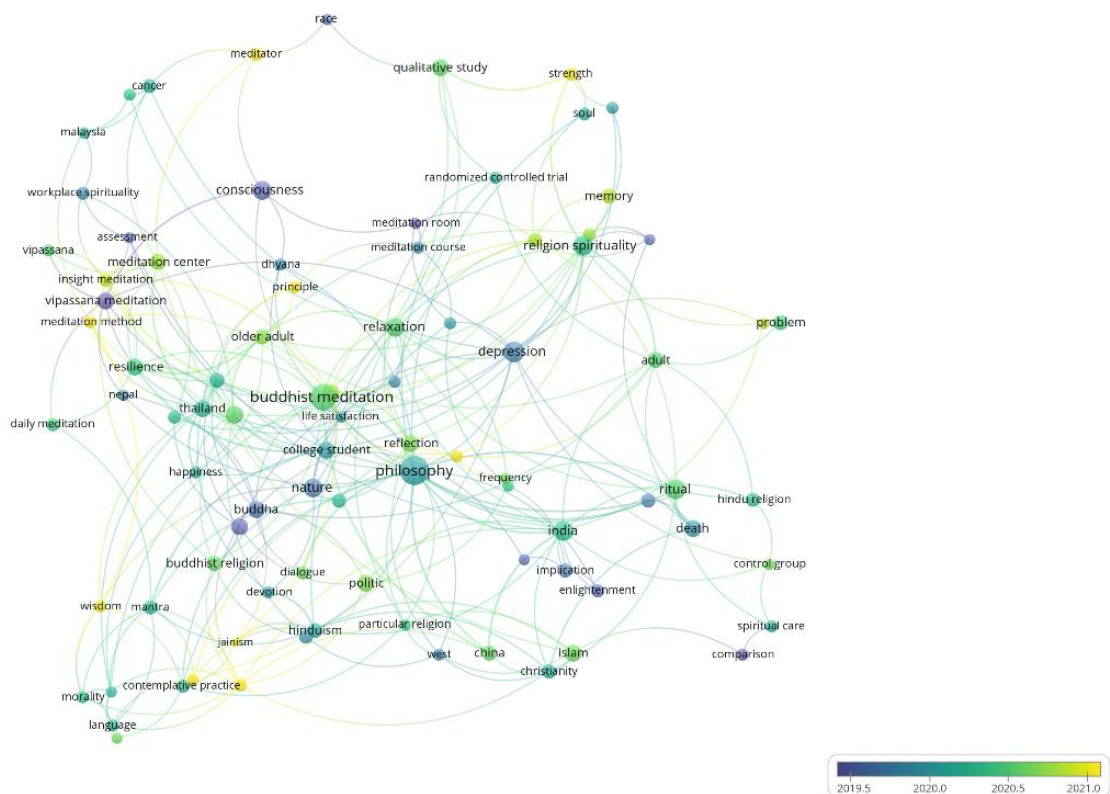
Figure 2. Network Visualization.

Figure 3. Overlay visualization.

3.3. Correlation between Meditation and Religion

Meditation is a way to let go of the complicated outer world to achieve steady inner peace. In all types of mysticism and various spiritual traditions, meditation is the path to a pure and solid mind. The experience of a pure mind detached from the world has extraordinary pleasure. Meditation has strong historical roots in religious contexts, including traditions such as Hinduism and Buddhism (Ditrich, 2016). In religion, meditation is often considered a tool to get closer to the Divine, seek spiritual understanding, and achieve higher consciousness.

Many religions teach meditation as a form of worship or religious practice. For example, in Islam, there is the practice of "Dhikr" which involves repeating the words or names of God as a form of meditation. Meditation can be considered as a way to improve spiritual well-being in a religious context. The practice of meditation can help individuals develop spiritual connections, deepen faith, and absorb religious values.

Many religions recognize the importance of mental and emotional health, and meditation is often integrated as a way to achieve inner calm, overcome stress, and achieve psychological balance. Meditation can help religious practitioners understand religious teachings more deeply. The practice of meditation can open the door to deeper spiritual understanding and help individuals integrate religious values into everyday life.

However, it is important to remember that the relationship between meditation and religion can vary depending on the particular religious tradition and the way meditation is practiced. Some religious traditions may be more open to meditation, while others may place less emphasis on the meditation aspect of their religious practices. Therefore, it is important to understand the specific cultural and religious context when examining the correlation between meditation and religion.

4. CONCLUSION

This research was conducted to find a correlation between meditation and religion through bibliometric analysis. Bibliometric indicators, including the number of publications and total citations, were analyzed in this study. The analysis that has been carried out shows that the highest growth in publications on the topic of Meditation and Religion occurred in 2020 with a total of 188 publications. The increase in the number of publications in 2020 is one of the influences of increasing public interest in mental well-being, especially as a result of the COVID-19 pandemic. The results of the citation analysis show that articles published in 2018 conducted by Griffiths et al. in 2018 received the highest citations with 461 citations, with an average citation per year of 76.83 and an average citation per author of 154. Based on the results of the visualization mapping analysis, we found that the terms that are often associated with research on meditation and religion are Buddhist meditation, Philosophy, Religion spirituality, Buddhism, Hinduism, Nature, Ritual, Relaxation, and College Student. Meanwhile, terms that are considered to have high novelty based on the results of the overlay visualization analysis are meditation method, mediator, strength, wisdom, Jainism, and principle.

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