Review

Bibliometric Analysis Commind Relax Support on Anxiety Among Pre-Operative Patients

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Abstract

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Introduction: Intervention in the management of anxiety is an approach that researchers are currently developing in various countries. This research needs the latest information and trends for future research topics related to cognitive behavior therapy interventions, mindfulness, relaxation, and support for anxiety in preoperative patients.

Methods: Data analysis used bibliometrics in this study. Search data used on the Web via http://app.dimensions.ai. Journals or data were limited from 2017-2023 and have more than 22 million articles, by filtering on data-based app.dimensions.ai, which focuses on the fields of health sciences, nursing, clinical sciences, public health, and types of articles in publications. The data was analyzed to become a bibliometric map using a VOSviewer.

Results: The data identification results through dimensions.ai contained 24,099 recorded data; by sorting based on the type of article and the type of document, the results found were 645 articles. The highest number of publications on cognitive behavior therapy, mindfulness, relaxation, and support for preoperative anxiety occurred in 2020 and the lowest was in 2023. Research on cognitive behavior therapy, mindfulness, relaxation, and support for preoperative anxiety is carried out not only in the health sector, medicine, nursing, and psychology but also in other fields.

Conclusion: The topic of preoperative anxiety management interventions is a topic that needs to be further developed in various countries, especially in developing countries. Suggestions for other researchers to choose a topic that is included in low visualization to find research updates.

Keywords: cognitive behavior therapy, relaxation, support, preoperative, anxiety

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INTRODUCTION

Intervention in the treatment of anxiety is an approach that researchers are currently developing in various countries [1]–[5]. Intervention in anxiety management is a very interesting study, especially in preoperative patients [4], [6]–[9]. Handling anxiety in preoperative patients has the main goal of avoiding surgery cancellation. Handling anxiety using various methods of cognitive behavior therapy, mindfulness, relaxation, and support that can be applied to various characters and conditions of patients [6], [8]–[12].

Cognitive behavior therapy is capable of reducing anxiety by changing the patient's behavior patterns to be more positive [13]–[16]. Mindfulness is a meditation technique to reduce anxiety by changing the patient's mindset for the better by explaining the events to be faced [7], [8], [17], [18]. Relaxation is a technique to reduce patient anxiety by relaxing the body, mind, and psyche by adjusting breathing patterns to perform calming activities [7], [19]–[22]. Support is a technique to reduce anxiety using emotional support, family, and relatives in the process [23]–[26]. The combination of all of these interventions has never been studied, so the researchers conducted research related to the combination of these interventions and became the name "Commind Relax Support as a Program for Reducing Preoperative Patient Anxiety".

Research on anxiety reduction techniques that are increasingly developing needs to be updated or updated with the latest research information, so that the results of bibliometric analysis can be used as a guide in the latest research or search for information about the latest research. Bibliometrics can determine the quality and main topics of research in various publications. Bibliometrics makes it easier for researchers to find and obtain subjects that are rarely researched or subjects of greatest interest. Bibliometric analysis of research related to anxiety management interventions using cognitive behavior therapy, mindfulness, relaxation, and support methods has never been performed, so this research can be performed to find the latest topics and trending issues related to this topic.

The purpose of this study was to determine the mapping of network visualization, overlay visualisation, and density visualization using the VOSviewer application on the topic of the influence of cognitive behavior therapy, mindfulness, relaxation, and support (commind relaxation support) on preoperative patients' anxiety.

METHODS

Design

There are various types of data analysis research designs: Bibliometric, Scientometric, Altometric, Cybermetric, and Infometric [27]. Bibliometrics is the measurement or analysis of literacy using a statistical approach, so bibliometrics is very suitable for being used to analyze literacy, periodicals, and the latest research journals or research trends [28].

Data Source

Data-based research was sourced online via
the Web via http://app.dimensions.ai and filtered by year range from 2017-2023. Articles were focused on the fields of health sciences, nursing, clinical sciences, and public health. The data obtained was analyzed using VOSviewer. Data for this study were compiled according to PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) [29].

**Data Inclusion**

Research data were centered on biomedical and clinical sciences, clinical sciences, health sciences, human society, and biological sciences in 2017-2023.

**Data Sorting**

Sorting the data according to PRISMA has three stages, which start with identification, filtering, and data processing. The identification of data through dimensions.ai contains 24,099 recorded data, by sorting them by type of article and type of document and considering the range of years of publication from 2017-2023. Data were found on 645 articles. An explanation based on the PRISMA diagram will be shown in Figure 1.

**Data Analysis**

The data obtained will be analyzed using the VOSviewer application. VOSviewer is an application that can create and display bibliometric maps [30]. This type of analysis is used to create bibliometric maps based on text data.

**Figure 1.** Phases in framework development
RESULT

**Figure 2.** Network Visualization (VOSviewer).

**Figure 3.** Overlay Visualization (VOSviewer).
DISCUSSION

Figure 2 shows data on research publications related to cognitive behavior therapy and mindfulness and relaxation techniques and support for anxiety levels in preoperative patients. The data have a link strength of 36427, the number of links is 3407, resulting in 112 items and 3 clusters. The data showed interrelated outcomes that are explained by items in the cluster, the data showed interrelated results that are explained by the items in the cluster, the red line describes cluster 1 which consists of 94 items, the green line describes cluster 2 with 15 items in it, and the blue line describes cluster 3 which consists of 3 items. Figure 3 is a form of visualization of the latest and most up-to-date research related to various research variables. Figure 3 illustrated that the yellow color means that research trends related to this subject are happening currently, whereas greener or bluer colors are not trending or popular in recent research.

Figure 3 research related to patients who experience anxiety is one of the trends in research. Patients with anxiety are a phenomenon that occurs often in children, adolescents, and adults, in various jobs, such as students and nurses [31]-[34]. Figure 3 Treatment of patients with various types of anxiety, such as cognitive behavior therapy, mindfulness, relaxation, and support, has been the focus and trend in recent research [6], [11], [15], [24], [26], [31], [35], [36]. Cognitive behavior therapy can reduce anxiety by gradually implementing changes in cognitive behavior and habitual behavior over several sessions, depending on the level of anxiety or the condition of the patient [13],
This therapy can also reduce the chronic pain caused by bone surgery to heart surgery [38], [39].

Mindfulness therapy is a therapy that focuses on the patient's or individual's thoughts by instilling positive values and a frame of mind about the events that are being experienced or will be experienced [6], [8], [40], [41]. Anxiety reduction therapy, in addition to mindfulness, is relaxation. Relaxation therapy is a therapy that focuses on you, the body, the mind, and the psyche on actions that make you calm and comfortable; relaxation therapy is very effective in reducing anxiety because it focuses on yourself in the intervention [8], [24], [42]. In addition to these interventions, interventions or therapies that focus on support or emotional support or support in the form of the presence of family and relatives are interventions or therapies. The support of family or emotional support brings a sense of calm and security towards stimuli or stimuli about something that is harmful to individual perceptions [2], [24], [43].

The difference between Figure 3 and Figure 4 lies in the visualization of the data displayed. Figure 4 visualizes the data saturation displayed through VOSviewer. Figure 4 explains that there are many large yellow dots, small yellow dots, and pseudo-yellow dots. These data showed saturation of the studied data because anxiety cases or phenomena occur very frequently [2], [3], [44], [45]. Further research can choose a research topic that is outside the large group or in the periphery area, data that are on the side of the large group has a very high chance of updating the new knowledge.

**IMPLICATIONS AND LIMITATIONS**

This research contributes to adding information on interventions to reduce anxiety in preoperative patients, especially in cognitive behavior therapy, mindfulness, relaxation, and support interventions. This latest insight is based on 2017-2023 through app.dimensions.ai, but this research has limitations. This limitation is related to the initial data that came from app.dimensions.ai, so it is necessary to update the publication in stages. This is why the bibliometric results need to be reviewed in the next few years. Future studies need to add other, broader data sources to deepen the understanding of cognitive behavior therapy, mindfulness, relaxation, and support for preoperative anxiety.

**CONCLUSION**

The highest number of publications on cognitive behavior therapy, mindfulness, relax, and support for preoperative anxiety occurred in 2020 and the lowest was in 2023. Research on cognitive behavior therapy, mindfulness, relax, and support for preoperative anxiety is carried out not only in the health sector, medicine, nursing, and psychology, but also in other fields. This is due to the use of data technology, such as databases, artificial intelligence, and genetic analysis. In addition to these issues, research trends related to cognitive behavior therapy, mindfulness, relax, and support for preoperative anxiety are health, effects, mindfulness, techniques, behavior interventions, and techniques.
REFERENCES


