

The Relationship Between Anxiety and Quality Of Life: A Bibliometric Analysis

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Abstrak

Kecemasan merupakan respons emosional yang muncul ketika seseorang merasa terancam oleh sesuatu yang belum jelas atau tidak teridentifikasi. Kecemasan dapat dijadikan sebagai antisipasi terhadap ancaman di masa depan dan disertai dengan peningkatan ketegangan otot, kewaspadaan, dan perilaku untuk menghindari. Penelitian ini bertujuan untuk mengeksplorasi hubungan antara kecemasan dan kualitas hidup melalui pendekatan analisis bibliometrik. Kecemasan diketahui berdampak negatif terhadap berbagai aspek kualitas hidup, termasuk kesehatan fisik, psikologis, dan sosial. Pendekatan bibliometrik digunakan untuk menganalisis tren penelitian selama lima tahun terakhir (2019-2024), yang mencakup 501 publikasi dari database Scopus. Hasil analisis menunjukkan puncak publikasi pada tahun 2019, dipengaruhi oleh pandemi COVID-19 yang meningkatkan minat terhadap kesehatan mental. Visualisasi data mengungkapkan adanya hubungan kuat antara kecemasan, kualitas hidup, dan depresi, serta pentingnya terapi sebagai tren intervensi terbaru. Aktivitas fisik juga muncul sebagai pendekatan efektif dalam memperbaiki kualitas hidup individu yang mengalami kecemasan. Penelitian ini menekankan perlunya intervensi holistik untuk meningkatkan kesejahteraan dan kualitas hidup pada individu yang terkena dampak kecemasan, terutama dalam konteks jangka panjang pasca pandemi.

Kata kunci: kecemasan, kualitas hidup, bibliometrik, terapi, aktivitas fisik.

Abstract

Anxiety is an emotional response that arises when someone feels threatened by something that is unclear or unidentified. Anxiety can be used as an anticipation of future threats and is accompanied by increased muscle tension, vigilance, and avoidance behavior. This study aims to explore the relationship between anxiety and quality of life through a bibliometric analysis approach. Anxiety is known to negatively impact various aspects of quality of life, including physical, psychological, and social health. A bibliometric approach was used to analyze research trends over the past five years (2019-2024), covering 501 publications from the Scopus database. The analysis results showed a peak in publications in 2019, influenced by the COVID-19 pandemic, which increased interest in mental health. Data visualization reveals a strong relationship between anxiety, quality of life, and depression, as well as the importance of therapy as the latest intervention trend. Physical activity also emerges as an effective approach in improving the quality of life for individuals experiencing anxiety. This research emphasizes the need for holistic interventions to improve the well-being and quality of life of individuals affected by anxiety, especially in the long-term post-pandemic context.

Keywords: anxiety, quality of life, bibliometrics, therapy, physical activity.

Introduction

Anxiety is an emotional response that occurs when a person feels threatened by something unclear or unidentified. It is often triggered by various factors, including the environment, social relationships, and personal characteristics of the individual (1). Factors such as an individual's role, knowledge, intensity, and duration of the stressor, as well as their coping mechanisms, play an important role in the emergence of anxiety. Prolonged anxiety can hinder an individual's ability to achieve their goals and can ultimately lead to frustration (2).

Anxiety may serve as an anticipation of future threats and is accompanied by increased muscle tension, alertness, and avoidance behavior. On the other hand, common to all depressive disorders are sad or irritable moods or feelings of emptiness, accompanied by physical and cognitive changes that severely impair the individual's ability to function (3).

Quality of life reflects how individuals evaluate their lives as a whole, including physical, mental, and social aspects. Quality of life is measured based on an individual's subjective assessment of himself. Meanwhile, Ekasari et al. added that quality of life includes various dimensions, both objective, such as income, health, and environment, and subjective, such as life satisfaction, well-being, and psychological conditions. A decrease in quality of life due to anxiety can occur due to various factors, such as sleep disturbances, decreased productivity, and interference in interpersonal relationships (4).

Quality of life often includes terms such as well-being, function, life satisfaction, functionality, and impairment. It refers to those aspects of life that make it particularly satisfying and worth living (5,6). The WHO defines quality of life as "individuals' perceptions of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns." Health-Related Quality of Life relates to an individual's physical, functional, social, and emotional well-being (7,8).

The American Psychiatric Association found that generalized anxiety disorder (a form of anxiety disorder) may cause a decreased psychological quality of life, given the fact that psychological quality of life can be seen as a composite measure of mental health (9,10). They used the World Health Organization (WHO) Quality of Life Brief Version to measure quality of life. To measure symptoms of anxiety and depressive disorders, the authors used the Hospital Anxiety and Depression Scale. Furthermore, Orley et al. (1998) stated that "there is no doubt that

depressed mood tends to affect thinking in a generally negative sense, leading to a tendency to express dissatisfaction with most aspects of life" (11,12).

Patients with major depressive disorder (severe impact on QoL in 63% of patients), chronic/multiple depressive disorder (severe effect on Quality of Life in 85% of patients), or PTSD had the lowest Quality of Life Enjoyment and Satisfaction scores compared to the healthy control group. At the same time, 21% of patients with social phobic disorder and 20% of patients with panic disorder experienced a severe impact on their Quality of Life scores (13). Similarly, Hansson's review showed that people with major depressive disorder had lower subjective Quality of Life than healthy subjects (14).

Several studies have shown that anxiety negatively affects physical and psychological health. In the context of physical health, high stress can trigger various bodily disorders, such as increased blood pressure, digestive disorders, and recurrent headaches. Meanwhile, on the psychological aspect, anxiety is often associated with problems such as depression, chronic stress, and mood disorders, which, in turn, reduce an individual's quality of life. A person who experiences persistent anxiety may find it difficult to enjoy daily activities, feel dissatisfied with themselves, and lose motivation in living life. Depression triggered by social factors and daily living conditions can impair quality of life. This study will extend this understanding by analyzing how anxiety affects the quality of life in specific populations, such as adolescent girls during the pandemic, breast cancer patients undergoing chemotherapy, and patients with diabetic ulcers (14, 15).

While many studies have addressed anxiety and quality of life, very few have directly highlighted the relationship between these two variables, especially in the context of diverse populations such as adolescents, people with chronic illnesses, and those affected by the COVID-19 pandemic. As such, the relationship between anxiety and quality of life is a highly relevant area to research, especially in the context of developing effective interventions. This research not only aims to understand the impact of anxiety on various dimensions of quality of life but also to identify ways to improve the well-being of individuals affected by anxiety.

This study seeks to explore the relationship between anxiety and quality of life through a bibliometric analysis approach. This approach provides a comprehensive and data-driven overview of existing research trends, gaps in the literature, and unexplored areas related to this topic. In addition, this study will update the understanding of the impact of anxiety on quality of life in the

current context. Through this research, it is important to understand the effect of stress on quality of life in a multidimensional manner. This research aims to fill existing gaps in the literature, provide new insights, and offer a new methodological approach through a comprehensive bibliometric analysis.

Methods

This study used a bibliometric approach to analyze the literature on how anxiety relates to quality of life (16). This approach allows researchers to systematically explore and measure the pattern, distribution, and impact of scientific publications related to the subject of research (17,18). Bibliometric analysis, as a quantitative methodology, uses evaluative and descriptive techniques to describe research patterns and various publication attributes. The researcher used a bibliometric visualization approach to present a comprehensive representation of the structure of a particular study domain. The research sample consisted of 501 publications sourced from the Scopus database, specifically relevant to the selected keywords. The keywords included in this study consisted of ("Anxiety" OR "Psychological distress") AND ("Quality of life" OR "QoL") AND ("Physiology" OR "Physiological response" OR "Hormonal response"). Visualization of publications was facilitated through the utilization of the VOSviewer program, which incorporates various indications such as the number of publications, the number of citations, and the overall strength of the relationship between the items depicted.

The main objective of this study was to evaluate how anxiety relates to physiological quality of life. Using bibliometric analysis methods, this research aims to find out how related publication distribution, citation patterns, and keywords are. Furthermore, this research will study the research subjects and point out areas that require additional research on how anxiety relates to quality of life. This research aims to improve understanding of how stress affects quality of life, physiologically, and health outcomes in the long term, identifying the body's way of sustaining a longer life (19).

Research Results and Discussion

Based on the predetermined criteria, the publication of articles over the past five years related to anxiety affecting the quality of human life from 2019-2024 can be seen in Figure 1. Figure 1 shows that the contribution of research on anxiety affecting the quality of human life

reached the peak of publications in 2019, where the number of publications reached 118 documents and the lowest in 2023 with 61 papers, then began to increase again in 2024 with 71 papers. The large increase that occurred in 2019 can be attributed to various factors around the world that increased interest in the subject. However, the most prominent component that increased the number of studies was the COVID-19 pandemic, which began to develop rapidly in late 2019 and had a major impact on the mental health of people around the world. Many studies have focused on the effects of the pandemic on anxiety on the quality of life of the general population and vulnerable groups, mainly due to uncertainty, social isolation, and drastic changes in daily life.

In 2023, only 61 publications on anxiety and quality of life were published during this period. This decrease may be due to several things, such as a reduced need for research on the COVID-19 pandemic, as many countries are beginning their economic and social recovery. During the period, there was also a renewed focus on other mental health issues, which may have made the focus on anxiety specifically wane slightly. However, the number of publications increased again in 2024, with 71 publications. This research focus may have increased due to the long-term review of the pandemic's impact, where researchers began to learn more about how anxiety affects people's quality of life. It may also be due to the emergence of new research subtopics related to stress, such as the impact on specific groups (such as children, older people, older people, or essential workers) and new approaches to anxiety management and recovery.

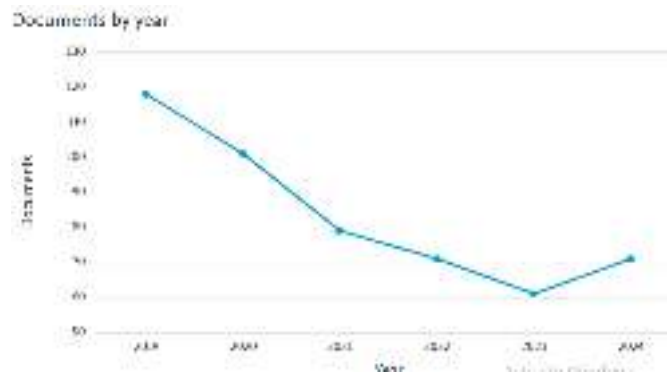


Figure 1. Scopus Database Mapping of Stress on Human Body Function in Physiology from 2019-2024

Over the past five years, many research contributions have been made related to anxiety and quality of life assisted by VOS viewer VOS viewer software data. There have been several

In addition, depression often co-occurs with anxiety and quality of life. This relationship reflects that anxiety and depression are two of the most common psychological disorders that negatively impact an individual's quality of life. Research shows that interventions aimed at reducing anxiety often also affect depressive symptoms, thereby improving the quality of life of affected individuals. Other terms such as physical activity, exercise, and well-being also appear in this visualization, suggesting that a holistic approach that includes both physical and mental aspects is often applied to address anxiety and improve quality of life. Ellert & Kurth's (2013) study investigating HRQoL in 7988 German adults who completed a health survey measuring each of the following eight health domains: physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, and mental health (12). Men achieved significantly higher QoL scores than women, except in the general health domain. This gender difference was evident across all age groups, albeit to a different degree (15).

Furthermore, areas involving chronic conditions such as sleep disorders and disease severity are also often associated with anxiety and quality of life. This research on anxiety is not only limited to specific mental health issues but also expands our understanding of how anxiety disorders can affect other aspects of a person's physical health, especially in the context of chronic conditions. Terms such as physiology and human in this visualization indicate that research on anxiety and quality of life also often explores the physiological impact that anxiety has, such as its impact on the cardiovascular, endocrine, or even neurological systems.

In the overlay visualization, physical activity appears to play an important role in research on the relationship between anxiety and quality of life. Physical activity is recognized as one of the most effective non-pharmacological intervention methods for improving quality of life, especially among individuals with anxiety disorders. Studies have shown that regular physical exercise can help reduce anxiety symptoms while improving mental and physical well-being.

In addition, there are terms relevant to the COVID-19 pandemic, which have sparked a new wave of research related to mental health, including anxiety and quality of life. While pandemic-related terms may not always be dominant in this visualization, their influence is still significant in the topics covered. Overall, this overlay visualization illustrates how research on anxiety and quality of life is evolving in a multidisciplinary context, incorporating aspects such as physical activity, chronic disease, and mental health, and highlights the importance of a holistic approach to anxiety interventions to improve quality of life. This is in line with research by Leane

et al. (2022), who found the prevalence of poorer mental health among French university students during the first phase of the COVID-19 pandemic compared to other stages of the pandemic. Moreover, university students reported poorer mental health and mental HRQoL when they were exposed to exam-related stress, pandemic-related financial problems, social isolation due to lockdown and COVID-19-like symptoms, or were female. Overall, especially symptoms of anxiety and depressive disorders seem to be associated with poorer quality of life (20). Female gender and young age are associated with higher levels of psychological distress (21). This is also in line with the research of Abdullah et al. (2021), which shows lower quality of life scores for psychological and social subscales compared to the non-pandemic general population. Perceived prevalence of COVID-19 in one's living environment and more severe depressive symptoms were associated with poorer psychological Quality of Life (22).

Figure 3 The results of the visualization show that one of the important findings is that there is a strong relationship between "anxiety" and "quality of life" and "therapy ."The yellow color of the word "therapy" indicates that this is a recent trend in research on anxiety and quality of life, suggesting that therapy has an important role in overcoming fear and improving one's quality of life. This research may indicate that with the right therapeutic approach, individuals experiencing anxiety can enhance their quality of life, achieve a more prosperous life, and even extend life expectancy with a better mental state.

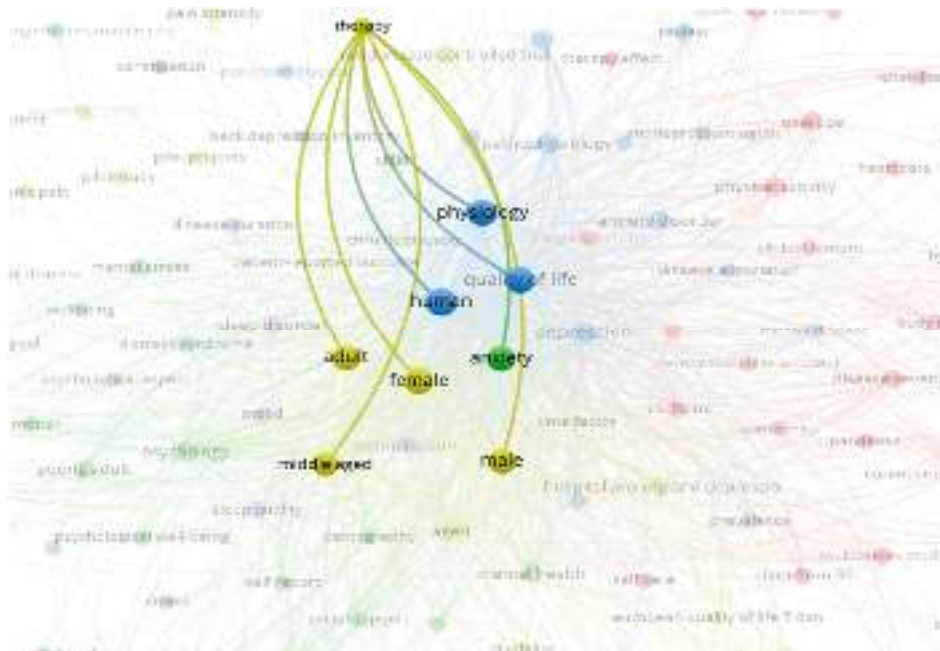


Figure 3. Visualization results in strong novelty in overcoming anxiety for quality of life (therapy)

The results of the above vision are in line with the research of (20), who considered psychotherapy to be beneficial in life crises and necessary for the successful treatment of certain mental disorders. This opinion was mostly shared by women and less by men, which could indicate that men have a more stereotypical image of mental health problems and do not have the same courage as women to talk about their problems, which could have an impact on men's Quality of Life. Several studies have been conducted in the context of oncohematology. These studies have shown that music therapy is effective in improving the physical and psychosocial well-being of bone marrow transplant patients. Among the benefits reported after attending music therapy sessions was reduced anxiety, distress, and fatigue, which were highlighted, as well as increased states of relaxation and well-being and improved mood (21,22).

Conclusions and Suggestions

Bibliometric analysis from 2019-2024 shows a fluctuating trend in anxiety and quality-of-life research, with a peak in publications in 2019 due to the impact of the COVID-19 pandemic. While there was a dip in 2023, publications increased again in 2024, suggesting a focus on the long-term effect of the pandemic. Visualizations revealed the close relationship between anxiety, quality of life, and depression, as well as the important role of therapy as the latest trend in addressing anxiety. Physical activity also emerged as an effective intervention, reflecting the importance of a holistic approach to improving quality of life.

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