

A Systematic Literature Review and Bibliometric Analysis of Developing Music as A Foundation for Health Communication

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ABSTRACT

This research will serve as a major source of information for scientists who specialize in the study of health communication, particularly that related to music's role. This study aims to assess how the field of research on the role of music in health communication has developed. The Scopus database was searched using the keywords "music" and "health communication" to find 904 documents containing this study's data. After that, the author offers search parameters by only including publications in English-language journals between 2014 and 2022. As a result of these limitations, 300 document results were found that matched the required criteria. The VOSviewer and Bibliometric software were used to process the data. This research found that music has a significant role in health communication, particularly when it comes to issues involving mental health, such as depression, dementia, and anxiety in both adults and children. In the future, this research can be developed regarding how health communication can be developed through media intermediaries other than music.

Keywords: Health Communication; Music; Bibliometric; Analysis

ABSTRAK

Penelitian ini akan menjadi sumber informasi utama bagi para ilmuwan yang mengkhususkan diri dalam studi komunikasi kesehatan, khususnya yang terkait dengan peran musik. Tujuan dari penelitian ini adalah untuk menilai bagaimana bidang penelitian tentang peran musik dalam komunikasi kesehatan telah berkembang. Database Scopus ditelusuri dengan menggunakan kata kunci "musik" dan "komunikasi kesehatan" untuk menemukan 904 dokumen yang mengandung data untuk penelitian ini. Setelah itu, penulis memberikan batasan pencarian dengan hanya menyertakan publikasi yang dipublikasikan di jurnal berbahasa Inggris antara tahun 2014 dan 2022. Sebagai hasil dari batasan tersebut, ditemukan 300 hasil dokumen yang sesuai dengan kriteria yang dibutuhkan. Selanjutnya, perangkat lunak VOSviewer dan Bibliometrik digunakan untuk memproses data. Berdasarkan temuan penelitian, musik memiliki peran yang signifikan dalam komunikasi kesehatan, terutama dalam hal isu-isu yang melibatkan kesehatan mental, seperti depresi, demensia, dan kecemasan baik pada orang dewasa maupun anak-anak. Di masa depan penelitian ini dapat dikembangkan terkait bagaimana health communication dapat dikembangkan melalui perantara media selain musik.

Kata Kunci: Komunikasi Kesehatan; Musik; Bibliometric; Analisis

INTRODUCTION

The process of disseminating information about health-related topics to people or groups is known as health communication (Moorhead et al., 2013). The goal is to increase people's understanding of health issues, alter their attitudes and beliefs about health, and eventually encourage healthy behaviors and lifestyles. Public health campaigns, patient-provider communication, health education initiatives, and media messaging about health are just a few of the many activities that go under the umbrella term "health communication." (Moorhead et al., 2013)

Promoting health and preventing illness require effective health communication. In order to engage audiences and encourage health literacy—the capacity of people to access, comprehend, and utilize health information—it entails the use of communication tactics and techniques. Health literacy is defined as the capacity of people to acquire, use, and understand health information. Understanding the social, cultural, and psychological influences on health behavior and personalizing communication are further components of health communication (Zhao, 2020).

The field of health communication studies has developed rapidly in recent years, as health professionals and researchers recognize the importance of effective communication in promoting health and preventing disease. Here are some key developments in the field of health communication studies (Polyák & Nagy, 2021): (1) Emergence of Health Communication as a Field of Study: Health communication emerged as a distinct field of study in the late 1970s and early 1980s, as scholars began to recognize the importance of communication in health promotion and disease prevention; (2) Growth of Health Communication Research: Since the 1980s, the field of health communication has grown rapidly, with an increasing number of scholars conducting research on topics such as patient-provider communication, health literacy, and health campaigns; (3) Application of Communication Theories and Methods: Health communication researchers draw on theories and methods from communication studies, psychology, sociology, and other related fields to understand the factors that influence health behavior and to develop effective communication strategies; (4) Use of Technology in Health Communication: Technology has played an increasingly important role in health communication, with the rise of social media, mobile health apps, and other digital tools that can be used to promote health messages and behaviors; (5) Emphasis on Cultural Competence: Health communication researchers have increasingly recognized the importance of cultural competence in developing effective communication strategies, and have sought to develop culturally appropriate messages and interventions; (6) Integration with Public Health: Health communication has become increasingly integrated with public health, with many public health programs incorporating communication strategies and techniques into their health promotion efforts.

Overall, the field of health communication studies continues to evolve and grow, as researchers seek to understand the complex factors that influence health behavior and develop effective strategies for promoting health and preventing disease. Today, a variety of studies on communication and health are being undertaken, with researchers looking into a number of topics (Porter et al., 2017), such as: (1) Communication between patients and healthcare providers is being studied by researchers to see how it may affect patient happiness and health. Researchers are also looking at strategies to improve communication; (2) Health Campaigns: In order to improve communication tactics for promoting healthy behavior, researchers are examining the efficacy of health campaigns, including public service announcements and community-based initiatives; (3) Health Literacy: In order to increase health literacy among a variety of communities, researchers are examining the variables that affect health literacy, such as the importance of culture and language; (4) Digital Health: Digital health interventions, such as social media and mobile health apps, have the potential to enhance health communication and encourage healthy behaviors. This is because digital technology is being used in healthcare more and more; (5) Risk Communication: In order to ensure that the general public receives accurate and comprehensible information, researchers are looking at the best ways to communicate risks related to health issues, such as infectious diseases, environmental dangers, and chronic disorders; (6) Interdisciplinary Approaches: Researchers are increasingly adopting an interdisciplinary approach to health communication research, incorporating concepts and techniques from public health, psychology, sociology, communication studies, and other relevant disciplines to create more thorough and efficient communication strategies.

Overall, as researchers work to comprehend the complicated elements, the area of health communication research is still evolving. Meanwhile The power of music to amuse, inspire, and unite people has long been acknowledged. The potential of music as a tool for health communication,

particularly in promoting healthy habits and enhancing health outcomes, has drawn more attention in recent years. Here are some examples of how music can be utilized to communicate health information (Jacobsen, Gattino, Holck, & Bøtker, 2022): (1) Health Education: Music can be used to teach people about important health topics like the value of exercise, a balanced diet, and disease prevention. Information can be presented through music in an interesting and memorable fashion, increasing the likelihood that the listener will remember it; (2) Health Promotion: Music can be used to promote healthy behaviors, such as physical activity or healthy eating, by incorporating health messages into song lyrics. For example, a song about the benefits of exercise may inspire listeners to become more physically active; (3) Behavior Change: Music can be used to encourage behavior change, such as quitting smoking or reducing alcohol consumption. By incorporating health messages into song lyrics, music can provide a powerful and emotional message that resonates with the listener; (4) Coping and Healing: Music can be used to help people cope with health challenges, such as chronic illness or pain. Music has been shown to have a calming effect on the mind and body, reducing stress and promoting relaxation, which can be beneficial for managing health conditions; (5) Community Building: Music can be used to bring people together and create a sense of community around health issues. Music events, such as concerts or music festivals, can be used to raise awareness about health issues and promote healthy behaviors; (6) Overall, music has great potential as a tool for health communication, particularly in engaging and inspiring people to make positive changes to their health behaviors and promoting healthy lifestyles.

From the results of this elaboration, this study proposed five research questions (RQ):

RQ1: can music be used for health communication purposes?

RQ2: Which country and institution contribute the most to the publication of health communication?

RQ3: Which journal publishes music and health communication?

RQ4: How is the trend of publication themes on music and health communication?

RQ5: Who contributes to the publication of music and health communication?

Systematic literature review and BA have specific characteristics in the metadata analysis used; therefore, this study is interesting because the data set used can provide predictions of future publication trends about music related to health communication. SLR with the analysis content, while BA with performance analysis, science mapping, and network analysis (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021). The RQ that appeared is based on developing SLR and BA. RQ 1 aims to analyze curriculum development that can increase health communication. RQ 1 was raised because it refers to the analysis content of the SLR characteristics. RQ 2 and 3 aim to map countries, institutions, and journals that contribute to music and health communication. RQs 2 and 3 refer to analyst performance as a hallmark of BA. RQ 4 aims to map thematic trends of the publication in music and health communication by referring to the function of BA as science mapping. RQ 5 aims to look at contributing to the publication of the music and health communication that refers to the function of BA as network analysis.

METHODS

In order to explain self-esteem-based curriculum development and expose its bibliometric profile, this study used an SLR and bibliometric analysis. It is referred to as systematic literature network analysis (SLNA) in some publications. By combining a systematic literature review (Donthu et al., 2021) and a bibliographic analysis (BA) (Zupic and Ater, 2015), some researchers have employed the SLNA numerous times to identify research trends. In order to categorize information based on several criteria in a particular topic area, bibliometric analysis examines bibliographic material objectively and statistically (Merigo, Gil-Lafuente, & Yager, 2015; Merigo, Mas-Tur, Roig-Tierno, 2015; Albort-Morant & Ribeiro-Soriano, 2016). It can be used to examine, categorize, and analyze a vast amount of historical data, track the evolution of a particular topic's body of knowledge, and even perhaps predict future developments (Daim et al, 2006). This method contributes to academics and researchers to understand the range of study topics, the most recent developments, the dominant themes, and the research hotspots in a certain field—both geographically and content (Yan & Zhiping, 2023). Figure 1 illustrates the search flow in identification, source filtering, and process identification for the SLR guideline's application of the PRISMA model guideline (Donthu et al., 2021). The goal of the bibliographic analysis was to spot trends, patterns, and metadata visualization in research.

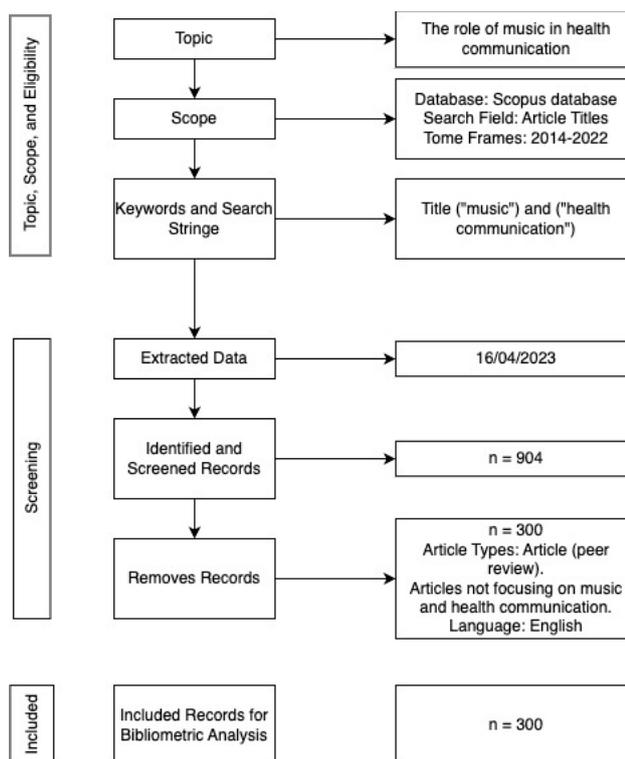


Figure 1. Diagram of PRISMA. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analysis

The Scopus database, which was retrieved on 16 April 2023, provided the information for this study. The papers from the past nine years (2014–2022) that looked at music based on health communication were the source of the data. The Scopus data includes a large number of reputable worldwide scientific journals, ensuring that the high caliber of the articles was upheld through the strict peer-review procedure. As a result, the data used were reliable. The most comprehensive academic database, Scopus, is Elsevier’s abstract and citation database that was released in 2004. In some nations, it is used as a publishing reference. Only journals with a Scopus index were used in this investigation. The terms “health communication” and “music” were used to find papers that matched the goals of this study. (“Health communication” or “curriculum” or “curricula”) and (“music”) are the keywords utilized. The search terms used in this investigation were therefore constrained. Researchers utilize inclusion and exclusion criteria to ensure that not just any term can be used as an analysis in the study (Donthu et al., 2021) in order to maintain the quality of the data investigated in this paper. In order to avoid limiting the initial results, these keywords are entered into search engines (scopus.com), with topic categories selected. Additionally, a variety of inclusion and exclusion criteria are used to enhance the scientific literature (Table 1). Due to their keyword correlation, the terms “music” and “health communication” are used together. In order for the resultant communication science to be used as medical resources and references to reach treatment objectives, it is necessary to plan and prepare the health service by communication science developers and activities. This process is known as “health communication.”

Table 1. Inclusion-Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Main topics involving health communication and music	Not the main theme of the article
Journal article in English	Proceedings paper, book review, book chapter, editorial

The data are exported in CSV format when the topic to be investigated has been decided upon using keyword research. The CSV data is then examined using MS Excel and the program

VOSviewer. This study used content analysis as a different type of analysis. The results were then shown as images, graphs, and tables. After gathering the data, it was all exported to Microsoft Excel for arrangement, editing, and selection. This study used VOSviewer to produce visualization maps, Scholarcy to analyze the content, Publish or Perish to check the reliability of the citations and scores, and the EdrawMax tool to create charts.

This investigation identified the journals and publications included in the Scopus index that were related to this research. This study did not evaluate letters, editorials, conference papers, or brief communications because it only used peer-reviewed articles. The researcher chose the top 10 papers after independently identifying 300 publications and taking Scopus database scores into account. After that, they were used as SLR analysis materials. Three hundred articles were used to assess the bibliography in the interim. However, the researcher independently and thoroughly examined the top 10 publications. Consequently, the publications served as trustworthy research materials. After the researchers reached an agreement regarding divergent viewpoints, the results were used.

The top 10 articles in this study on health communication were chosen based on their coverage of relevant themes, journals, institutions, key ideas, analyses, methodologies, and future research. In order to examine studies in a variety of sectors, including education, the bibliometric analysis applied the bibliometric theory (Budd, 1988)(Adams, 2009)(Diem & Wolter, 2013)(Crockett, Nylander, Wooten & Menser, 2022). The VOSviewer program, version 1.6.16, was used in this study to examine the bibliography. A free computer tool called VOSviewer can be used to create and display bibliometric maps. In contrast to the majority of bibliometric map software, VOSviewer gives special consideration to a bibliometric map and a graphical depiction. Large, simple-to-understand bibliometric maps can benefit greatly from the characteristics of the VOSviewer (van Eck and Waltman, 2010). VOSviewer aids in the visualization of publication metadata, including co-authorship, bibliographical appropriateness, and co-citation.

RESULT AND DISCUSSION

According to certain research, music can improve patient outcomes and the flow of information between patients and healthcare professionals. For instance, studies have revealed that music therapy can help patients feel better mentally, relieve tension and anxiety, and even lessen pain. According to other studies, adding music to healthcare settings can increase patient happiness and make the spaces more hospitable and relaxing.

It is crucial to remember that the precise mechanisms by which music influences health communication are still under investigation and are not fully known. More research is required to support the theories put out by some researchers that self-evaluation and job situations may mediate the benefits of music on health communication. Overall, despite the promise of using music in healthcare settings, it is crucial for medical professionals to carefully weigh the advantages and drawbacks of doing so. Further study is required to completely comprehend how music affects health communication and to determine the best applications of music in healthcare settings.

The sub-discussion with the key theme, journal name, country, affiliation, academic thematic trends, method, and future study presented the conclusions of the analysis of journals on the relationships of health communication-based music. The study objective, clarifying key elements of this research's replies with indicators, helped to choose the research theme. Figure 2 displays the publications, citations, and trend chart for the research on music and health communication from 2014 to 2022.

Table 2. The Number of Studies in Reputable Journals Regarding Music and Health Communication 2012-2021

Year	Documents	Average Citations per Year
2014	18	03.03
2015	17	11.06
2016	26	01.08
2017	27	02.02

2018	29	02.02
2019	30	01.04
2020	46	02.05
2021	47	01.08
2022	60	00.07

The number of studies published in reputable journals regarding music and health communication has indeed experienced an increasing trend every year. In Table 2, it is clearly shown how this increase is. In 2014 (n=18), 2015 (n=17), 2016 (n=26), 2017 (n=27), 2018 (n=29), 2019 (n=30), 2020 (n=46), 2021 (n=46), 2022 (n=60).

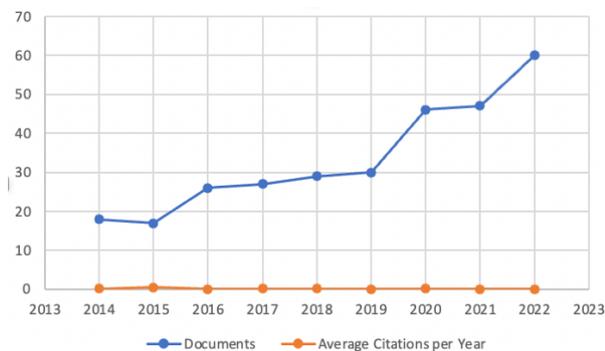


Figure 2. The Publication Data in 2012–2021 with the Number of Documents and Citations

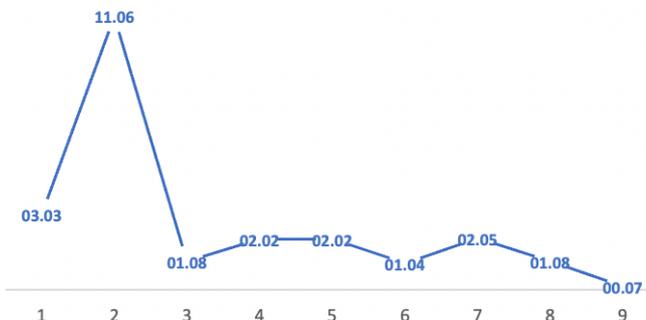


Figure 3. Average Citations per Year in 2012–2021

Figure 2 and Figure 3 indicate that the number of publications on health communication and music reached the highest level in 2022, with 60 documents. It is concluded that the average publication each year. The interesting point is that the number of citations has increased consistently since 2012. The most records were in 2015, with 11.06 average citations per year of 17 articles. The citation trends have begun to stabilize from 2016 to 2022, with two average citations per year. It is predicted that the number of articles and citations will most likely improve in 2022 since the year ended. In other words, our contribution when conducting a study on health communication-based music will be beneficial.

Can Music Improve Treatment in Health Communication?

According to numerous studies conducted by academics from around the world, music can enhance therapy and health communication in various ways. Research shows that music in healthcare procedures can help patients achieve better physical and psychological results. Music therapy, which involves music by a qualified therapist to attain particular goals relating to physical, emotional, cognitive, and social functioning, is one way that music can be utilized in healthcare. For instance,

music therapy has been used to ease dementia symptoms, enhance motor abilities in stroke patients, and lessen anxiety and suffering in cancer patients.

Additionally, music can be employed in a wider range of healthcare settings to enhance patient outcomes. For instance, research has demonstrated that listening to music helps lower tension and enhance mood in patients with chronic pain, as well as anxiety and discomfort in surgery patients.

Music can potentially benefit patients, but it may also be a helpful tool for healthcare professionals to inform people about their health. According to research, adding music to health communications can help patients feel more satisfied with their medical care experiences and help them pay more attention and remember information. Overall, music has the potential to be an effective instrument in the healthcare industry, serving as a therapeutic intervention as well as a way to enhance patient outcomes and communication.

Long-term studies have been conducted on the connection between music and health communication. This area of research has provided insightful information about how music might improve one's physical, emotional, and mental health. The importance of ongoing study in this field can be attributed to a number of factors. First off, listening to music can elicit strong emotional reactions in listeners, and these reactions can have a big influence on how people feel about themselves. For instance, studies have demonstrated that listening to music can help lower blood pressure, ease pain, and reduce tension and anxiety.

Second, new opportunities are opening up for the use of music in health communication as technology develops. For instance, the growth of streaming services and social media platforms has opened up new avenues for reaching a large audience with music-based health interventions. Third, it is becoming increasingly obvious that music has a role in enhancing general health and well-being as our understanding of the intricate interplay between mind and body continues to advance. Table 3 shows the ten best articles on health communication and music in 2014-2022 based on the Scopus database.

Table 3. Ten Most Cited Articles on Health Communication and Music in 2014–2022

References	Cites	Title	Key Concepts	Scholarly Highlights	Future Research
(Alzheimer's Association, 2015)	1352	2015 Alzheimer's disease facts and figures	Health Communication, Mental health, Alzheimer	The number of Alzheimer's sufferers continues to grow from year to year.	The need for improvisation in providing health services for people with Alzheimer's in all corners of the world
(Livingston et al., 2014)	155	A systematic review of the clinical effectiveness and cost-effectiveness of sensory, psychological and behavioural interventions for managing agitation in older adults with dementia	Health Communication, music therapies, dementia	Person-centered care, communication skills and DCM (all with supervision), sensory therapy activities, and structured music therapies reduce agitation in care-home dementia residents.	Future interventions should change care home culture through staff training, permanently implement evidence-based treatments, and evaluate health economics. There is a need for further work on interventions for agitation in people with dementia living in their

					own homes.
(Lazar, Thompson, & Demiris, 2014)	121	A systematic review of the use of technology for reminiscence therapy	Health Communication , Information and Communication Technology, reminiscence therapy; music for therapeutic benefit, dementia	Information and communication technologies (ICT) are potential venues for supporting the delivery of such therapies, including reminiscence therapy (RT), which is a non-pharmacological intervention involving the prompting of past memories, often with artifacts such as old photographs or music for therapeutic benefits such as the facilitation of social interactions or the increase of self-esteem	Future studies should explore the types and content of media beneficial to individuals at different stages of dementia.
(Hume et al., 2021)	115	Evidence-based practices for children, youth, and young adults with autism: third generation review	Health Communication , Evidence based practice, Autism	Describes a set of practices that have evidence of positive effects with autistic children and youth.	The authors found 28 focused intervention practices that met the criteria for evidence-based practice (EBP). Former EBPs were recategorized and some manualized interventions were distinguished as meeting EBP criteria. The authors discuss implications for current practices and future research
(Robb et al., 2014)	100	Randomized clinical trial of therapeutic music video intervention	Health Communication , therapeutic Music Video,	To reduce the risk of adjustment problems associated with	During a high-risk cancer therapy, the TMV

		for resilience outcomes in adolescents/young adults undergoing hematopoietic stem cell transplant: a report from the children's oncology group	Cancer	hematopoietic stem cell transplant (HSCT) for adolescents/young adults (AYAs), we examined efficacy of a therapeutic music video (TMV) intervention delivered during the acute phase of HSCT	intervention increases the favorable health outcomes of brave coping, social integration, and family environment. The authors advise that the TMV be investigated in a larger group of AYAs with high-risk malignancies.
(Alfredo Raglio et al., 2015)	99	Effect of active music therapy and individualized listening to music on dementia: a multicenter randomized controlled trial	Health Communication, Music Therapy, Dementia	To assess the effects of active music therapy (MT) and individualized listening to music (LtM) on behavioral and psychological symptoms of dementia (BPSDs) in persons with dementia (PWDs). In the MT group, communication and relationships between the music therapists and PWDs showed a positive albeit nonsignificant trend during treatment.	The addition of MT or LtM to standard care did not have a significant effect on BPSDs in PWDs. Further studies on the effects of the integration of standard care with different types of music interventions on BPSD in PWD are warranted.
(Rosiek, Rosiek-Kryszewska, Leksowski, & Leksowski, 2016)	71	Chronic stress and suicidal thinking among medical students	Health Communication, Music, Stress, Suicidal	Analysis revealed that there are several pressures in a student's life. Students who are nearing the end of their schooling manage stress better than those who are just beginning their university studies. The effects of	The study's findings indicated that persistent stress and anxiety have a detrimental effect on mental health and that there is a link between suicide

				ongoing stress on students' mental health and suicide ideation are significant. The study's findings indicated that persistent stress and anxiety have a detrimental effect on mental health and that there is a link between suicide thoughts and medical students. Students can reduce their stress by exercising, chatting to friends and family, taking time to relax, or listening to music. Swimming, cycling, and running are the sports that are most frequently utilized to reduce suicidal thoughts.	thoughts and medical students. Students can reduce their stress by exercising, chatting to friends and family, taking time to relax, or listening to music. Swimming, cycling, and running are the sports that are most frequently utilized to reduce suicidal thoughts.
(Zhu, Xu, Zhang, Chen, & Evans, 2019)	62	How health communication via tik tok makes a difference: a content analysis of tik tok accounts run by chinese provincial health committees	Health Communication , TikTok, Chinese Health Committees	Provincial Health Committees (PHCs) in China have begun to adopt the micro-video sharing platform, Tik Tok, to engage with local residents and communicate health-related information	Research related to what type of TikTopk material and content should be produced by CGHNA Health Committees in all provinces in Mainlad China so that it can become a good health communicatio n medium for its people.
(Gardiner et al., 2017)	62	Engaging women with an embodied conversational agent to deliver mindfulness and lifestyle recommendations: a feasibility randomized	Health Communication , Urban Woman, Embodied Conversational Agent	This randomized controlled trial evaluates the feasibility of using an Embodied Conversational Agent (ECA) to teach lifestyle	Compared to patient information sheets, ECAs provide promise as a way to teach healthy lifestyle

	control trial		modifications to urban women. It is feasible to use an ECA to promote health behaviors on stress management and healthy eating among diverse urban women.	behaviors to diverse urban women.	
(Porter et al., 2017)	58	Music therapy for children and adolescents with behavioural and emotional problems: a randomised controlled trial	Health Communication, Music Therapy, Emotional problem	The effectiveness of music therapy (MT) in clinical settings is unknown, despite the fact that it is thought to be a successful intervention for young people with mental health concerns. So, we looked into MT's effectiveness in clinical settings.	While the results support the use of music therapy in clinical settings, discrepancies in subgroups and secondary outcomes point to the need for more research.

Table 3 shows how we can learn more about how music can be used as a therapeutic tool by studying the mechanisms underlying these benefits. In conclusion, it is evident that ongoing study into music and health communication is necessary. We can create more efficient interventions and raise people's overall quality of life by investigating the potential of music to enhance health outcomes in a variety of populations.

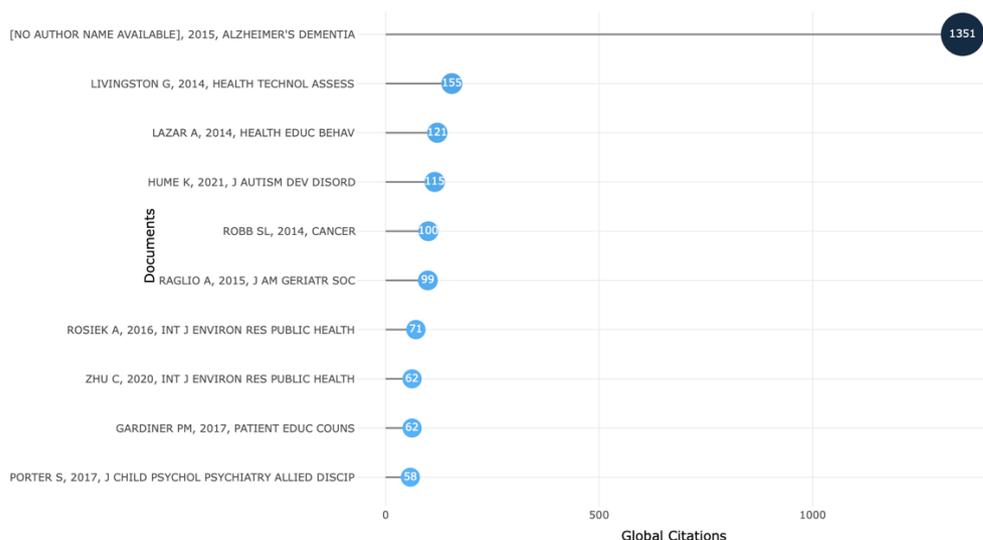


Figure 4. Top Global Cited Documents

The author concludes from Table 3 and Figure 4 that music has been utilized therapeutically for millennia and that there is growing interest in using music to advance health communication. Music

has the ability to engage listeners and make points about health and wellness remember. It may also be used to encourage good habits like exercise, a balanced diet, and stress management.

The study of the use of music in health initiatives is one field of research that has grown in this area. For instance, music has been utilized in anti-smoking programs to spread information about the risks of smoking and the advantages of quitting, according to a study. In initiatives to encourage healthy eating, where music is utilized to encourage the intake of fruits and vegetables, studies have also looked at the usage of music.

The use of music in patient care has been the subject of more research. To relieve pain, lessen anxiety and depression, and enhance patients' general quality of life, music therapy has been employed in a variety of contexts. Music's therapeutic effects on people with illnesses like cancer, Alzheimer's disease, and chronic pain have been researched. Overall, research into the relationship between music and health communication is expanding and shows great promise for advancing health and wellness. We can create new methods for utilizing music to enhance patient outcomes and public health as we continue to learn more about its ability to promote health.

The Analysis of the Most Contributive Countries and Institutions with the Highest Number of Publications on Music and Health Communication

The thematic trend developing in the top 10 countries contributing to the music and health communication articles was analyzed and presented in detail and separately in Table 4, Figure 5 (countries), and Figure 6 (institutions).

Table 4. Rankings of Countries with a Total Number of Publications and Citations

Country	Documents	Citations
United States	94	1355
United Kingdom	46	723
Italy	17	276
Australia	26	262
Canada	11	231
China	27	156
New Zealand	12	130
Turkey	5	128
Germany	8	102
Poland	4	94

Table 4 shows that many countries are interested in the trends in health communication publications. The top 10 countries include the United States (n = 94 with a total citation of 1355), the United Kingdom (n = 46 with a total citation of 723), Italy (n = 17 with a total citation of 276), Australia (n = 26 with a total citation of 262), Canada (n = 11 with a total citation of 231), China (n = 27 with a total citation of 156), New Zealand (n = 12 with a total citation of 130), Turkey (n = 5 with a total citation of 128), Germany (n = 8 with a total citation of 102), and Poland (n = 4 with a total citation of 94).

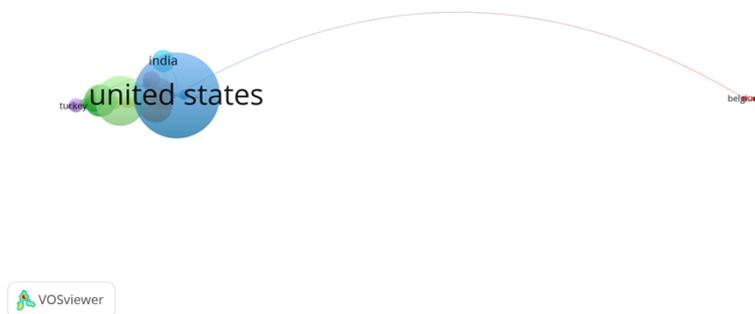


Figure 5. Co-occurrence Network of the Most Contributive Countries

Meanwhile, the networks of countries contributing to this research field are presented in Figure 5. Fifty-nine countries are contributing to these networks. Researchers from the United States have 41 networks with cooperation with several countries. The second top country is the United Kingdom, with 22 networks and cooperation with other countries. Researchers from Australia have 17 networks with other countries. Meanwhile, other countries, such as New Zealand, China, Italy, Germany, Norway, Netherlands, and Belgium, do not have many emerging networks with other countries.

Recently, researchers from the United States dominated the article citations with 1355 citations and 41 networks. This finding shows that the researchers from the US have made a significant contribution to music and health communication. These data conclude that the music and health communication research in the United States provides large assistance to the academics of the country and foreign countries. Why did we report this condition? The researcher found an article on the contribution of psychological theories and health communication research. Although the article discusses foreign language teaching, its new direction messages regarding psychology's contribution and interconnection are fascinating. We will campaign such messages to address various health communication problems.

Moreover, a well-designed interconnection of multi-science will produce new directions that can solve educational problems. In this article, new directions recommend the research roadmap that motivates researchers to implement music and health communication. The psychological theory and research in health communication contribute a more comprehensive insight. These findings suggest that today is a very reasonable time for researchers in music and health communication to cooperate to advance knowledge.

Table 5. Most Contributive Institutions

Affiliation	Articles
University of Toronto	16
The University of Melbourne	15
University of Melbourne	13
Vanderbilt University Medical Center	11
Azienda Sanitaria Universitaria Integrata Di Udine	10
University College London	10
University Hospital Düsseldorf	10
Vanderbilt University School of Nursing	10
The University of North Carolina at Chapel Hill	9
University of Exeter Medical School and Penclahrc	9

Furthermore, Table 5 and Figure 6 shows that the five most extensive contributor affiliations in this study are the University of Toronto (n = 16), The University of Melbourne (n = 15), University of Melbourne (n = 13), Vanderbilt University Medical Center (N = 11), Azienda Sanitaria Universitaria Integrata di Udine (N = 10), University College London (N = 10), University Hospital Düsseldorf (N = 10), Vanderbilt University School of Nursing (N = 10), The University of North Carolina at Chapel Hill (N = 9), University of Exeter Medical School and Penclahrc (N = 9).

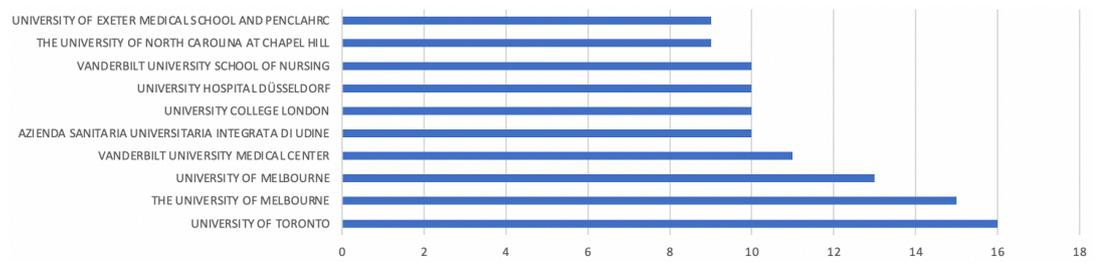


Figure 6. Most Contributive Institutions

These findings reinforce that the affiliations in Western countries necessarily develop and conduct this research because it is important. Much research states that listening to music has been demonstrated to lower cortisol levels and induce relaxation, improving health communication. Music also has been shown to reduce stress and anxiety. Playing music during medical operations has been demonstrated to lessen patient fear and suffering, which can facilitate simpler and more effective communication with medical professionals. Music has been demonstrated to stimulate brain regions related to memory and learning, improving patient recollection of critical information and supporting health communication. Music can help people express their emotions: People suffering from health concerns may find it especially helpful to use music for emotional expression. Music can assist patients in more successfully expressing their wants and emotions by giving them a means of doing so. Overall, the research indicates that introducing music into health communication can be a useful method to enhance the patient-provider connection and improve patient outcomes.

A Contribution Analysis of the Journals Publishing Articles that Examine the Relationship Between Music and Health Communication

International journals that publish music and health communication research with their discussion branches provide another significant justification for our study. Two hundred thirty-five journals publish research related to music and communication. These figures indicate that music and health communication research is worthwhile when viewed in the context of other academic fields and of each journal’s objectives and coverage.

Table 6. Distribution of Journals that Most Publish Articles on Music and Health Communication from 2014 to 2022

Journal	TC	NP	SJR 2021	JIF 2021
International Journal Of Environmental Research And Public Health	156	10	0.814	1.440
Frontiers In Psychology	92	8	0.873	1.605
Health Communication	41	6	0.880	1.435
Journal Of Music Therapy	26	5	0.545	1.375
Arts In Psychotherapy	16	4	0.440	1.017
Supportive Care In Cancer	22	3	0.949	1.450
Frontiers In Human Neuroscience	35	3	0.859	1.249
Medical Humanities	13	3	0.402	1.036
Acta Paediatrica, International Journal Of Paediatrics	33	2	0.922	1.276
Bmc Public Health	34	2	1.156	1.703

The bare minimum (n = 2) of frequently occurring terms were used in this research. It means that at least two instances of the targeted keywords are present in the article. The keyword “music” appears 87 times, whereas “health communication” appears 80 times. The most common keywords in this data, according to Figure 7, are “human,” “female,” “male,” “music therapy,” and “interpersonal communication.” With the words “memory,” “art therapy,” “wellness,” and “mini-mental state examination” groupings in the red cluster, the word “intervention” is frequently employed. The term “health communication” is also the most used, followed by the terms “controlled study,” “depression,” “caregiver,” “emotion,” and “autism” in the gray cluster. The words social interaction, anxiety, and attitude of health commonly coincide alongside the word curricular development in the gray cluster. This analysis concludes that not many networks are involved in integrating music and health communication, and these networks may have evolved since this study is unique in the field of health communication science. Health communication is typically linked to other fascinating research topics like music therapy (Magee, Lipe, Ikeda, & Siegert, 2022)(Perko, 2021)(O’Donoghue, Egan, Moss, & Clements-Cortes, 2021)(A Raglio et al., 2017). The future development of this study will be stronger if the research theme is further developed using the findings from the analysis in Figures 7, 8, and 9.

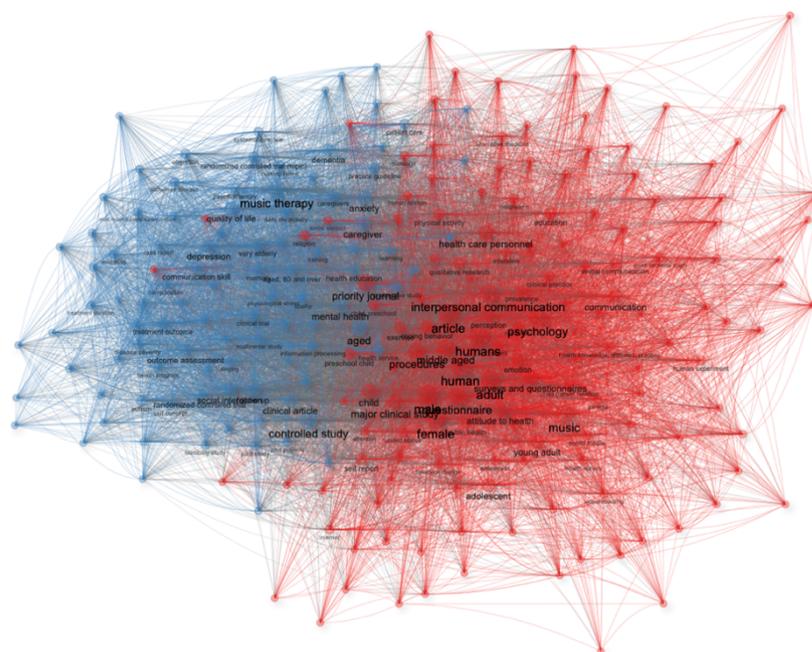


Figure 8. Thematic Map of Network Approach Based on Index Keywords

Analysis of the author’s Contributions to Publications on the Relationship Between Curriculum and Self-Esteem

This study investigated authors by employing three analyses: co-authorship-link, co-authorship-document, and co-authorship-citation, as presented in Figure 9. Co-authorship-link has three clusters that show the researchers’ networks. Three of them are as follows: Cluster 1: Barker, Bryant, Stretton-smith, Cadwallader, Lois, Flynn.; Cluster 2: Noff, Marigliani, Morris, Tamplin, Vogel, Heines, Sousa, Tull, Dunn; Cluster 3: Meyer, Kaimal, Eickholt, Carrill-Haskins, Dumares, Dunphy, Sajnani, Wosch, Ercole, Shamir.

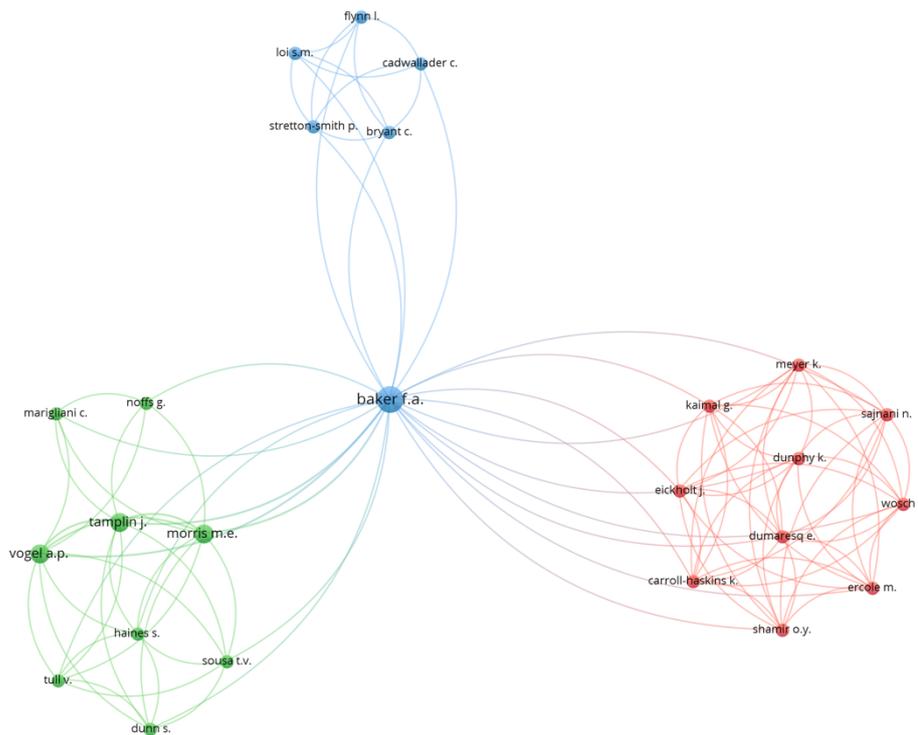


Figure 9. Author Contributions to Publications on the Relationship Between Music and Health Communication

This analysis concludes that in order to develop a new paradigm in education, particularly to maximize the role of music with health communication studies, the networks of writers who published articles on music and health communication must be expanded. Through the development of health services and treatment through the music, music and health communication will eventually have an impact on the instructional practices at physical and mental health institutions to generate better practices. Research on music and health communication has a stronger emphasis on psychology, therapy, and health science/medicine. These health communication researchers ought to integrate psychology to their scientific expertise in this situation. As a result, the development of healthcare services and therapies can proceed smoothly.

CONCLUSION

The systematic literature network analysis on music and health communication study is presented in this paper. This article gives a research roadmap using the Scopus database. Only a few articles on the intersection of music and health communication research have been published despite several studies on systematic literature reviews and bibliometric analysis having been done. The systematic reviews of the top ten papers reveal varied research investigations on music and health communication linked to different keywords, methodologies, and emphases. In order to solve health issues and provide therapy for patients in physical and mental health institutions, scientific disciplines, health communication, and music must be integrated and connected. Based on keywords, co-occurrence networks offer insightful information about the major study themes in music and health communication. The author-based bibliographic coupling networks, which include two clusters and visualize knowledge networks in music and health communication, illuminate the research networks and groupings created by different authors. Thanks to this study, we can understand patterns and historical changes in author-based knowledge networks. This paper used structured network analysis and bibliometric analysis to try and understand how the research on music and health communication has developed. In the future, this research can be developed regarding how health communication can be developed through media intermediaries other than music.

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