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BIBLIOMETRIC STUDY OF MUSIC THERAPY ARTICLES PUBLISHED IN PUBMED, WOS AND SCOPUS BETWEEN 2012 AND 2022

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Abstract

There are currently no studies of the state of the art of music therapy as a discipline. For this reason, a bibliometric study of scientific production in music therapy has been carried out through articles published between 2012 and 2022 on the prestigious scientific platforms Scopus, Web of Science and PubMed. To carry out this study, a total of 18,179 articles have been cataloged. This has been done through categories and labels awarded to each article depending on its nature, using Excel and VOS-viewer to process the data obtained. The results show a domination by English-speaking countries in terms of volume of publication, but in terms of impact and citation, it is the European countries that surpass the rest by far. There are also several phenomena such as the case of China, a country whose citation feeds back creating a bubble of false international impact. At the same time, there is evidence of a problem in the cataloging of thousands of articles as a result of a possible bad image on the part of music therapy, which also implies a possible bad or insufficient communication.

Keywords: Music, Music Therapy, Bibliometric Analysis, Web of Science, PubMed

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BACKGROUND

During the exchanges with the professors of the master's degree in research in music therapy at the UNIR, through specialists and researchers, the works and the proposed bibliography (Aldridge, 1994), a problem is revealed: the scientific production referring to the field of music therapy is still scarce about other disciplines considered scientific. To do this, it is enough to compare with other disciplines the number of publications of articles in music therapy: in 2022, at least twice as many other disciplines were published (WOS, PubMed, 2022). Although in some countries such as the United States publications in music therapy are regular and present for more than fifty years, compared to publications in other disciplines such as physics, psychology, or medicine, publications in music therapy do not even reach half in terms of quantity. Regarding the level of quality, there is also a problem (Hillecke et al. 2005) since there are few peer-reviewed publications that pass sufficient quality filters (Boso et al., 2006) to be on prestigious platforms such as Scopus or PubMed, resulting in a large number of publications not reviewed or consembled. Low-quality deradas. By not being accepted as high-level scientific articles, these publications will have a much lower distribution and impact compared to high-level publications and, as a consequence, will have worse communication and less impact. The present work proposes a review of the scientific production, through scientific articles, related to the field of music therapy. The bibliometric works are of limited production, especially if we have in the field of music the-

rapy where this type of research is practically non-existent, so this type of work is necessary to have a more accurate state of the art. Research in music therapy, especially in Spain, requires greater cohesion and better communication (Lin et al., 2011), since only research from the main producing countries (USA, Germany, England, Australia ...) is usually present in the global scientific community, retroactively having a greater impact. Having bibliometric studies, and the dissemination of them, in the Spanish language will help Spanish-speaking researchers to know which topics have a greater impact, which topics are cited more, which are more likely to have a grant, etc.

Thus promoting music therapy research in Spanish-speaking countries. For this reason, the objective has been to carry out a bibliometric study of the articles belonging to the theme"music therapy", published between January 2012 and June 2022, on the Web of Science, Scopus and PubMed platforms. For this purpose, a review of publications in the three main publishing platforms PubMed, Web of Science and Scopus has been carried out, for their scientific rigor, volume of publications and research works of international origin. A first screening of articles and publications has been made according to whether they are related by theme, country, keywords and quotations. Followed by a second classification screening dividing the different evidence by similar groups to move on to their accounting and crossing the data obtained. Finally, the results obtained are shown through graphs accompanied by brief explanations to facilitate their understanding and conclusions are drawn based on the results.

The general objective is to carry out a bibliometric study of the articles belonging to the theme "music therapy", published between January 20 12 and June 2022, on the Web of Science, Scopus and PubMed platforms.

The specific objectives are:

1. Obtain data from articles published in the last ten years.

2. Classify the data by categories (country, theme, volume, impact, etc.).

3. Analyze and conclude the classification of articles.

MATERIALS AND METHOD

Bibliometric analyses are significantly scarcer than other types of research work. This fact prevents us from having a large base of previous work on which to base this work. If we also pay attention to recent bibliometric analyses that are aimed at music therapy, we find that there is only one, the aforementioned "The State of Music Therapy in the Past 20 years: A Bibliometric Analysis". The problem with this article is not one but several; It is based on a search for a single keyword from a single platform, Web Of Science, limiting the results to it and ignoring the rest of important platforms such as PubMed or Scopus. Once the problem of sources has been addressed, the other big problem must be addressed, which are keywords. While searching for articles through the keyword "music therapy" is the most logical in a work of this type, and it is the reason why the only article that exists in recent years has used this keyword, a search through this term would not reflect the reality of what has been published on the field of music therapy. since there are articles that can be considered of the field of music therapy although without necessarily mentioning the word "music therapy" (or "music therapy") only once in the article. To rule out this fact, the first phase of the project has been carried out with a reduced number of articles, to see if there is a difference and if this "non-classification" of music therapy articles exists.

As a result, this project has been carried out in two distinct stages:

1) A first stage where the first screening has been done, tests will be made to develop a valid Excel template for the second phase from which the final data. In addition, a series of representative data will be obtained from which It can be the final data. At this stage, the keywords have also been validated.

2) A second stage where a classification of all data has been made through the Excel developed in the first stage. The information will be processed to obtain quantitative results and to be able to make graphic representations to facilitate the understanding the results.

First stage

To obtain the necessary information, it is necessary to take into account, before starting to review articles definitively, to make a pre-review of the present material to adapt the final methodology to the objectives of the study. This is the function of this first stage. For this, two search criteria have been taken into account:

Keywords. Keywords are, in most search engines, those words by which we can find an article and under which this article is classified in each scientific platform.

The search has been done with the keywords "music therapy", "music art therapy" and "music" and which are present in the list of category keywords of the article and/or that is present in the title of the article. This, together with a reading of the first fifty articles, serves to compare under different keywords the number of similar articles that exist and their characteristics. The search in this first stage has been carried out on three platforms, Web of Science, PubMed and Scopus.

Title. The title of the article is equally important since on the one hand it is part of the search elements. It is therefore important that authors put titles that include the words by which the article should be found, in addition to the reader can understand at a glance the content of the article.

The procedure followed was:

- A search with the keywords "music therapy", "music art therapy" and "music" and that are present in the category keyword list of the article and/or that is present in the title of the article. This will be done on the Web of Science, PubMed and Scopus platforms.
- A selection of 50 items on each platform and as a result of each search by keyword. To ensure that search engine algorithms. Smart platforms do not alter results as a result of possible cookies, the platforms will be accessed from a private session. This will give a total of 150 articles to be analyzed for each keyword used, which will mean an initial analysis of 450 articles.
- For each keyword, an analysis of the relevance of the articles will be carried out, since, for example, under the keyword "music" musical anthropology articles may appear that are not directly relevant to music therapy.
- Once the relevant articles have been identified, a percentage of articles will be made relevant by keyword.
- This percentage of relevant articles will be extrapolated to the total of existing articles under their corresponding keywords obtaining a representative percentage.
- The result of this first process will allow us to better identify under which keywords more relevant articles are created for the field of music therapy. This will improve the quality of the template that will be used for the final analysis, in addition to allowing to obtain an overview of the first-level scientific reality in the field of music therapy, also be useful for the preparation of the analysis.

Second stage

In this second stage, the Excel template verified in the previous stage will be used. As a result, different tags have been manually assigned to each article. For this work, a label is considered as a simple and representative word of an aspect of the article that in turn provides information that helps to classify the articles into different categories.

Labels have been awarded and subjugated to categories. For example, in the category "Country" we will have the labels "Italy" or "Australia". In the "Topic" category we will have the labels "cardiology" or "pediatrics".

The total number of categories is chosen, but the total number of tags is derived from the same categories, that is, not only the labels "Italia" and "Australi a" have been chosen, but it will be the very nature of the articles that dictate the type and quantity of tags.

The total number of categories chosen is as follows:

1. Year of publication. In this category, only ten labels are derived, which correspond to the years between 2012 and 2022, both inclusive. For example, an item cannot have a year before 2012 or after 2022.

2. Country of origin of publication. This category takes into account the country of origin of the publication, so the corresponding labels may be those of any existing country. It takes into account the institution from which it is published and not the country of origin of the author. If a Chinese author publishes from the University of California, this article will be classified under the country label "USA".

3. Keyword. Articles are classified under a keyword system. The tags will be the keywords voluntarily marked by the researchers who have written the article, so you can later measure how many times a keyword has been used (or not used).

4. Area of knowledge. In this case, the tags belong to the areas of existing knowledge. Some labels are "Mathematics", "Psychology" or "Neurology". The keywords that the researchers have used will help this classification, as well as the title and abstract.

5. Topic of the article. This category differs from the area of knowledge and requires a large investment of time since the tags will be awarded by reading a part of the article, specifically the title, abstract and abstract.

6. Author. This category has the tags created once the article is registered in Excel since the author's name will be considered as a label.

7. Journals in which it has been published. The scientific journals for which the articles have been published have been searched and classified, turning them into labels. If the article has not been published in any journal, it will be classified under the label "Not journal".

Once the tedious work of classification is done, obtaining the results and analyzing them is relatively simple. Thanks to programs such as Excel or VOSviewer, large amounts of information can be processed once classified and see the relationships

that the different data have with each other to facilitate the understanding and reading of the data obtained, graphs have been made as a tool.

Traditionally, research work has added a "population and sample" section. In this case, it is not appropriate to speak of a population or sample group. Although you can talk about annotation instead. For this work, the obtaining of the information of the last ten years has been limited, covering only three platforms of scientific renown (Web of Science, PubMed, Scopus) and eliminating repeated articles. Articles have also been used that have value for the field of music therapy and to be able to consider them relevant and ac otar a little more the number of articles, a new method to perform trills on the transverse flute could become useful in music therapy indirectly, but for this work, only those articles that have a direct utility on the field of music therapy have been used.

RESULTS

All the results, data, lists, tables and graphs presented in this section "results" are original material created for this bibliometric study and have been created from the analysis explained in the methodology.

For better understanding, the results have been divided into two parts. The first stage is more general and follows the keyword "music therapy", and the second stage where articles that fall into the theme "music therapy" but are not necessarily labeled as such are analyzed.

First stage: results

A total of 450 articles were reviewed, under the keyword "music therapy", fulfilling the publication criteria in the last ten years and taking into account that the 450 most relevant have been taken, with at least one citation.

Regarding the total annual publications under the keyword "music therapy", between 2011 and 2016 there was a constant growth with an average of 353 articles published per year. It is from 2017 that the sum rises considerably to 458 articles, and reaching 740 articles in 2021. The significant increase in publications between 2017 and 2020 indicated that a growing number of researchers became interested in this field, despite the global health crisis represented by the COVID-19 pandemic. The production of publications by countries under the keyword "music therapy" gave the following list:

1. USA 36.2%
2. Germany 9.5%
3. United Kingdom 9.4%
4. Australia 8.7%
5. Norway 7.1%
6. China 5.2%
7. Denmark 4.4%
8. Italy 3.8%
9. Canada 2.9%
10. Israel 2.8%

In it, you can appreciate the tremendous role that the United States continues to maintain in music therapy publications, although it should be noted that productions from China have increased considerably in recent years. The greatest intercommunication between institutions that publish is given by universities in the USA. They seem to have a preference for collaborating seeing how little they collaborate with European universities.

If we sort the results by journals:

1. Journal of Music Therapy 16.6%
2. Nordic Journal of Music Therapy 13.1%
3. Arts in Psychotherapy 11.3%
4. Analysis of the New York Academy of Sciences 1.4%
5. Complementary Therapies in Medicine 2.1%
6. Journal of Clinical Nursing 0.9%
7. Journal of Palliative care 0.9%
8. Cochrane Database of Systematic Reviews 0.8%
9. Frontiers in Human Neuroscience 0.9%
10. Psychology of Music 0.7%

The American media are dominant, although there is no monopoly as some major media, such as the Nordic Journal of Music Therapy, are from Norway.

Finally, the most addressed topics related to music therapy through keywords we have the following list:

1. Music therapy
2. Anxiety
3. Intervention
4. Children
5. Depression
6. Pain
7. Dementia
8. Music
9. Randomized controlled trial
10. Quality of life

11. People
12. Relaxation
13. Recovery
14. Stress
15. Care

We find the theme "anxiety" and the theme "pain" at the top of subjects to be treated.

Surprisingly, cancer or other serious and common diseases are not on this list of the fifteen most discussed topics.

Second stage: results

Articles by year worldwide

This table shows a general analysis with only the articles published per year. Of a total of 18,424 articles found between January 2002 and June 2022, the percentage of them has been made to facilitate the reading and understanding of the results. These results are not filtered geographically but pertain to total world production.

Table 1

Link between articles and years of publication

Years	Papers
2022	10,23 %
2021	15,66 %
2020	13,14 %
2019	10,93 %
2018	10,89 %
2017	10,13 %
2016	9,55 %
2015	9,87 %
2014	9,46 %
2013	8,07 %
2012	6,97 %

Note. Own elaboration.

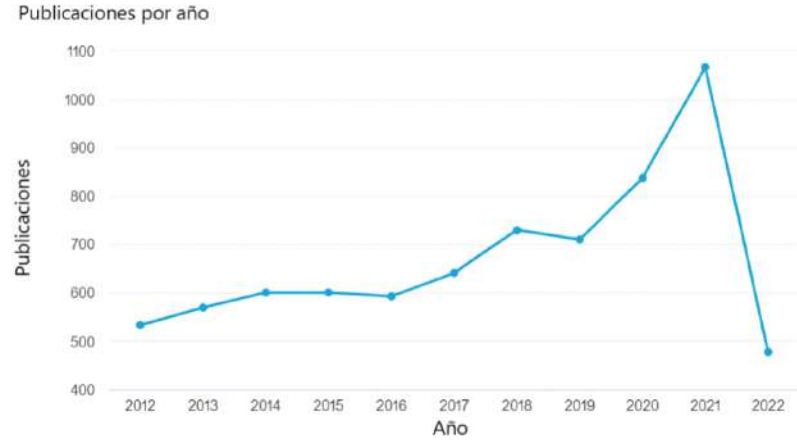
You can see a steady increase in publications that enter the subject of music therapy. Remember that this time we use several keywords and all articles have the theme "music therapy" although they do not mention the term in the keywords.

Almost paradoxically, it is in the years 2020 and 2021, years of the global pandemic, where we see a greater increase in publications, of 2 points per year. This is enormous considering the difficulties, as a result of the pandemic, to carry out research projects and publish quality articles. This fact indicates that the growth of research in music therapy has suffered a notable increase in the last three years, larger than expected taking into account the pattern of growth since 2012, although to confirm this abnormal growth it is necessary to wait to obtain the results of at least the year 2022 (the data of this study have been collected in June 2020) and the year 2023, This is to rule out that the increase of this type of projects has not been favored by the pandemia instead of delayed.

The following graph shows the number of published articles that have to do with music therapy but are not the result of an application of a method in music therapy in a group of patients, but are part of instrumental research such as, for example, from measuring and analyzing the effect that music can have on verbal development at an early age, to the effect different than music in certain frequencies and tunings different from the current agreed 440Hz.

Figura 1

Music therapy papers published by year



Note. Own elaboration.

In the same way, as in Table 1, this graph 2 shows an almost identical trend in terms of volume of quality publications.

The volume of publications by country

In the following table 2, we see a ranking of the 10 countries that publish the most, ordered from most to least and from top to bottom, with a percentage indicating the volume of articles produced in the last ten years relative to the total of the top 10. We observe a clear dominance of the US at the top of the list. In addition, the first three positions are occupied by English-speaking countries which reflects the dominance of English as a dominant language internationally, in addition to the

fact that all the articles analyzed were available in English regardless of whether the country of origin of the article was English-speaking or not.

Table 2

Music therapy papers published by countries

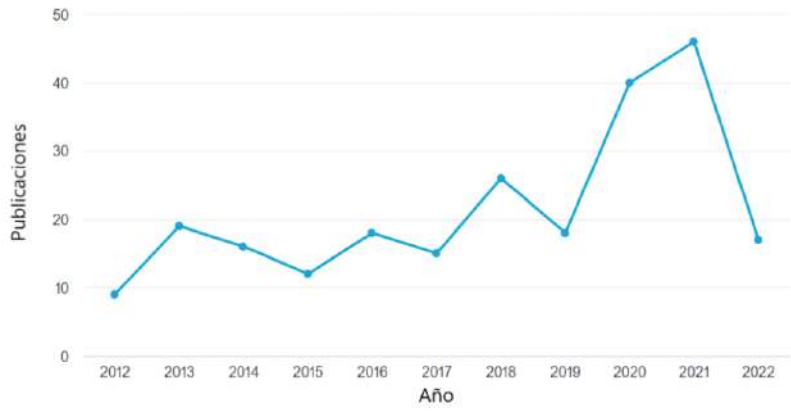
Country	Papers
United States	37,02 %
United Kingdom	14,17 %
Australia	8,65 %
Germany	8,23 %
China	7,96 %
Canadá	6,17 %
Italy	6,13 %
Spain	4,16 %
France	3,98 %
India	3,52 %

Note. Own elaboration.

In table 2, for the first time in history, Spain is among the top 10 countries that have published the most internationally in the field of music therapy, occupying the position number 8. Since this document is a work in Spanish produced in a Spanish university, it has been pertinent to specifically make the following graph, which shows the publications by year in Spain in the last 10 years:

Figura 2

Publications per year in Spain



Note. Own elaboration.

We can observe a strong peak in 2020 and 2021 coinciding with the general global trend. Although in certain years, such as 2015 and 2017, publications were lower than in the previous year, the trend continues to be upward and coincides with the global flow of publications.

The volume of publications by area of knowledge

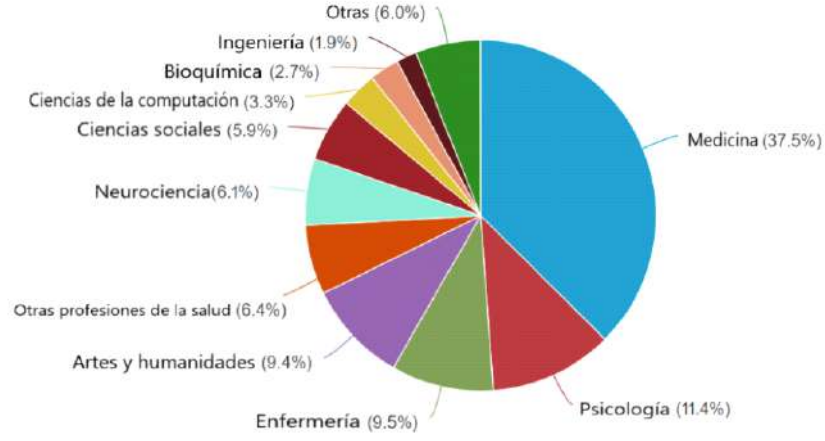
Below, an area graph is shown with the publications classified by volume (in percentage) and by area of knowledge, having more surface those areas that have more articles belonging to that field of knowledge.

The factors that will determine whether an article enters one field or another

It will be, firstly, the will of the author through the keywords that he has used to identify the theme of the article and, secondly, towards which area of knowledge the author intends to contribute information. Whether it is explained through psychological phenomena or if specific neuronal activation is studied, if the article contributes knowledge to a specific area, it will be cataloged in that area.

Figura 3

Publications by area of knowledge



Note. Own elaboration.

We can see that the most significant area is medicine, with 37.5% of articles in music therapy being classified in the medical field. This fact is normal considering that music therapy is a discipline that serves perfectly as a complement to other medical treatments.

The area of medicine is followed by psychology and nursing. Music therapy takes elements of psychology to perform its treatments.

Thirdly, there is the nursing area. This may be because one of the main focuses of the work of a music therapist is in areas related to nursing, such as neonatal areas, nursing homes, or post/preoperative care, where music therapy will be part of the

complementary care. These jobs would favor the production of scientific articles.

Arts and humanities are close to the nursing area as far as volume is concerned. This may be because there is an approach to music therapy from the field of art therapy. Art therapy research can be funded with art grants by both public and private organizations. This aspect of financing is less developed in the field of music therapy in a specific way, which is why on certain occasions it may be more economically viable to talk about music therapy through a more general art therapy project.

The categories that follow (neurology, biochemistry, engineering, etc.) curiously form a groupor smaller than the previous ones. In an ideal situation, in music therapy research it should be possible to investigate both the psychological and the neurological, the biochemical and the sociological part. Once again we have the problem of funding and funds since all these smaller fields that we see in the graph are part of areas where research is more complex and expensive, where more technical staff and laboratory equipment are needed, open spaces and a long etcetera of elements that make this type of research more expensive.

The volume of publications by article topic

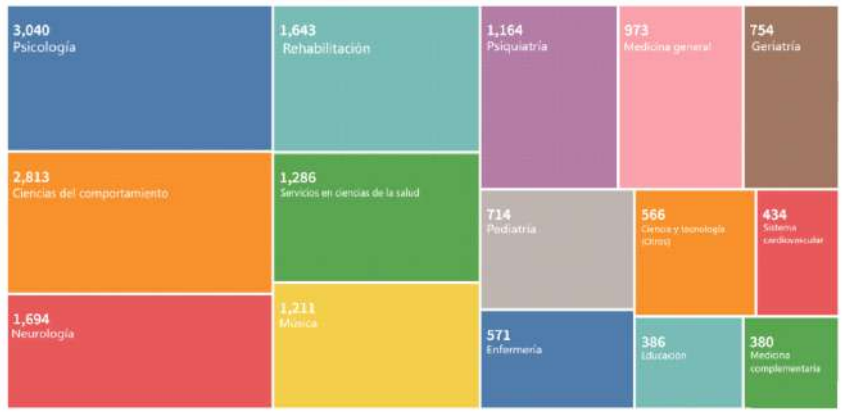
The following area chart shows by topic of the article. This refers to the specific main topic that an article addresses, not the area of knowledge. If it is psychology applied to music therapy, in this graph we will see the article within "psychology". An article dealing with the influence of certain aspects of music on heart rate will be classified under "cardiovascular system and cardiology".

In the graph, we can observe that the most addressed topic in music therapy is psychology (see Fig. 4). This fact is normal since, as mentioned above, music therapy is based on concepts of psychology. The growth of the discipline therefore passes through the revision and broadening of its psychological base.

Secondly, we have the so-called behavioral sciences, a category that necessarily derives from psychology and on which music therapy can rely to apply its methods in individual or group therapies.

The third and fourth groups are "neurosciences and neurology" and "rehabilitation". These two are especially linked since one of the fields of action of music therapy is rehabilitation when one or more parts of the brain have been compromised. At the same time and independently of rehabilitation, neurosciences have addressed the issue of music therapy and music in general. Examples of this are the numerous works of neurologist and researcher Robert Zatorre.

Figure 4
Publications by topics

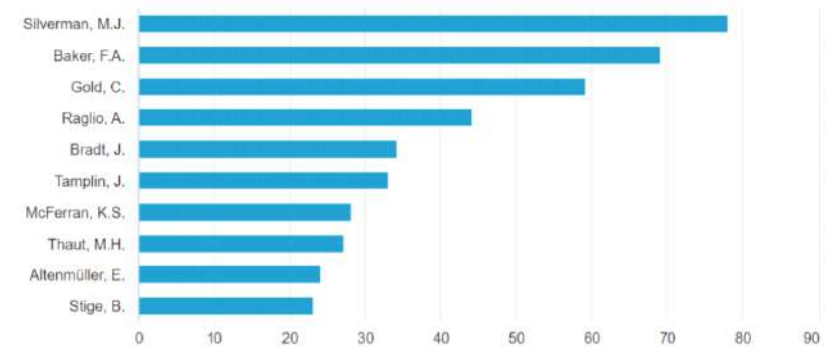


Note. Own elaboration.

Article publications by author

In the following bar graph, an analysis of articles published by the author has been made. Some of these authors have published or participated directly in the publication of a significant number of articles. The case of Silverman, at the top of this list, represents the enormous amount of almost 80 scientific articles published in high-quality media. This means, without taking into account holidays and holidays, a publication every month and a half for the last ten years. Baker and Gold follow with nearly 70 and 60 publications respectively. Corresponding to a publication every two months without rest for ten years.

Figure 5
Publications by auhor



Note. Own elaboration.

The country of origin of most of the articles of these researchers is the United States or Australia. This is significant as it can explain this large volume of publication. In English-speaking countries, strongly influenced by the US, as mentioned above, music therapy is more established than in the rest of the world (especially Australia). This implies a greater infrastructure at the level of organizations, training and professionals dedicated to research, in addition to a systematic integration into American

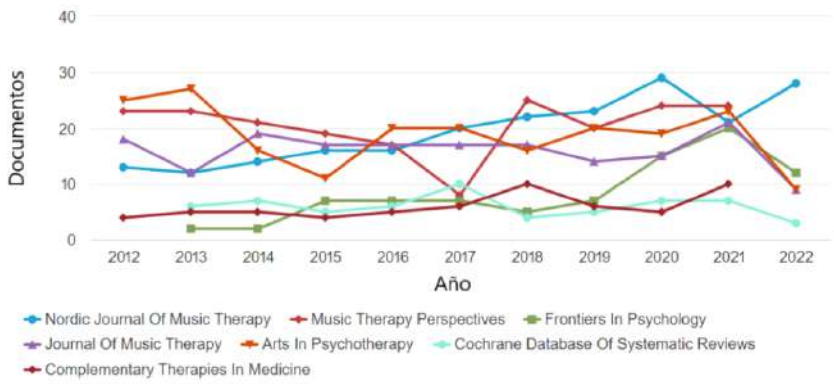
society, forming the music therapy part of hospitals and rehabilitation centers. This integration also implies increased funding for research in this field. It should be borne in mind that the funds for research are linked to the results of the same and, therefore, to the publications that are made. In several countries, including the United States and Australia, a system of regular publication has been established regardless of whether according to the nature of the research project, the frequency of publication should be, for example, 15 months. Publication dates are delimited by funding and not by the project itself.

Publications of articles by journals

The following graph shows the seven journals that have published the most articles on music therapy topics.

Figure 6

Documents by year and by source



Note. Own elaboration.

Again we see a domination by Americans and Anglo-Saxons, only the "Nordic Journal of Music Therapy" of Norway and "Frontiers in Psychology" of Switzerland would not fall into this category. The only journal that seems to have a steady growth in the number of articles published is the "Nordic Journal of Music Therapy". The rest of the journals maintain the same average number of articles published, with slight variations that do not mark an upward or downward trend.

The journals have been ordered according to their h index (numerical value granted that depends on the number of citations and registered publications) registered in Scopus, as well as to which quartile each journal belongs taking into account the average in the last ten years.

Among the seven journals that publish the most music therapy, only four belong to the first quartile. Among the first three is neither the word "music", "art" or "Music therapy", unlike the other four.

Table 3

H-index And Quartiles

Issue	H-index	Quartiles
Cochrane database of systematic reviews	292	Q1
Frontiers in psychology	133	Q1
Complementary Therapies in medicine	69	Q1
Journal of music therapy	51	Q1
Arts in Psicotherapy	39	Q2
Nordic Journal od music therapy	27	Q2
Music Therapy Perspectives	13	Q2

Note. Own elaboration.

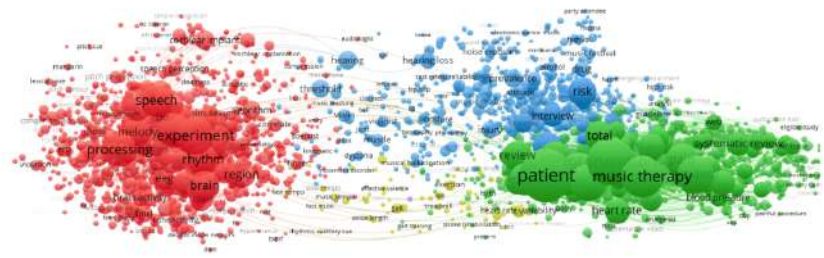
Analysis of the content of the papers

In the following graph, an analysis of the content of the articles analyzed has been carried out.

To treat such an amount of information (18,179 articles in total) has proceeded to use the help of the data management program VOS Viewer in addition to the classifications made in Excel.

Figure 7

Keywords



Note. Own elaboration.

In green on the right we have the most repeated words in articles classified under the keyword of "music therapy" or that have a part of the article dedicated to music therapy. Marked with red and blue are articles that are useful or have to do with music therapy but are not classified under that keyword.

At first glance, we see a lot of articles that are not within the "music therapy" group. In the group that is, topics such as "patient", "review" or "heart rate" are discussed. In this graph, the proximity of its elements also counts, this means that the group "music therapy" in green, is more related to the concept of

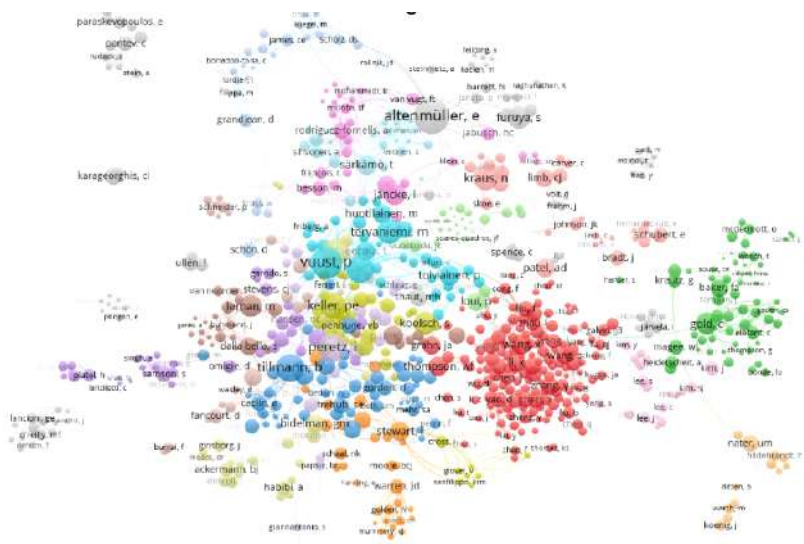
"risk" and "drugs", in blue, than the rest of the concepts on the left in red. If we look at the red group located completely on the left, we will see that the terms used belong to what we can call "expensive sciences", since to carry out projects in them a series of important material, human, and economic resources are required. Concepts such as "experiment", "eeg" (electroencephalogram) or "brain activity" are on the opposite side of music therapy. This means that the articles relate little or nothing to the subject of study in the field of music therapy, something absurd considering that these articles provide new information absolutely useful to develop new treatments through sound and music or, directly, to better understand existing treatments.

Impact analysis by authors

In this last map, we see the correlation between the different researchers who publish on music therapy. The larger their circles are, the more they will have been cited and named by other researchers, so their publications are considered to have had a greater impact. In the same way as the map of the previous point, the closer two points are to each other, the greater the correlation and synergy they have. The strongest relationships can be seen with lines between the points. In addition, the more to the center of the map, the greater the importance of the publications of such a researcher, since both the number and the variety in the citations will be greater.

Figure 8

Correlation between investigators



Note. Own elaboration.

The first data that has been observed is the correlation between the researchers who publish the most and the researchers who have the most impact on this graph. If we look closely we will see that the list of the ten researchers who publish the most does not correspond to the most visible names on this map, so we can determine that there is no necessary correlation between greater volume of publication and greater impact of a researcher's publications. Some of the names from the list of researchers who publish the most have simply disappeared from this map, only one name retains its importance: the German neurologist Altenmüller, who on the other hand is displaced from the general current observed in the center (several colors).

The three researchers who have the greatest impact on the mainstream are the French neurologist Barbara Tillmann, the Danish neurologist Peter Vuust and the Belgian experimental psychologist Isabelle Peretz. As we see in terms of impact, the publications that lead this field are the European ones and not the American or Australian ones, despite their great tradition and having music therapy as a discipline integrated systematically.

On the right side we have Gold, one of the researchers who has published more articles on music therapy in the world, who has received fewer citations than other names and who, given his position on the map and his connections, these citations always come from the same group of researchers.

In this graph, we can also observe a particular phenomenon, and it is the large red cluster indicated by the group of Chinese researchers. We see a lot of articles and a lot of citations with an impact that feeds back, citing each other. This forms a series of publications that effectively have a high score by having a great impact, but that through this analysis it is seen that they are part of a closed circuit fed by the members of the same country. This does not necessarily imply that Chinese publications have less scientific value or that they are less interesting when consulted, but they must be questioned in terms of global impact.

DISCUSSION

The specific objectives and the general objective have been successfully achieved, although it is necessary to highlight certain data that can only be reflected indirectly. The results of this work reveal that research in music therapy has been conducted all over the world but throughout the Western world. We see little or no presence from African or Middle Eastern countries, for example. The only Asians that are more present are South Korea and China, the rest of the countries are the so-called Western, which share more or less similar cultures, economic agreements, etc. This may be mainly because countries that are not on these lists do not have a strong university system developed or are in the process of developing one, at least as far as musicotherapy is concerned.

The set of data with which we have worked and, as a consequence, the results obtained, is not usually taken into account when marking the level of impact that an article, journal, or author has, but tend to fall into bias precisely because of the omission of some of the data considered in this work, data that today are sensitive to public use (gender, nationality, political situation, etc.). These data have been considered without any racist, sexist, or political reposit, simply to reflect as much as possible the reality of the publications of scientific articles in the field of music therapy.

In the results, in the case of China, there is a marked difference depending on the political system to which its researchers are subjected. This data, we see, is important and influential to delimit the scientific reality of a country, although it is not the only data that can influence the publications of scientific articles of a nation. Funding is a very important point to take into account since it is a basic point without which no scientific project and therefore no scientific article could be made.

As suggested in the introduction and according to the data obtained, there is a correlation between the capacity and willingness of a country to finance music therapy projects and the quantity and quality of scientific articles produced by that country. This is important as it hints at one of the reasons why certain countries publish fewer and/or lower-quality articles.

The fact of the funding and the quality and quantity of the articles in music therapy shows another fact if we cross it with the data obtained: The financing can in turn condition the quality and impact of the articles, as is the case of the North American authors, who have to, to continue receiving funding for their respective projects, Publish regularly and in sometimes too short periods.

On the other hand, the funding element should not be intended as the basic pillar of why a country publishes with greater or lesser quality, greater or lesser volume. This data should be taken into account as one more among the rest of the data that have been seen in this work. For example, the fact that music therapy is historically and institutionally more in a country is also a determining element that will influence the quantity and quality of publications, as well as access to regulated and approved music therapy training, which prepares trained professionals to conduct research and publish derivative articles. A country that has the right conditions of training, systematic integration of the discipline, financing and qualified professionals, will have more frequency and quality in its publications than countries that do not have these conditions, or that have had them for a short time.

The exchange between researchers from several countries seems to be one of the constants among the articles that have the greatest impact. Forming an international scientific team can complicate to some degree research work and the writing of the corresponding articles, but at the same time if is necessary to publicize this work in other countries, which will be referenced and cited more likely and frequently, thus exercising a certain "science marketing".

Another factor that seems to favor the impact of music therapy articles is the presence of an international magazine, in English, but which is edited and produced in the country concerned. This type of journal favors the publication of foreign articles, on the one hand, but on the other hand, it has the power to present national projects, disseminate them and at the same time favor contact and collaboration between the researchers who participate with their publications.

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