

## Sağlık Yönetiminde Nitel Araştırmaların Gelişimi Üzerine Bir Araştırma

### *A Study on Development of Qualitative Studies in Health Management*

Bünyamin ÖZGÜLEŞ<sup>1</sup>, Haşim ÇAPAR<sup>2</sup>

#### **Yayın geçmişi:**

Makale gelişi:  
12.07.2023  
Revizyon:  
08.08.2023  
Kabul tarihi:  
27.08.2023  
Yayımlanma tarihi:  
30.09.2023

#### **Anahtar kelimeler:**

*Sağlık yönetimi*  
*Sağlık bakım yönetimi*  
*Nitel araştırma*  
*Bilim haritalama*  
*Web of science*

#### **Keywords:**

*Health management,*  
*Healthcare management,*  
*Qualitative research,*  
*Science mapping,*  
*Web of science,*

**Özet:** Bilimsel literatürde nitel araştırmaların sayısal olarak arttığı bilinen bir gerçektir. Bu bağlamda çalışmamızda sağlık yönetimi alanında yapılan bilimsel çalışmaların ne yönde gelişim seyrettiğinin ortaya konulması amaçlanmaktadır.

Makalelere Web of Science (WOS) veri tabanında "sağlık yönetimi", "sağlık yönetimi", "hastane yönetimi" ve "nitel araştırma" anahtar kelimeleri aranarak ulaşılmıştır. WOS araştırması sonucu elde edilen makaleler R tabanlı Biblioshiny programı ile analiz edilmiştir. Görselleştirmeler için Tableau programı kullanıldı.

İncelenen nitel çalışmaların özellikle 2007 yılından itibaren artış eğilimi gösterdiği görülmektedir. Yıllık ortalama atıf sayısına göre en çok atıf alan yazar Willis-Shattuck (2008), en az atıf alan yazar ise Kristensen (2008) olmuştur. Makalelerde en sık kullanılan anahtar kelimeler "niteliksel araştırma" ve "sağlık yönetimi" oldu.

Verilerimiz sağlıkta nitel çalışmaların özellikle 2007 sonrasında artış eğiliminde olduğunu göstermektedir. Buna göre birincil verilerin niteliksel çalışma yöntemleriyle toplanmasının teşvik edilmesi nedeniyle bazı sağlık hizmetlerinde var olan sorunların çözülebileceği düşünülmektedir. Bu nedenle sağlık hizmetlerinin yönetiminde yaşanan sorunların çözümüne yönelik güçlü kanıtlar sunacak niteliksel çalışmaların artırılması gerektiğini düşünüyoruz.

**Abstract:** It is a known fact that qualitative research has increased numerically in the scientific literature. In this context, our study aims to reveal the direction in which scientific studies in the field of health management are developing.

Articles were accessed by searching the keywords "health management", "health management", "hospital management" and "qualitative research" in the Web of Science (WOS) database. The articles obtained as a result of the WOS research were analyzed with the R-based Biblioshiny program. Tableau program was used for visualizations.

It is seen that the qualitative studies examined have shown an increasing trend, especially since 2007. According to the annual average number of citations, the most cited author was Willis-Shattuck (2008), and the least cited author was Kristensen (2008). The most frequently used keywords in the articles were "qualitative research" and "health management".

Our data show that qualitative studies in health tended to increase, especially after 2007. Accordingly, it is thought that existing problems in some health services can be solved by encouraging the collection of primary data through qualitative study methods. For this reason, we think that qualitative studies that will provide strong evidence for solving the problems experienced in the management of health services should be increased.

<sup>1</sup>Dr., Department of Business Administration, Eskişehir Türkiye, bunyas32@yahoo.com, ORCID: 0000-0002-8401-3620

<sup>2</sup>Dr. Öğr. Üyesi, Dicle Üniversitesi, İİBF/Sağlık Yönetimi Bölümü, Diyarbakır, Türkiye, hasim.capar@dicle.edu.tr, ORCID: 0000-0001-7056-7879

## Introduction

The widely used research method in social science research, as in science, is the quantitative research method. Quantitative analysis is generally based on observation and measurement. However, the human factor is a crucial variable in social sciences. In this situation, it is sometimes difficult to explain the phenomena and events with the findings obtained in quantitative studies (Berg, 2001). This situation has led researchers to qualitative research. Qualitative research, like quantitative research, does not concern with generalizing the universe, so it is more likely to evaluate the events in their context. Saunders et al. (2009) liken qualitative studies to a jigsaw puzzle to reach the whole based on subjective data such as individuals' feelings, experiences, thoughts and perceptions. The human factor is a crucial variable in health management disciplines. For this reason, it is precious to carry out qualitative research in the field of health services and health management to reveal human-related phenomena more clearly. In this context, this study aims to show the evolutionary course of the research conducted with qualitative methods in health management over the years and put forward policies and recommendations accordingly.

### 1. Conceptual Framework

It is not enough to understand and explain the human being, which is the most challenging to define, from the perspective of a single branch of science, which has a spiritual dimension with bio-psycho-socio-cultural characteristics (Mohajan, 2018). For this reason, it is necessary to use qualitative research methods and designs that provide primary data collection to collect information about human beings. Because with quantitative research, data is collected only with measurement tools presented to individuals. However, qualitative research methods allow us to manage everything in more depth, other than numerical data about people, and to reveal facts that we cannot actually see. So much so that the definition of qualitative research conducted by Yıldırım and Şimşek (2008) is "the research in which qualitative data collection techniques such as observation, interview and document analysis are used, and a qualitative process is followed to reveal perceptions and events in a natural environment realistically and holistically" as it reveals. Based on this definition, the qualitative method facilitates understanding and interpretation due to its flexible structure and allows the researcher to conduct in-depth research on the subject (Mohajan, 2018).

In qualitative research, three types of data are generally collected. These can be classified as data on the psycho-social, cultural, demographic and physical characteristics of the environment in which the research was conducted, data on what happened during the research and how it affected the research group, and finally the data on the perceptions of the individuals included in the research group about the process. The method of obtaining these data is interview, observation and examination of written texts (Yıldırım and Şimşek, 2008). The theoretical background of this study can be considered as the examination of written texts in terms of the method of obtaining data. In addition, the anxiety of trying to understand the events in depth at the beginning of the qualitative research goals constitutes this study's conceptual infrastructure.

When the research in the field of health and nursing is examined, it is seen that quantitative analysis is done more than qualitative studies. However, qualitative research have increased in recent years (Öztürk et al., 2021). It is thought that this increasing trend will be beneficial in terms of seeing where the health care services and management literature has evolved.

Bibliometric analyses have been carried out in many branches and fields of science, evaluated according to Web of Science data in the world. However, it is seen that there is no such study on health management. We think that we can close this gap with this study.

Web of Science is an important internationally respected database that includes the Science Citation Index, Social Science Citation Index and Arts and Humanities Citation Index. It has a role that reveals the conditions under which scientific research is supported, by whom and in what format it is produced, and the prestige of the relevant publication in the scientific community with criteria such as citation and h-index (Koç, 2020). Using these features of WOS, we aimed to reveal the evolutionary course of qualitative research in health management, which is one of our main research goals. Therefore, by starting our research from 1975 until today, we aimed to reveal the course and structure of qualitative research in health management.

## **2. Methods**

When the scientific studies conducted in the academic field were examined in line with the research objectives, it was observed that the studies conducted with bibliometrics were relatively high, and it was evaluated that the most appropriate method for the research was bibliometric analysis. With this analysis method, the policy of scientific publications in health management can be assessed (Şakar and Cerit, 2013), while studies with bibliometrics are made with descriptive content analysis. In descriptive content analysis, creating a code pool by qualitative research approaches, especially in the analysis of the aims, reasons, results and suggestions of the studies examined, and using the theming / categorization method following these codes will enrich the descriptive content analysis studies in terms of quality (Ültay et al., 2021). The study has been shaped in the light of this information.

### **2.1. Bibliometric Analysis**

Bibliometric analysis can be defined as the quantitative analysis of publication information (author, field, subject, institution, country, etc.) with statistical and mathematical methods to measure the effect and relations of scientific studies published in a particular field (Kurutkan and Orhan, 2018; Yu and Muñoz-Justicia, 2020). The general purpose of this type of analysis is to conduct quantitative research on academic publications (Cobo et al., 2011a).

There are two main areas of use of bibliometric analysis methods. The first is a performance analysis, and the second is science mapping. Performance analysis tries to measure individuals and institutions' research and publication performance, while Science mapping tries to reveal the structure and dynamics of scientific fields (Cobo et al., 2011b). This study covers both usage areas. The study area is designed in bibliometric analysis, and scientific data are collected and compiled for this purpose. Interpretation is made with the visuals and tables obtained by putting the collected data into the analysis (Aria and Cuccurullo, 2017; Zupic and Čater, 2014).

### **2.2. Creation of Bibliometric Data**

Since it is a database of high quality and effective scientific articles in sufficient quantity and widely, the data were drawn using the WOS database (Li and Hale, 2016; Web of Science, 2022). In order to obtain the data of qualitative research in the field of health management, in the WOS database [TS= ("qualitative" and ("healthcare management" or "health management" or "hospital management")), Refined By: Articles or Review Articles, Languages: English , Web of Science Index: SocialSciencesCitation Index (SSCI) or Science Citation Index Expanded (SCI-EXPANDED) or Emerging Sources Citation Index (ESCI)] parameters. Thus, qualitative researches in the fields of Healthcare management, health management, and hospital management have been reached. English was used as the language of the article, and Review and Research articles were used as the type of article. Finally, the articles published in the SSCI, SCI-EXPANDED and ESCI indexes, which are the 3 most widely used internationally valid indexes, were filtered. Access date is 1.12.2021. While searching the WOS within the scope of the research, the years 1975-2020 were taken as the year limit, but the data obtained includes 698 articles published between 1996 and 2020.

### 2.3. Analysis of Data

The data we obtained within the scope of this study were analyzed with the RStudio Version (1.4.1717) program and the R-based "biblioshiny for bibliometrix" application program (RStudio Team, 2020). Tableau program was also used to visualize the data (Tableau A Salesforce Company, 2022). The RStudio Version (1.4.1717) program provides a wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time series analysis, classification, clustering, etc.) and graphical techniques and is a Java language for highly extensible statistical computing and graphics. and its environment (RStudio Team, 2020). The RStudio Version (1.4.1717) program runs on almost all standard computing platforms and operating systems (RStudio Team, 2020; Sriwichian and Muangprathub, 2019). The RStudio Version (1.4.1717) program was used because it could produce results suitable for this study (RStudio Team, 2020).

Biblioshiny is a Java software developed by Massimo Aria of the Federico University of Naples. Biblioshiny combines the functionality of the bibliometric package with the ease of use of web applications using the Shiny package environment (Huang et al., 2021; Massimo and Corrado, 2021). It is an open-source software design and provides bibliometric analyses and visualization opportunities without coding with its easy user interface.

The bibliometric analysis workflow of this study is shown in Figure 1.

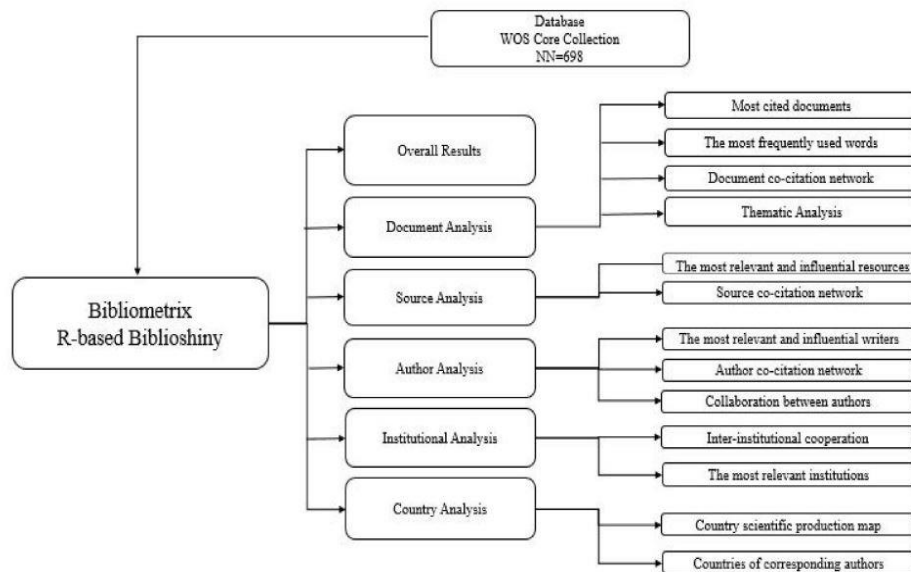


Figure 1. Bibliometric Analysis Workflow

## 3. Findings

### 3.1. General Findings

It has been observed that the first qualitative study in the field of health management was done in 1996, there were 698 studies between 1996 and 2020, and 40 of these articles were review articles. A total of 3017 authors contributed to studies in this field, and 32 published single-authored articles.

It is seen that the articles in the field of health management have been on an increasing trend since 2007. The years 2007, 2014 and 2017 can be considered the cut-off point. The highest number of

articles were written in 2020 with 120 pieces, and 2020 is followed by 2019. It is seen that the interest in the field of health management has increased in recent years. When the citation averages by years are examined, the highest citations were to articles published in 2008.

### 3.2. Analysis Results on Documents

#### 3.2.1. The most cited documents

In the bibliometric citation analysis of the data obtained from the WOS, the citations made from 698 articles in the data set were named local citations (this information is provided for the difference between local and global attribution). The citations from the articles in the entire database were called global citations. Global citations measure the impact of a document on the whole bibliographic database, while local citations measure the effect of a paper on the analyzed collection (Ahmi, 2022). According to the findings, the article written by Willis-Shattuck M (2008) was well ahead of other articles globally and received 416 citations. In addition, the number of local citations received by this article is 5.

#### 3.2.2. The most frequently used words

The results obtained by analyzing the first 20 most repeated keywords in the articles are shown with the Wordcloud graphic in Figure 2-A. The size of the words in Wordcloud is directly proportional to the number of keywords used. Accordingly, the most frequently used keyword was "qualitative research," with 58. It is followed by "health management" with 56 units. These two words are followed by "healthcare management," "qualitative," and "hospital management," respectively. The use of the same words in the search criteria significantly affects this result.

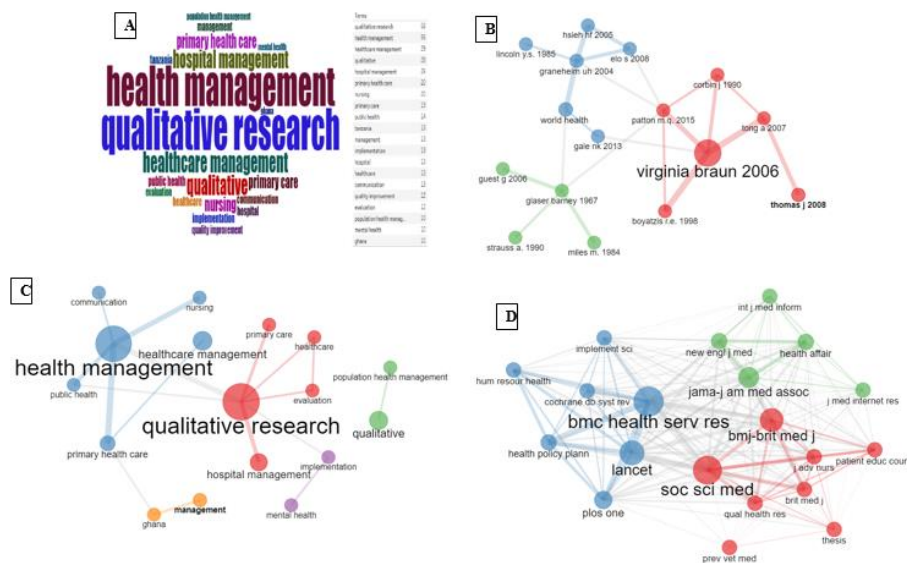


Figure 2. Word cloud, document co-citation network, word co-occurrence network, and source co-citation analysis

#### 3.2.3. Document co-citation network

Document co-citation network in science mapping means citing both documents in a third document (Ahmi, 2022). Each color represents the clusters to which the records belong. Each circle represents a document. The lines between the processes represent the typical reference

relationship between both documents. The thickness of the line is directly proportional to the intensity of the relationship.

In this study, the analysis was made based on the first 20 documents with the highest density. According to the results of the research, three-node clusters were formed. The documents in each set are closely related to each other. At the same time, some papers in the collection have relations with those in different nodes. At the center of the blue cluster is the work written by Graneheim and Lundman. The red cluster is the cluster with the most intense relationships. The article written by Braun and Clarke (2006) is at the center of the set, which has the most intense relationship among all clusters. In the green set, there are four studies, and the article by Glaser and Holton is at the center of the set (Figure 2-B).

#### **3.2.4. Word co-occurrence network**

The word co-occurrence network for author keywords is shown in Figure 2-C. According to this, 5 clusters were formed, three of which were only two-word spheres. The blue-colored cluster consists of 6 spheres, and the "health management" is at the center of the set. The general Theme of the studies in this cluster is "Qualitative research on nursing services and communication in the management of primary health care services". There are five words in the red-colored set. The word in the center of the cluster is "qualitative research". There is also a strong relationship between the center of the blue group and the center of the red set.

#### **3.3. Thematic Analysis**

The thematic map developed by Callon et al. to analyze the importance and development of the research theme was used in this study to conduct thematic analysis (Callon et al., 1991). The thematic map is a coordinate system consisting of the X and Y-axis. The x-axis represents centrality, which measures the importance of the chosen Theme. The y-axis represents intensity, which measures the evolution of the chosen Theme. The spheres in the thematic map consist of word elements whose type is selected during the analysis (In this study, the author's keywords are based). The size of each sphere is relative to the elements that fall under the Theme. (Cobo et al., 2011; Nasir et al., 2020). The thematic map is named in 4 sections: Emerging Theme, Highly Developed and Isolated Theme, Motor Theme and Basic Theme.

*Emerging theme* is located in the lower-left quadrant. The themes in this chapter are marginal and poorly developed. They have low values in terms of density and centrality. It represents emerging or diminishing themes. These themes are of low importance to the research field.

*The highly developed and isolated theme* is located in the upper left quadrant. The themes of the study area are of marginal importance. Because these themes have well-developed internal ties but little external relations, this Theme is high in density and low in centrality. Although it is not developed enough, it is crucial for developing the research area.

*Engine theme* is located in the upper right quadrant. It is well developed and is essential for structuring the research field. They are defined as motor themes because of their high density and centrality. It consists of crucial and well-developed Themes to shape the research field.

*The basic theme* is located in the lower right quadrant. It is common in density and high in centrality. It consists of well-developed, strongly interconnected themes that have not been developed but are of marginal importance to the field of research on which much research has been done.

In Figure 3-B, the Thematic Map was created from 2003 to 2020. While performing the analysis, the first 400 keywords were used, and the number of representative tags in each Theme was set to 3.

There are 3 clusters in each quadrant of the Thematic Map. The clusters represented by the terms "Communication" and "depression" in the Emerging Theme represent emerging or declining themes. Although the cluster represented by "healthcare management" is close to centrality, it is included in the emerging Theme. In the Highly Developed and Isolated Theme, the terms "management", "barriers," and "chronic illness" represent the clusters they are in. Although these themes are essential for the research area, they have not been developed yet. The terms "qualitative", "chronic disease" and "Tanzania" represent the clusters of the motor theme. The themes here are essential to the research field and are well developed. Finally, in the Basic Theme, the terms "healthcare", "health management," and "qualitative research" represent clusters. Although these themes are essential for the research field, they are not yet developed.

The thematic evolution diagram was used to understand the historical development of the themes. Using keywords and thematic evolution shows the history of the pieces and how they evolved. The thematic shift is done using "biblioshiny" and four-time zones. This time segmentation is based on the subjective judgment of the authors, considering the better representation of thematic evolution (Santos et al., 2017). To see the thematic analysis with periodic changes, the period of the data obtained during the investigation was examined in four different periods. For this purpose, by examining the annual amount of publications, the years 2008, 2014 and 2017, considered the breaking point, were determined as the cut-off point. The thematic evolution diagram of four different periods, 1996-2008, 2009-2014, 2015-2017 and 2018-2020, was drawn.

It is seen that the term "epidemiology", which emerged in the early stages of the research field, fed the term "qualitative research" in the next period, and the effect of the term "qualitative research" continues until today. Especially recently, it has been fed by many terms. The term "maternal health" emerged in the third period and left its place in the term "qualitative" in the last period. It is seen that the terms "qualitative", "hospital management," and "health management" in our search criteria have the most intensive use together with "qualitative research".

### **3.4. Analysis Findings on Resources**

In this study, the term source refers to a journal, book, conference proceedings, etc., that publishes one or more documents included in our bibliographic collection.

#### **3.4.1. The most relevant and influential resources for qualitative research in health management**

The "H-index" can be used to measure a source or author's scientific research output and the citation impact. The M-index has been proposed to facilitate comparisons between academics of different academic career lengths  $M\text{-index} = H\text{-index} / N$  (N is measured in years since the first paper was published in the research area). In addition, the index can be used as a tool to predict future research by analyzing the trending topics of keywords (Huang et al., 2021). The g-index was introduced as an improvement of the h-index by Egghe in 2006 to measure the overall citation performance of a series of articles. In order to calculate the G-index, the cited articles of the author are ordered in descending order of citation numbers, and the total number of citations of the most cited g articles is the most significant number with the least  $g^2$  value (Aria and Cuccurullo, 2017).

We can easily say that "BMC Health Services Research" is the most relevant and practical resource in qualitative research in health management. It is seen that the source, which made its first publication in 2006, is quite good in h-index and g-indexes compared to others. Total citation (TC) is relatively high compared to others. The fact that the total number of publications (NP) is

39 and is higher than the others indicates that it is the most relevant source. The data of the first ten sources according to the H-index are shown in Table 1.

**Table 1.** The most relevant and influential resources for qualitative research in health management

Element	h_index	m_index	g_index	TC	NP	PY_start
BMC Health Services Research	12	0,8	28	857	39	2006
Journal of Medical Internet Research	9	1,0	14	222	14	2013
BMC Public Health	7	0,6	10	233	10	2011
BMJ Open	7	0,9	10	127	24	2014
Human Resources for Health	7	0,5	11	228	11	2009
Preventive Veterinary Medicine	7	0,5	9	229	9	2007
International Journal of Medical Informatics	6	0,3	6	138	6	2003
Revista Latino-Americana de Enfermagem	6	0,5	6	52	10	2011
Social Science & Medicine	6	0,4	7	191	7	2008
Health Policy and Planning	5	0,3	7	111	7	2006

### 3.4.2. Source co-citation network

Citation analysis is the most common citation analysis between authors or documents in bibliometrics. Source co-citation network analysis was performed to analyze the co-citations of qualitative studies in health management according to the sources in which they were published (see Figure 2-D). The figure that emerged as a result of the analysis consists of spheres, each representing a source, and clusters formed according to the common references of the spheres. The lines between the spheres give the relationship between them, and the thickness of the lines gives the intensity of the relationship. The analysis in this study was based on the top 20 sources with the most intense connection. Accordingly, there are three different clusters. At the center of the blue cluster is "bmchealthservres". It is the most cited source. It received the most common references with "healtpolicyplann". While "socscimed" is in the center of the red cluster, there is "jama-j am medassoc" in the center of the green set. It can be said that the blue group is at the center of all clusters.

### 3.5. Analysis Results Regarding the Authors

#### 3.5.1. The most relevant and influential authors of qualitative

As in the references, the h-index, g-index and m-index and their total citations are examined to measure the authors' influence in a field. For this purpose, the information of the first ten authors, prepared according to the h-indexes, is shown in Table 2. Accordingly, the most relevant and



influential author in qualitative research on health management is "Hurtig AK". The author's total number of citations (TC), whose h-index is 5, g-index 6, and m-index 0.6, is 103, and the total number of publications (NP) is 103. Although the total number of citations for "Kaler j" was the highest with 154, its index values remained lower. In other words, the references he received to his publications were not homogeneously distributed compared to "Hurtig AK".

Table 2. The most relevant and influential authors in qualitative research in health management

Element	h_index	g_index	m_index	TC	NP	PY_start
Hurtig AK	5	6	0,6	103	6	2014
Goicolea I	4	4	0,5	83	4	2014
Kaler J	4	4	0,4	154	4	2013
Kiwara A	4	4	0,5	83	4	2014
Martin A	4	4	0,7	59	4	2016
Mwangu M	4	4	0,5	76	4	2014
Aikins M	3	3	0,4	49	3	2014
Awoonor-Williams JK	3	4	0,3	96	4	2013
Dalinjong PA	3	3	0,5	40	3	2016
Enevoldsen C	3	3	0,1	76	3	1996

The author productions of the top 10 authors who produced the most articles over time were examined. Accordingly, the author who makes the most articles and has total citations per year is "Hurtig AK". He has only broadcast in 2014, 2015, 2016 and 2018. His most influential publications were three articles published in 2014. As stated above, the same author has been the most relevant and significant in this field. While the author who published the article for the longest time over the years was "Martin A", the most recent publications on the subject were written by "Awoonor-Williams JK" and "Theobald S".

### 3.5.2. Author co-citation network analysis

The co-citation analysis of the authors of qualitative studies in health management can be done as in the co-citation analysis of the sources. The analysis results performed for this purpose are shown in Figure 4-C. The top 20 most relevant authors were the basis for the author co-citation analysis. Accordingly, three different clusters were formed. At the center of the clusters is the red set. "World health organization" is in the center of the red group and all citations. It is seen that "World health organization" gets the most common citations with anonymous authors. It is seen that the typical citation relationship between other authors is almost close to each other.

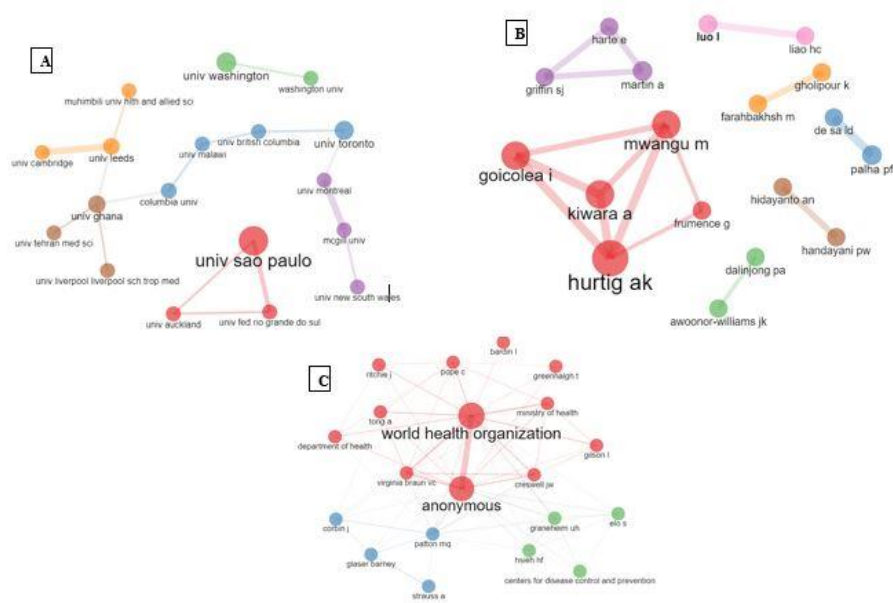


Figure 4. Inter-institutional collaboration analysis, inter-author collaboration analysis, and author co-citation network analysis

### 3.5.3. Inter-author collaboration analysis

Inter-author collaboration analysis refers to the work done by the authors together. As in other network analyses, each sphere represents an author, and the line between the spheres represents the relationship. The size of the circle is directly proportional to the number of works by the author, and the thickness of the lines is directly proportional to the size of the relationship. 30 authors were determined as the total number of authors. One was chosen as the minimum amount of joint publication between each author. The visual of the analysis made is seen in Figure 4-B. When the isolated authors are deleted, it is seen that the remaining 28 authors are in cooperation and 7 clusters are formed. There are five spheres, each representing one author in the red cluster and three spheres in the lilac-colored group. In each of the other sets, two spheres were formed. Each set has a relationship within itself, and there is no relationship between clusters. The red set is in the center. In the center of the red sphere, the author "hurlig ak" is located. There is a collaboration of the author with all other authors in the set.

### 3.6. Analysis Results Regarding Institutions

Institutions; refer to the institutions to which the authors are affiliated.

#### 3.6.1. Interinstitutional collaboration analysis

Inter-institutional collaboration analysis was performed using the same arguments as the inter-author collaboration analysis, and the analysis image is shown in Figure 4-A. Accordingly, 6 clusters representing 18 institutions that have relations were formed. In the center is "Univ Sao Paulo". While this institution was associated with two other institutions, it did not cooperate with other institutions. It is seen that the most robust cooperation is between "univ Leeds" and "Univ Cambridge" and "univ Montreal" and "McGill Univ".

### 3.6.2. Most relevant institutions

According to the analysis results of the most relevant institutions in qualitative research in health management, the institution that produced the most articles was the University of Sao Paulo, with 28 publications. The University of Sao Paulo is followed by the University of Toronto with 21 publications. The number of publications of the 3rd, 4th and 5th institutions is 18.

### 3.7. Analysis Findings Regarding Countries

#### 3.7.1. Country scientific production map

In Figure 3-A, the authors' countries that conducted qualitative studies in health management are shown on the world map. According to the number of articles produced, those who created the most pieces were colored in bold. It is seen that the USA makes the most publications in this field. The number of articles produced by the USA is 465. The UK follows the USA with 285 studies and Brazil with 173 pieces. The most intensive studies were conducted in the Americas continent.

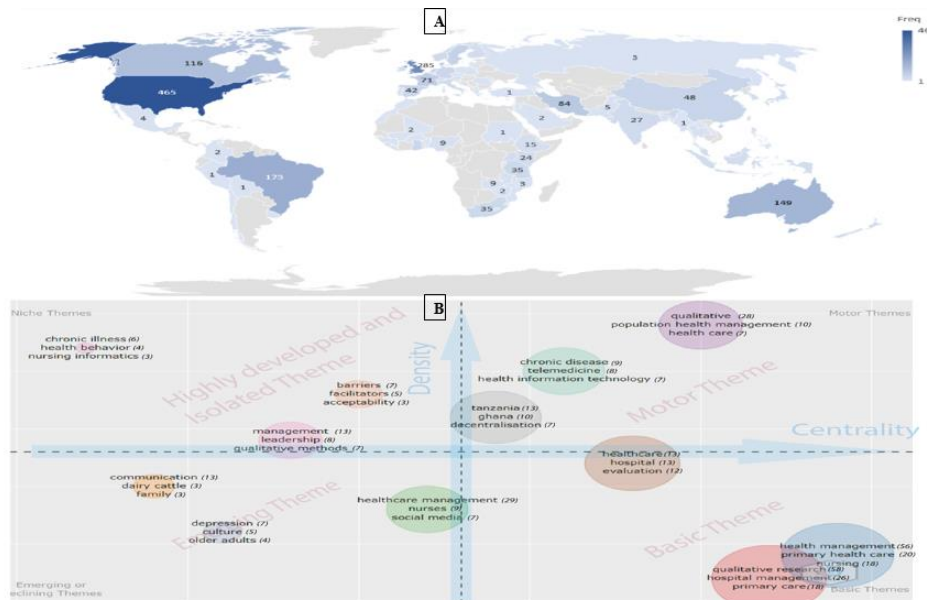


Figure 3. Country scientific production map and thematic map

#### 3.7.2. Collaboration by corresponding authors' countries

According to the results of the analysis made to reveal the cooperation with other countries based on the countries of the responsible authors of qualitative studies in the field of health management, it is seen that the USA, which has the highest production, lags behind other countries in terms of cooperation with other countries. The most cooperating country was Tanzania (MCP\_Ratio = 0.70). Tanzanian authors collaborated with authors from other countries in 7 of their ten studies. Denmark, the least collaborating country, produced only 1 of its 15 studies collaborating with other country authors.

### 4. Discussion

In this study, the evolution of the articles made with the qualitative research method in health management over time and their author, university and country situations were examined. In recent years, it has been seen that the existing phenomena are analyzed quantitatively by asking the participants rather than explaining many phenomena that have entered our lives in the context

of health management. An evidence-based management approach is essential. However, presenting the evidence only with quantitative research methods may prevent the emergence of real problems. For this reason, it is crucial to carry out article studies with qualitative research methods as well as quantitative research methods. With this requirement, it can be stated that it is essential to examine the evolution of qualitative studies in the field of health management and the citation, author and university context of the studies put forward.

It has been understood that the paradigm-shifting social reality in social sciences, as in all sciences, cannot be fully grasped from a single point of view. Because, with quantitative research, the actual aspects of the problems cannot be revealed because the facts are not handled in-depth or presented to the approval of individuals in the form of ready-made templates. This situation accelerated the emergence of qualitative research (Berg, 2001; Mohajan, 2018). On the other hand, evaluating, researching and examining the research subject in its context in qualitative research has increased the importance of qualitative research. Individuals' thoughts, attitudes and perceptions about any issue can only be revealed with flexible questions. The data collection and analysis method that provides this flexibility structure is also possible with qualitative research or mixed research methods. It is seen that academicians and researchers who work predominantly in health management and are aware of these developments often use qualitative and mixed research methods. In fact, according to the findings obtained, it is seen that qualitative research was carried out for the first time in the health management literature in 1996, and it is seen that the number of qualitative studies has increased since 1996. It can be stated that this increase is directly proportional to other branches of science and is essential.

Looking at the years, it is seen that the studies carried out since 2012 have gained momentum. Considering the number of studies, it was observed that 465 analyzes were born in the USA, and 285 studies were conducted in England. The most intensive studies were carried out in the Americas.

The institution that produced the most articles was the University of Sao Paulo, with 28 publications. When the co-authors are evaluated in terms of cooperation based on countries, it is seen that the USA lags behind other countries in terms of collaboration with other countries. The country with the most cooperation was Tanzania. In addition to these and similar findings, one of the striking results of the research is that studies conducted in European countries are almost non-existent. It is noteworthy that there is no qualitative study on health management in other European countries except France and Spain.

## 5. Conclusion

In the light of the results obtained from this study and the findings in the literature, it increases the importance and preferability of qualitative research. In recent years, almost two-thirds of the studies conducted in health management have been carried out with qualitative and mixed research methods. This situation helps create accurate, evidence-based data by revealing the realities and root causes of the problems experienced in health management. Thus, it is thought that the decision makers' policies and practices will be more effective and efficient. Based on all these results, we recommend the following: More mixed and qualitative studies need to be conducted in Turkey. In particular, it is necessary to conduct studies based on current data of both private and public health institutions and present evidence-based data.

## References

- Ahmi, A. (2022). *Bibliometric analysis using R for non-coders: a practical handbook in conducting bibliometric analysis studies using biblioshiny for bibliometrix*. R Package.
- Aria, M., and Cuccurullo, C. (2017). Bibliometrix: an R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11, 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>.

- Berg, B. L. (2001). *Qualitative research methods for the social sciences*. Boston: Allyn and Bacon.
- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>.
- Callon, M., Courtial, J. P., and Laville, F. (1991). Co-word analysis as a tool for describing the network of interactions between basic and technological research: The case of polymer chemistry. *Scientometrics*, 22(1), 155–205. <https://doi.org/10.1007/BF02019280>.
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., and Herrera, F. (2011a). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology*, 62(7), 1382–1402. <https://doi.org/10.1002/asi.21525>.
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., and Herrera, F. (2011b). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the fuzzy sets theory field. *Journal of Informetrics*, 5(1), 146–166.
- Huang, J.-H., Duan, X.-Y., He, F.-F., Wang, G.-J., and Hu, X.-Y. (2021). A historical review and Bibliometric analysis of research on Weak measurement research over the past decades based on Biblioshiny. *CoRR*, abs/2108.1. <https://arxiv.org/abs/2108.11375>.
- Koç, O. (2020). Web of Science üzerinde indekslenen kadına yönelik şiddet araştırmalarına bibliyometrik bir bakış. *Istanbul University Journal of Women's Studies*, 21, 19-35. <https://doi.org/10.26650/iukad.2020.21.002>.
- Kristensen, E., Nielsen, D. B., Jensen, L. N., Vaarst, M., and Enevoldsen, C. (2008). A mixed methods inquiry into the validity of data. *Acta Veterinaria Scandinavica*, 50(1), 30. doi:10.1186/1751-0147-50-30.
- Kurutkan, M. N., and Orhan, F. (2018). *Kalite prensiplerinin görsel haritalama tekniğine göre bibliyometrik analizi*. SAGE Publications Ltd.
- Li, J., and Hale, A. (2016). Output distributions and topic maps of safety related journals. *Safety Science*, 82, 236–244. <https://doi.org/https://doi.org/10.1016/j.ssci.2015.09.004>.
- Massimo, A., and Corrado, C. (2021, Aralık 25) *Biblioshiny bibliometrix for no coders*. <https://www.bibliometrix.org/biblioshiny/>. (Erişim Tarihi: 01.02.2022).
- Mohajan, H. K. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People*, 7(1): 23–48.
- Nasir, A., Shaukat Dar, K., Hameed, I. A., Luo, S., Mahboob, T., Iqbal, F., Shaukat, K., Hameed, I. A., Luo, S., Alam, T. M., and Iqbal, F. (2020). A Bibliometric Analysis of Corona Pandemic in Social Sciences: A Review of Influential Aspects and Conceptual Structure. *IEEE Access*, 8, 133377–133402. <https://doi.org/10.1109/ACCESS.2020.3008733>.
- Öztürk, E., Can, Z., Çam, H., and Karasu, F. (2021). Hemşirelik Araştırmalarında Nitel Çalışmaların Önemi. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, 9 (4), 396-401. DOI: 10.37989/gumussagbil.753700.
- Santos, L. F. de O. M., Osiro, L., and Lima, R. H. P. (2017). A model based on 2-tuple fuzzy linguistic representation and Analytic Hierarchy Process for supplier segmentation using qualitative and quantitative criteria. *Expert Systems with Applications*, 79, 53–64. doi: 10.1016/j.eswa.2017.02.032.
- Saunders, Mark, Philips Lewis, and Adrian Thornhill (2009). *Research methods for business students*. England: Pearson Education Limited.

- Sriwichian, A., and Muangprathub, J. (2019). *Comparison of algorithm selection to analyze elderly activity recognition based on sensor data using R program*. 2019 16th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), 377–380. <https://doi.org/10.1109/ECTI-CON47248.2019.8955332>.
- Şakar, G. D. and Cerit, A. G. (2013). Uluslararası Alan İndekslerinde Türkiye Pazarlama Yazını: Bibliyometrik Analizler ve Nitel Bir Araştırma, *Ataturk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 27 (4), 37-62.
- Ültay, E., Akyurt, H., and Ültay, N. (2021). Sosyal bilimlerde betimsel içerik analizi. *IBAD Sosyal Bilimler Dergisi*, (10), 188-201.
- Web of Science (2022). *Web of Science*. <https://www.webofscience.com/wos/woscc/basic-search>. (Erişim Tarihi: 01.03.2022).
- Yıldırım, A., and Şimşek, H. (2008). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* (6. Baskı). Ankara: Seçkin Yayıncılık.
- Yu, J., and Muñoz-Justicia, J. (2020). A Bibliometric Overview of Twitter-Related Studies Indexed in Web of Science. *Future Internet*, <https://doi.org/10.3390/fi12050091>.
- Zupic, I., and Čater, T. (2014). Bibliometric Methods in Management and Organization. *Organizational Research Methods*, 18(3), 429–472. doi:10.1177/1094428114562629.
- Tableau A Salesforce Company (2022). *Tableau Program*. <https://www.tableau.com/>. (Erişim Tarihi: 01.02.2022).
- RStudio Team (2020). *RStudio: integrated development for R*. RStudio, PBC, Boston, MA.
- Willis-Shattuck, M., Bidwell, P., Thomas, S. et al. (2008). Motivation and retention of health workers in developing countries: a systematic review. *BMC Health Serv Res* 8, 247. <https://doi.org/10.1186/1472-6963-8-247>.

#### ETİK ve BİLİMSEL İLKELER SORUMLULUK BEYANI

Bu çalışmanın tüm hazırlanma süreçlerinde etik kurallara ve bilimsel atıf gösterme ilkelerine riayet edildiğini yazar(lar) beyan eder. Aksi bir durumun tespiti halinde Toplumsal Politika Dergisi'nin hiçbir sorumluluğu olmayıp, tüm sorumluluk makale yazarlarına aittir.