

Quantitative Analysis in the Field of Health Education in My Country in the Past Two Decades—Citespace Visual Analysis Based on CSSCI Database

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ABSTRACT

Health is an eternal topic of humankind, and keeping healthy is everyone's duty and right. However, health requires education, and education requires health. Therefore, health education has gradually become a hot research field in the past ten years. Its strong professionalism and practicality have attracted wide attention from scholars at home and abroad. The corresponding research results have also quickly promoted the development of health education. This article uses CNKI as the data source, the search subject is "health education", the document type is academic journals, the time span is all years, the database is CSSCI, etc. for document retrieval, January 1998 to April 2021 A total of 3439 related documents were retrieved. The search was conducted on the subject of "health education", and a total of 1,923 documents were exported after screening, with a large number of papers, indicating that the topic of health education is very popular. Therefore, this article uses Citespace5.0 software to conduct a quantitative analysis of domestic health education literature, through the visualization of knowledge graphs and background data systems, to organize and summarize the hotspots, rigorous context, important researchers and institutions of domestic education and health research, and look forward to it. Future research prospects of health education.

Keywords: health education, Mental health education, visual analysis

1. INTRODUCTION

Health education is to promote people to consciously accept and adopt healthy behaviors and lifestyles, reduce risk factors that affect health, prevent diseases, and achieve the goals of promoting physical and mental health and improving the quality of life. Organized and planned Systematic social education activities. Health education can effectively reduce the risk factors that affect people's health and improve people's quality of life. Therefore, this study visualizes the literature on health education in the past two decades from the three dimensions of publication time, research hotspots, and important researchers and institutions. The analysis aims to look forward to the future research prospects of health education.

2. DATA COLLECTION AND RESEARCH METHODS

2.1. Data Collection

The research data collected in this article comes from the CSSCI Chinese index database. The retrieval time is April 10, 2021. By setting the subject as health education, the document type, time span, and subject scope are not limited, a total of 1923 documents were derived, all of which contained valid information such as authors, titles, keywords, abstracts, and references.

2.2. Research Methods

This study uses a bibliometric method to visually analyze the literature on health education in the past two decades from the three dimensions of publication time, research hotspots, and important researchers and institutions. In terms of publication time, statistical analysis is used to describe the change trend of the number of health education documents over time (in years). In terms of research hotspots, the focus of research is explored through

the cluster view, showing the evolutionary context of the research and the trend of frontier changes. In terms of important researchers and institutions, high-yield institutions and authors are analyzed through the co-occurrence map of important researchers and institutions. The specific data processing method is as follows: save the 1923 documents downloaded from the CSSCI Chinese database in text format, and then import the data into the Citespace5.0 software, and set the parameters as follows: time zone division (time slicing) is set to 1993-2021; The node type is set to the author (author), institution (institution), keyword (keyword), cited reference, cited author, and cited journal; threshold setting It is the system default value. Get the knowledge graph cut by the minimum spanning tree algorithm. The generated knowledge graph presents relevant information in the field of health education from different angles.

3. RESULTS AND ANALYSIS

3.1. Annual Publication Volume

From the perspective of the time of publication, 1998 was an important node, and high-quality papers began to appear in the field of health education research, which reached a peak in 2011 (152 papers). After 2012, the number of posts has shown an overall downward trend. There will be small peaks in 2017 and 2020 respectively. As of April 2021, only 12 posts related to health education have been posted. Due to the short statistical time, after excluding the number of posts in 2021, The number of documents issued in 2020 has increased sharply compared with 2018 and 2019, and it is expected to continue to increase in 2021 (see Figure 1).

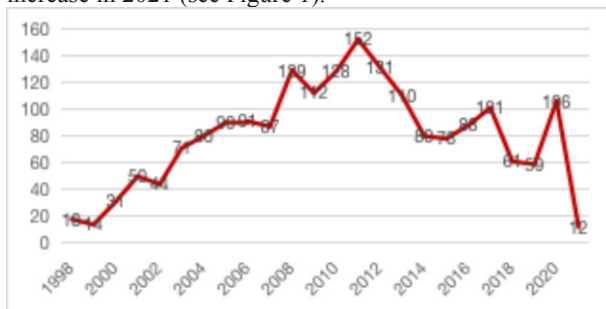


Figure 1. Number of articles published on health education topics in CSSCI indexed journals in different years

3.2. Analysis of High-yield Institutions of Core Journals

The results of the core journals show that the research institutions and publication frequency of health education related research are the Institute of Developmental

Psychology of Beijing Normal University (5 articles), the School of Educational Science of Capital Normal University (3 articles), and the School of Physical Education of East China Jiaotong University (3 articles), Department of Physical Education, Henan University (3 articles), East China Normal University Institute of International and Comparative Education (3 articles), Department of Psychology, Anhui Normal University (3 articles), School of Educational Science, Shanxi University (3 articles). The year in the table refers to the start time of research on health education related literature in this institution. It can be seen from this that among the institutions that are engaged in health research and have a strong influence, the initial period is the Institute of Developmental Psychology, Beijing Normal University. In recent years, East China The Institute of International and Comparative Education of Normal University pays more attention to this hot spot. It can be seen that the Institute of Developmental Psychology of Beijing Normal University, the School of Educational Science of Capital Normal University, and the School of Physical Education of East China Jiaotong University are the main research institutions for health education. Health education mainly focuses on mental health education, but there is no cooperation between various research institutions. Communication (see Table 1).

Table 1. Distribution of research institutions (number of articles ≥ 3)

Serial number	Freq	Research institute	Year
1	5	Institute of Developmental Psychology, Beijing Normal University	2001
2	3	Capital Normal University	2019
3	3	School of Physical Education, East China Jiaotong University	2002
4	3	Henan University Sports Department	2001
5	3	East China Normal University Institute of International and Comparative Education	2005
6	3	Department of Psychology, Anhui Normal University	2000
7	3	School of Educational Science, Shanxi University	2002

3.3. Research Hotspot Analysis

The By running citaspace, the keyword co-occurrence network involves 813 keywords, the number of nodes is 740, the number of connections is 813, and the density is 0.003. This reflects that my country's research on health education has formed a relatively complete system. Circle size, font size, and the line between the circles together constitute a hot area of research. The larger the

circle in Figure 2, the more frequently the keyword appears in the literature, the font size represents the centrality of the keyword, and the thickness of the line between the circles represents the degree of connection between the keywords [1].

As can be seen from Figure 2, in addition to health education that appears as search terms, mental health education, mental health, and college student mental health education are the keywords with the highest frequency, and keywords related to health education behaviors appear around health education (Psychological counseling, school physical education, health education courses, etc.) and keywords of different health education research objects (college students, teenagers, primary and middle schools, postgraduates, etc.). It is worth noting that the keyword map data shows that the centrality of the keyword mediation of "mental health education" is as high as 0.62, and that of "mental health" is 0.53, which means that "mental health education" has formed a high degree of aggregation in the research direction of health education. Hot research areas. It can be seen that the initial research on health education was carried out around a unified research object and mental health (psychological consultation, psychological quality). With the development of society and the deepening of research, it began to subdivide research objects (college students, graduate students, young people, etc.) and began to pay attention to physical health and other aspects.

After eliminating repetitive keywords and regional keywords, the results show that the keywords with frequency > 50 are "mental health education", "mental health", "college students", "health education", "health", and "Education", "Mental Health Education for College Students", "Positive Mental Health Education", "Universities". Centrality can judge the importance of keywords. Centrality > 0.1 indicates that the keyword has a pivotal role in the graph. The higher the centrality, the higher the keyword frequency [2]. Among the keywords with a frequency greater than 50, "mental health education", "mental health", "college students", "health education", "health", "education", "active mental health education", and "university" are the keywords. It plays a strong pivotal role in the collinear network map (see Table 2).



Figure 2. Keyword collinear network map

Table 2. The frequency table of health education keywords (only the frequency ≥ 20 is listed)

Serial number	Freq	Centrality	Keyword	Year
1	496	0.62	Mental health education	1998
2	268	0.53	Mental health	1998
3	235	0.3	College Students	2000
4	119	0.21	health education	2000
5	83	0.11	healthy	2000
6	82	0.21	educate	1998
7	82	0.09	Mental Health Education for College Students	1998
8	52	0.12	Mental Health Education for College Students	2008
9	51	0.14	Colleges	2004
10	47	0.05	Ideological and political education	2004
11	32	0.04	Mental health education work	2000
12	30	0.06	Countermeasure	2004
13	30	0.07	Elementary and middle school	2002
14	28	0.05	Health literacy	2008
15	24	0.02	Mental Health Education in Colleges and Universities	1998
16	23	0.01	School sports	2002
17	23	0.02	School mental health education	2001
18	21	0.08	School mental health education	2007
19	20	0.04	Psychological counseling	1998

3.4. Analysis of Research Development Context

The research on health education included in core journals first appeared in 1998, and the earliest keywords were "psychological consultation", "mental quality", "mental health education work", "health education", "health", "school psychology" "Health" and so on, academic research on health education has already possessed a certain depth. With the continuous deepening of social development and research, the methods of mental health education began to be studied in 1998, mainly including keywords such as "psychological consultation", "mental quality" and "mental health education". Since 2001,

physical health-related issues have appeared. Research, the main research includes "sports", "school sports" and other keywords. Before 2012, it mainly focused on "psychological consultation", "mental health education work", "school sports", "sports" and other research objects to general research. Beginning in 2010, with the maturity of related research, the research objects of health education began to conduct targeted research. The research objects mainly included "college students", "youths", "graduates", "universities" and other directions (see Figure 3).

Document emergent words show that there are 16 document emergent words in total. During 1998-2000, the research field of health education mainly focused on emergent words such as "psychological consultation", "mental quality", "mental health education work", "health education", "health", "school mental health education", 2001 -In 2013, emerging words such as "sports", "school sports", "countermeasures", "active mental health education", and "ideological and political education" appeared. From 2012 to 2021, emergent words such as "youth", "college students", "mental health education for college students", "mental health education for colleges and universities", and "health literacy" emerged. This shows that the population of health education research is becoming more and more targeted, the scope of health education research is becoming more and more refined, and the scope of popularization is also increasing (see Figure 4).

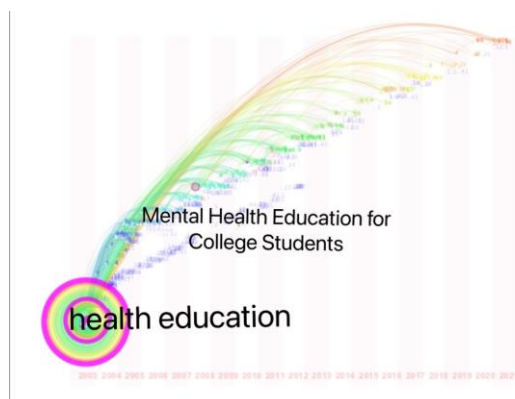


Figure 3. Keyword time zone diagram

Keywords	Year	Strength	Begin	End	1998 - 2021
Psychological counseling	1998	3.8112	1998	2000	
Mental quality	1998	4.3803	2000	2003	
Mental health education	1998	5.0916	2000	2007	
health education	1998	5.7121	2000	2003	
healthy	1998	4.7531	2000	2004	
School mental health education	1998	6.2302	2001	2004	
physical education	1998	4.3448	2001	2002	
School sports	1998	3.9928	2002	2006	
Countermeasure	1998	3.9483	2008	2013	
Active mental health education	1998	14.4061	2009	2011	
Ideological and political education	1998	5.565	2009	2013	
teenager	1998	4.5518	2012	2014	
university student	1998	3.2511	2014	2015	
Mental Health Education for College Students	1998	13.8203	2015	2021	
Mental Health Education in Colleges and Universities	1998	4.7727	2017	2019	
Health literacy	1998	9.2345	2018	2021	

Figure 4. The first 16 document emergent words

4. CONCLUSION

Related research in the field of health education in my country has entered a mature stage, and the scope of research has shifted to mental health education and health literacy, and the scope of research objects has been reduced, making it more targeted. From the perspective of the publication time of the literature, the period from 2008 to 2011 was a hot period of health education research, and the research mainly focused on mental health education. For example, related to mental health education [3] and other related issues. From 2012 to 2017, the overall progress of health education research showed a downward trend, and attention began to be paid to the issue of health education for college students [4], which reflected the focus on health education for college students as one of the key tasks in building a healthy China. In 2020, with the implementation of the Healthy China 2020 strategy, health education has attracted the attention of scholars, and further exploration of health literacy[5] and college students' mental health education[6]. Judging from the research results, the research scope of health education has shifted to mental health education and health literacy, and the research objects are more targeted. Mental health education and health literacy will be the focus of attention of scholars in the future.

The research to promote health education has gradually matured, but it is still necessary to take measures for different research subjects to further implement intervention measures. According to the frequency analysis table of health education keywords, research content such as mental health education and college student health education are hot issues that health education has been paying attention to, and related literature research has gradually deepened. With the gradual deepening of research, specific research objects that need to conduct mental health education, as well as the popularization of health education knowledge, improve their health education awareness, and reasonable guidance for health education have emerged. Healthy life is an important way to improve the health and life expectancy of residents. Health awareness can transform bad lifestyles and reduce the probability of disease [7]. Mental health and physical health also occupy an important position in healthy life. Therefore, exploring more effective intervention measures to promote the popularization of mental health education in our country will continue to be the main research direction of health education.

Research on health education should strengthen cooperation and exchanges among various institutions. The developmental psychology research of Beijing Normal University, the School of Physical Education of East China Jiaotong University, and the Department of Sports of Henan University, as research institutions with a high frequency of publication, have not shown cooperation and exchanges. Strengthening cooperation and exchanges between various institutions can enhance the depth of research on health education through communication and further enhance the development of the field of health education.

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