

# 基于 Web of Science 的老年人太极拳研究现状分析

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**摘要: 目的:** 太极拳作为一项有益于身心健康的运动, 广泛流传于世界各国。已有研究表明, 以太极拳作为锻炼手段不仅可以有效改善人体生理机能, 对心理健康也产生积极影响, 是一项值得推广的锻炼方式, 被国内外学者所关注。近十年来, 国内外学者对太极拳进行了广泛而深入的研究, 然而当前研究现状有待进一步梳理分析。CiteSpace 是基于 Java 平台、引文分析理论而开发的可视化应用软件。近年来, 该软件方法也在运动科学领域得到广泛应用, 基于此软件探索学科前沿、关系网络等内容研究涉及到体育学科结构、体育史、体育教育、政策性等方面。但是, 对涉及太极拳等运动对于人体身心变化方面的研究并不集中。因此, 对太极拳的研究进行深入探索、尤其是对前沿热点领域与合作网络等内容的深入剖析, 能够更好地推动我国运动科学领域发展。本研究以 2010-2020 年 Web of Science 核心数据库中有关老年人太极拳研究的 1412 篇文献为研究对象, 通过 CiteSpace V 软件绘制相关科学图谱、对数据进行分析处理, 结合定性、定量分析方法梳理了近几年来相关研究的文献国家(地区)分布、高产机构等内容, 对研究的前沿和热点进行分析, 把握此领域研究现状。**方法:** 本研究以“Tai chi”, “elderly” or “Tai Ji”, “elderly” or “Tai chi chuan”, “elderly” or “Tai ji quan”, “elderly”等为检索主题词, 以 Web of Science 中的核心合集为来源数据库进行检索, 时间跨度为 2010-2020 年(检索时间为 2021 年 4 月 16 日)。采用 CiteSpace V [版本号为 5.2.R2.3.26.2018 (64 bit)] 软件对相关文献进行可视化分析, 对国家(地区)、机构、关键词分别使用 CiteSpace V 中的“country”、“institution”、“keyword”等功能进行处理。对高产机构合作关系、前沿热点等采用关键路径算法(Pathfinder)进行聚类分析统计; 对年发文量等数据使用 Excel 进行数理统计, 并制作图表, 结合数理统计数据结果进行处理分析。**结果:** 1). 本研究结果发现, 老年人太极拳研究的主要文献来源国家(地区)分布主要集中在美国、中国、澳大利亚和英国等地; 2). 高产机构主要集中在上海体育学院、哈佛大学、香港理工大学和悉尼大学等高校科研机构, 并且随着研究的进一步深入, 跨国、多领域、跨学科的研究团队已经发展成为结构复杂的研究网络系统; 3). 当前涉及老年人太极拳领域的相关研究可聚类为健康促进和疾病防治两大类。在健康促进聚类中主要包含太极拳对老年人身体平衡、跌倒风险、心理健康、认知表现等健康促进方面的研究, 其研究对象主要为健康人群, 并以太极拳为手段

来考察相关指标。疾病防治聚类主要涉及太极拳对脑卒中、癌症、骨性关节炎、慢阻肺、帕金森等老年疾病患者生理、心理机能的影响；4). 以太极拳作为干预手段进行随机对照实验是当前最为热门的研究方式。太极拳对老年人生活质量、平衡能力、认知功能等影响为此领域研究的前沿热点。5). 老年人太极拳研究正在逐渐被更多国内外学者所关注，且视角更为拓展，呈现上升趋势。**结论：**中、美两国在老年人太极拳领域处于领先地位，澳大利亚、日本、韩国等地也较为活跃。此研究领域逐步形成了以哈佛大学医学院、塔弗茨大学、香港理工大学为核心的三大合作网络。目前，国内外已经形成相对稳定的老年人太极拳研究热点，主要包含健康促进类与疾病防治类两大主题，形成以“生活质量”、“平衡能力”、“认知功能”等为主的热点研究领域。我国在老年人太极拳研究领域处在世界领先地位，在国际期刊上载文较多，在该领域具有一定学术影响力。太极拳作为我国民族传统体育项目，接受度高，影响力广，易于被广大学者所关注。另一方面，国内外学者在各研究机构中的合作效应逐渐提高，且更多的华人学者与国内学者进行合作研究，能够充分发挥国内外研究机构各自的优势，取长补短，并弥补了国内学者可能存在的英语论文撰写水平与英语母语国家学者之间的差距。应深化国内外合作研究，重视研究机构之间的跨学科合作模式。加强国内机构合作网络，建立合作桥梁，从而进一步提高论文的质量，进一步增加我国在国际太极拳学术研究领域的影响力、话语权。

**关键词：**太极拳；老年人；CiteSpace；前沿

## The research of older adults Tai Chi Chuan status-quo based on web of science

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**Abstract: Objective:** As a sport beneficial to physical and mental health, Tai Chi Chuan (TCC) is widely spread all over the world. Studies have shown that TCC as a means of exercise can not only effectively improve human physiological function, but also have a positive impact on mental health. It is a way of exercise worthy of promotion and has been concerned by scholars at home and abroad. In the past decade, scholars at home and abroad have conducted extensive and in-depth research on TCC. However, the current research status needs to be further combed and analyzed. CiteSpace is a visual application software based on Java platform and citation analysis theory. In recent years, the software method has also been widely used in the field of sports science. The research on the frontier and relationship network of disciplines based on this software involves the structure of sports discipline, sports history, sports education, policy and so on.

However, the research on the physical and mental changes of human involving TCC and other sports is not concentrated. Therefore, the in-depth exploration of TCC research, especially the in-depth analysis of cutting-edge hot fields and cooperation networks, can better promote the development of sports science in China. Therefore, to research the 1412 articles about the research of elderly TCC, which in the Web of Science core database from 2010-2020. Through the CiteSpace V software, the relevant scientific maps were drawn, qualitative and quantitative methods were used to analyze the data. In this article, we have reviewed the country(region) distribution, high-yielding institutions, frontiers and hotspots. Method: In this study, “Tai chi” , “elderly” or “Tai Ji”, “elderly” or “Tai chi chuan”, “elderly” or “Tai ji quan”, “elderly” etc. is used as the retrieval subject word, and the core collection in web of science is used as the source database for retrieval. The time span is 2010-2020 (the retrieval time is April 16, 2021). CiteSpace V [version number 5. 2. R2. 3. 26. 2018 (64 bit)] software is used for visual analysis of relevant documents, and the "country", "institution", "keyword" and other functions in CiteSpace V are used for processing countries (regions), institutions and keywords respectively. Cluster analysis and statistics of high-yield organization cooperation relationship and frontier hot spots are carried out by using Pathfinder algorithm; Use Excel to carry out mathematical statistics on the annual document volume and other data, make charts, and process and analyze them in combination with the results of mathematical statistics. **Results:** 1) The results of this study show that the main articles source of TCC for the elderly are mainly distributed in the United States, China, Australia and Britain; 2) High yield institutions are mainly concentrated in universities and scientific research institutions such as Shanghai University of Sport, Harvard University, Hong Kong Polytechnic University and the University of Sydney. With the further deepening of research, multinational, multi-disciplinary and interdisciplinary research teams have developed into a research network system with complex structure; 3) At present, the relevant research in the field of TCC for the elderly can be clustered into two categories: health promotion and disease prevention and control. The health promotion cluster mainly includes the research of TCC on the health promotion of the elderly, such as physical balance, falling risk, mental health and cognitive performance. The research objects are mainly healthy people, and TCC is used as a means to investigate the relevant indicators. The cluster of disease prevention and treatment mainly involves the effects of TCC on the physiological and psychological functions of elderly patients with stroke, cancer, osteoarthritis, chronic obstructive pulmonary disease, Parkinson's disease and so on; 4) The randomized controlled experiment with TCC as an intervention is the most popular research method at present. The influence of TCC on the quality of life, balance ability and cognitive function of the elderly is a frontier hotspot in this field. 5) The research on TCC for the elderly is gradually concerned by more scholars at home and abroad, and the perspective is more expanded, showing an upward trend. **Conclusion:** China and United States are in a leading position in the field of TCC for the elderly, and Australia, Japan, South Korea and other places are also more active. This research field has gradually formed three cooperation networks with

Harvard Medical School, Tufts University and Hong Kong Polytechnic University as the core. At present, a relatively stable research hotspot of TCC for the elderly has been formed at home and abroad, mainly including two themes of health promotion and disease prevention, forming a hot research field focusing on "quality of life", "balance ability" and "cognitive function". China is in a leading position in the research field of TCC for the elderly in the world. It has many articles in international journals and has a certain academic influence in this field. As a traditional national sport, Taijiquan has high acceptance and wide influence, and is easy to be concerned by scholars. On the other hand, the cooperation effect of domestic and foreign scholars in various research institutions is gradually improving, and more Chinese scholars conduct cooperative research with domestic scholars, which can give full play to the respective advantages of domestic and foreign research institutions, learn from each other's strengths and make up for the possible gap between the writing level of English papers by domestic scholars and scholars from native English speaking countries. We should deepen cooperative research at home and abroad and pay attention to the interdisciplinary cooperation mode between research institutions. Strengthen the cooperation network of domestic institutions and establish cooperation bridges, so as to further improve the quality of papers and further increase China's influence and voice in the field of international Taijiquan academic research.

Key words: Tai Chi Chuan, Elderly, CiteSpace, Frontiers