بسم الله الرحمن الرحیم

Scientometric Analysis of Iranian Traditional Medicine (ITM) Research

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Introduction and Problem Statement

Research Objectives

- What are the trends in the scientific production of researchers regarding ITM

- What is the ranking of the scientific productions of researchers from Iran in the ITM field in the Scopus database compared to other international countries and the Eastern Mediterranean Regional Office (EMRO) countries?

- What is the status of the scientific productions of different countries regarding traditional medicine

- Which Iranian scientific centers and institutes have made the largest contributions

Research Objectives

○ Which countries have had the most collaboration with Iranian researchers

○ Which subject areas have Iranian researchers focused on regarding traditional medicine? And how do they compare to the subject areas of global research?

○ Who are the top Iranian researchers in traditional medicine

○ What are the publications that have published the largest number of traditional medicine research articles

Scientometric Studies in Research Fields

○ Scientometric studies play a crucial role in tracking the processes, dynamics, and positioning of a particular research field within the country and globally.

○ These studies help researchers evaluate the contribution rate of this field of study at the national and international levels.

○ Gaining a comprehensive understanding of the framework of the scientific field through scientometric studies assists researchers in achieving their desired research objectives.

Research on Iranian Traditional Medicine

○ Despite the increasing interest in the public and academic spheres of research regarding ITM, the research output of Iran in this field has not been evaluated accurately.

○ The lack of accurate scientific data regarding national research related to traditional medicine has caused academic and research centers to focus only on a limited range of topics, and the other capabilities of this field of the health system have been overlooked.

○ Analyzing these publications from the perspective of traditional medicine can be an effective factor in helping scientific communities to better comprehend its position and assist researchers in identifying studies based on robust scientific evidence related to traditional and complementary medicine.

Methodology

Scientometric Methods and Search strategy

○ This study used a **descriptive survey research** approach with a scientometric method.

○ The statistical population consisted of all scientific productions in the traditional medicine scope that were prepared and indexed by **Iranian researchers from 1960 to 2022 in the Scopus database**.

○ **The data collection process involved:**

○ Setting the research field as Title, article, abstract, and keyword

○ Restricting the duration of the study to 1960-2022

○ Limiting the region of the study to Iran

○ Using the Boolean operator "OR" between the keywords to retrieve a larger set of documents

Data Collection

- The final search strategy yielded **۳۰۹۱ documents**,

- The data analysis was done using the Scopus database's data analysis section, as well as VOSviewer and Excel statistical software.

- To evaluate the **growth rate**, the formula y=b-a/a was used, where 'a' is the primary value and 'b' is the secondary value.

Findings and Results

Trends in Iranian Traditional Medicine Research

- The first scientific research by Iranian researchers was indexed in Scopus in 1967.

- The highest number of papers from Iranian researchers was indexed in 2020, reaching 397 documents.

- Evaluation of the growth rate showed a generally rising trend, despite some fluctuations.

- However, the growth rate became negative during the years 2016 to 2017 and 2021.

The Trend of Scientific Productions of Iranian researchers in the field of Traditional Medicine
## in the period from 1960 to 2022 is indexed in Scopus
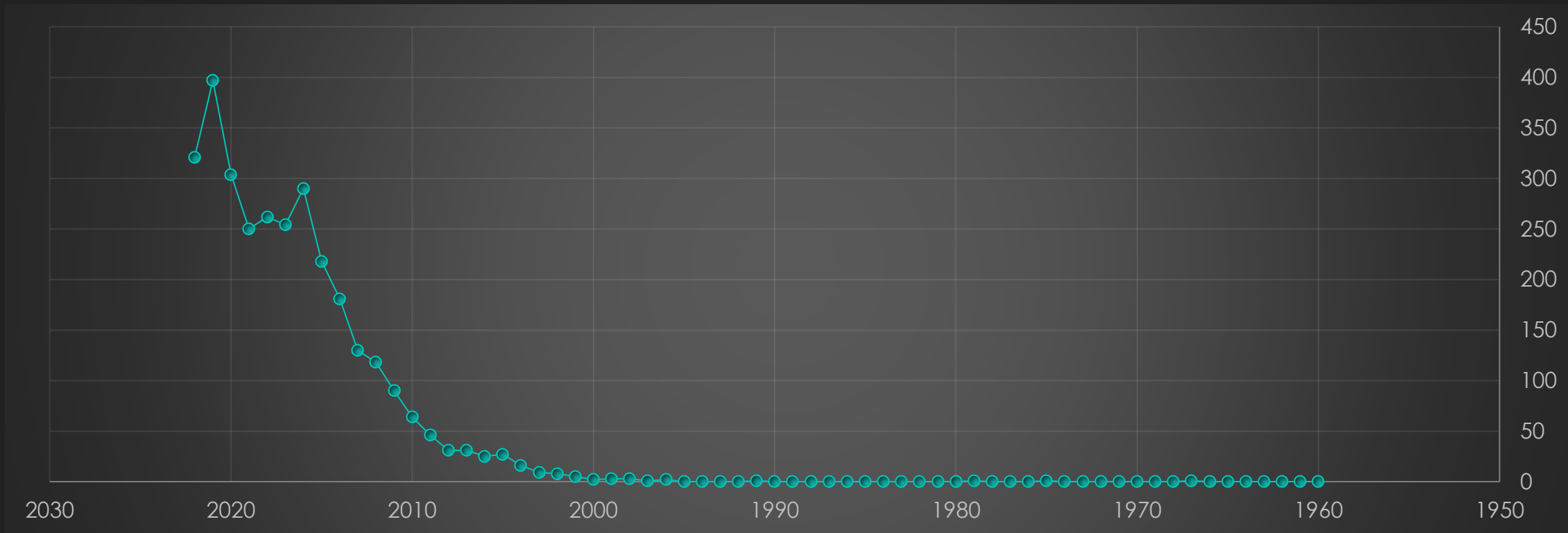
The Ranking of Iran among the World and EMRO in terms of Scientific Production

Rank	Country	Scientific production
1	India	6956
2	China	6722
3	United States of America (USA)	5651
4	**Iran**	**3091**
5	South Korea	2553
6	United Kingdom	2143
7	Brazil	2014
8	Japan	1890
9	South Africa	1717
10	Germany	1521

Rank	Country	The frequency of scientific documents
1	Iran	3091
2	Turkey	1012
3	Egypt	567
4	Israel	242
5	Jordan	193
6	Greece	169
7	Iraq	167
8	Lebanon	68
9	Palestine	61
10	Cyprus	29
11	Syria	21

Iranian Research Centers and Institutions with the Highest Document Production
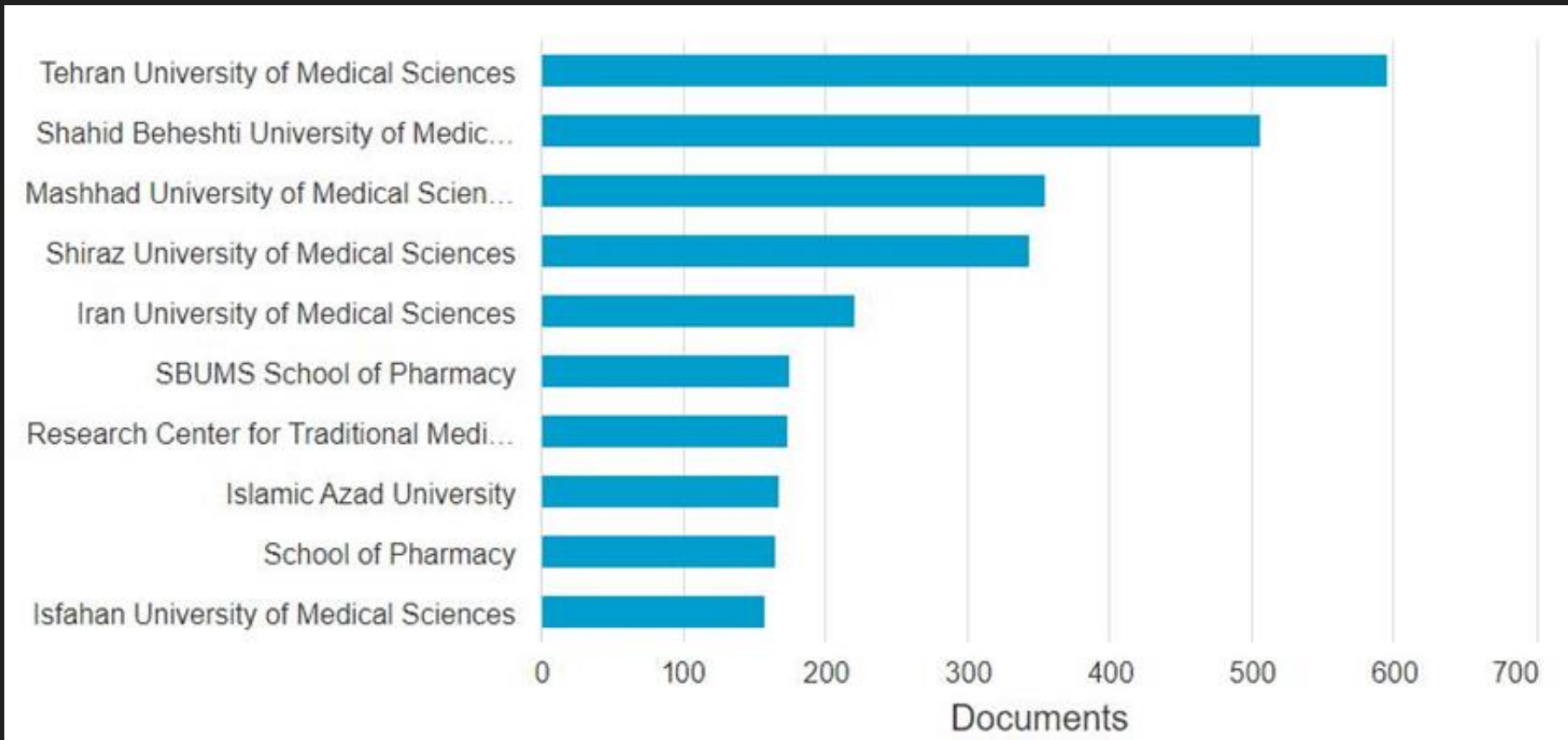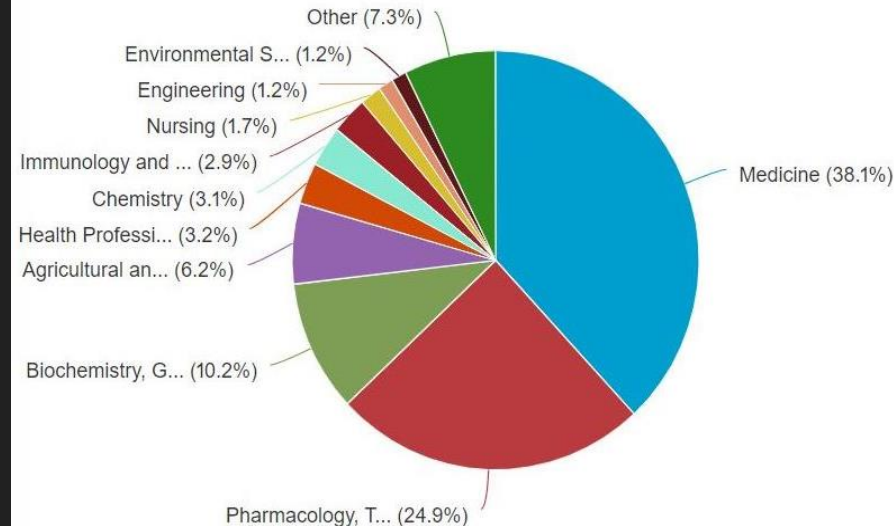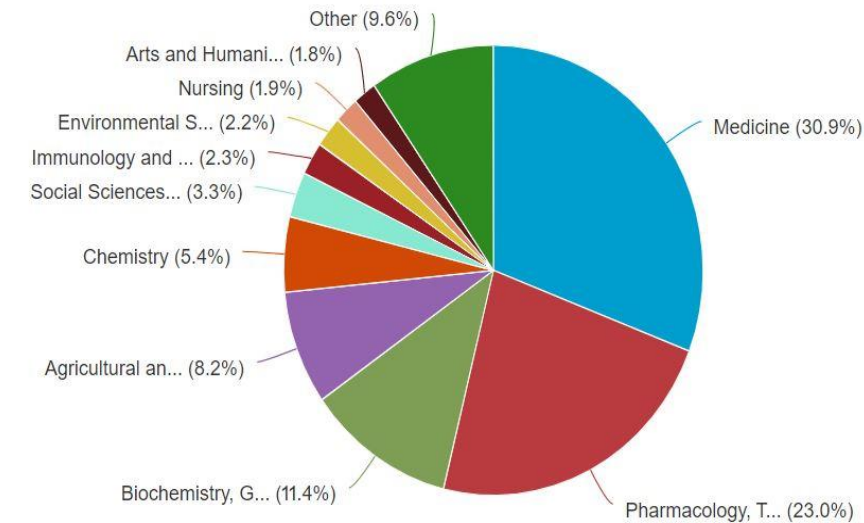
Countries with the Highest Collaboration with Iranian Researchers

○ Iran has cooperated with various Asian and European countries in ITM research.

○ Closer cooperation with **the United States, Italy, Turkey, India, and Australia**
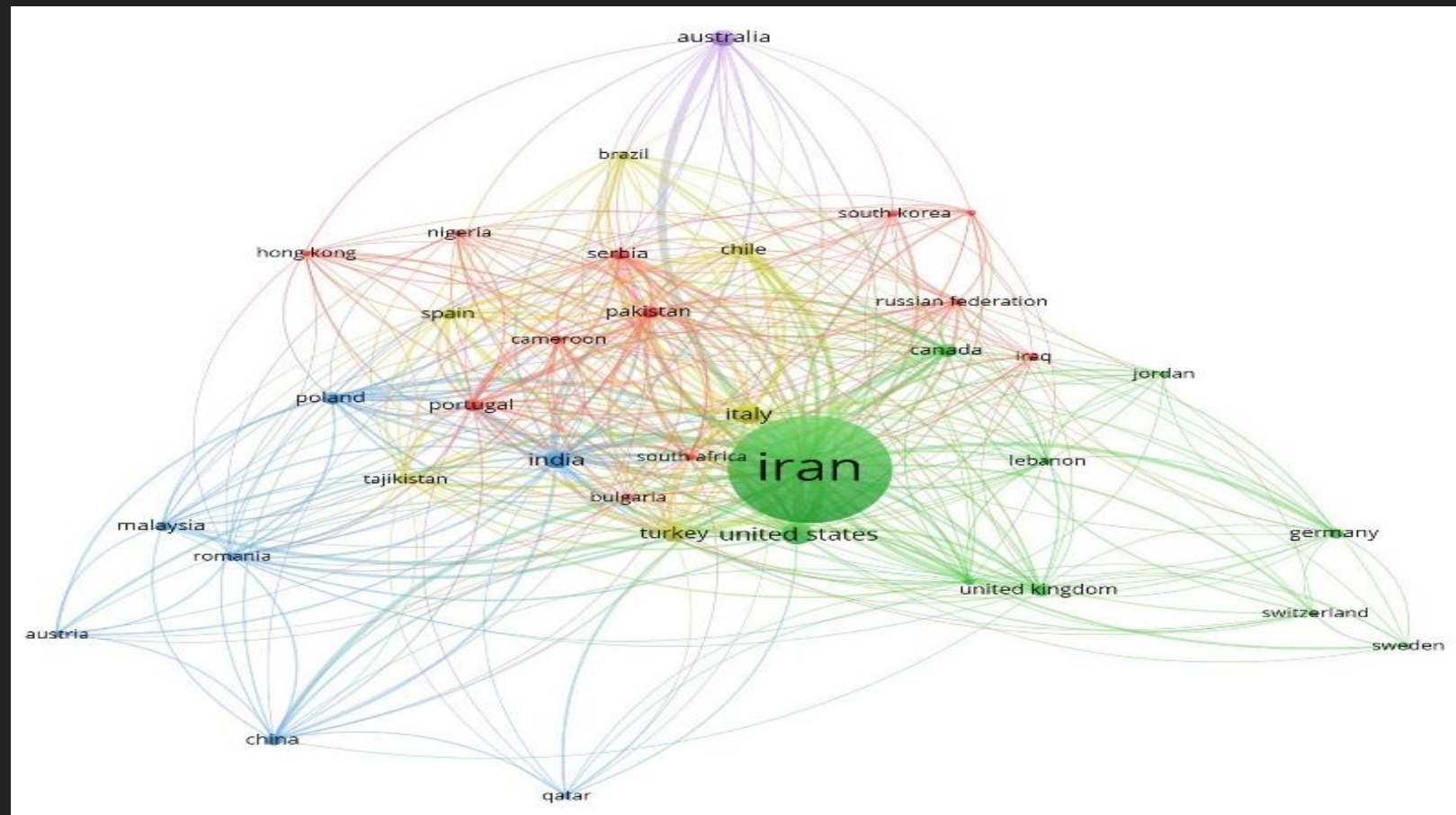
The Most Common Subject Areas in Iran and the World, and Their Comparison

- At the international level, the top 3 subject areas for traditional medicine research are:

- Medicine

- Pharmacology, Toxicology and Pharmaceutics

- Biochemistry, Genetics and Molecular Biology

- The subject area with the lowest position among the 26 subject areas is 'Decision Sciences'.

Other (9.6%)
Arts and Humani... (1.8%)
Nursing (1.9%)
Environmental S... (2.2%)
Immunology and ... (2.3%)
Social Sciences... (3.3%)
Chemistry (5.4%)
Agricultural an... (8.2%)
Biochemistry, G... (11.4%)
Pharmacology, T... (23.0%)
Medicine (30.9%)

Other (7.3%)
Environmental S... (1.2%)
Engineering (1.2%)
Nursing (1.7%)
Immunology and ... (2.9%)
Chemistry (3.1%)
Health Professi... (3.2%)
Agricultural an... (6.2%)
Biochemistry, G... (10.2%)
Pharmacology, T... (24.9%)
Medicine (38.1%)

Journals that have Published the Most Documents in the Traditional Medicine scope by Iranian Researchers

Rank	Journal	Frequency of produced scientific productions
1	**Journal Of Medicinal Plants**	161
2	**Journal Of Ethnopharmacology**	112
3	**Traditional And Integrative Medicine**	97
4	**Iranian Red Crescent Medical Journal**	76
5	**Phytotherapy Research**	60
6	**Journal Of Evidence Based Complementary And Alternative Medicine**	59
7	**Iranian Journal Of Pharmaceutical Research**	58
8	**Jundishapur Journal Of Natural Pharmaceutical Products**	52
9	**Journal Of Babol University Of Medical Sciences**	44
10	**Iranian Journal Of Obstetrics Gynecology And Infertility**	43

The top Iranian researchers in terms of the number of scientific productions in the traditional medicine scope

Rank	Researcher	Frequency of produced scientific productions	Co-authors	h-index	Citations by documents	All works with individual responsibility	Works in progress
1	Kamalinejad, Mohammad	111	740	37	4249	254	4
2	Zargaran, Arman	62	233	22	1099	117	0
3	Sharifi-Rad, Javad	60	2549	61	9977	413	1
4	Rahimi, Roja	59	406	50	6229	178	2
5	Rafieian-Kopaei, Mahmoud	58	699	70	7459	481	0
6	Naseri, Mohsen	56	296	20	864	92	0
7	Zarshenas, Mohammad Mehdi	56	241	24	1334	122	0
8	Choopani, Rasool	49	148	14	411	58	0
9	Sahebkar, Amirhossein	49	11328	122	57010	1650	7
10	Bahmani, Mahmoud	48	292	48	2462	177	0
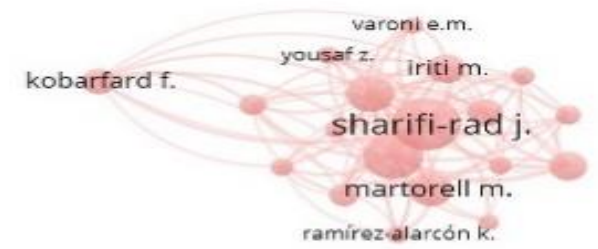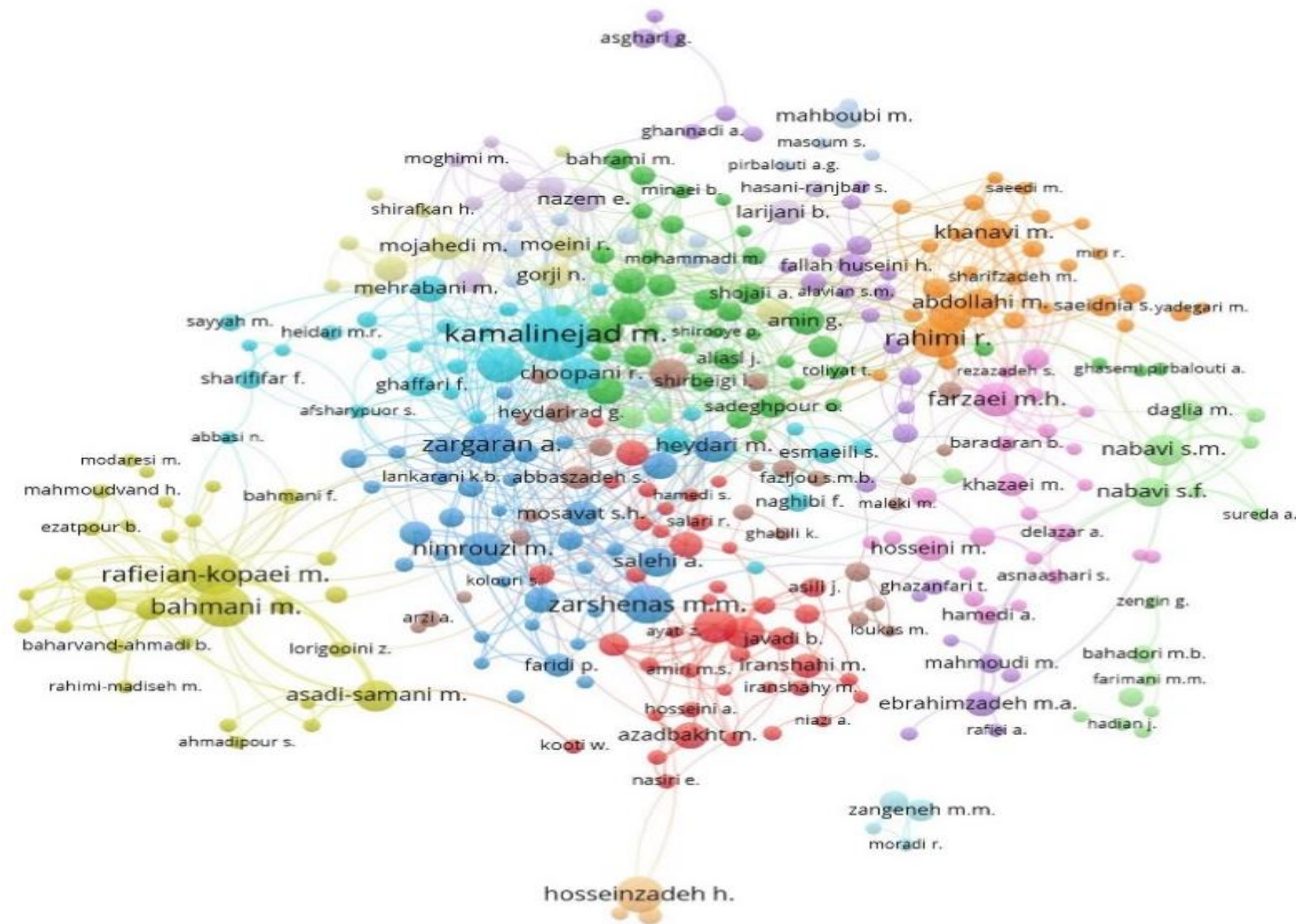
Recommendations

Future Research

Investigate international collaborations in ITM research, and analyze their impact on citation counts. Conduct co-citation analysis to identify highly cited papers and influential researchers for potential collaboration.

Maintaining Global Rank

Support and resource allocation to sustain and enhance Iran's rank in ITM research globally, emphasizing the importance of continuous improvement.

Enhancing National Contribution

Encourage and facilitate collaboration among national researchers to collectively strive for advancements in ITM research, aiming to boost the country's standing in the field.

USING COMMON KEYWORDS: **"PERSIAN MEDICINE"** OR **"TRADITIONAL MEDICINE"**

Thanks for your time and attention...