

## Evaluation of the Status of Iran's Scientific Production Concerning "Ramadan Fasting" in the Health Field Using PubMed and the Scopus Databases From Beginning to 2015: A Letter to the Editor

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### Dear Editor,

Research and scholarly activities have always attracted the attention of both officials and scholars, as these activities have significant impact on the country's scientific and economic growth. Experts consider research as the infrastructure of development and describe a successful and progressive society orbiting around scientific elite and competency. A society that its decisions are supported by academic institutions, aims towards development and promotion.

Health scientific production is one of the means of improving health systems in each country. The number of articles published in the health field of each country is the index of its health system development and countries are classified according to their ability to produce knowledge. Furthermore, with increase in the number of scientific publications in the field of health, the challenges and solutions will be followed and discussed in this area too. Dissemination and application of knowledge in the field of health has a direct effect on improving researchers, practitioners, and decision-makers in the health sector.

Fasting is one of the topics discussed in the medical field and one of the pillars of Islam worship. According to the commands of Islam, Muslims are required to fast during the holy month of Ramadan and do a series of tasks and rituals during this month. Some of these practices entail abstaining from eating and drinking during daylight hours. This hunger and thirst during the day, raises the question that what are the impacts of fasting on human health.

One of the most common methods of evaluating scientific activities is scientometrics that was introduced in Russia and grew in eastern European countries, and then all around the world. Publication of articles in scientific

journals that is the result of authors and peer review work (before publication) is one of the most important examples of scientific production. Scientometrics that describes research in various scientific communities could be a useful element for policy and research management and allocation of funds and resources in sciences.

This research seeks to understand the fact that whether researchers have focused on the effects of fasting on health and how much is the medical scientific production on fasting. The findings could help the Iranian and foreign researchers to understand the shortages of research on fasting in the health field.

To collect data, Medline and Scopus databases were used. Medline database is one of the areas of search and retrieval of medical science that is provided by national center for biotechnology information, (NCBI) at the US national library of medicine. For searching, keywords were fasting (Mesh) and Ramadan. Scopus database is one of medical science citation databases. In order to search in the Scopus database "fasting" and "Ramadan" keywords were used.

A total of 476 papers were published in the PubMed database regarding these topics. Iran's share of total production (476 Articles) was 40 articles (4.8%), which would locate Iran in the second place after Turkey with 48 articles. The other published articles belonged to Saudi Arabia (31 articles), Tunisia (30 articles), Morocco (25 articles), the United Kingdom (24 articles), Malaysia (15 articles), Pakistan, the United Arab Emirates and Singapore (14 articles each), Qatar (13 articles), France (9 articles), Egypt (8 articles), and Algeria (6 articles).

The Scopus database contained 540 articles in this area. Iran's share of total production (540 article) was 57 articles (10.5%). Turkey was in the second place with

63 articles. After Turkey and Iran, the published articles came from the United Kingdom (55 Articles), Tunisia (53 articles), Saudi Arabia (49 articles), the United States (38 articles), France and Malaysia (29 articles each), Qatar (26 articles), Morocco (22 articles), Pakistan (21 articles), the United Arab Emirates, Singapore, Egypt (each with 17 articles), and Algeria (14 articles).

In the study of Saboori to determine the Iran's contribution of science production in the world in 2013 results showed that out of 1,906,559 documents indexed in Thomson Reuters scientific institute, Iran with was at the twentieth place producing 27963 (1.42 percent) in world and at the second place in the middle east region and the Muslim world (1). Study of Shams Pour et al. to review the status of the issues of Hajj pilgrimage in the field of health showed that 391 articles have been published in this topic, and Iran's share was only 8 original articles. The results showed low activity of Iranian and foreign researchers in the field of health in the Hajj pilgrimage (2). Noori and Farashbandi evaluated the performance of Muslim researchers in publishing Holy Quran related articles in Medical Sciences in Scopus databases. They showed that only 77 records on Holy Quran articles related to medical sciences were retrieved by searching Scopus website. More consideration to the medical topics rather than other four fields of pharmacology, nursing, biochemistry, and genetics shows the need more investigations on Quran teachings in Medical Sciences, and it is suitable for Muslim researchers (3).

Study of Gonzalez et al. about scientific production on leishmaniasis in Latin America showed that 2857 articles were found at Science citation index (SCI) (17.7% of the total). Brazil was the highest producer (58.1%), followed by Colombia (9.9%), and Venezuela (5.6%); the region received 41186 citations, 54.2% from Brazil (H index = 62), 12.1% from Colombia (H index = 30), and 4.5% from Venezuela (H index = 25). At Scopus, there were 3681 (14.7% of

the total), of them 53.2% from Brazil, 6.8% from Colombia and 6.0% from Venezuela. About 38.46% of the articles were from Fundação Oswaldo Cruz in Brazil, 30.6% from Universidad de Antioquia in Colombia, and 31.34% from Universidad Central de Venezuela in Venezuela. regarding medline, there were 4525 records (60.6% from Brazil). At SciELO, there were 1068 records (67.5% Brazil). At LILACS, there were 1740 records (56.0% Brazil) (4). Study of Vioque et al. to review the status of Spanish scientific production in obesity research published in PubMed showed that Obesity research in Spain has increased over the last 20 years and accounted for a substantial proportion of European Union research in this field. Half of the papers by Spanish authors were published in international non-Spanish journals. Most studies were carried out in hospital settings and universities (5).

This study showed that the study of fasting in spite of its long tradition is in low production; only 476 articles listed in PubMed and 540 articles in Scopus. On average, the Iran's share is less than 10% in two databases. Regarding the important issue of fasting in the Muslim world and the Middle East region, this is an opportunity, especially for Iran to be the leading producer of knowledge in this area.

## References

1. Saboori A. Iran's production of scientific documents. *J Neshat Sci*. 2013;**4**(2):94-100.
2. Shams Pour N, Heidarzadeh A. [Study of the status of Iran's production of Hajj pilgrimage " in the health]. *J Rescue*. 2011;**3**(3):12-9.
3. Noori R, Farashbandi FZ. Evaluating the Performance of Muslim Researchers in Publishing Holy Quran Related Articles in Medical Sciences in Scopus Databases. *Quran Med*. 2012;**1**(4):108-12.
4. Perilla-Gonzalez Y, Gomez-Suta D, Delgado-Osorio N, Hurtado-Hurtado N, Baquero-Rodriguez JD, Lopez-Isaza AF, et al. Study of the scientific production on leishmaniasis in latin america. *Recent Pat Antiinfect Drug Discov*. 2014;**9**(3):216-22.
5. Vioque J, Manuel Ramos J, Navarrete-Munoz EM, Garcia De La Hera M. [Spanish scientific production in obesity research published in PubMed (1988-2007)]. *Gac Sanit*. 2010;**24**(3):225-32.