Academic Medical Leadership in Iraq: Researchgate Ranking

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Abstract

Background: Bibliometric assessments have been used to quantitatively and qualitatively evaluate the scientific/research productivity of medical leaders and academic medical leaders. However, emphasis has been increasingly made that paying no attention to the order and authorship role of the researcher being evaluated may lead to a misleading H-index that is completely not relevant to academic leadership determination purpose. Therefore, Researchgate has emerged as the single most important tool for the evaluation of physicians’ academic stature, prowess, and scholar productivity, and also for the evaluation of academic leadership.

Materials and methods: More than 200 Researchgate profiles were examined during the last four days of August 2021 with aim of determining Iraqi academic medical leaders who have a scientific reputation (RG) Score at Researchgate of 40 or higher.

Results: Aamir Jalal Al-Mosawi was the Iraqi academic medical leader who had the highest RG Score of 40.46. Only two Iraqi physicians had RG Score at Researchgate of 40 or higher including Aamir Jalal Al-Mosawi.

Conclusion: During the last four days of August, 2021, Aamir Jalal Al-Mosawi was the Iraqi academic medical leader with the highest RG score at Researchgate. The findings in this study confirm that researchgate is more appropriate for academic medical leadership as it reduce to some extent the influence of misleadingly high H-index that is not relevant to academic leadership deterioration resulting from joining large number of collaborative studies.

Key Words: Academic medical leadership, Iraq, researchgate ranking.

Introduction

Potential and actual improvement in medical practices and healthcare services made through the use of evidence-based medicine has been increasingly attributed to the successfulness of academic medical leadership and healthcare leadership within institutions and organizations. Therefore, interest has been increasing for knowing the necessary practices of medical leadership and academic medical leadership, and also for learning the qualities of the genuine medical and academic medical leaders.

There has been also an increasing interest in measuring the academic stature and prowess of physicians and their scholar productivity, because reputable researchers, citations number, and highly influential publications have become the chief factors that help medical colleges in advancing their position in world rankings. In addition, the academic stature and prowess of physicians in the form of influential publications is important for appointment for leadership positions and also in professional and academic promotion [1-12].

Academic medical leadership which is generally linked with academic productivity is correlated in most academic institutions throughout the world with professional and academic promotions and the attainment of academic leadership positions.

Therefore, research publication has become the most important measure of academic output and efficiency, and thus of academic medical leadership.

However, the mere quantity of published research has not been generally regarded as acceptable nor a suitable measure of academic medical leadership, because the number of publications dose not give a clue to the scientific strength and significance of the published research work.
Academic medical leaders are generally selected from members of academic institutions and organizations, and therefore the emergence of genuine academic medical leaders requires the appropriate selection of adequately qualified physicians for faculty membership in academic medical institutions or organizations.

Bibliometric assessments have been used to quantitatively and qualitatively evaluate the scientific/research productivity of medical leaders and academic medical leaders.

The Hirsch index (h-index) is commonly used for the assessment of academic productivity of physicians because it was found to be generally correlated with the academic rank, and increases progressively with it, and thus was used to determine academic leaders.

However, emphasis has been increasingly made that paying no attention to the order and authorship role of the researcher being evaluated may lead to a misleading H-index that is completely not relevant to academic leadership determination purpose.

Publishing research conducted by a large collaborative research group made many collaborators with a minor contribution to the research creation, development and leadership attain a high misleading H-index and is not correlated with their academic and research prowess [12,13,14,15,16,17].

The use of methods that increase the reliability of the H-index has been increasingly suggested [9].

Assessing academic prowess of physicians by bibliometrics such H-index which relies on publications’ citations received alone has been shown to be misleading in many instances and that is because many publications include a large number of collaborators who are not genuine authors, but they will get many citations and a misleadingly high H-index.

In addition, the H-index dose not measure the scientific strength and the interest of the scientific community in the researcher work. Papers documenting the occurrence of a very rare or novel conditions or associations will not get a number of citations that is correlated with their scientific strength because of the rarity of the description being published.

Therefore, Researchgate has emerged as the single most important tool for the evaluation of physicians’ academic stature, prowess, and scholar productivity, and also for the evaluation of academic medical leadership. Researchgate also gives insights into the physician’s academic communications [9,10,11,18,19,20,21,22].

Researchgate as a professional academic assessment tool was developed by a German virologist, Ijad Madisch (Figure-1) in 2008.

Ranking of academics in Researchgate is based mostly on the final scientific reputation (RG) Score for each academic researcher which is measured based on [11-23]:

1-The academic output: The number of publications.
2-The impact of the researcher through the cumulative impact factors publications mostly journal articles.
3-Measuring other impact indicators including the number of the downloads of full-text articles, and the views of the meta-data of articles.

Figure-1: Ijad Madisch, German virologist

Materials and methods

More than 200 Researchgate profiles were examined during the last four days of August 2021 with aim of determining the Iraqi academic medical leaders who have a scientific reputation (RG) Score at Researchgate of 40 or higher.

Results

Aamir Jalal Al-Mosawi was the Iraqi academic medical leader who had the highest RG Score
of 40.46 (Figure-2A).

**Figure-2A: Aamir Jalal Al-Mosawi was the Iraqi academic medical who had the highest RG Score of 40.46**

Only two Iraqi physicians had RG Score at Researchgate of 40 or higher including Aamir Jalal Al-Mosawi.

The second Iraqi physician (Figure-2B) who had RG score of 40.06 was previously reported in several publications to have an extremely misleading H-index at Google Scholar citation that was not relevant to academic medical leadership deterioration, and this misleading H-index contributed to his high researchgate RG score [19,20,21,22].

**Figure-2B: The second Iraqi physician who had RG score above 40**

According to the previous publications, the second Iraqi physician who had RG score above 40, his name was not among the first five authors for the first 20 papers listed by Google Scholar Citation, and in most of these papers, his name was not present among the first ten authors [19, 20, 21, 22].

**DISCUSSION**

Academic medical leadership, a leadership that characterized by the ability of creating vision and mission supported by scientific evidence for the academic organization. The second characteristic of academic medical leadership is the ability to introduce innovative and creative ideas, and to inspire followers, and professional and academic teams. Therefore, academic medical leaders help their institutions or organization (colleges of medicine, teaching and university hospitals’ clinical departments, specializations and sub-specialization boards, peer-reviewed medical journals, and training centers) in setting a vision and a mission statement supported by scientific evidence [6,7,12].

The pioneering work of Jorge Eduardo Hirsch (Figure-3) suggested that the scientific output of an author (The number of published papers) does not account much for the quality of scientific publications.

Hirsch thought that citation-based impact of an author (The total number of citations) can be excessively affected by authoring a highly influential paper(s) that generate a large number of citations.

**Figure-3: Jorge Eduardo Hirsch, an Argentine American professor of physics who introduced the h-index in 2005. He was born in 1953**

Citation-based impact of an author can also be generated by many publications with few citations each. Therefore, combing publication productivity and citation-based index into a single measurement can reduce the artificial influence of one or two highly cited paper(s) on the citation count. Therefore, the H-index was used as a quantitative measure of impact, and universities and academics are increasingly being asked to show the quality and impact of their work [9, 18,19,20,21, 22].
The use of corrected H-index which is calculated while considering the papers really authored by an individual author who should be among the first three authors has been increasingly suggested.

Many authors join a large collaborative research group and have a minor contribution to research development and publication, but they may attain a rather misleading high H-index.

Therefore, it was recommended that Google Scholar Citation, Scopus, and Semantic Scholar adopt the corrected H-index to guarantee the reliability and usefulness of the H-index [18, 19, 20, 21, 22].

This study showed that Aamir Jalal Al-Mosawi was the Iraqi academic medical leader with the highest RG score at Researchgate. He has been pioneering several fields of clinical pediatrics in Iraq including pediatric nephrology, pediatric neuropsychiatry, and clinical genetics [9-11].

A previously published bibliometric analysis showed that Aamir Jalal Al-Mosawi was perfectly considered as the unquestionable pioneer of pediatric nephrology in Iraq [10]. The paper emphasized that in 2008, the web site “Medical talks” included Aamir Jalal Al-Mosawi in the list of famous physicians of all time for describing a new model for the treatment of chronic renal failure [10, 24].

The analysis studied papers published by Iraqi pediatricians in the field of pediatric nephrology that were retrieved during the 22nd ad 23rd of August, 2019 from “Web of Science” and “PubMed”. Papers published by researchers other than pediatricians such urologic surgeons, and basic sciences researchers were not included in this study.


The vast majority of papers, 49 (92.4 %) were published by Aamir Jalal Al-Mosawi. Only four other papers [Etiological and clinical patterns of childhood urolithiasis in Iraq (2005), Profile of renal diseases in Iraqi children: A single-center report. (2015), Hypertension in hemodialyzed children (2016), The predictive factors for relapses in children with steroid-sensitive nephrotic syndrome (2016)] were published by authors other than Aamir Jalal Al-Mosawi, and were carefully studied and were found to include unreliable, non-authentic and largely misleading data.

The analysis emphasized that the work of Aamir Jalal Al-Mosawi represented the authentic reliable source about childhood renal disorders in Iraq.

The work of Aamir Jalal Al-Mosawi provided a comprehensive knowledge about pediatric kidney diseases in Iraqi children.

The papers of Aamir Jalal Al-Mosawi in the field of nephrology included 12 research papers, 2 case report, one case series, three review articles, and at least 31 conferences’ abstracts [10].

The publications of Aamir Jalal Al-Mosawi provided pioneering descriptions of the patterns of various pediatric kidney diseases including acute glomerulonephritis, chronic renal failure, childhood urolithiasis, renal tubular disorders (including nephropathic cystinosis, oculocerebro-renal syndrome), and Hinman syndrome [25-32].

Aamir Jalal Al-Mosawi described the challenges in the treatment of chronic renal failure in the developing world and in Iraq. He described a new model for the management of chronic renal failure, and reported six-year dialysis freedom in a girl with end-stage renal disease. The new model has become known as intestinal dialysis and sometimes was called dietary dialysis [33-50].

Aamir Al-Mosawi also described a new conservative management for childhood urolithiasis and a new therapeutic approach for the treatment of refractory vitamin D-resistant rickets. He also described the pattern of ocular abnormalities in childhood chronic renal failure, and reported the association of renal agenesis with Coffin Siris syndrome. He described the new association of idiopathic hyperuricosuria, hypercalciuria and infantile renal stone disease and suggested a therapeutic approach for its treatment. He also reported the occurrence of the case 41 of crossed unfused renal ectopia in an Iraqi child [28, 53, 54, 55, 56, 57, 58, 59].

Aamir Jalal Al-Mosawi has also been...
pioneering the fields of clinical genetics and dysmorphology as he has more than 50 publications contributing to these fields. In addition to providing the first description of the pattern of genetic diseases in Iraq, he reported a very large number of rare genetic disorders that have not been reported from Iraq before. He also described the novel occurrence of dysmorphic syndromes and association. [31, 57, 60-111]

Aamir Jalal Al-Mosawi has also been pioneering the fields of pediatric neurology and psychiatry with more than 50 publications contributing to these fields.

In addition to providing the first descriptions of the patterns of the major neuropsychiatric disorders in Iraq including cerebral palsy, mental retardation, and autism disorders, Aamir Jalal Al-Mosawi introduced new curative therapies for neuropsychiatric disorders including cerebral palsy, kernicterus, mental retardation, autism disorders, and other disorders such as agenesis of corpus callosum and myelomeningocele. He also documented the occurrence of rare neurological disorders in Iraq that have not been reported from Iraq before such as childhood Seeligmüller Strümpell Philip disease [112-150].

The contribution of Aamir Jalal Al-Mosawi to non-genetic rare disorders cannot be ignored. He described many of the rare non-genetic diseases that have not been described in Iraq before and new clinical syndromes including the sixty fourth case of pediatric Churg Strauss syndrome in the world, the second case of pediatric unilateral Vogt Koyanagi Harada syndrome in the world, the twenty eighth case of congenital Chevalier Jackson syndrome in the world, and other rare disorders [151-165].

In addition to pioneering many clinical fields in Iraq, Aamir Jalal Al-Mosawi has been pioneering many medical non-clinical fields including continuing medical education and the practice of evidence based medicine, professional training and development, medical editorship, medical leadership and healthcare system studies.

Aamir Jalal Al-Mosawi founded the first Iraqi international medical journal which was the first Iraqi medical journal to be included in Scopus. He conducted the first accredited training courses in Iraq in several fields including medical and healthcare leadership, training of the trainer (TOT) courses, instruction methods for physician courses, and child psychiatry courses [1-7, 166-187].

The pioneering publications in Iraq made Aamir Al-Mosawi, the Iraqi pediatrician and hospital-based clinician with the highest H-index in Scopus [9, 10, 11]. During the last four days of August 2021, in many countries of the world, the physicians with highest RG score at researchgate had a score of less than 40 (Figure-4) [188-196].
score at ResearchGate in Indonesia was Nia Kurniati who had a score of 32.78 at ResearchGate.

Figure-D: During the last four days of August 2021, the physician with highest RG score at ResearchGate in Bosnia and Herzegovina was Nermin N Salkic, a gastroenterologist who had a score of 32.67 at ResearchGate.

Figure-E: During the last four days of August 2021, the physician with highest RG score at ResearchGate in Ecuador was Fabricio González-Andrade, a geneticist who had a score of 31.62 at ResearchGate.

Figure-F: During the last four days of August 2021, the physician with highest RG score at ResearchGate in Sudan was Hassan Hussein Musa, an immunologist and molecular geneticist who had a score of 30.54 at ResearchGate.

Figure-G: During the last four days of August 2021, the physician with highest RG score at ResearchGate in Cuba was Maria Elena Gonzalez-Fraguela who had a score of 27.14 at ResearchGate.

Figure-H: During the last four days of August 2021, the physician with highest RG score at ResearchGate in Armenia was Alaa Eldin Elsharkawy, a neurosurgeon who had a score of 23.27 at ResearchGate.

Figure-I: During the last four days of August 2021, the physician with highest RG score at ResearchGate in Cuba was Maria Elena Gonzalez-Fraguela who had a score of 27.14 at ResearchGate.
researchgate in Lithuania was Antanas Mickevicius, a surgeon who had a score of 22.29 at researchgate

Conclusion

During the last four days of August, 2021, Aamir Jalal Al-Mosawi was the Iraqi academic medical leader with the highest RG score at Researchgate of 40.46. Aamir Jalal Al-Mosawi has been pioneering several clinical medical fields in Iraq including pediatric nephrology, clinical genetics and dysmorphology, and neuropsychiatry. He also has been pioneering several non-clinical medical fields including continuing medical education and the practice of evidence based medicine, professional training and development, medical editorship, medical leadership and healthcare system studies. The findings in this study confirm that researchgate is more appropriate for academic medical leadership as it reduce to some extent the influence of misleadingly high H-index that is not relevant to academic leadership deterioration resulting from joining large number of collaborative studies.

Conflict of interests: None

References


17-Ence AK, Cope SR, Holliday EB, Somerson JS. Publication Productivity and Experience: Factors Associated with Academic Rank


24-Only medical talks web sit:
http://onlymedicaltalks.blogspot.com/2008/03/amir-jalal-al-mosawi-described-new.html
[Accessed on the 27th of August, 2021].


36--Al-Mosawi AJ. Acacia gum therapeutic potential: possible role in the management of uremia: a new potential medicine .Therapy (Clinical practice) [p-ISSN: 2044-9038, e-ISSN: 2044-9046], 2006 Mar; 3(2) 301-321. [A special article journal supplement including several articles introducing acacia gum as a new urea lowering agent].


97-Al-Mosawi AJ. Virchow Seckel Syndrome: The First Case in Iraq and the Early Documentation of the Syndrome in the


117-Al-Mosawi AJ. Pervasive developmental disorders in Iraqi children. Journal of


173-Al-Mosawi AJ. Healthcare system in Iraq

Doi.org/10.13140/rg.2.1.1173.4803

Doi:10.13140/rg.2.1.4057.0641


188-https://www.researchgate.net/profile/Najwa-Khuri-Bulos
[Accessed during the last four days of August, 2021].

189-https://www.researchgate.net/profile/Cesar-Ugarte-Gil
[Accessed during the last four days of August, 2021].

190-https://www.researchgate.net/profile/Nia-Kurniati
[Accessed during the last four days of August, 2021].

191-https://www.researchgate.net/profile/Nermin-Salkic
[Accessed during the last four days of August, 2021].

192-https://www.researchgate.net/profile/Fabricio-Gonzalez-Andrade
[Accessed during the last four days of August, 2021].

[Accessed during the last four days of August, 2021].

194-https://www.researchgate.net/profile/Maria-Gonzalez-Fraguela
[Accessed during the last four days of August, 2021].

[Accessed during the last four days of August, 2021].
https://www.researchgate.net/profile/Antanas-Mickevicius

[Accessed during the last four days of August, 2021].