


DIFFERENT REPORTING PATTERNS OF AUTHOR AFFILIATIONS: A CROSS-SECTIONAL EVALUATION OF PUBLICATIONS FROM AN EGYPTIAN MEDICAL ACADEMIC INSTITUTE

Ahmed A. Khalifa¹ , Sarah M. Hussien² , Eslam M. Ansary³ , Ahmed Abdelfattah El-Gharably⁴ 

¹South Valley University Qena School of Medicine, Department of Orthopedics and Traumatology, Qena, EGYPT

²South Valley University Qena School of Medicine, Department of Internal Medicine, Qena, EGYPT

³South Valley University Qena School of Medicine, Department of Obstetrics and Gynecology, Qena, EGYPT

⁴South Valley University Qena School of Medicine, Department of Surgery, Qena, EGYPT

ABSTRACT

Aims: Inappropriate presentation or reporting of the authors' affiliation may deprive their institution of the research credit for the published work. The study's primary aim was to detect possible patterns of author affiliations being misreported by evaluating the PubMed-indexed publications of Qena Faculty of Medicine, a representative of North African and Egyptian academic institutions, over one year.

Methods: A PubMed search was limited to one year to search for publications from South Valley University, Qena Faculty of Medicine, and Qena University Hospital. The resulting articles were examined to evaluate the contribution of Qena Faculty of Medicine and Qena University Hospital's different departments and the patterns of author affiliations reporting. Author affiliation reporting was divided into three main patterns: I: Missing affiliation information, II: Mistakes in affiliation reporting, and III: Inconsistent affiliation reporting.

Results: For the included 77 articles, there were 59 (76.6%) articles with authors from only one department, 9 (11.7%) with two, 4 (5.2%) with three, and 5 (6.5%) with four. The contribution of all departments totals up to 109 articles. Pattern II was seen in 47 (43.1%) articles and was the most common pattern, followed by pattern III in 31 (28.4%) articles and pattern I in 16 (14.6%) articles.

Conclusion: Certain patterns of misreporting authors' affiliations were detected. Identifying such patterns will help avoid them and protect institutions from being deprived of their research credit. Further evaluation of other faculties and universities on a broader scale is highly encouraged.

Keywords: Egypt, authorship, organizational affiliation, research activities, researchers

INTRODUCTION

Individual researchers, as well as academic institutions, are put under the pressure of the "publish or perish" dictum (1). The rate of scientific publications and citations has been an area of great attention in most universities (2). As the quality and quantity of research being produced determine the ranking and reputation of these academic centers (3).

The scientific activity of an institution or an individual researcher is measured by different indicators (4). A common indicator

is the number of their publications and citations they get, preferably in high-ranking well-respected journals (4-6). These measurements are primarily based on scientific publications, especially those included in major databases, such as the Web of Science (6).

According to the Research Organization Registry (ROR), affiliation describes any formal relationship between a researcher and an organization associated with researchers, including but not limited to their employer, educator, funder, or



Address for Correspondence: Ahmed A. Khalifa, South Valley University Qena School of Medicine, Department of Orthopedics and Traumatology, Qena, EGYPT

e-mail: ahmed_adel0391@med.svu.edu.eg

ORCID iDs of the authors: AAK: 0000-0002-0710-6487; SMH: 0000-0002-2435-3690; EMA: 0000-0002-0832-5876;

AAEG: 0000-0002-3212-5436.

Received: 25.05.2022 Accepted: 27.01.2023

Cite this article as: Khalifa AA, Hussien SM, Ansary EM et al. Different reporting patterns of author affiliations: a cross-sectional evaluation of publications from an Egyptian medical academic institute. Turk Med Stud J 2023;10(1):13-8.

Copyright@Author(s) - Available online at <https://www.turkmedstudj.com/>



OPEN ACCESS

scholarly society (7). They also define a research organization as an organization that conducts, produces, manages, or touches research (7). An author may have single or multiple affiliations (1). However, it is generally agreed that the affiliation should be reported according to where the research work was performed (1, 8). Bachelet et al. (9) reported on misrepresenting authors' affiliations by evaluating Scopus-indexed articles published in 2016 from Chilean universities. The researchers reported that they could not validate the authors' affiliations in 38% of the cases, and the authors considered this as a possible case of authorship misconduct and fraud (1, 9). Furthermore, inappropriate presentation or reporting of the authors' affiliation may deprive the affiliated institution of getting the research credit for the published work (1, 9).

To the best of our knowledge, authors' affiliation reporting patterns were not evaluated in our area. Hence, the primary objective of the current cross-sectional study is to detect the possible patterns of authors' affiliation reporting by evaluating PubMed-indexed publications over one year from the Qena Faculty of Medicine (QFM) as a representative of North African and Egyptian academic institutions. The secondary objective is to document the incidence of research output contribution from QFM's various departments during the same period. We hypothesized that possible mistakes could be detected in these reporting patterns.

MATERIAL AND METHODS

Setting

Qena Faculty of Medicine, including Qena University Hospital (QUH), is one of the faculties of South Valley University (SVU), Egypt (10).

South Valley University was established in 1995, and QFM started its undergraduate education in the academic year of 2007-2008 (10). QFM has been active for 14 years, making it one of the youngest Egyptian medical schools (11). It comprises a total of 32 departments (22 clinical, 10 academic), where the clinical departments, such as general surgery and internal medicine, work mainly in the QUH, carrying out clinical activities related to patient care. In contrast, the academic departments, such as microbiology and histology, mainly have operations that do not involve direct patients care. The working staff members in both departments are responsible for teaching undergraduate and postgraduate medical curricula and supervising research activities carried out as a part of Master's and Medical Doctorate degrees or independent research projects.

Search Strategy

We conducted a PubMed search limited to one year, starting from January 2020 to the end of December 2020. By using the advanced search option, we searched articles by affiliation using three search terms 1- "SVU", 2- "Qena Faculty of Medicine", and 3- "QUH". The search results were downloaded in three forms: As a citation list opened in the Endnote program, as an Excel

sheet containing the characteristics of each article, and as full abstracts containing the authors and their affiliation data.

The citation list downloaded to the Endnote program was used to find duplicates, which were later deleted. The search results for term 1 were confirmed to contain all the search results for terms 2 and 3 as well, thus, the final analysis was carried out only for the resulting articles of search term 1.

The official names of the QFM's departments were collected from the faculty's official website's departments directory (<http://www.svu.edu.eg/faculties/med/en/faculty-departments/>), which were later compared with the department names reported in the authors' affiliation sections of the published articles.

Extracting the Results of Interest

We examined all the final studies to define the authors' exact affiliation and authors' departments for articles from QFM or QUH. A publication was credited to a QFM if at least one contributing author was affiliated with it at the time of publication. For the articles from the QFM or QUH, we defined the contributing departments, the incidence of contribution, and the percentage of clinical and academic departments; then we compared the presented name of the affiliated department with its official name in the QFM department names directory. To ensure the accuracy of the data collected, the most senior author revised the extracted data by reviewing randomly selected abstracts.

Defining the Patterns of Affiliation Reporting

Each author independently reviewed the abstracts of the published articles from QFM and QUH in order to form an opinion on the possible controversies and mistakes in reporting the affiliations. A meeting was carried out among the authors to discuss the suspected patterns of affiliation reporting in the articles. It was agreed on to divide the articles into three different patterns. Each pattern will have a number of sub-patterns that indicate possible forms of affiliations' misreporting (Table 1).

Statistical Analysis

Description of data as frequencies and percentages for qualitative variables were performed. No further statistical analysis was needed.

We downloaded the search results from the PubMed database in the form of an Excel sheet with details of the articles, an option offered by the PubMed database. We used this Excel sheet to organize the data and then reported simple explanations of numbers and percentages.

RESULTS

The search for term 1 (SVU) resulted in a total of 261 articles, while using the search terms 2 (QFM) and 3 (QUH) resulted in 20 and 9 articles, respectively. It is noteworthy that the search terms 2 and 3 (29 articles) resulted in 62.3% fewer QFM articles compared to the results obtained from search term 1, which resulted in 77 articles that were included in the analysis.

Of the 77 articles published from QFM and QUH, three (3.9%) articles were in collaboration with other SVU faculties, two with the faculty of veterinary medicine, and one with the faculty of science. Collaborations between different QFM departments were as follows: Authors from only one department (59, 76.6%), two (9, 11.7%), three (4, 5.2%), and four (5, 6.5%) departments, this provides a total contribution of all departments as 109 articles from clinical and academic departments, 83.8% and 16.2%, respectively. The share of each department in the total publications is shown in Figure 1.

Regarding the detected patterns, the sub-patterns of authors' affiliation reporting are each shown with an example in Table 2 (12-21). The most commonly occurring pattern was pattern II, where the authors mistakenly reported their affiliations in 47 (44.8%) articles.

DISCUSSION

Universities are complex academic organizations, serving to create knowledge by conducting scientific research and educational activities, then transferring the generated knowledge to students through tutoring and training, as well as passing this knowledge on to society (6, 22). Participation in scientific

research and subsequent publishing of the scientific literature are considered the main factors in improving a university's reputation and ranking, which helps acquire accreditation and increases research funding (6, 9, 23). Misreporting the authors' affiliation in the published scientific articles might deprive universities or academic institutions of this research credit (1, 9).

The main finding of this study is that there exist specific patterns, including mistakes and variations, in the reporting of author affiliations. In 44.8% of the reviewed articles, the authors misreported their departments' names or mentioned a division or a unit that is not present on the official faculty website. Per our investigation, a report with the same aim as ours was not published in an Egyptian University before. We expect that this study's findings will also apply to other universities, and the protocol used can be reproduced by other researchers.

Some universities and academic institutions implement specific measures to improve their research output, such as funding and support to the researchers (24). However, to give back to these institutions, the individual researcher's task is to correctly report their affiliation, securing the research credit to their institution (23).

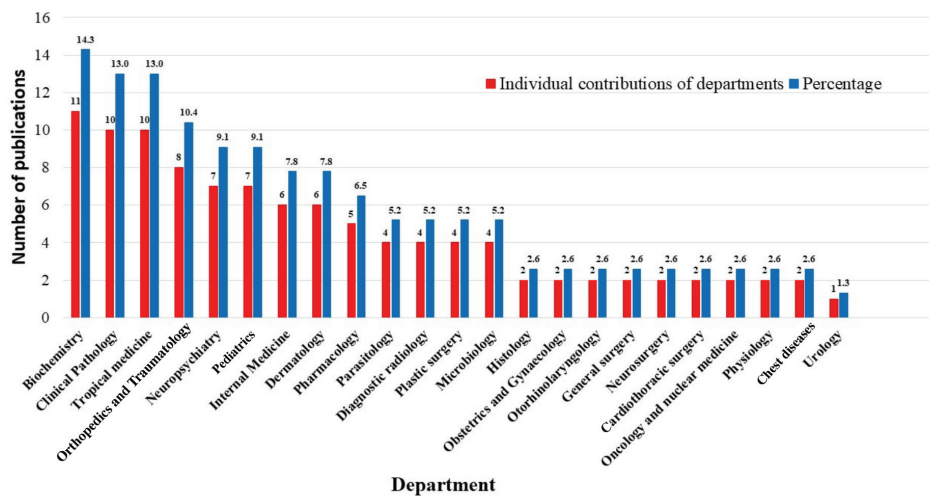


Figure 1: Department contribution to the publications from QFM. QFM: Qena Faculty of Medicine

Table 1: Possible affiliation reporting patterns.

Pattern	Description	Possible presentation forms (sub-patterns)
I	Missing affiliation information	A- Missing faculty name (authors mentioned the department only).
		B- Missing the department name (author mentioned being affiliated to QFM or QUH).
II	Mistakes in affiliation reporting	A- Department affiliation was presented but different from the QFM website departments directory.
		B- Reporting affiliation to a department or a division that was not present in the QFM website departments directory.
III	Inconsistent affiliation reporting	A- Reporting as being affiliated either to the QFM (for academic departments) or QUH (for clinical departments).
		B- The same department name was written in different forms in the same article.
		C- Department name is presented but different among various articles.

QFM: Qena Faculty of Medicine, QUH: Qena University Hospital

There is an increasing interest in measuring universities' academic performance and ranking them nationally and internationally (25). Universities in non-English speaking countries, such as Egypt, may be ranked lower due to the fact that most of the vital reference databases contain very few non-English scientific publications (25, 26). This poses a larger burden on faculties of medicine, as almost all of their publications are published in the English language, which helps their respective universities to be recognized among these databases (27).

Although measuring the research productivity of an academic institution or an individual researcher is not a straightforward process, they are considered easier to measure compared to other academic activities such as teaching and community development (22, 27). So research output is not only the gold standard for evaluation but also the most reliable variable (22, 27).

Why is Evaluation and Diagnosis of Such Affiliation Misreporting Patterns Important?

Correct identification of the department and the faculty that an author is affiliated with will help acquire research credit for that particular institution (28). This credit is not only required for international ranking, but also for national competition and for increasing visibility to research societies (28). An example of the patterns we noticed is when a researcher mentioned the name of a department without reporting the faculty name (Pattern I A), "Department of Obstetrics & Gynaecology, SVU". The exact name of this department is shared with different faculties in the same university, namely: The faculty of medicine and the faculty of nursing (12, 29). Another example was when the authors reported that they were affiliated with QFM or QUH without

mentioning a department (Pattern I B). This can occur when an undergraduate researcher is a co-author of such a publication (30). However, if a researcher is affiliated with a department that they did not mention, this will deprive that department of taking credit for that research (9).

As our research pool was a medical faculty with an associated university hospital, the question of whether reporting the affiliation as the faculty or the university hospital was raised, as detected in pattern III A. For the academic departments, it was clear that all the authors reported their affiliation as QFM. However, a dilemma was present among the clinical departments. Some authors reported being affiliated to QFM only, and some reported being affiliated to QUH only, as an example of pattern III A.

Two of the authors in one article were from the same clinical department; however, they reported different affiliations, QFM and QUH. This caused the publishing journal to consider both authors as affiliates of two different bodies, which might confuse the reader into thinking that these two authors were from separate departments. A different presentation was reported as an example of pattern III C, where one of the authors from a clinical department reported being affiliated with both QFM and QUH and reported it as "QFM and University Hospital". One important point we noticed in our study was that we missed some of the QFM scientific literature during the search process while using different search terms. When the search terms were limited to the faculty and the university hospital only, we noticed a loss of 62.3% of the articles compared to using the university name as the search term. This means that if someone

Table 2: Examples of the affiliation reporting patterns and their incidence.

Pattern	Example	Incidence (n=109) [Number (%)]
I A	In a study by Leduc-Robert et al. (12), one of the authors reported its affiliation as "Department of Obstetrics & Gynecology, SVU" without reporting the faculty name; the issue with this pattern is that the same department is present in other faculties, such as the nursing faculty.	16 (14.7%)
I B	In a study by Mahdy et al. (13), one of the authors reported his affiliation as "QUH" without reporting the department; in another study by Shehata et al. (14), one of the authors reported his affiliation as "Faculty of Medicine, SVU".	
II A	The clinical pathology department is the department's official name in the QFM directory. However, in a study by Suliman et al. (15), one of the authors reported his affiliation as "Clinical Pathology and Laboratory Medicine Department". In another study by Hetta et al. (16), one of the authors reported it as "Department of Clinical and Chemical Pathology".	47 (43.1%)
II B	In a study by El-Abd Ahmed et al. (17), one of the authors reported his affiliation as "Department of Pediatric Surgery, Pediatric Surgery Unit", while neither the name of the department nor the name of the unit is present in the QFM departments directory.	
III A	When reporting the affiliation as a clinical or an academic department, the affiliation should be for QUH or QFM, respectively. In a study by Baseer et al. (18), all the authors were from the Pediatric department, which is a clinical department. However, one of the authors reported being affiliated with QFM, while the others reported QUH as their affiliation.	
III B	In a study by Ibrahim et al. (19), two of the authors were affiliated with the same department; however, one author reported his affiliation as "Dermatology, Andrology, and Venereology, QFM" while the other author reported it as "Dermatology, Venereology, and Andrology, QUH".	31 (28.4%)
III C	In a study by Khalifa and Ahmed (20), the authors reported the department name as "Orthopaedic and Traumatology Department, QFM and University Hospital". In contrast, in another study (by one of the two authors listed in the previous article) (21), the author in this article reported his affiliation as "Department of Orthopaedic Surgery, SVU".	

QFM: Qena Faculty of Medicine, QUH: Qena University Hospital, SVU: South Valley University

is looking for the research output of QFM, about two-thirds of the already published work will be missed during this search, this is mostly due to incorrect affiliation reporting.

We admit that this study has several limitations. Firstly, we investigated only one faculty and with a specific time limit of one year; however, we considered this study a preliminary report to raise awareness of the existence of such a problem and initiate further studies on a larger scale which should contain a larger sample size. Secondly, we used only one search engine (PubMed) to find the articles. The reason for doing so is that, besides PubMed being known as one of the oldest and most popular scientific indexing databases, amount of articles indexed in PubMed is used as a measurement by some Egyptian faculties to decide whether to offer someone a promotion (31). Furthermore, it offered the ease of using search filters, such as searching by affiliation only, and the results could be downloaded in various forms, which enabled easier data processing. Research on the entirety of a specific institution's research output can be carried out by detecting publications in journals that are indexed in leading global indices such as the Science Citation Index, Web of Science, or Scopus, their equivalents. However, the disadvantage of using the previously mentioned indices is that they list only a small number of journals (27). Lastly, the use of academic e-mail or researcher identifiers, such as ORCID, by the authors could not be assessed because the corresponding author was not affiliated with QFM in some articles; therefore, their e-mail addresses were not provided. Additionally, an ORCID ID was not mandatory for some journals.

Some recommendations to avoid affiliation reporting diversity detected in the current study include implementing new policies by the universities, governmental and institutional organizations through the Ministry of Higher Education to ensure a uniform and accurate presentation of affiliations (25). Ministry of Higher Education and relevant authorities should provide accurate and standardized translations of the institutions' and departments' names. A separate affiliation protocol should be included for undergraduate students or interns who publish their work, as they are affiliated with the faculty and not with a specific department. Evaluating the research performance of certain academic institutions using previous evaluation models, such as the one recommended by Caminiti et al. (32), can be beneficial. From the researchers' side, they should be encouraged to use their academic e-mail addresses and researcher identifiers, such as ORCID, as suggested by Bachelet et al. (9). From journals' and specialized communities' perspectives, the publication process should include verifying the authors' affiliation before submitting manuscripts. As Gould (33) discussed, further affiliation reporting and verification should be offered by specialized communities such as ROR. Gould (33) also stressed the importance of correctly reporting affiliations and the role of creating ROR IDs for the research institutions, which prevents researchers from losing any of their work.

CONCLUSION

Specific patterns of authors' affiliation reporting mistakes and diversity were detected in our study. Identifying such patterns will help avoid them in future publications and prevent depriving a particular institution of its research credit. A checkpoint verifying the authors' affiliation before manuscript submission may benefit many institutions. Further studies evaluating the authors' affiliation reporting patterns in other universities on a broader scale are highly encouraged.

Acknowledgment: We would like to thank all staff members and colleges from Qena Faculty of Medicine and University Hospital for their effort and support.

Ethics Committee Approval: N/A

Informed Consent: N/A

Conflict of Interest: The authors declare that they have no conflict of interest.

Author Contributions: Surgical and Medical Practices: A.A.K., S.M.H., E.M.A., A.A.E.G., Concept: A.A.K, Design: A.A.K., Supervision: A.A.K., S.M.H., E.A., A.A.E.G, Resources: A.A.K., S.M.H., E.A., A.A.E.G., Materials: A.A.K., S.M.H., E.A., A.A.E.G., Data Collection and/or Processing: S.M.H., E.M.A., A.A.E.G., Analysis and/or Interpretation: A.A.K., S.M.H., E.M.A., A.A.E.G., Literature Search: A.A.K., S.M.H., A.A.E.G., Writing Manuscript: A.A.K., S.M.H., Critical Review: A.A.K., S.M.H., E.A., A.A.E.G.

Financial Disclosure: The authors declared that this study received no financial support.

REFERENCES

1. Bachelet VC, Uribe FA, Diaz RA et al. Author misrepresentation of institutional affiliations: protocol for an exploratory case study. *BMJ Open* 2019;9(2):e023983. [Crossref]
2. Ale Ebrahim N, Salehi H, Embi MA et al. Effective strategies for increasing citation frequency. *IES* 2013;6(11):93-9. [Crossref]
3. Shahbazi-Moghadam M, Salehi H, Ale Ebrahim N et al. Effective factors for increasing university publication and citation rate. *ASS* 2015;11(16):338-48. [Crossref]
4. Garcia CE, Sanz-Menéndez LS. Competition for funding as an indicator of research competitiveness. *Scientometrics* 2005;64(3):271-300. [Crossref]
5. Gault F. Social Impacts of the development of science, technology and innovation indicators. *UNU-MERIT* (January 25, 2011). Available from: URL:https://ssrn.com/abstract=1949172. [Crossref]
6. Amara N, Landry R, Halilem N. What can university administrators do to increase the publication and citation scores of their faculty members? *Scientometrics* 2015;103(2):489-530. [Crossref]
7. ROR (Research Organization Registry). (cited 2022 February 11). Available from: URL:https://ror.org/scope/. [Crossref]
8. Sternberg RJ. *Guide to publishing in psychology journals*. Cambridge: Cambridge University Press; 2018. [Crossref]
9. Bachelet VC, Uribe FA, Diaz RA et al. Misrepresentation of institutional affiliations: the results from an exploratory case study of Chilean authors. *Learned Publishing* 2019;32(4):335-44. [Crossref]
10. South Valley University. About Faculty of Medicine in Qena. (cited 2021 June 6). Available from: URL:http://www.svu.edu.eg/faculties/med/en/about-faculty/. [Crossref]
11. Ministry of Higher Education and Scientific Research. A Statement of the number of hospitals and medical centers in state universities. (cited 2022 August 9). Available from: URL:http://mohe.gov.eg/en-us/Pages/univ-hostpitals.aspx. [Crossref]
12. Leduc-Robert G, lews M, Abdelkareem AO et al. Prevalence of thyroid autoimmunity and effect of levothyroxine treatment in a cohort of 1064 patients with recurrent pregnancy loss. *Reprod Biomed Online* 2020;40(4):582-92. [Crossref]

13. Mahdy MAA, Younis W, Ewaida Z. An overview of SARS-CoV-2 and animal infection. *Front Vet Sci* 2020;7:596391. [[Crossref](#)]
14. Shehata MH, Kumar AP, Arekat MR et al. A toolbox for conducting an online OSCE. *Clin Teach* 2021;18(3):236-42. [[Crossref](#)]
15. Suliman Y, Kafaja S, Oh SJ et al. Anti-vinculin antibodies in scleroderma (SSc): a potential link between autoimmunity and gastrointestinal system involvement in two SSc cohorts. *Clin Rheumatol* 2021;40(6):2277-84. [[Crossref](#)]
16. Hetta HF, Mwafey IM, Batiha GE et al. CD19+ CD24hi CD38hi regulatory B cells and memory B cells in periodontitis: association with pro-inflammatory and anti-inflammatory cytokines. *Vaccines (Basel)* 2020;8(2):340. [[Crossref](#)]
17. El-Abd Ahmed A, Hassan MH, Abo-Halawa N et al. Lactate and intestinal fatty acid binding protein as essential biomarkers in neonates with necrotizing enterocolitis: ultrasonographic and surgical considerations. *Pediatr Neonatol* 2020;61(5):481-9. [[Crossref](#)]
18. Baseer KAA, Mohamed M, Abd-Elmawgood EA. Risk factors of respiratory diseases among neonates in neonatal intensive care unit of Qena University Hospital, Egypt. *Ann Glob Health* 2020;86(1):22. [[Crossref](#)]
19. Ibrahim HM, El-Taieb MA, Hassan MH et al. Relations between vitamin D3, total and specific IgE for house dust mites in atopic dermatitis patients. *Sci Rep* 2020;10(1):21000. [[Crossref](#)]
20. Khalifa AA, Ahmed AM. How fast is the peer-review process for orthopaedic publications related to the Covid-19 pandemic? *J Clin Orthop Trauma* 2021;12(1):9-15. [[Crossref](#)]
21. Addosooki A, Said E, Kenaway M et al. Reconstruction of complex hand defects using trapezoidal osteocutaneous free fibular flap. *Microsurgery* 2020;40(3):306-14. [[Crossref](#)]
22. Khalifa AA, El-Hawary AS, Sadek AE et al. Comparing the gender diversity and affiliation trends of the authors for two orthopaedics journals from the Arab world. *J Taibah Univ Medical Sci* 2021;16(1):1-8. [[Crossref](#)]
23. Niles MT, Schimanski LA, McKiernan EC et al. Why we publish where we do: faculty publishing values and their relationship to review, promotion and tenure expectations. *PLoS One* 2020;15(3):e0228914. [[Crossref](#)]
24. McGrail MR, Rickard CM, Jones R. Publish or perish: a systematic review of interventions to increase academic publication rates. *Higher Education Research & Development* 2006;25(1):19-35. [[Crossref](#)]
25. Kivinen O, Hedman J, Artukka K. Scientific publishing and global university rankings. How well are top publishing universities recognized? *Scientometrics* 2017;112(1):679-95. [[Crossref](#)]
26. Gantman ER. Economic, linguistic, and political factors in the scientific productivity of countries. *Scientometrics* 2012;93(3):967-85. [[Crossref](#)]
27. Altbach PG. What counts for academic productivity in research universities? *International Higher Education* 2015;(79):6-7. [[Crossref](#)]
28. Bador P, Lafouge T. Authors' affiliations and addresses in published articles. Lack of care penalizes French universities in international rankings. *Presse Med* 2005;34(9):633-6. [[Crossref](#)]
29. Othman SME, Steen M, Fleet JA et al. Healthy eating in pregnancy, education for midwives: a pre-post intervention study. *Eur J Midwifery* 2020;4:20. [[Crossref](#)]
30. Ravi K, Bentounsi Z, Tariq A et al. Systematic analysis of authorship demographics in global surgery. *BMJ Glob Health* 2021;6(10):e006672. [[Crossref](#)]
31. Supreme Council of Universities. Faculty members promotions committee. (cited 2022 August 9). Available from: URL:https://scu.eg/pages/promotion_committees. [[Crossref](#)]
32. Caminiti C, Iezzi E, Ghetti C et al. A method for measuring individual research productivity in hospitals: development and feasibility. *BMC Health Serv Res* 2015;15:468. [[Crossref](#)]
33. Gould M. Publishers, are you ready to ROR? (cited 2022 February 11). Available from: URL:<https://www.crossref.org/blog/publishers-are-you-ready-to-ror/>. [[Crossref](#)]