

OBJECTIVE

Health professions education (HPE) academies highlight the mission that is often second to clinical and basic science scholarship on health professions campuses. Due to their popularity, academies have proliferated over the past 3 decades. Yet the evidence of their impact on their organizations remains largely underdeveloped.

Our objective was to use bibliometric analyses to assess the scholarly impact of our institution's health professions teaching academy. Further, we wished to codify bibliometric techniques for interdisciplinary teaching academies.

METHODS

We performed bibliometric analyses investigating publication trends of academy members in 37 health professions education (HPE) journals published between 2003 and 2022. We used the AAMC SGEA annotated bibliography to identify journals. From this bibliography, we excluded journals related to dentistry or veterinary medicine as these programs do not exist on our campus. The time frame was selected to assess publication patterns both before and after the academy launch in 2014.

To determine the overall quantity of institution-authored articles across the 37 HPE journals, we performed a comprehensive search for institutional affiliation and journals within Web of Science (via Clarivate) and MEDLINE (via PubMed); individual journal websites were also searched when there were gaps in database coverage. Journal Impact Factor (JIF) and quartile data were identified in Clarivate's Journal Citation Reports and included for those journals with a JIF. Given that the 37 HPE journals include topics beyond education, we established eligibility criteria wherein articles must address topics related to health professions education. Citations were de-duplicated and screened in Covidence with the eligibility criteria in mind. After screening citation author names and journal names were cleaned in Open Refine. Descriptive statistics were conducted using Microsoft Excel and Tableau.

RESULTS

Publications by Quartile, 2003 - 2022

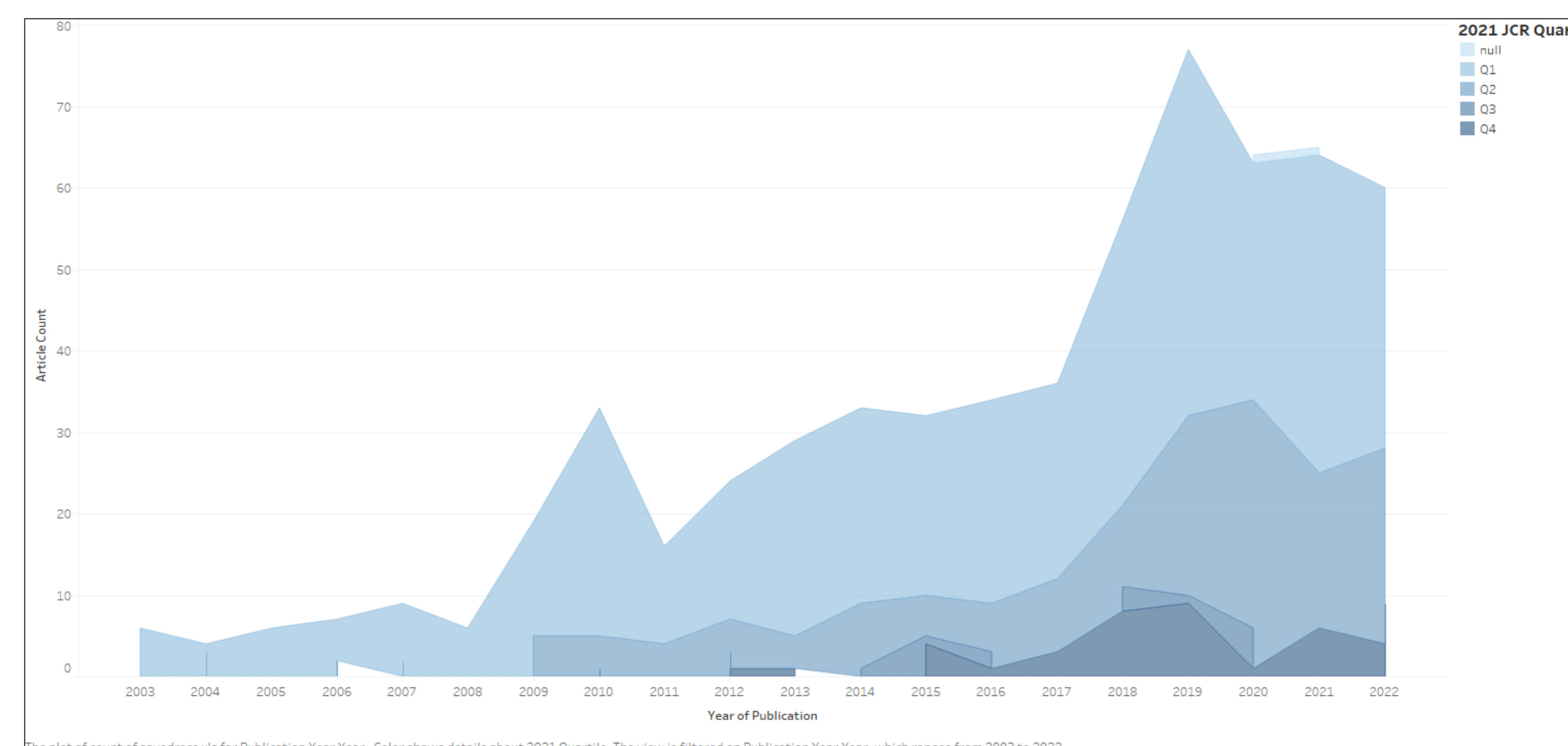


FIGURE 1 Number of publications in Q1 and Q2 Journals skyrockets in 2017.

Across the journals analyzed, 876 citations from the 2003-2022 timeframe met inclusion criteria for analysis.

219% increase

There were 209 publications prior to the launch of our academy (2003-2013) ; and 667 after the launch (2014-2022) , representing a 219% increase, surpassing the documented doubling time of scientific publishing (Bornmann)

Journal Titles by Quartile

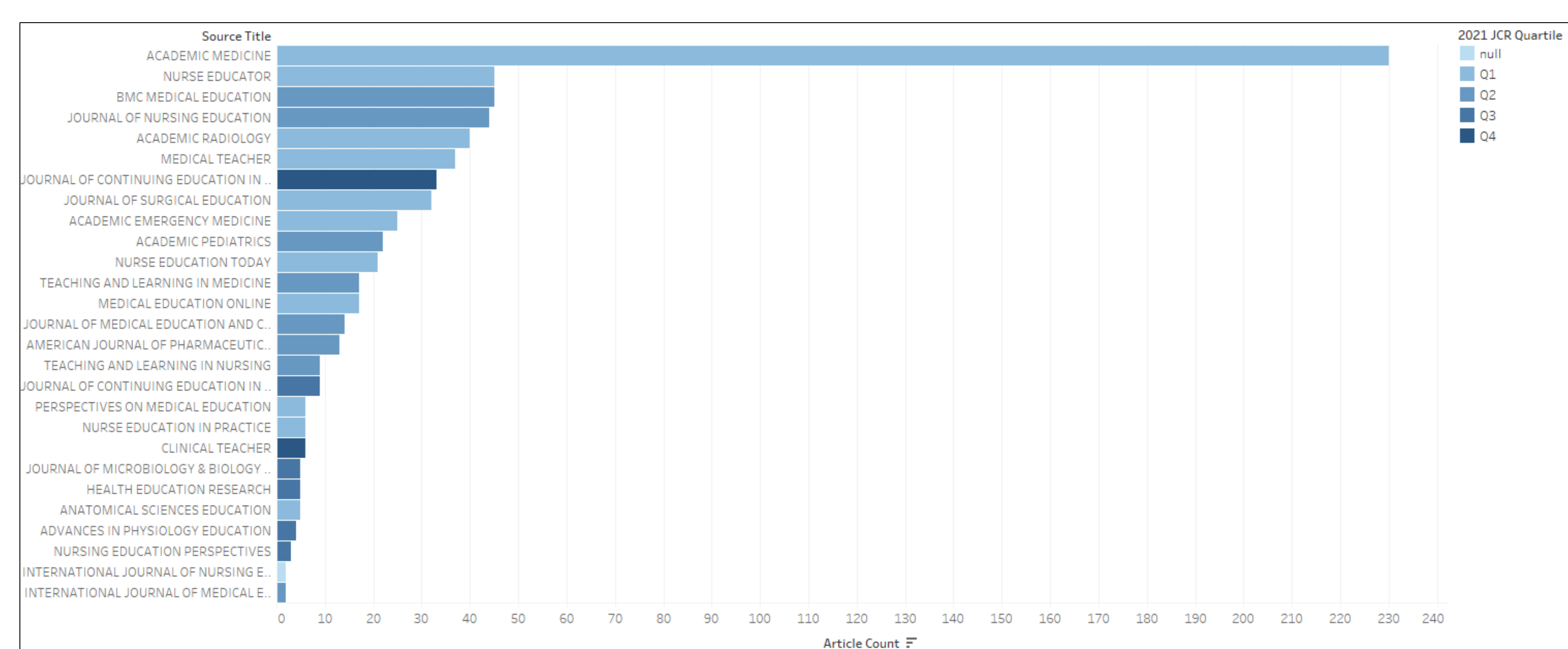


FIGURE 2 48% published in Q1 journals and 15% published in Q2 journals.

SIGNIFICANCE + TAKE-AWAYS

Bibliometric analysis offers one way to explore the impact of teaching academies on the institution's educational scholarship productivity. In order to measure scholarly activity from an HPE academy, researchers performing bibliometric analyses must be aware of the indexing limitations within bibliographic databases.

Specifically, the process identified weaknesses in bibliometric analyses due to inconsistent journal coverage across databases. We mitigated this by examining coverage in MEDLINE and Web of Science, and supplementing with searches of individual journal archives.

- 1 Researchers should note the journal coverage within databases, and search other databases and journal archives in order to fill gaps as needed.
- 2 Researchers should use software to identify and remove duplicates, establish eligibility criteria, and screen out ineligible citations.
- 3 Further, using journal quartile information in addition to the JIF is important as field normalized metrics are essential in interdisciplinary research. Not all categories of journals have large readership, citable items, or dedicated researchers on a given subject.

LIMITATIONS

Literature shows that there is difficulty in clearly delineating the field of HPE. Further, many specialty-specific journals were excluded from analysis.

While Web of Science and Journal Citation Reports are useful for providing quartile data, important HPE journals (e.g. JGME, JPAAE, MedEdPortal) were excluded from analysis because they were not indexed in JCR. Future research will focus on a more inclusive analysis.

REFERENCES

Bornmann L, Haunschild R, Mutz R. Growth rates of modern science: a latent piecewise growth curve approach to model publication numbers from established and new literature databases. *Hum Soc Sci Commun.* 2021;8:224. doi:10.1057/s41599-021-00903-w