



Review Articles During the COVID-19 Pandemic: Potential Use to Continue Productivity

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Abstract

Some librarians during the COVID-19 pandemic restrictions heard direct and anecdotal evidence of researchers wanting to do evidence synthesis, such as systematic or scoping reviews, to either supplement or temporarily replace their now unavailable or restricted research agenda. Using Scopus data from 2013-2022, the quantity and percentage increase from the previous year for both Review Articles and All Article Types were examined for All Institutions and for The Ohio State University. The results show that there was a much larger increase in Review Article output around the time of the COVID-19 pandemic compared to previous years, and compared to All Journal Articles. These increases indicate the potential use of review articles as a supplement or substitution for normal research agendas that faced restrictions. Subject areas were examined to identify which saw the highest percentage increases of Review Articles. Finally, Journal Titles that were heavy players in publishing these review articles were also identified.

Keywords: Review articles, Evidence synthesis, COVID-19, Research, Productivity

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Introduction

Overview & Questions

During the COVID-19 pandemic period, many universities and other research facilities went into lockdown. This severely limited research, especially research that required access to labs, medical facilities, and human subjects. Even after access was restored, some restrictions may have continued to be barriers to research. During this period, some librarians, directly or anecdotally, heard of researchers (primarily faculty and graduate students) pivoting to write evidence synthesis articles to keep producing research. This article will focus on this potential aspect of research productivity.

Questions going into this study were:

- Did evidence synthesis articles show a publication increase, and if so, at a higher rate, than previous years during this period?
- What subject areas are producing the most evidence synthesis articles and did some do so at much higher rates during or just after the pandemic?
- How does the author’s institution, The Ohio State University (Ohio State), compare to the total of All Institutions?

About The Ohio State University

Ohio State is a large R1 institution located in Columbus, Ohio, United States. Table 1 details Ohio State’s research and people. Given Ohio State’s size and research profile, it can serve as an example of output from a large research institution and can be compared to overall research output across All Institutions, in this case focusing on Review (evidence synthesis) Articles.

Table 1. About The Ohio State University

Research Expenditure ^a	<ul style="list-style-type: none">• 2019: \$929 million• 2020: \$968 million• 2021: \$1.236 billion• 2022: \$1.36 billion
Major Research Funding Sources (Fiscal Year 2024) ^b	<ul style="list-style-type: none">• \$400 million: National Institutes of Health• \$159.5 million: Industry-sponsors• \$81 million: National Science Foundation• \$74.9 million: Department of Defense
People & Facilities	<ul style="list-style-type: none">• Employees (2024–2025, headcount)<ul style="list-style-type: none">○ Tenure Track Faculty: 2,918○ Clinical Faculty: 2,640○ Research Faculty: 121○ Post Doctoral: 597• 200 academic centers and institutes• 18 colleges and schools• 2.5 million square feet of assigned research space

Enrollment and Degrees ^d	<ul style="list-style-type: none"> • Enrollment (Autumn 2025) <ul style="list-style-type: none"> ○ Undergraduate: 52,553 ○ Graduate: 11,463 ○ Professional: 3,239 <ul style="list-style-type: none"> ▪ Dentistry: 483 ▪ Law: 507 ▪ Medicine: 843 ▪ Optometry: 272 ▪ Pharmacy: 479 ▪ Veterinary Medicine: 655 ○ Total: 67,255 • Degrees awarded (2024–2025 Academic Year) <ul style="list-style-type: none"> ○ Bachelors: 11,583 ○ Masters: 2,997 ○ Doctorate: 931 ○ Professional: 812
Fiscal Years 2022-2024 activities ^a	<ul style="list-style-type: none"> • 1,177 invention disclosures filed • 1,490 patent applications filed • 24 new portfolio start-ups formed • 1,587 primary investigators (PIs) with one or more sponsored grants/contracts
^a Enterprise for Research, Innovation and Knowledge (n.d.) ^b The Ohio State University (2025b) ^c The Ohio State University (2025c) ^d The Ohio State University (2025a) ^e Undergraduate Admissions (n.d.)	

Restrictions on access to research facilities and research activities (such as human subjects research) would, of course vary, by individual institution. In the case of Ohio State, employees lost access to campus facilities beginning in mid-March 2020, with all but essential faculty and staff asked to work remotely ([Drake, 2020](#)). Plans for a phased reopening (with multiple restrictions) of campus research facilities and creative expression spaces were announced in June 2020 ([The Ohio State University, 2020](#)). Thus, many researchers at Ohio State lost about three months of access to their normal research facilities/spaces, with some losing more depending on the timing and subsequent restrictions for their specific facility or working with human subjects. Subsequent restrictions included meeting other campus or department requirements, such as health checks, masking, training, building access, etc. Thus, some restrictions may have continued to affect research even after returning to campus facilities. Ohio State lifted its State of Emergency in July 2021 ([Safe and Healthy Buckeyes, n.d.](#)).

Defining the Pandemic Period

Since many institutions and geographic regions may have approached the pandemic period differently, it is difficult to establish a definitive time range involved as the core pandemic period. Using the timeline at Ohio State as a model, this study defined the pandemic period as roughly 2020-2021, with the most restricted period being March-

June 2020, and some restrictions continuing through June 2021. The post-pandemic period is thus 2022-present.

Taking time for evidence synthesis to get completed, written, submitted, and go through the peer review process, 2020-2022 is focused on as the period during which content from a period where those that worked on evidence synthesis as a substitute for their usual research could have seen their content published, followed by a return to their normal research output (i.e., formats other than evidence synthesis articles).

This article will explore the stated questions to give a sense about the characteristics of Review Articles during 2013-2022, with a specific look at 2020-2022 (pandemic and post-pandemic).

Literature Review

The literature covers the impact of the pandemic on researchers' careers and their ability to conduct research and publish it. While the literature also provides suggestions for researchers to remain productive, and methods researchers were using to continue their research in some fashion, evidence synthesis as a method was not specifically stated.

The Pandemic's Impact on Research

Access to facilities, physical distancing, travel restrictions, and other restrictions during (and especially at the beginning of) the pandemic resulted in many researchers having a loss of ability to continue their existing research or start additional research in a similar vein. Thus, these researchers may have had their careers negatively impacted.

Woolston ([2020](#)) addressed the difficulties of postdocs during the pandemic period. Postdocs saw challenges resulting from restrictions imposed, with many indicating difficulty with conducting experiments, gathering data, and discussing/sharing their research with colleagues. While some postdocs saw extensions to their time, far more saw no change or uncertainty.

Other priorities also affected the ability to conduct research. Ohio State faculty surveyed just after the end of the Spring 2020 semester indicated they were only able to spend about 17% of their work time on research, with 58% of respondents indicating that their workload had increased overall. Particularly, 43% of their time had become devoting to teaching and student support. A staggering 71.08% of participants indicated they had less time for research and creative expression, with 40.50% of faculty believing that to be a substantial decrease ([Williams & Bowen, 2020](#)). On top of restrictions placed on them during the pandemic, the balance of their work and overall workload saw upheaval as well.

Examining specific disciplines, 82.0% of nursing researchers ([Kazawa et al., 2022](#)), 80.9% of Australian health researchers ([Peeters et al., 2020](#)), more than 40% of early career autism researchers ([Harrop et al., 2021](#)), and 40% of life science researchers ([Korbel &](#)

[Stegle, 2020](#)) found their ability to conduct research and/or publish was negatively impacted by the pandemic. Specific barriers included:

- Restrictions on access to facilities, travel, or people ([Harrop et al., 2021](#); [Kazawa et al., 2022](#); [Korbel & Stegle, 2020](#); [Peeters et al., 2020](#))
- Increased time on other duties (e.g., teaching, management, etc.) that reduced time on research ([Harrop et al., 2021](#); [Kazawa et al., 2022](#); [Peña et al., 2022](#))
- Personal/home life, mental health, etc. ([Harrop et al., 2021](#))

Remaining Productive

While research on the career impacts of the pandemic focused heavily on the negative impacts of the loss of research access/opportunities, increased teaching challenges, and work-life issues, it is important to note that many of these works emphasized the importance of maintaining productivity and opportunities that could be used to remain productive, including working on data analysis and authoring manuscripts. Such advice may have led some to consider evidence synthesis as an opportunity for growth and productivity.

Woolston ([2020](#)) also addressed remaining productive. One area seemed to show less negative impact than others – the ability to analyze data (although over 40% of respondents still saw at least some negative impact). In terms of research output, 43% of these postdocs indicated that they saw writing papers as easier. From this survey, one may gather that because of the inability to conduct their traditional research, the surveyed postdocs pivoted to work on activities that they could do without access to facilities or people, such as data analysis or writing.

Similarly, suggestions for remaining productive for those with the inability to conduct their normal research included data analysis and authoring manuscripts ([Termini & Traver, 2020](#)). Korbel and Stegle ([2020](#)) found that during the pandemic period (especially with wet lab shutdowns), some surveyed scientists were spending more time on data analysis or writing manuscripts/theses. They also found a large (94%) number of respondents indicating they were using virtual meeting tools to collaborate, communicate, and thus produce research.

Herman et al. ([2021](#)) conducted a review of the literature discussing the impact of COVID-19 on early career researchers, focusing on aspects of participants' starting academic positions, conducting research, and work-life. The authors mentioned the ability for these researchers to focus time on endeavors such as writing manuscripts and analyzing data as alternatives while researchers are unable to do their typical research. It is worth reiterating that this is a review article – an example of research which can be conducted without access to facilities or people.

The nature of research and how it gets published will need to change, according to Pepper and Burton ([2020](#)), who indicated that the pandemic showed that quicker publication of medical research can occur and that could carry forward. The authors urged the continued efforts towards rapid dissemination and collaboration seen during this time, but also advised rethinking the role and research priorities of groups such as

postgraduates, and the need to put even more emphasis on gathering, sharing, and analyzing data.

There were some quick changes seen in the publishing landscape due to the pandemic. An uptick in preprint submissions to bioRxiv and medRxiv was seen, with COVID-related topics being a major contribution for medRxiv in particular ([Callaway, 2020](#)). A change in publishing practices could indicate the willingness of researchers to try additional format types, including evidence synthesis.

Specifically related to COVID-19 evidence synthesis articles, a quality assessment of 439 COVID-19 review articles found 62% of them were of either high or medium quality ([Baumeister et al., 2021](#)). Perhaps not unsurprisingly given the topic, most of the review types were systematic reviews (with or without a meta-analysis), with other review types (e.g., scoping, rapid, umbrella) trailing. The authors examined the literature through July 2020, with 863 review articles on COVID-19 topics originally identified, and 439 remaining after criteria eliminations. This indicates the usefulness of review articles to medical researchers, but may also represent alternative research methods used during a time of inability to do traditional research.

All of this points to that when faced with restrictions on their usual research, many researchers pivoted to focus on activities such as data analysis and authoring manuscripts, perhaps using the suggestions they were finding in the literature at that time. Evidence synthesis articles would encompass both.

Evidence of Evidence Synthesis as a Substitution

While the literature does not specifically detail researchers using evidence synthesis to stay active in research during the pandemic period, it is clear that researchers, especially early career and postdocs, were looking for research they could complete remotely. Data analysis and manuscript authoring were specifically indicated as options according to surveyed researchers ([Herman et al., 2021](#); [Korbel & Stegle, 2020](#); [Termini & Traver, 2020](#); [Woolston, 2020](#)). Systematic, scoping, and other evidence synthesis types could fit into these categories of alternatives to someone's usual research.

Methods

To gather metadata for Review Articles, a Scopus search using truncation with all letters of the alphabet and OR between them was performed using the default search field (Article Title, Abstract, Keywords) that should get all items indexed in Scopus:

a* OR b* OR c* OR d* OR e* OR f* OR g* OR h* OR i* OR j* OR k* OR
l* OR m* OR n* OR o* OR p* OR q* OR r* OR s* OR t* OR u* OR v*
OR w* OR x* OR y* OR z*

The results were limited to 2013-2022 prior to the search. After the search results appeared, refine options were used to limit to:

- Document type: Review

- Source type: Journal.

This resulted in 1,871,332 results. At that point, refine option information (see **Export filter counts** link at the bottom of the **Refine search** section on the left menu) was exported as a CSV file for analysis. Note that when exporting refine data, Scopus limits the exports to the 160 most frequent entries in each refine option (for example, up to the 160 most common source titles). This export enabled getting data about quantities per Subject, Years, Top (but not all) Journal Titles, etc. easily without needing to extract from the overall result list's metadata.

In addition to All Institutions, the equivalent data for the author's institution were also gathered. To get data about Ohio State, the following steps were taken:

1. Search for "Ohio State" (using quotes) using the Organizations search tab
2. Check all valid Ohio State affiliations
3. Click on show all documents
4. Apply same limits as previous items
 - a. Document Type: Review
 - b. Source Type: Journal
 - c. Year: 2013-2022
5. Export Refine data similar to previous process (7,428 items)

Once the data for both All Institutions and Ohio State were in Excel, different data points were analyzed, with a focus on Count by Year, Percentage Change, Subject Area, and Source Titles. A few caveats about search parameters and content gathered:

- Reviews could encompass many types, not just the higher-level evidence synthesis reviews, such as systematic and scoping reviews. This may account for other review types that researchers may have chosen to do during the pandemic. Examining some items showed that specific review types are not always declared in titles or elsewhere in the records. Grant and Booth (2009), in fact, detailed 14 unique review types, including systematic, scoping, umbrella, critical, and literature reviews.
- It should be recognized that research databases, including Scopus, have been studied for correctness of the classification of article types and have been found to have inaccuracies (Mokhnacheva, 2023; Yeung 2019, 2021). Due to the large set of publications in question, no attempt was made to compare each item with the original text to determine if these items are correctly identified as Review Articles.
- A major unknown in this analysis is when research was conducted for an article published in a certain year. The time between research, submission, and publication could be measured in weeks, months, or even years. So, items published in early 2020 were not likely impacted by the pandemic, while items published in late 2022 may have begun their research during a pandemic lockdown. Examining individual items for submission dates would only partially answer this unknown by eliminating some items from this study.

For comparison purposes, the same information was gathered for All Journal Article Types (not just Reviews) using the same search and limits, except for not limiting to reviews.

Results

Changes in Review Journal Article Output

First, we will look at the raw numbers of Review Articles. There is a clear increasing progression of the quantity of Review Articles prior to the pandemic, both at All Institutions and Ohio State (Figures 1 and 2). This progression ended in 2022, when the only decrease was seen during the study's year range (again, for both All Institutions and Ohio State). However, this decrease still leaves it at a higher number than the pre-pandemic figures.

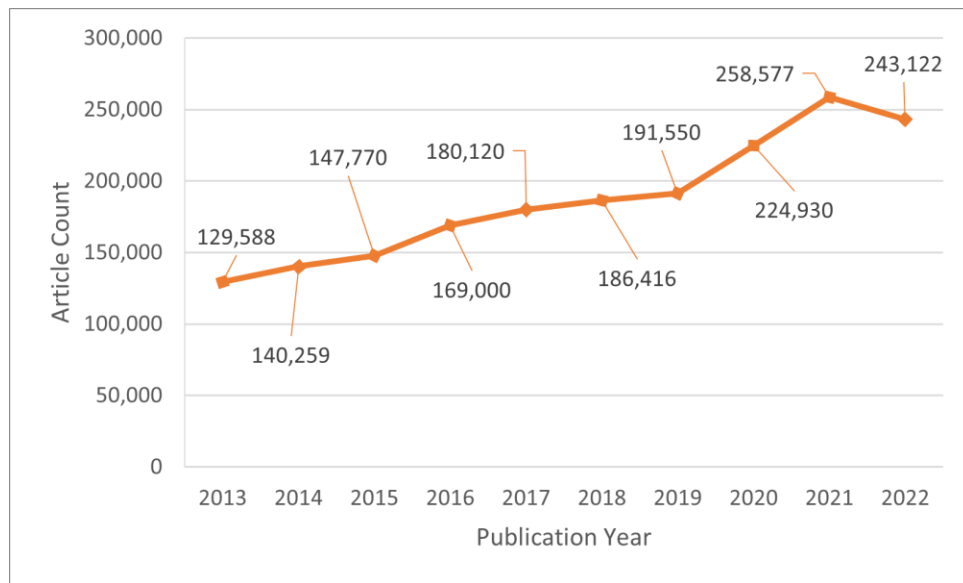


Figure 1. Count of Review Articles Published at All Institutions

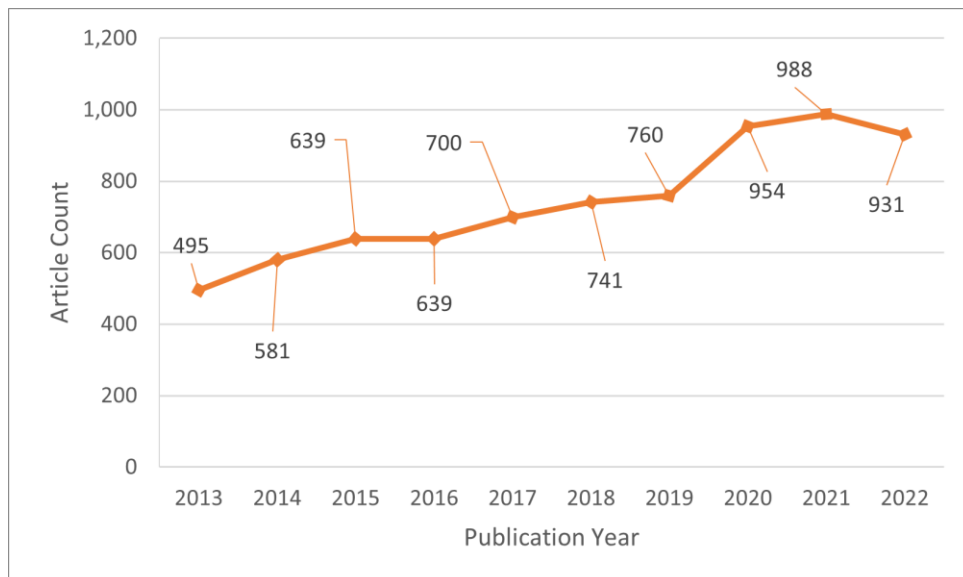


Figure 2. Count of Review Articles Published at Ohio State

In comparison, the Journal Article Counts (Figures 3 and 4) saw a consistent increase for All Institutions over this same year range. For Ohio State, the Journal Article Counts increased overall during this year range, but saw small decreases in 2016 and 2022.

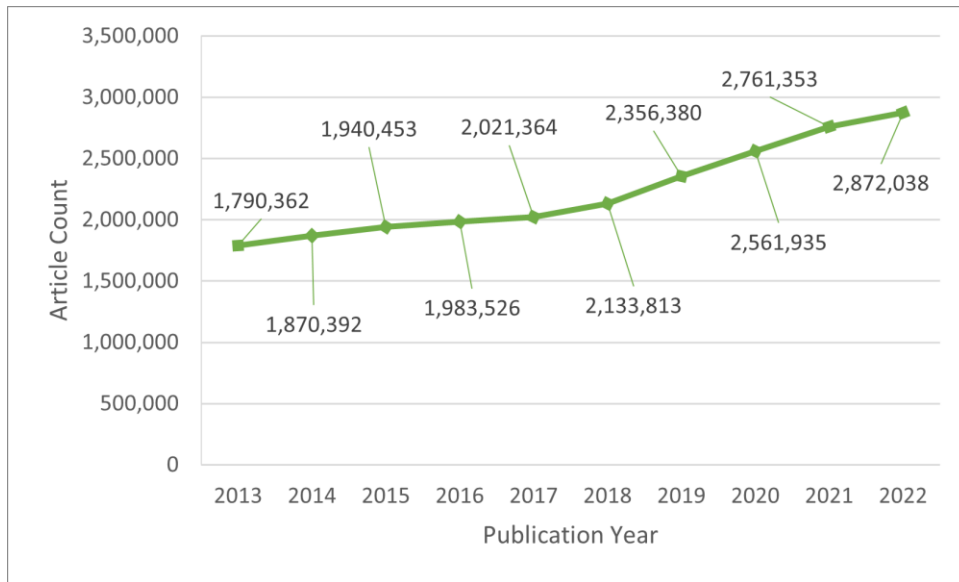


Figure 3. Count of Journal Articles Published at All Institutions

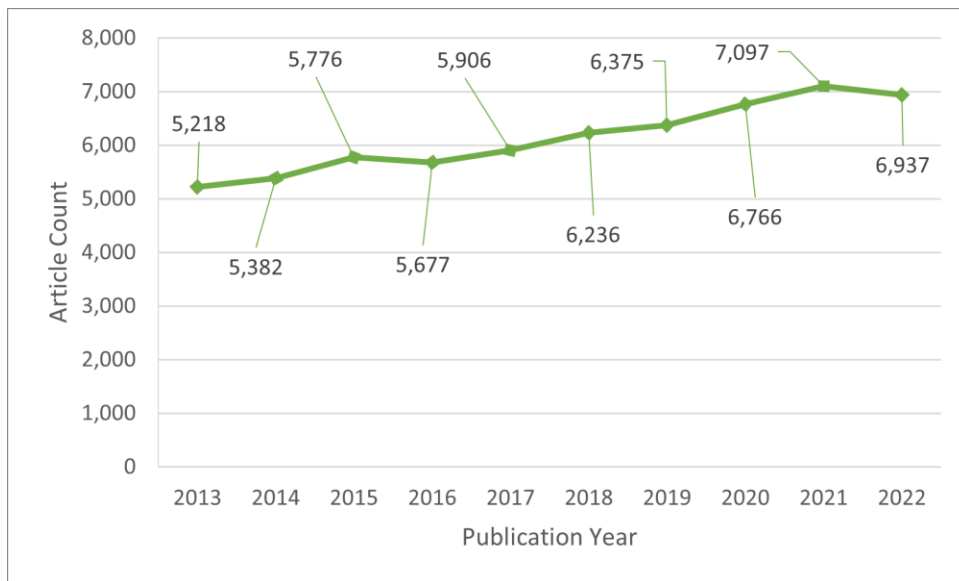


Figure 4. Count of Journal Articles Published at Ohio State

When examining the Percent Change from the previous year, one can better see the way the output of Review Articles changed during the pandemic period. All years saw an increase in Review Articles from the previous year, except 2022. However, the Percentage increase in Review Articles was largest between 2019 and 2020 (17.43% for All Institutions and 25.53% for Ohio State). There were additional Percentage increases to consider: Ohio State saw only a small increase from 2020 to 2021, while All Institutions saw the second largest Percentage increase during the ten years examined. There were also a few other years where there was a fairly sizeable Percentage increase over the previous year (e.g., 2016 for All Institutions, 2014 for Ohio State). See Figures 5

and 6. For both groups, there was a negative Percent change in Review Articles from 2021 to 2022 (-5.98% for All Institutions and -5.77% for Ohio State), the only decrease during the year range studied.

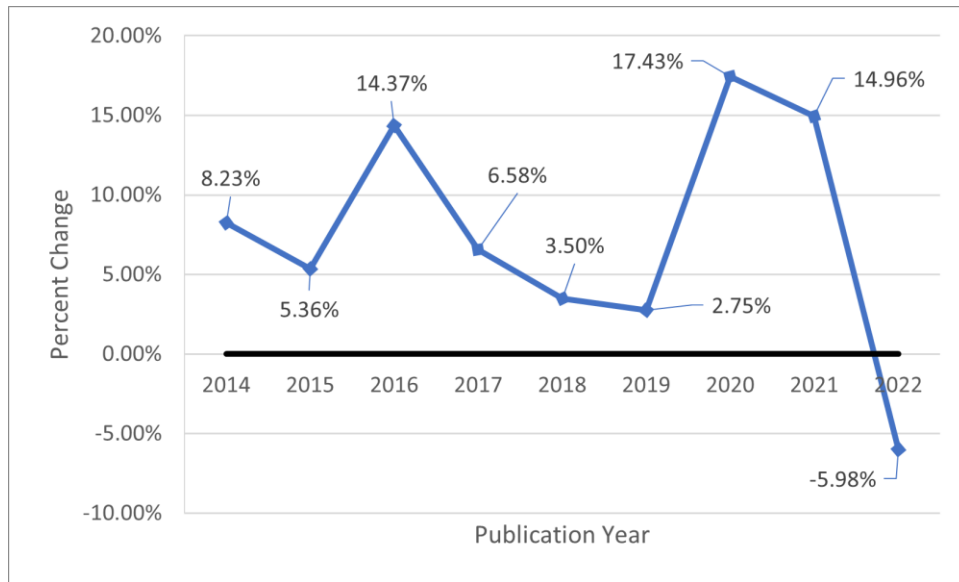


Figure 5. Percent Change of Review Articles Published at All Institutions

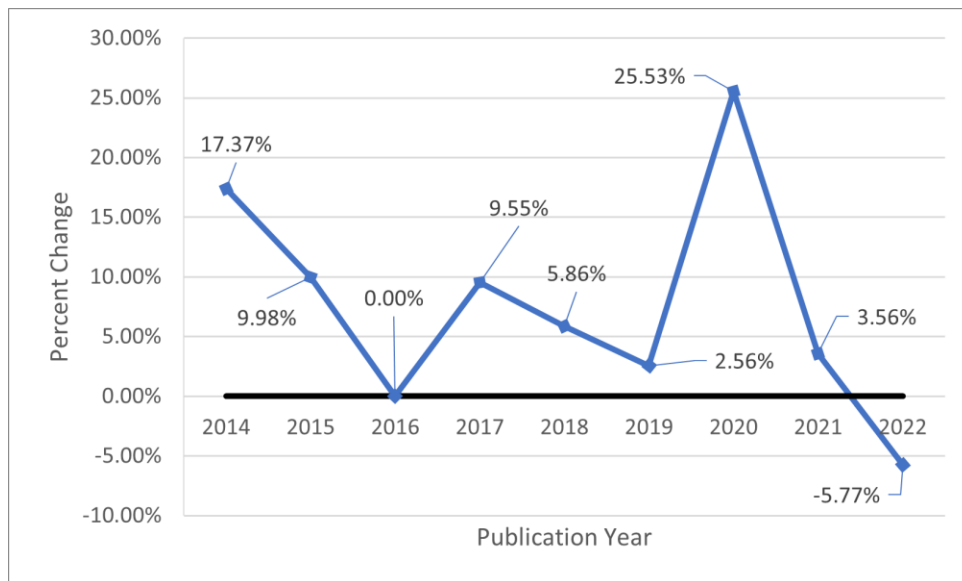


Figure 6. Percent Change of Review Articles Published at Ohio State

In comparison, the Journal Article Count (Figures 7 and 8) for All Institutions increased for every year during the year range studied. However, the Percentage increases were far lower compared to Review Articles in most years, indicating that Review Articles were showing more increases for most years. During 2020, Review Articles increased 17.43% from the previous year, while Journal Articles increased only 8.72%; 2021 saw a 14.96% increase for Review Articles compared to 7.78% for Journal Articles. Ohio State saw a much bigger difference, with a 25.53% change for Review Articles in 2020 compared to 6.13% for Journal Articles.

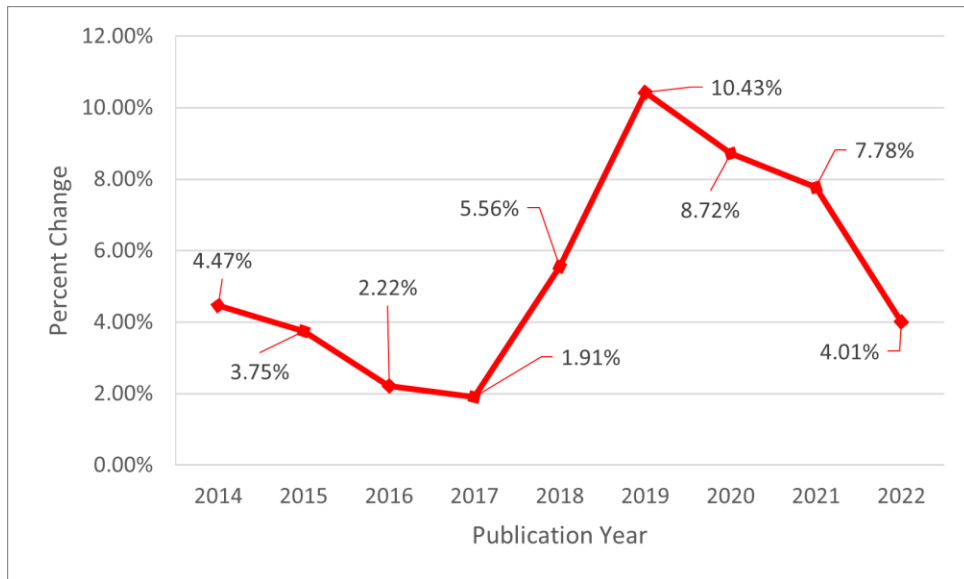


Figure 7. Percent Change of All Journal Articles Published at All Institutions

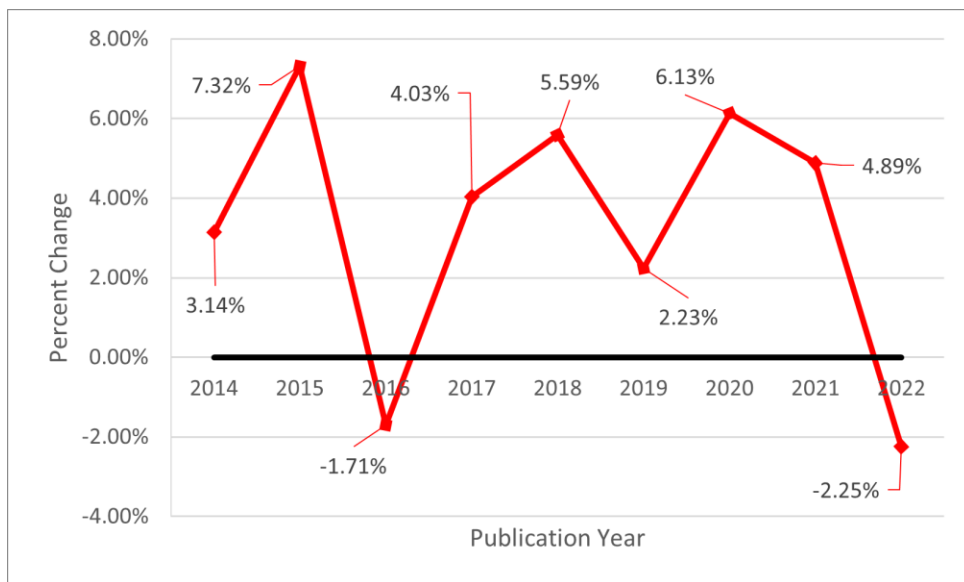


Figure 8. Percent Change of All Journal Articles Published at Ohio State

While there may be other factors, a substantial increase in Review Articles from 2019 to 2020 may partially be explained by researchers looking for alternate options to keep their research going when not being able to access their normal research venues or when some research types were put on pause. The drop from 2021 to 2022 could potentially be caused in part by the ability of researchers to return to their traditional research agenda and methods.

Subject Areas

Examining the Subject Areas of these Review Articles can give additional insights into frequency of publishing of evidence synthesis articles before, during, and after the pandemic period across large discipline groups. This can show whether or not disciplines that traditionally published these types of studies continued to do so at a

higher rate and if other disciplines, which published this type of research less frequently, showed increased interest in this research method.

Many people will likely associate the term “review article” with evidence syntheses like systematic and scoping reviews in medical disciplines. Examining the Subjects assigned by Scopus (items may have more than one Subject), medicine is indeed the largest Subject for both All Institutions and Ohio State. However, it is a much larger portion for Ohio State, which makes sense given the university’s large health sciences footprint (refer back to Table 1 for enrolment data), with Fiscal Year 2025 planned budget for the Health System being \$5.7 billion (The Ohio State University, 2025c). Examining Figures 9 and 10, one can see that many of the Subjects with larger portions of Review Articles are the same for both All Institutions and Ohio State (the top four for both are Medicine; Biochemistry, Genetics and Molecular Biology; Other; and Social Sciences in that order for both). Arts and Humanities and several non-life sciences subjects are also represented. Combining individual subject areas that are in the life and health sciences (Medicine; Biochemistry, Genetics and Molecular Biology; Immunology and Microbiology; Agricultural and Biological Sciences; Pharmacology, Toxicology and Pharmaceutics; Neuroscience; Environmental Science) that are in both charts shows that the life and health sciences dominate for both All Institutions (56.77%) and Ohio State (68.42%).

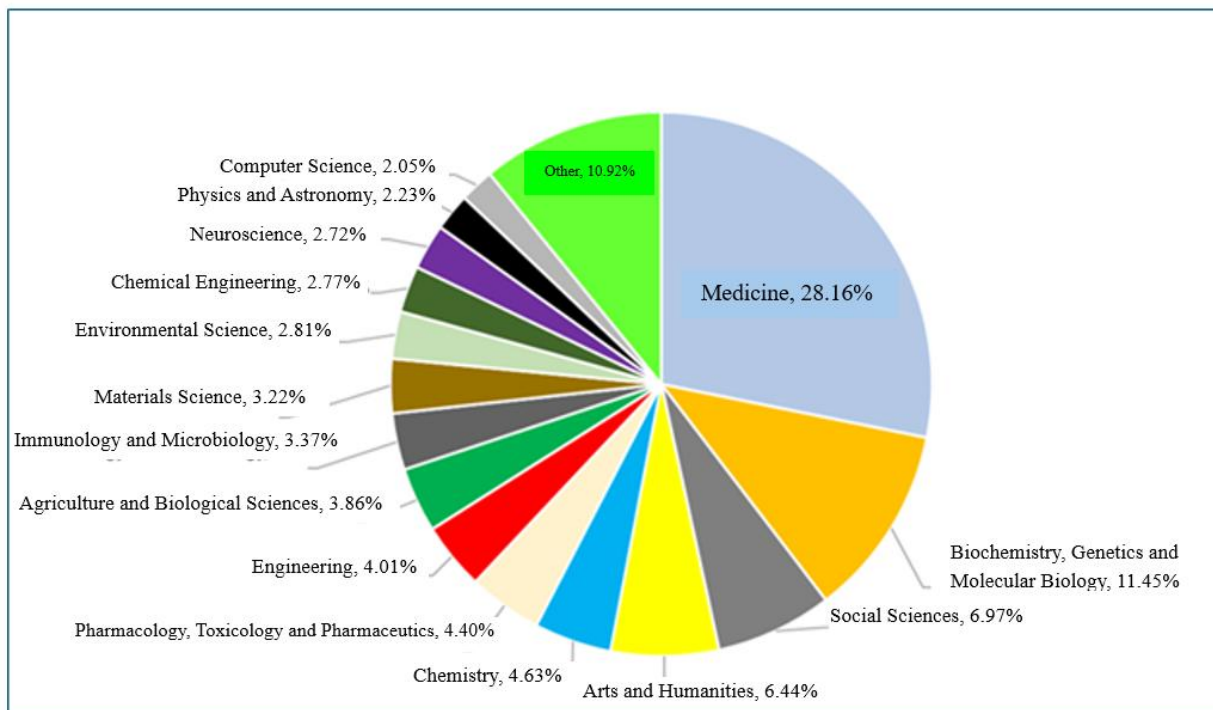


Figure 9. Review Article Subjects, All Institutions 2013-2022

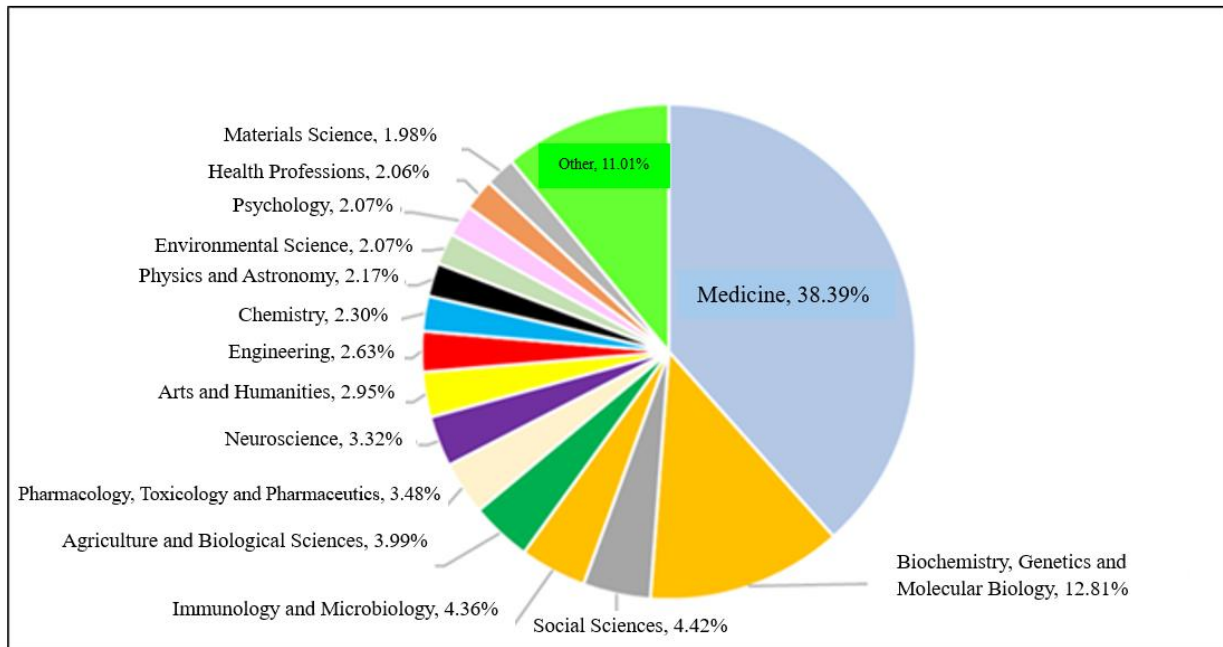


Figure 10. Review Article Subjects, Ohio State 2013-2022

Heat maps were created to examine the Percent Change in Review Articles by Subject (note: Decision Sciences was removed due to having multiple years with no items for Ohio State, resulting in Percent Changes not being possible). See Figures 11 and 12. The heat map for All Institutions illustrates that 2020 and 2021 saw a particular time of higher Percentage increases for Review Articles, with many Subjects having increases over 20.00% and most Subjects having increases over 10.00%. The major exceptions were the two areas showing decreases of over 10.00% during these two years, Arts and Humanities (both years with decreases) and Social Sciences (2021 with a decrease). Economics, Econometrics and Finance also saw a smaller decrease in 2021. The final year of the data has 2022 showing over half of the Subjects having decreases in Review Article output. Prior to 2020-2022, years 2014-2019 saw both increases and decreases in Review publication outputs. However, the pandemic period shows a clear concentration of 20.00% or more increases. The Subjects with the largest increases during the pandemic period were Computer Science in 2020, with a 42.60% increase in Review Articles, and Energy in 2021 with a 44.79% increase. The year 2022, which had a large concentration of decreases, saw Arts and Humanities have a 53.56% decrease in the number of Review Articles.

Ohio State differs more in this Subject analysis compared to the examination of All Institutions. Note first that Ohio State's heatmap is more extreme due to smaller numbers within the Subjects for each year than for All Institutions. This resulted in instances of larger Percentage increases or decreases just by a change of a few items. For example, Multidisciplinary went from 1 to 6 Review Articles between 2017 and 2018, resulting in a 500.00% increase.

The years 2020 and 2021 at Ohio State similarly saw a concentration of Subjects with increases over 20.00%, but the years 2014 and 2016 saw more Subjects with that substantial increase. Similar to when examining All Institutions, 2022 saw many

decreases. As previously mentioned, these instances are relatively more extreme given smaller output numbers at Ohio State. Thus, the Percentage changes (decrease or increase) tended to be more extreme. With that in mind, the biggest increases during the 2020-2021 pandemic period were 155.00% for Physics and Astronomy in 2020 and 175.00% for Health Professions in 2021. Business, Management and Accounting saw the biggest decrease for 2022, at 62.50%.

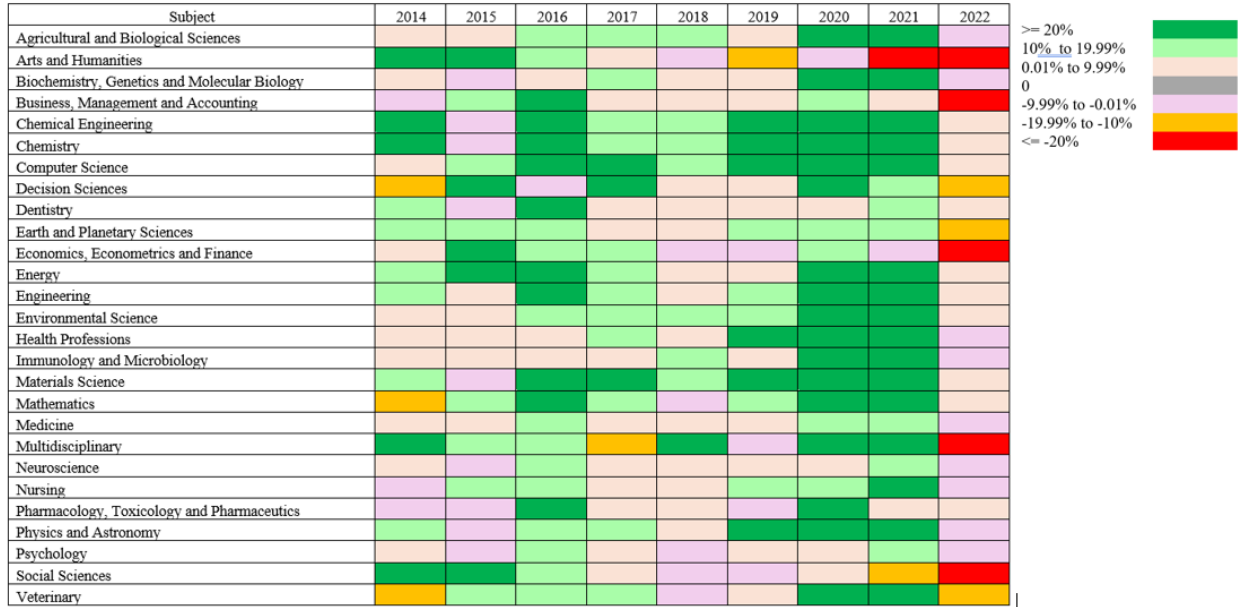


Figure 11. Heat Map of Percent Change of Subjects of Review Articles Published at All Institutions

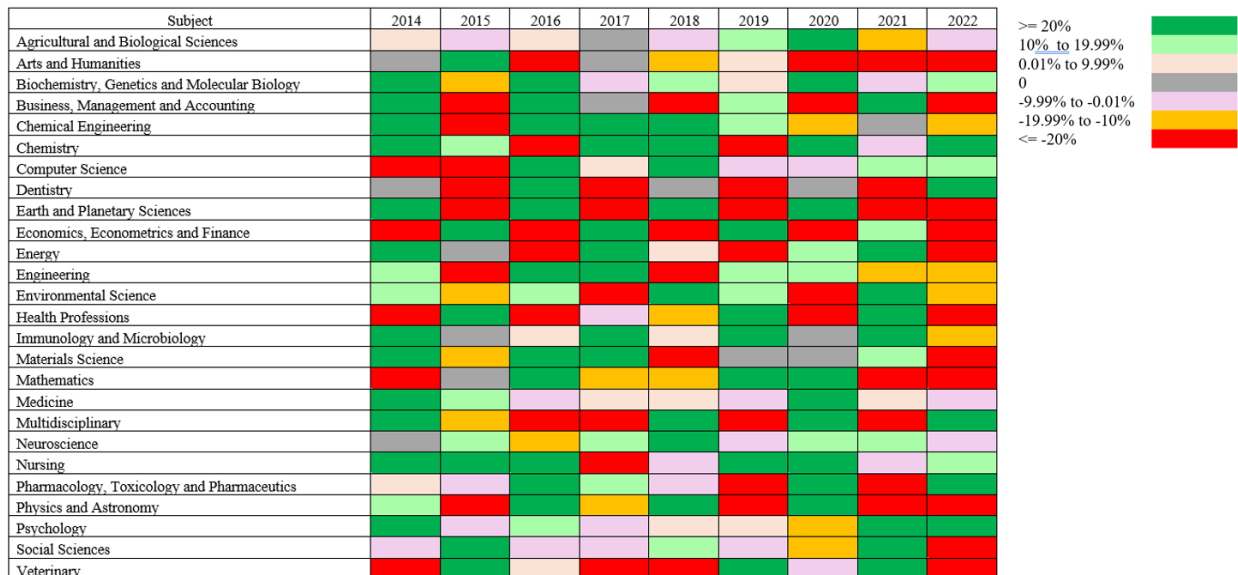


Figure 12. Heat Map of Percent Change of Subjects of Review Articles Published at Ohio State

Many of these Subject Areas are ones that would have seen negative impacts on research at the beginning of the pandemic, such as loss of access to labs, clinical studies

put on pause to move people to help with patient care, and restricting access to facilities or subjects for human-based studies.

Journal Titles

Examining the Publication Venues of these Review Articles (see Table 2) shows some additional intriguing points of interest. The Top Ten Source Titles for both All Institutions and Ohio State show a significant preference for the life sciences, especially medicine. Only three titles were on both lists (see ***bold italicized*** items). Ohio State has three titles from the Frontiers series on the list. Additional points of interest:

- Cochrane Database of Systematic Reviews was the fourth most common title for All Institutions.
- A veterinary medicine title is on Ohio State’s list. Since veterinary medicine is a degree program at a far more limited group of universities, its absence from the larger All Institutions list makes sense.
- No arts, humanities, or social sciences titles are on either list.
- There are a variety of medical subject-specific journals for both lists.

Table 2. Top 10 Journal Titles of Review Articles

All Institutions	Ohio State
1. <i>International Journal of Molecular Sciences</i>	1. <i>JNCCN: Journal of The National Comprehensive Cancer Network</i>
2. <i>Renewable and Sustainable Energy Reviews</i>	2. <i>Frontiers In Immunology</i>
3. <i>Frontiers In Immunology</i>	3. <i>Cancers</i>
4. <i>Cochrane Database of Systematic Reviews</i>	4. <i>International Journal of Molecular Sciences</i>
5. <i>Cancers</i>	5. <i>Frontiers In Oncology</i>
6. <i>Molecules</i>	6. <i>Journal of Cardiothoracic and Vascular Anesthesia</i>
7. <i>Medicine</i>	7. <i>Frontiers in Physiology</i>
8. <i>International Journal of Environmental Research and Public Health</i>	8. <i>Veterinary Clinics of North America Small Animal Practice</i>
9. <i>Nutrients</i>	9. <i>Blood</i>
10. <i>Cells</i>	10. <i>Hospital Pharmacy</i>

Discussion

Review Articles and the 2020-2021 Pandemic Period

There are many unknowns about the review articles published during the pandemic period (2020-2021):

- Was research for the article begun before or during the pandemic period?
- How long did it take for authors to do the research, analysis, and writing?
- When was a manuscript first submitted?
- What restrictions did review article authors have at their institution?
- How did the pandemic affect the submission and review process?

Given this, it is impossible to show a causal relationship that researchers used evidence synthesis as a substitution for their regular research agenda. However, the evidence is clear that review articles, many of them likely those of the evidence synthesis type, had a higher percentage increase during the 2020-2021 pandemic period compared to previous years' percentage changes. While review article publications were already trending upward, the increase during the pandemic period was the highest seen for the ten-year range examined. Decreases in 2022, as the pandemic period's influence had waned, is interesting given that most researchers by then had likely resumed their normal research agendas. Subject areas that dominated the review articles landscape were also ones that particularly faced restrictions or even re-assignment of duties during the pandemic period (e.g., medicine and other health sciences disciplines).

As stated in the literature review, many researchers were struggling with ways to continue being active, with loss of access to their existing research due to pandemic restrictions ([Harrop et al., 2021](#); [Kazawa et al., 2022](#); [Korbel & Stegle, 2020](#); and [Peeters et al., 2020](#)). At the same time, the literature mentioned ways in which researchers could remain active, such as data analysis and writing ([Herman et al., 2021](#); [Korbel & Stegle, 2020](#); [Termini & Traver, 2020](#); [Woolston, 2020](#)). While not specifically listed as an option, evidence synthesis journal articles could fall under such categories. The analysis of the time period shows that many subject areas, but especially those who depend on access to research facilities and human subjects (heavily skewed towards life and physical sciences) saw major increases in the authoring of review articles. This was followed by a decrease in 2022 for many subject areas, equivalent to the time where access to normal research facilities and human subjects had mostly returned to normal. Thus, while there is no causal evidence to point towards, the fact that the increase was much larger than in previous years for most subjects is certainly compelling.

Significance for Libraries

The significance of these findings and potential reasons can be somewhat summed up in a simple statement: researchers are resourceful. When researchers have a need to pivot and continue productivity, they will do what they can to do so. Unfortunately, the pandemic period saw this occur in a way that impacted a large number of researchers across the globe. However, local (rather than global) barriers to research can also learn from this experience. For example, researchers could make use of conducting evidence syntheses when their normal research is impacted not only by future epidemics/pandemics, but more localized issues such as:

- Natural disasters,
- Facility damage/destruction,
- Funding cuts,
- Supply chain disruptions,
- Political instability or pressures,
- War,
- And other significant disruptions.

Institutions and their researchers can thus be prepared to have robust tools and support available, and to use options like evidence synthesis as a contingency plan for continuing productivity.

Conclusions

Having anecdotally heard stories of increased questions about conducting systematic and other evidence synthesis review types during the pandemic led to the question of whether some researchers were using this line of research to keep working on their line of inquiry while unable to access their facilities.

Over a ten-year range, Review Articles saw a mostly regular increase in quantity. However, during the pandemic period, they saw a sharper increase. This coincided with researchers in many fields seeing restrictions and lack of access to their facilities. In some cases, they may have even been re-assigned to duties to support other needs during the pandemic.

There is evidence that a sharper increase was seen in Review Articles published during this pandemic period, followed in 2022 by the first dip in the 2013-2022 study time frame. As the Subject Areas aligned to Review Articles are also heavily in areas most impacted by the pandemic research restrictions, along with the literature suggesting writing and data analysis as potential opportunities that some used ([Herman et al., 2021](#); [Korbel & Stegle, 2020](#); [Termini & Traver, 2020](#); [Woolston, 2020](#)), it seems likely that some researchers chose to use evidence synthesis to author Review Articles in order to continue or supplement their research.

Data Availability

Data can be retrieved using the stated methods via *Scopus*.

Competing Interests

There are no competing interests for this study.

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References

- Baumeister, A., Corrin, T., Abid, H., Young, K. M., Ayache, D., & Waddell, L.** (2021). The quality of systematic reviews and other synthesis in the time of COVID-19. *Epidemiology & Infection*, 149, Article e182. <https://doi.org/10.1017/S0950268821001758>
- Callaway, E.** (2020). The COVID-19 crisis could permanently change scientific publishing. *Nature*, 582(7811), 167-168. <https://doi.org/10.1038/d41586-020-01520-4>

Drake, M. V. (2020, March 16). *Coronavirus (COVID-19) updates: teleworking and facility closures*. Office of the President. <https://president.osu.edu/story/coronavirus-update-march-16>

Enterprise for Research, Innovation and Knowledge. (n.d.). *Facts and figures*. <https://research.osu.edu/about-us/facts-and-figures>

Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 26(2), 91–108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>

Harrop, C., Bal, V., Carpenter, K., & Halladay, A. (2021). A lost generation? The impact of the COVID-19 pandemic on early career ASD researchers. *Autism Research*, 14(6), 1078–1087. <https://doi.org/10.1002/aur.2503>

Herman, E., Nicholas, D., Watkinson, A., Rodríguez-Bravo, B., Abrizah, A., Boukacem-Zeghmouri, C., Jamali, H. R., Sims, D., Allard, S., Tenopir, C., Xu, J., Świgoń, M., Serbina, G., & Cannon, L. P. (2021). The impact of the pandemic on early career researchers: What we already know from the internationally published literature. *Profesional de la Informacion*, 30(2), Article e300208. <https://ciber-research.com/download/2020311-Profesional-de-la-informaci%C3%B3n-30.2.e300208.pdf>

Kazawa, K., Shimpuku, Y., & Yoshinaga, N. (2022). Characteristics of early-career nurse researchers negatively impacted during the COVID-19 pandemic: A cross-sectional study. *BMJ Open*, 12, Article e059331. <https://doi.org/10.1136/bmjopen-2021-059331>

Korbel, J. O., & Stegle, O. (2020). Effects of the COVID-19 pandemic on life scientists. *Genome Biology*, 21, Article 113. <https://doi.org/10.1186/s13059-020-02031-1>

Mokhnacheva, Y. V. (2023). Document types indexed in WoS and Scopus: Similarities, differences, and their significance in the analysis of publication activity. *Scientific and Technical Information Processing*, 50(1), 40–46. <https://doi.org/10.3103/S0147688223010033>

The Ohio State University. (2020, June 3). *Ohio State announces plans for an autumn semester return to campuses*. Ohio State News. <https://news.osu.edu/ohio-state-announces-plans-for-an-autumn-semester-return-to-campus>

The Ohio State University. (2025a, Autumn). *University enrollment report*. <https://sem.osu.edu/enrollment-report.pdf>

The Ohio State University. (2025b, March 19). *Ohio State sets R&D expenditures record*. Ohio State News. <https://news.osu.edu/ohio-state-sets-rd-expenditures-record/>

The Ohio State University. (2025c). *Statistical summary 2024–2025*. <https://irp.osu.edu/sites/default/files/documents/2025/03/2024-25-statistical-summary.pdf>

Peeters, A., Mullins, G., Becker, D., Orellana, L., & Livingston, P. (2020). COVID-19's impact on Australia's health research workforce. *The Lancet*, 396(10249), 461.

[https://doi.org/10.1016/S0140-6736\(20\)31533-6](https://doi.org/10.1016/S0140-6736(20)31533-6)

Peña, M., Olmedo-Torre, N., Alcaraz, O., Chavez-Dominguez, J. A., López, J., & Mujica, L. E. (2022). Impact of the pandemic on the teaching and research staff at a technological university in Spain: Deepening the gender gap. *International Journal of Environmental Research and Public Health*, 19(11), Article 6417.

<https://doi.org/10.3390/ijerph19116417>

Pepper, M. S., & Burton, S. G. (2020). Research in COVID-19 times: The way forward. *South African Medical Journal*, 110(8), 756–758. <https://hdl.handle.net/10520/EJC-1ef3575713>

Safe and Healthy Buckeyes. (n.d.). *Latest updates*.

<https://safeandhealthy.osu.edu/latest-updates>

Termini, C. M., & Traver, D. (2020). Impact of COVID-19 on early career scientists: An optimistic guide for the future. *BMC Biology*, 18, Article 95.

<https://doi.org/10.1186/s12915-020-00821-4>

Undergraduate Admissions. (n.d.). *Quick facts*. <https://undergrad.osu.edu/majors-and-academics/quick-facts>

Williams, A. N., & Bowen, R. (2020). *Summary report of faculty & staff COVID-19 remote work experience*. <https://womensplace.osu.edu/media/1663>

Woolston, C. (2020). Pandemic darkens postdocs' work and career hopes. *Nature*, 585(7824), 309–312. <https://doi.org/10.1038/d41586-020-02548-2>

Yeung, A. W. K. (2019). Comparison between Scopus, Web of Science, PubMed and publishers for mislabelled review papers. *Current Science*, 116(11), 1909–1914.

<https://doi.org/10.18520/cs/v116/i11/1909-1914>

Yeung, A. W. K. (2021). Document type assignment by Web of Science, Scopus, PubMed, and publishers to "Top 100' papers." *Malaysian Journal of Library & Information Science*, 26(3), 97–103. <https://doi.org/10.22452/mjlis.vol26no3.5>



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