

Trends in Evidence Synthesis and Growth in Librarian Involvement

Analysis of a Tiered Service Model

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Library Evidence Synthesis Services Symposium (LESSS)





Traditional Territories Acknowledgement

The University of Manitoba campuses are located on original lands of Anishinaabeg, Ininiwak, Anisininewuk, Dakota Oyate and Dene, and on the National Homeland of the Red River Métis.

We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of Reconciliation and collaboration.

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Before we begin, I'd like to acknowledge that Mê-Linh and I are grateful to be joining you today from Winnipeg, Manitoba, Canada, located on the original lands of the Anishinaabeg, Ininiwak, Anisininewuk, Dakota Oyate and Dene and on the National Homeland of the Red River Métis.

Background

- Health sciences library at mid-sized doctoral institution
- Introduction of a 3-Tiered Model in 2017
 - Tier 1: Instruction
 - Tier 2: Consultation
 - Tier 3: Authorship
- Steady growth in demand
- Evaluation of all evidence synthesis output from University of Manitoba (2017-22)

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In 2017, we were experiencing growing demand for librarian support of evidence synthesis in health sciences and so we instituted a 3-tier service. Tier 1 was instruction – we teach a 5-part series at least once a year. Tier 2 is consultation and this is typically reserved for students or when librarians are too busy for faculty requests and Tier 3 meant that the librarian was a collaborator on the research team and we explicitly stated that Tier 3 service meant a co-authorship credit in any research output.

Questions

1. What are the trends in types and disciplines of ES publications between 2017-2022
2. How are librarians credited in ES publications between 2017-2022
3. Do librarian-involved publications get published in journals with higher journal impact factors?

For our research project, we wanted to find the trends in the types of KS, which disciplines were publishing KS. For example, was it time to expand beyond health. We were also interested in how librarians were credited. Did co-authorship grow when we were explicit about it?

Methods

- Searched Scopus, PubMed, and Web of Science (Social Sciences Citation Index and Arts & Humanities Citation Index)

Content analysis:

1. Author affiliation (UM Primary Author | UM Other Author)
2. Study Design
3. Subject Area
4. Librarian Involvement (authorship, acknowledgement, etc)
5. Journal impact factor

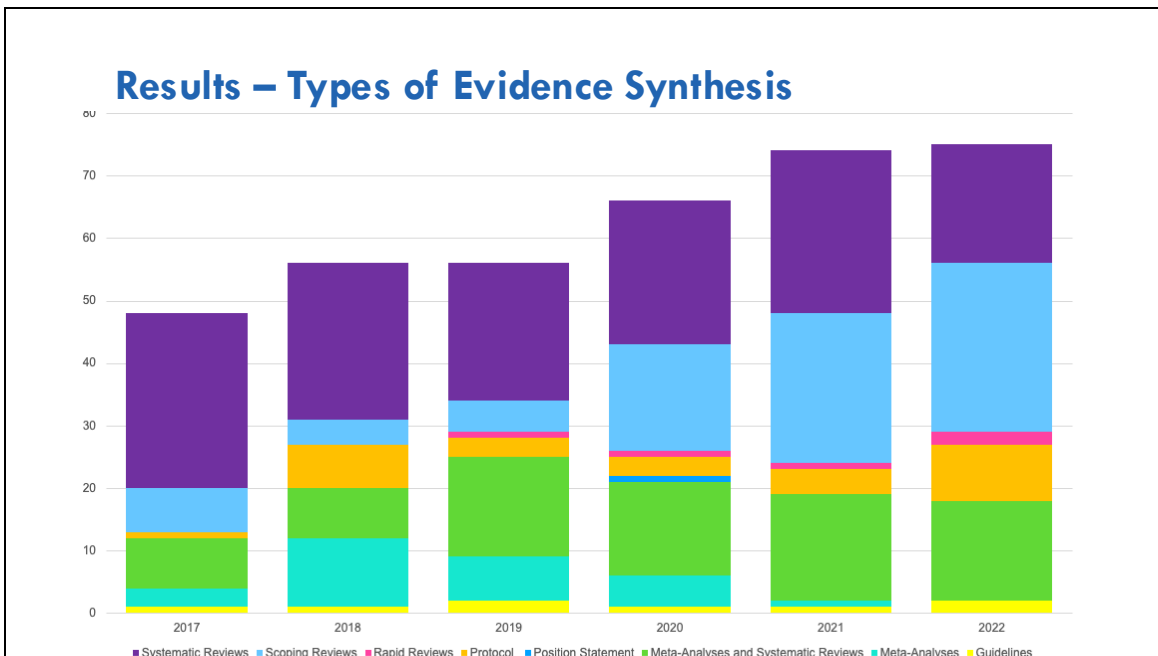
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To answer our questions, we searched for all ES with of U of M affiliation. We searched in Scopus, PubMed, and Web of Sciences (specifically the Social Sciences Citation Index and Arts & Humanities Citation Index). We screened all articles in Covidence and then completed a content analysis looking at study design, subject area and librarian involvement. We used Clarivate Journal Citation Reports to find the journal impact factor in the year of publication. We also separated authors into primary and other. Primary authors meant that a university of Manitoba author was first, last and/or the corresponding author. Other

meant that the U of M author (or authors) was in the middle of the pack. This helped us identify who are core users were and identify of the published ES, who was most likely to use our service.

Results – Types of Evidence Synthesis



ML - 45 seconds

So what did our analysis find?

This graph shows the growth in ES has increased 54% since 2017, with consistent increases year to year.

The graph also shows which types of ES are being created. It may be too small to see but the colours to be aware of are purple for systematic reviews, blue for scoping reviews, and green for systematic reviews and meta-analyses. We can clearly see that the number of scoping reviews being published has grown substantially, with a 400% increase since 2017. The number of SRs and MA/SRs is mostly the same over time.

Results – Librarian Involvement

- 57% of ES research involved a librarian
 - 56% were co-authors
 - 25% named in search methods
 - 23% mentioned in acknowledgments
- 280% increase in co-authorship since introduction of tiered model

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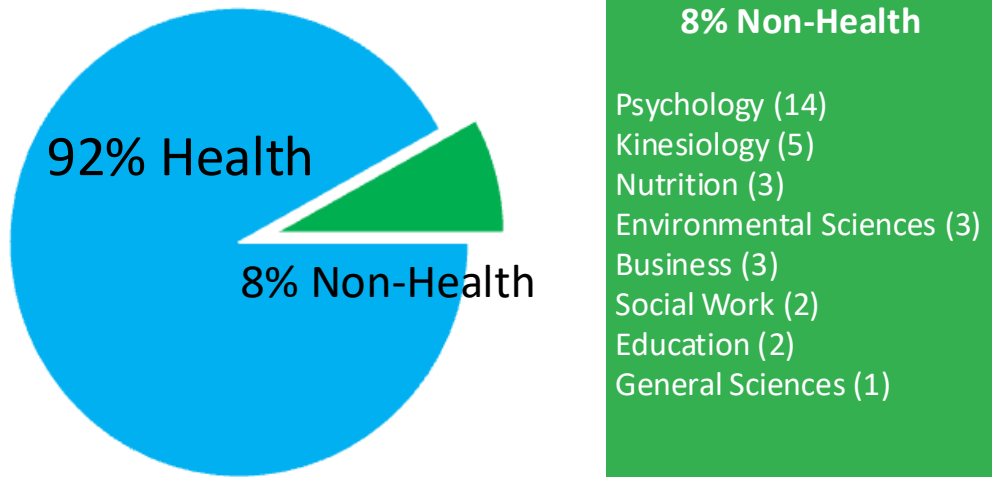


ML - 30 seconds

In terms of librarian involvement in KS, there are several interesting trends found.

1. 57% of published ES involved a librarian, with 56% as co-authors, 25% mentioned by name in the search methods, and 23% mentioned in the acknowledgments.
2. The most important thing to note here is that since we introduced our 3-tier model in 2017 we have seen a 280% increase in co-authorship.

Results – Evidence Synthesis Being Published (by disciplines)



Mê-Linh - 30 seconds

Over the last few days, we have been hearing about the growth of ES outside of health and how to build services to accommodate these areas, but right now that is not reflected at our institution. Our non-health ES numbers have not increased in the last 6 years. Of the 8% that were non-health the majority were in the area of psychology, with others in kinesiology, nutrition, etc.

Total out of 407 from UM Primary – 374 (92% health)

Results – Journal Impact Factors (JIF)

- When a librarian was **NOT** involved in the ES
 - Mean JIF was 4.905
 - Median JIF was 3.517
- When a librarian was involved in the ES
 - Mean JIF was 6.795
 - Median JIF was 3.955

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ML - 30 seconds

When we examined the impact factors of journals where systematic reviews were published we found that when a librarian was not involved in the review, the mean JIF was 4.905 and the median was 3.517

However, when a librarian was involved in the review, the mean was 6.795 and the median was 3.955

While journal impact factors are a controversial metric, they are still seen as an indicator of overall journal quality within the academic community and this kind of finding can be shared as when advocating for the importance of librarian involvement in knowledge synthesis and justification for a KS service

Take Home Messages



Co-Authorship

A tiered model with clear expectations for librarian authorships leads to increased co-authorship



Impact

ES research with librarian involvement is published in higher-impact journals



Resources

While non-health does publish ES, health continues to dominate and should be resourced appropriately

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Mê-Linh

So what are our take home messages after an evaluation of 6 years of ES output from a 3-tiered model system?

1. A tiered model with clear roles, responsibilities, and expectations for different levels of services can lead to increase librarian co-authorship on ES projects
2. When needing to demonstrate the importance of librarians on ES, it can be valuable to point out that ES research with librarian involvements is published in higher-impact journals
3. And finally, while non-health disciplines are publishing ES, the numbers are still very low. When institutions are looking at resources and staffing needed for ES services the majority should still focus on the health sciences.

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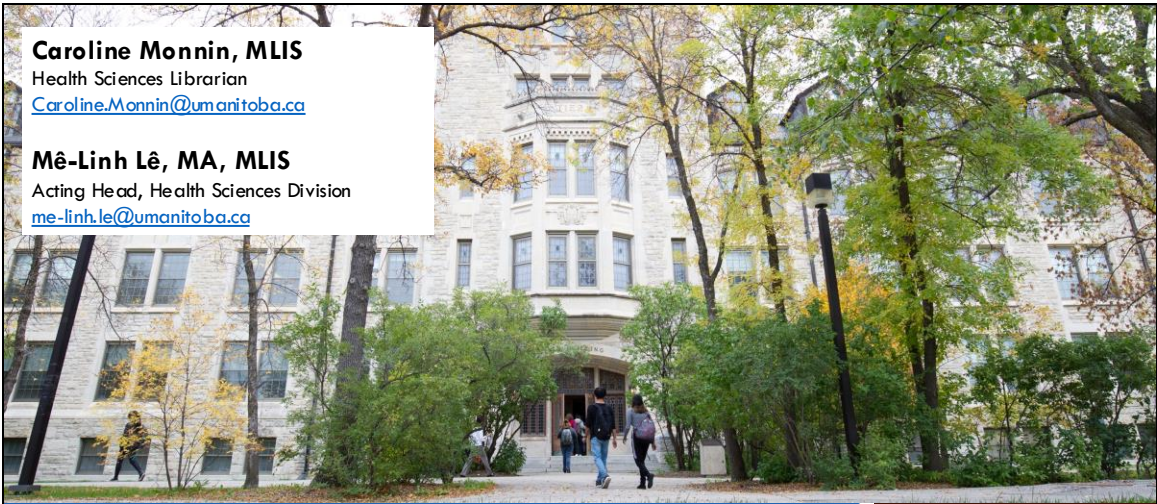
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