UNDERSTANDING OUR IMPACT:

ANALYZING LIBRARIAN INVOLVEMENT WITH SYSTEMATIC REVIEWS



Hannah J. Craven¹, Kristina C. Palmer², Christi R. Piper²

¹Ruth Lilly Medical Library, Indiana University School of Medicine, Indianapolis, IN, USA ²Strauss Health Sciences Library, University of Colorado Anschutz Medical Campus, Aurora, CO, USA



Introduction

Inclusion of a librarian increases the validity of a systematic review (SR).¹⁻⁴ The Institute for Medicine's Standards for Systematic Reviews state to work with a librarian.⁵ Previous studies analyzing quality of SRs have not focused on a singular institution.¹⁻⁴ This study sought to determine the impact of our librarians' assistance on SRs published at the University of Colorado Anschutz Medical Campus (CU Anschutz) compared to SRs without librarians.

Methods

A search strategy was built to track CU Anschutz publications.

Databases searched:

- PubMed
- Ovid MEDLINE
- Web of Science

Citations were managed and deduped in EndNote X8. See **Figure 1** for flowchart showing curation of citations. A statistically appropriate number of articles without a librarian author were randomly selected for comparison with articles that had librarian assistance.

Data collected included:

- Journal Impact Factor (year of publication)
- Journal rank by discipline (year of publication)
- First author's years of writing experience (based on year of first publication)
- First author's discipline

Figure 2.

- **A.** Box and whisker plot comparing the Journal Impact Factor of journals that CU Anschutz SRs were published in for each group.
- **B.** Distribution of the percentile rankings of journals that CU Anschutz SRs were published in for each group.
- **C.** Distribution of years of experience determined by year of first publication for the first author of each CU Anschutz SR.

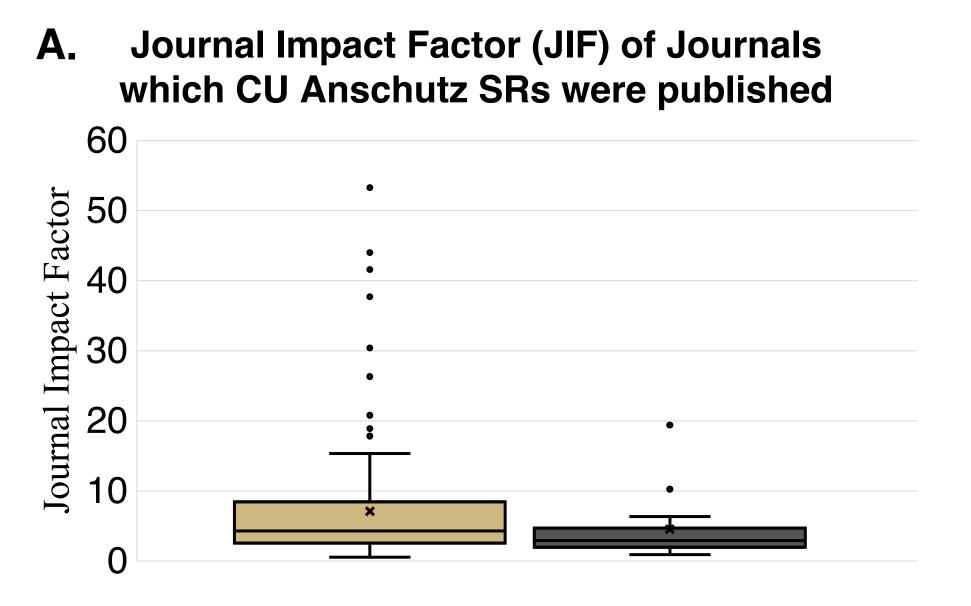
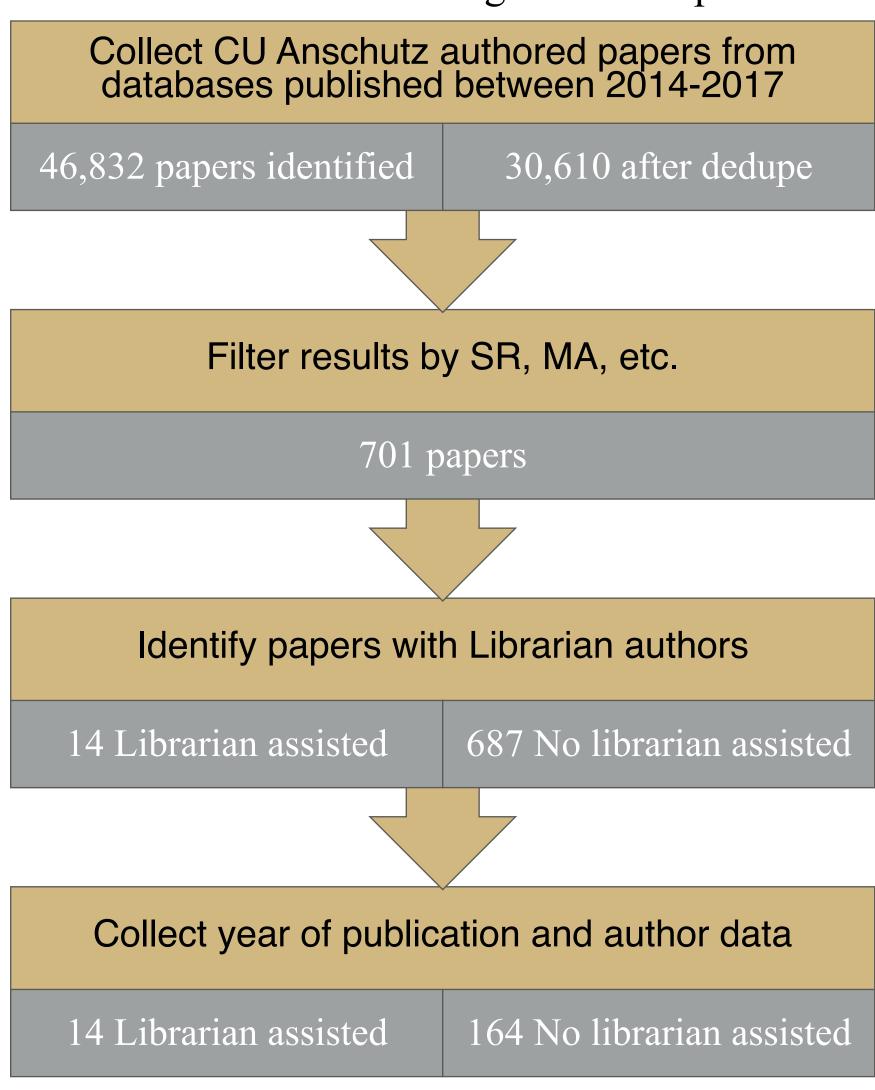
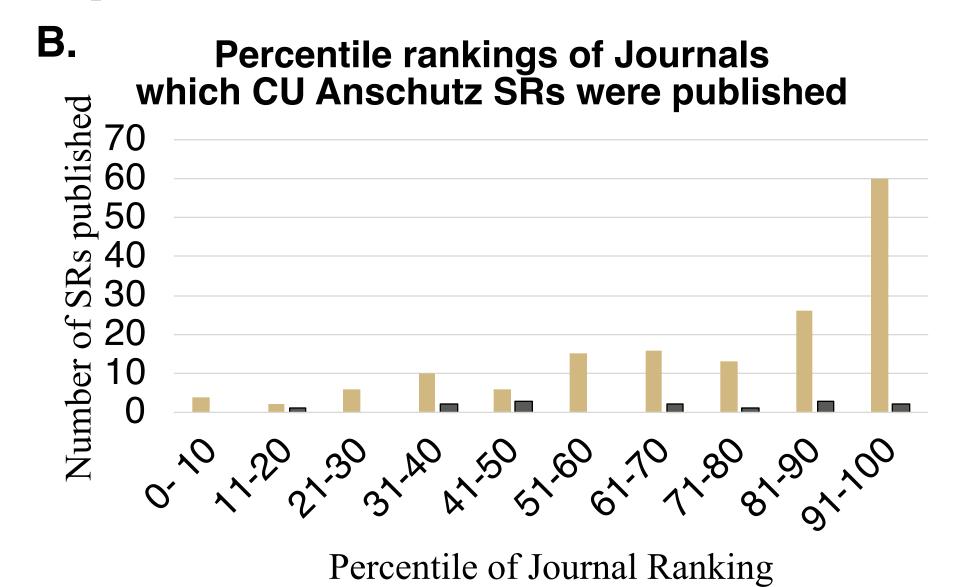


Figure 1. Flowchart showing methods and number of articles remaining at each step.



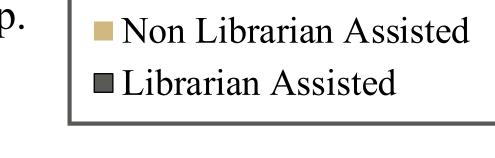


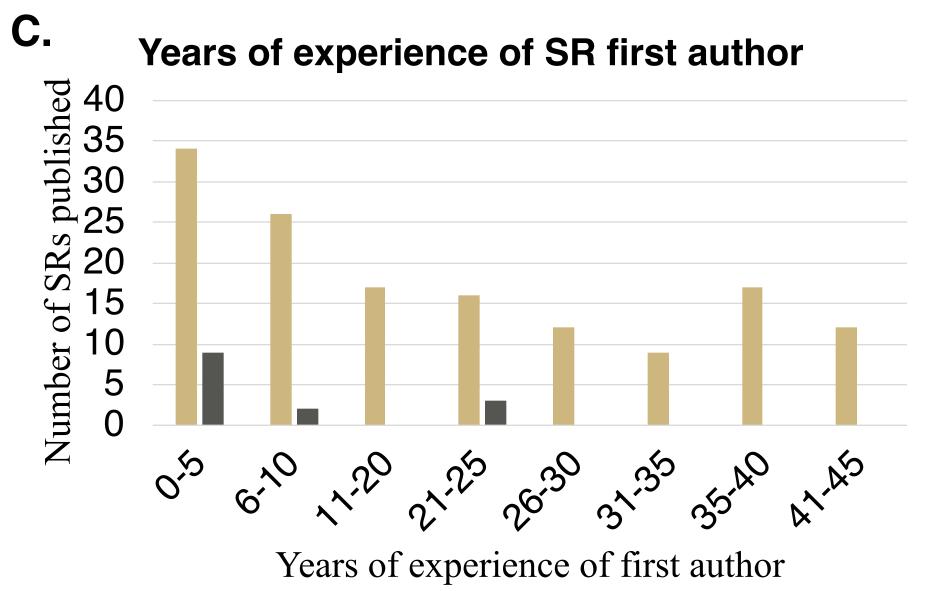
Results

There was no statistical difference between groups regarding the JIF of journals CU Anschutz SRs were published in or the journal percentile ranking. The years of experience for authors in the Librarian Assisted group were significantly lower (Table 1). Comparing the JIF of both groups shows the journals for the Librarian Assisted SRs all fall within the range of Non Assisted (Figure 2A). The percentile rankings of journals for both groups was comparable (Figure 2B). Librarians were more likely to assist authors with less than ten years of experience (Figure 2C).

Departments that utilized librarian assistance the most were:

- General Medicine
- Orthopedics
- Gastroenterology





Conclusions

Librarians assisting with SRs had no effect on the JIF or percentile ranking of the journals they were published in . Librarians worked with significantly less experienced authors than the Non Librarian Assisted group. The mode years of experience was 5 years, lining up with the expectation to publish for tenure-track researchers. CU Anschutz librarians will focus on faculty onboarding to promote this service. Efforts to connect with departments who underutilize the library will increase. A limitation of this study is credentials or titles of authors are not included in citation information, so it was unknown if a librarian from another institution was a coauthor.

Table 1. Mean values for both group with relevant p-values.

Table II Weath variates for both group with refevant p variates.			
	JIF	%ile rank	Experience (years)
Non Librarian Assisted	7.08	74	18.24
Librarian Assisted	4.51	63	8.64
p-value	0.0939	0.1295	0.0009*

^{*}statistically significant

References

- 1. Li L, Tian J, Tian H, et al. Network meta-analyses could be improved by searching more sources and by involving a librarian. J Clin Epidemiol. 2014;67(9):1001-1007.
- 2. Meert D, Torabi N, Costella J. Impact of librarians on reporting of the literature searching component of pediatric systematic reviews. *Journal of the Medical Library Association : JMLA*. 2016;104(4):267-277.

 3. Rethlefsen ML, Farrell AM, Osterhaus Trzasko LC, Brigham TJ. Librarian co-authors correlated with higher quality reported search strategies in general internal medicine systematic reviews. *J Clin Epidemiol*. 2015;68(6):617-626.
- 4. Thomas B, Tachble A, Peiris D, Malhi R, Godlovitch G, Lin Y. Making literature reviews more ethical: a researcher and health sciences librarian collaborative process. *Future Science OA*. 2015;1(4):FSO78. 5. Institute for Medicine of the National Academies. Standards for Systematic Reviews. In. *Standards for Finding and Assessing Individual Studies*. Vol 3.1.1. Washington DC: Institute of Medicine; 2011.

Acknowledgements

Thank you to Lilian Hoffecker, PhD, MLS for creating the CU Anschutz search strategy used to capture the articles analyzed in this study.

