Introduction
Inclusion of a librarian increases the validity of a systematic review (SR). The Institute for Medicine’s Standards for Systematic Reviews state to work with a librarian. Previous studies analyzing quality of SRs have not focused on a singular institution. 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 deduplicated in EndNote X8. See Figure 1 for flowchart showing curation of citations. A statistically appropriate number of articles without a librarian 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 1. Flowchart showing methods and number of articles remaining at each step.

Collect CU Anschutz authored papers from databases published between 2014-2017

46,832 papers identified 30,610 after dedupe

Filter results by SR, MA, etc.

701 papers

Identify papers with Librarian authors

14 Librarian assisted 687 No librarian assisted

Collect year of publication and author data

14 Librarian assisted 164 No librarian assisted

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

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

<table>
<thead>
<tr>
<th>JIF</th>
<th>%ile rank</th>
<th>Experience (years)</th>
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<tbody>
<tr>
<td>Non Librarian Assisted</td>
<td>7.08</td>
<td>74</td>
</tr>
<tr>
<td>Librarian Assisted</td>
<td>4.51</td>
<td>63</td>
</tr>
<tr>
<td>p-value</td>
<td>0.0939</td>
<td>0.1295</td>
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</tbody>
</table>

*statistically significant

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.

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References