# Gender and Authorship of ASHA Research Journal Articles: 2014-2020 <br> <br> 署 Regis College 

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SCHOOL OF HEALTH SCIENCES

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Abstract
The numbers of women authors were examined in articles in ASHA journals: AJA, AJSLP, JSLHR, and LSHSS over the past seven years. The results ar discussed in relation to the proportion of women in our field (i.e., ASHA members), as well as an estimated proportion of women in tenure-stream academic positions with research doctoral degrees.

## Introduction

Past studies have suggested that women are underrepresented in research journals in the fields of science and medicine (e.g., Amering, Schrank, \& Additionally, Filardo, Da Graca, Sass, Pollack, Smith, \& Martinez, 2018) author (Filardo et al, 2016). These findings have raised concerns about the peer review process and other factors that may limit women's participation peer review process and other factors that may limit women's participation
and publication of research, which can have important career implications (e.g., Rogus-Pulia, Humbert, Kolehmainen, \& Carnes, 2018).

It is not clear whether the same patterns exist in the field of communication sciences and disorders (CSD). One way to assess this possibility is to compare the authorship gender difference to the employment/certification gender difference in the field. In terms of employment and certification, women far outnumber men in CSD. In 2020, $96.3 \%$ of SLPs and $86.3 \%$ of audiologists were women (ASHA, 2021). With both professional combined, $95.5 \%$ were women. Those statistics fit a gradual trend in which an increasing proportion of SLP and audiology positions were held by women (ASHA, 2019b). However, certification alone may not provide a good basis for what to expect for authorship because many clinicians are not required to publish research as part of their employment. A slightly different perspective is shown through ASHA members who have research doctorates (e.g., PhD, EdD). In 2020, 77.3\% of ASHA members holding research doctorate degrees were research doctorates and some authors are not ASHA members, so our measures are intended only to provide an estimate of the gender demographics of potential research contributors.

Purpose of the Study. We compared gender differences in the authorship in ASHA journals to gender differences in (1) ASHA members, and (2) ASHA members with research doctoral degrees.

The four ASHA research journals, American Journal of Audiology (AJA), American Journal of Speech-Language Pathology (AJSLP), Journal of Speech, Language and Hearing Research (JSLHR) and Language, Speech, and Hearing Services in Schools (LSHSS) were examined in this study. For each article, the gender of each author, and the order in which they were listed, were recorded based on the first (given) name listed. In some cases, it was unclear whether the name was masculine or feminine, and the author was not included in the analysis.

## Results and Discussion

A total of 3011 articles with 10,090 author listings were reviewed for analysis. For each journal and each year, the percentages of women authors are shown below.

Percentage of Women Authors by Publication Year and Journal Title


Mean values indicated differences among the four journals. While none reached the level of women certified clinicians (95.5\%), AJSLP and LSHSS did surpass the level of women with research doctorates ( $77.3 \%$ ), although not consistently. This result may be partly explained by fewer articles in AJSLP and LSHSS by audiologists, who are more likely to be men.

To test whether the overall proportion observed in the journals differed significantly from the demographics the ASHA member counts, we pooled the data from all four journals, weighting for differences in numbers of authors (e.g., JSLHR had the most artices and authors). The proportion of an independent observation. For this analysis, we focused on the articles published in 2020 in order to compare them to the 2020 ASHA count of member with doctorates. Using a one-sample $t$-test, we treated the ASHA member counts as the population and tested whether the sample (journal data) differed from the population. The mean percentage of women authors (73.9\%) was significantly below the $77.3 \%$ of female members holding doctorates ( $t=2.69, p<.01$ ).

Overall the gender difference in authorship was disproportionate to the gender difference in ASHA membership and in most cases, to the gender difference among ASHA members with research doctorates. This disproportion is especially apparent when the number of articles and authors in each journal is considered. JSLHR has by far the most articles each year but consistently has an authorship rate for women that is below the percentage of ASHA-certified women with research doctorate degrees. The reasons underlying gender differences in research publication remain unclear and warrant further examination.

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