

Examining the Gender Publication Gap in Gambling Research and Addiction Science

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INTRODUCTION

Research publications are the principal way academics disseminate scientific findings (Holman et al., 2018), and female researchers have been historically underrepresented in academia (Abramo & D'Angelo, 2014).

Characterizing diversity in gambling research is important in building a more inclusive research environment, with further benefits for knowledge translation in diverse groups.

METHODS

We retrieved publications from 2003-2021. In the journal analysis, we selected 3 journals specializing in inter-disciplinary gambling research, and 5 addictions journals regularly publishing papers on gambling. To identify gambling papers, we used the title search term 'gambl*'. For 4 of these 5 addiction journals, reverse wildcard searches were performed using the title search term 'NOT gambl*' to establish the gender gap among non-gambling addiction papers as a benchmark. A second analysis scraped all papers from PubMed with a 'gambl*' title search.

The process of assigning gender to author first names was made using Odic & Wojcik's (2019) 'Database of First Names', which assigned a probability to author first names as male or female. A certainty criterion of 80% was set to classify a first name as male or female.

DESCRIPTIVE ANALYSIS

Analysis	Overall		First Authors		Last Authors		Single Authors	
	% Men	% Women	% Men	% Women	% Men	% Women	% Men	% Women
Gambling Journals	61	39	54.1	45.9	65.9	34.1	70.8	29.2
Addiction Journals	55.5	44.5	51.2	48.8	59.7	40.3	71	29
Gambling (Database Search)	60	40	52.5	47.5	66.5	33.5	68.1	31.9

DATA ANALYSIS

Publication data are organized by single authorship papers and multi-authorship papers in first and last authorship positions. All data was fit to a negative binomial regression (Odic & Wojcik, 2019) in order to test the effect of gender over unique authors while controlling for the natural skew of publication counts.

RESULTS

Gambling Papers

Publication counts of unique authors ($N = 2,831$) showed an overall significant gender gap ($z = 24.2, p < .001$), and an incident rate ratio (IRR) of 1.16 (95% CI [1.08, 1.25]), such that the average male author published 16% more papers than the average female author. The analysis also revealed males publish more papers than females in first author positions, last author positions, and single author papers.

Addiction Papers

Publication counts of unique authors ($N = 22,805$) also showed an overall significant gender gap ($z = 15.5, p < .001$), and an incident rate ratio (IRR) of 1.23 (95% CI [1.20, 1.26]), such that male authors published 23% more papers than female authors. Males publish more papers than females in every authorship position.

Gambling Papers (Database Search)

Publication counts showed an overall significant gender gap ($N = 7,640; z = 38.0, p < .001$), and an IRR of 1.10 (95% CI [1.05, 1.15]), such that male authors published 10% more papers than female authors. The analyses showed a significant gender gap, revealing males publish more papers than females in every authorship position.



SUMMARY

This project investigated gender diversity in the field of gambling studies, analyzing over 25,000 publications from 2003-2021 using an automated gender inference procedure.

The gender gap was modest in first authorships but pronounced for last authorship positions (denoting seniority) and single-author papers.

There was notable variability across journals, suggesting a likely role of journal editorial policies.

A gender publication gap continues to exist in the field of gambling studies, and we recommend that journals monitor authorship diversity and take concrete steps to reduce these disparities.