

Publication Rates of Abstracts Presented at National Otolaryngology Conferences

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ABSTRACT

Objectives: To determine and compare publication rates and study characteristics of abstracts presented at three national otolaryngology conferences in 2012.

Study Design: Cross-sectional study.

Methods: Abstracts presented at three national otolaryngology conferences in 2012 were reviewed. The conferences were the American Academy of Otolaryngology Head and Neck Surgery Meeting (AAO-HNS, n = 695), the Combined Otolaryngology Spring Meeting (COSM, n = 693), and the Triological Society Combined Sections Meeting (TRIO, n = 243). MEDLINE and Google Scholar searches were performed to determine publication rates and characteristics.

Results: We reviewed 1,644 abstracts, including 584 oral presentations and 1060 poster presentations. Thirteen abstracts were not available for review and were excluded from analysis. Manuscript publication rate was 54.4%. Median time to publication was 12 months (IQR 8 to 19 months). Factors positively associated with publication included oral presentation, translational and basic science research, treatment studies, and studies with positive findings (all p<0.001). Number of authors and sample size were not found to be associated with publication. Published manuscripts appeared in 118 different peer-reviewed journals, with highest rates of publication in *The Laryngoscope* (26.3%), and *Otolaryngology - Head and Neck Surgery* (19.1%). Abstracts presented at COSM had a higher publication rate (58.6%) than AAO-HNSF (46.9%, p<0.001). Similarly, abstracts presented at TRIO had higher publication rates (55.6%) than AAO-HNSF (p=0.02).

Conclusion: In 2012, publication rate of abstracts presented at national otolaryngology conferences was 54.4%, with a median time to publication of 12 months. Our investigation is the first to compare publication rates between otolaryngology conferences.

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INTRODUCTION

Transmission of current research is most commonly achieved either by presentation at scientific meetings or publication in medical journals. Rate of publication can be used as a surrogate of the quality of studies presented at scientific meetings.

In the field of otolaryngology, reported publication rates have varied significantly. Studies have reported rates as high as 69% (1), and as low as 32% (2). Knowledge of publication rates allows comparison of the quality of data presented at national conferences. In addition, an understanding of study characteristics predictive of publication assists researchers, promoting a more scientifically-rigorous and thus, publication-friendly, study design.

The purpose of this study is to evaluate and compare the publication of presentations from the AAO-HNSF, TRIO, and COSM national meetings, and to identify the association between study characteristics and full publication.

METHODS

Exemption was obtained from the Colorado Multiple Institutional Review Board. We examined all abstracts presented at the AAO-HNSF, TRIO and COSM conferences in the year 2012.

Documentation of study characteristics included number of authors, presentation format, field of otolaryngology, type of research, study design, sample size, positive findings, whether published, and time to publication.

To determine publication, both MEDLINE and Google Scholar searches were performed using the title of the abstract at presentation. To convincingly match abstract to a published article we compared title, authorship, key words, research method and at least one shared outcome measure. If no result was found, we marked the abstract unpublished.

Abstracts		Specialty	Publications	
N	%		N	%
28	1.7%	Business of Medicine	18	2.1%
114	7.0%	General	63	7.3%
324	19.9%	Head and Neck	142	16.4%
231	14.2%	Laryngology	142	16.4%
260	15.9%	Otology	135	15.6%
271	16.6%	Pediatric	149	17.2%
110	6.7%	Plastic & Recon	59	6.8%
251	15.4%	Rhinology	131	15.1%
42	2.6%	Sleep	28	3.2%
1631	100.0%		867	100.0%
Abstracts		Research Type	Publications	
N	%		N	%
119	7.3%	Basic	76	8.8%
1298	79.6%	Clinical	658	75.9%
76	4.7%	Translational	55	6.3%
102	6.3%	Other	54	6.2%
36	2.2%	NA	24	2.8%
1631	100.0%	Total	867	100.0%
Abstracts		Study Type	Publications	
N	%		N	%
204	12.5%	Treatment Study	135	15.6%
937	57.4%	Observational Study	518	59.7%
124	7.6%	Systematic Review	74	8.5%
330	20.2%	Descriptive	116	13.4%
36	2.2%	NA	24	2.8%
1631	100.0%	Total	867	100.0%

Table: Demographics

RESULTS

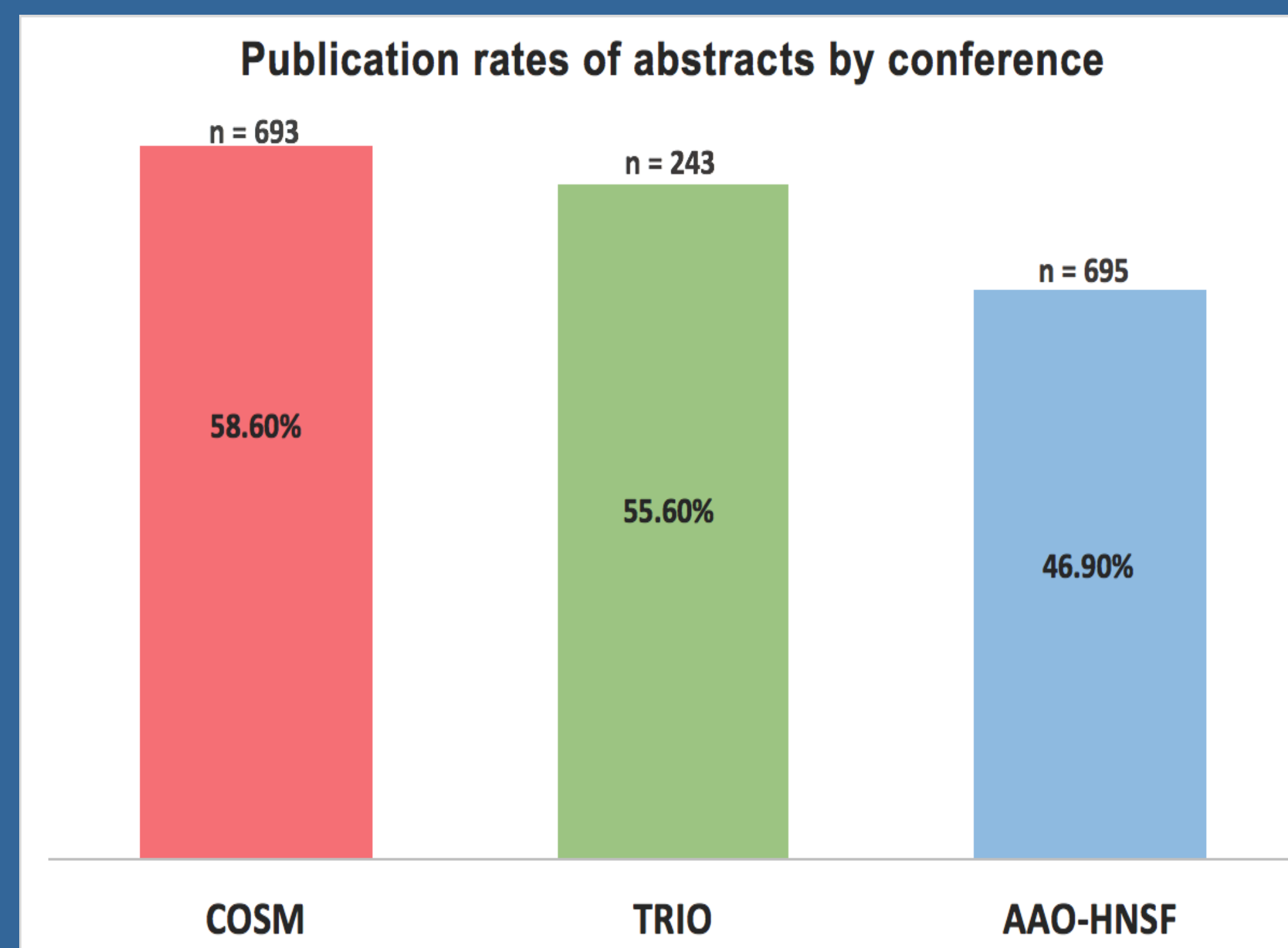


Figure 1: Publication rates of abstracts by conference

Overall, 1,644 abstracts were presented at the three meetings, including 584 oral presentations and 1060 poster presentations (Table). Overall publication rate was 54.4%. Median time to publication was 12 months (IQR: 8 to 19 months) and this was not statistically different between meetings (p = 0.54).

Abstracts presented at COSM had a higher publication rate (58.6%) than AAO-HNSF (46.9%, p < 0.001, Figure 1). Abstracts presented at TRIO had higher publication rates (55.6%) than AAO-HNSF (p = 0.02). When comparing rates of publication of oral and poster presentations individually and by conference, those presented at TRIO had the highest rates, and those presented at AAO-HNSF had the lowest (Figure 2).

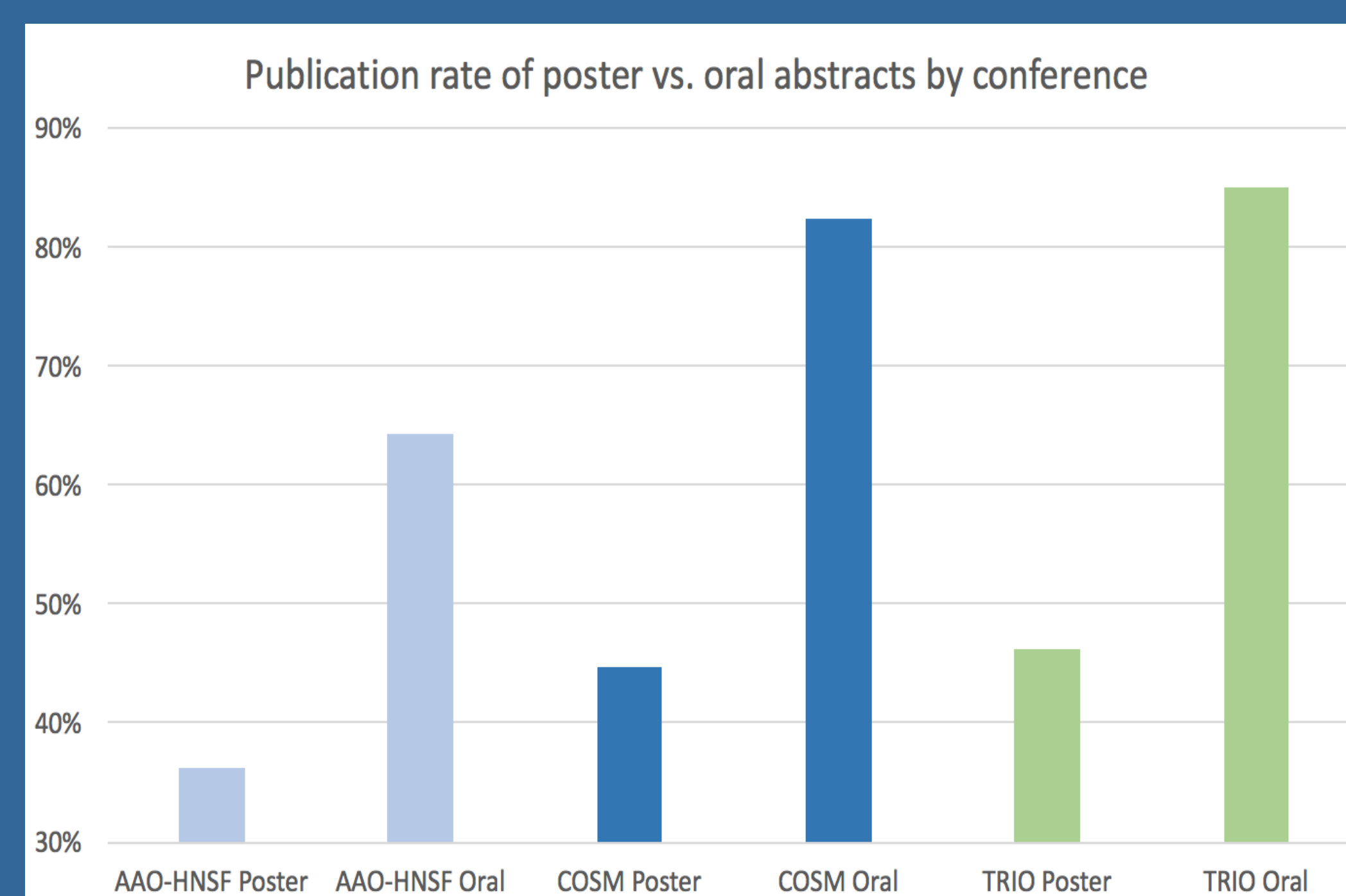


Figure 2: Publication rate of poster v. oral abstracts by conference.

Several factors were positively associated with publication, including oral presentation (OR 4.08 vs. poster presentation), study type (OR 3.61 for treatment vs. descriptive, 2.73 for systematic review vs. descriptive), research type (OR 2.55 translational vs. clinical), and positive findings (OR 1.65) (all p<0.001, Figure 3). Number of authors, change in number of authors, change in lead author, and sample size were not found to be associated with publication.

Abstract subspecialty also impacted publication success. Head and Neck research had the lowest publication rate at 43.8%, and this was significantly lower than each of the other specialties (p = 0.003). Sleep research had the highest rate of publication at 68.3%.

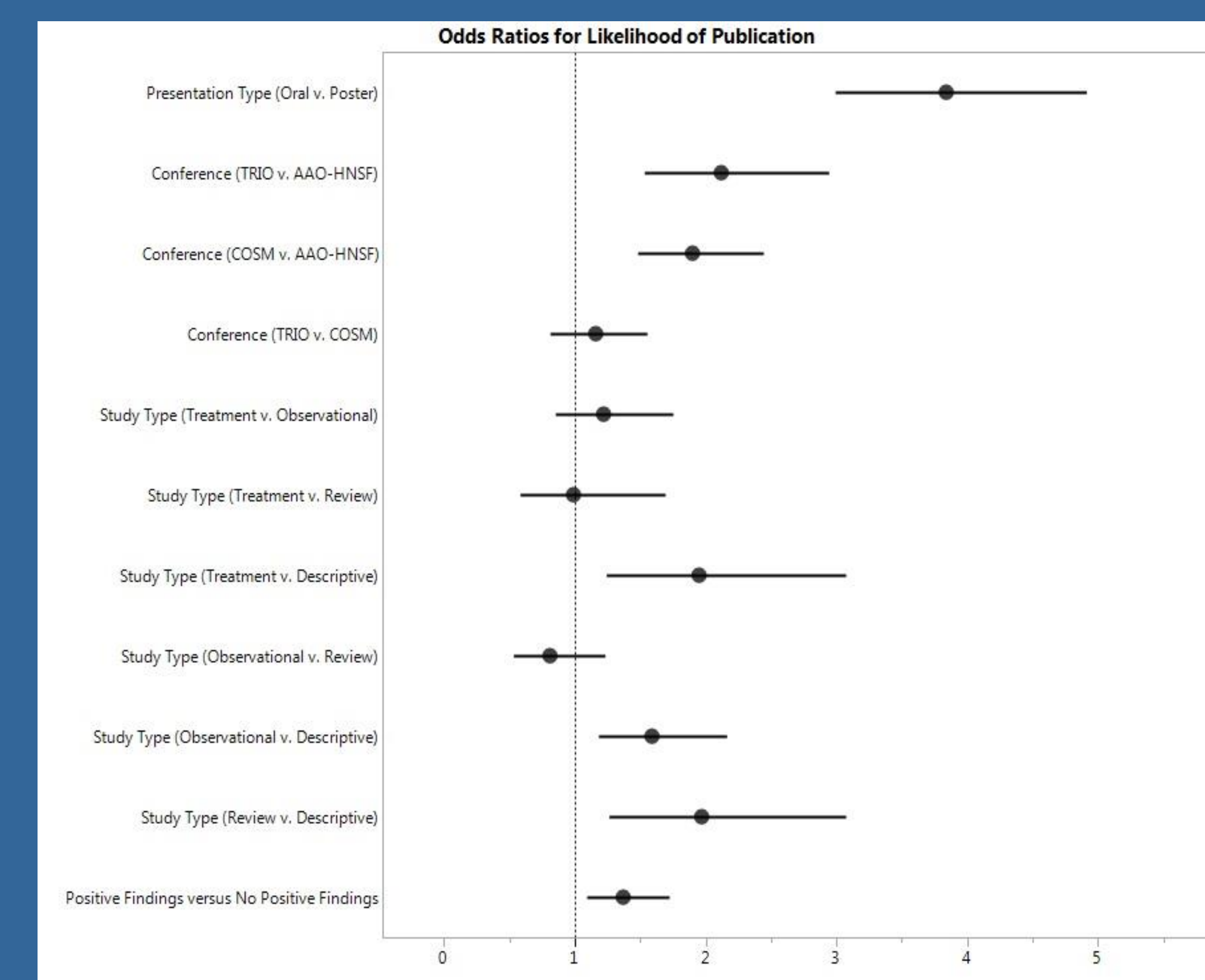


Figure 3: Odds ratios for likelihood of publication

DISCUSSION

Overall publication rate was 54.4%, with a median time to publication of 12 months. Remarkably, our reported time to publication is the most rapid amongst all studies in the field of otolaryngology. (1-3)

Research presented at COSM had the highest rate of publication (Figure 1). However, COSM designated 36.94% of its abstracts to oral format, compared to only 25.1% of TRIO abstracts and 38.3% for AAO-HNSF. Given that oral format was the characteristic most predictive of publication (Figure 3), we felt this could underestimate publication rates for TRIO abstracts. Indeed, when comparing rate of publication of oral and poster presentations individually and by conference, those presented at TRIO had the highest rates, and those presented at AAO-HNSF had the lowest (Figure 2).

Factors most predictive of publication included oral presentation, study type and research type. Specialty research most likely to be published included sleep research, business medicine, and laryngology, while head and neck, otology and rhinology were the least likely to achieve publication.

CONCLUSIONS

In 2012, publication rate of abstracts presented at national otolaryngology conferences was 54.4%, with a median time to publication of 12 months. Abstracts presented at COSM were published at a higher rate than those presented at TRIO and AAO-HNSF, although this is complicated by the characteristics of the abstracts presented at each conference. Oral presentation, translational research, and treatment studies were factors most predictive of publication. Our investigation is the first to compare publication rates between otolaryngology conferences.

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