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CORRESPONDENCE

Publication modifiers of abstracts submitted to the American Association of Pediatric Ophthalmology and Strabismus Annual Meeting

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To the Editor:

The publication rate of abstracts presented at the 2008 American Academy of Ophthalmology (AAO) meeting was 40% [1] and for abstracts presented in different fields of medicine was 25–63% [2–5]. This study attempted to determine the publication rate of abstracts presented at the American Association of Pediatric Ophthalmology and Strabismus (AAPOS) meetings and identify factors associated with a higher publication rate and publication in journals with a higher impact factor (IF) and a shorter time from presentation to publication.

Abstracts presented between 2001 and 2014 at AAPOS meetings were categorized according to these parameters: presentation format, affiliation, funding, clinical or basic science, research scope, prospective or retrospective methodology, multicenter or single centre, and prevalence. PubMed and Google Scholar databases were searched to identify published full-text manuscripts, and these were categorized similarly. Data were analysed using SPSS software (IBM SPSS Statistics 24.0) utilizing statistical tests described in Supplementary-e-Table-1.

We analysed 1770 abstracts: oral presentations 27.7% and posters 72.3%. The overall publication rate was 52.5%: oral presentations (69.5%) and posters (46.1%) ($p < 0.001$). The publication rate steadily increased from 2001 to 2014 (Supplementary-e-Fig. 1).

The difference in the publication rate of subspecialties (35.4–59.4%) was significant ($p < 0.001$) (Supplementary-e-Table-2). Most geographical areas published about the same percentage of presented abstracts (49–55.6%) apart from Central and South America (32.1%) (Supplementary-e-Table-3). Funded, prospective, multicenter studies, and abstracts on strabismus or nystagmus had a significantly higher publication rate ($p < 0.001$) (Table 1).

The average IF of journals was 2.22 ± 2. Most abstracts were published in the Journal of JAAPOS (51.90%) followed by other Ophthalmology journals (37.9%): Those with the highest publication percentage in Supplementary-e-Table-4 and in Supplementary-e-Table-5 by journal type. European affiliated, funded, prospective, multicenter studies and studies on genetics were published in journals with a significantly higher IF (Supplementary-e-Table-6). European affiliated, poster presented, prospective, multicenter studies and published abstracts in the field of genetics had a significantly higher chance of being published in journals with an IF that's above the median (Table 2).

The median publication time was 1.42 years. Funded and orally presented abstracts had a significantly shorter publication time (Supplementary-e-Table-7).

This study indicates that abstracts presented at AAPOS meetings achieved a higher publication rate, than in other medical professions, including AAO meetings. The most significant factor for publication of an abstract was its oral presentation at the AAPOS meeting. Studies in the field of the strabismus and nystagmus, funded, multicenter, and prospective design abstracts also had a higher rate of

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Table 1 Parameters associated with higher publication rate ($n = 1770$).

Parameter	Publication rate (%)	$\chi 2$	p value
Oral ($n = 491$, 28%) vs. poster ($n = 1279$, 72%) presentation	69.5% vs. 46.1%	77	<0.001
Basic science, animal model, experimental study ($n = 42$, 2.4%) vs. clinical research ($n = 1716$, 97%) vs. RCT ($n = 12$, 0.6%)	59.5% vs. 52.4% vs.75%	3.24	0.19
Prospective ($n = 410$, 23%) vs. retrospective ($n = 1222$, 69%) vs. other ($n = 138$, 8%)	83.2% vs. 46.3% vs. 7.8%	238	<0.001
Rare ($n = 107$, 6%) vs. common ($n = 1663$, 94%) disease	52.4% vs. 55.1%	0.3	0.58
Funded ($n = 362$, 20%) vs. non-funded ($n = 1408$, 80%)	40.9% vs. 98.3%	381	<0.001
FDA sponsored ($n = 1$, 0.05%) vs. not FDA sponsored ($n = 1769$, 99.95%)	100% vs. 52.5%	0.9	>0.99
Multicenter ($n = 44$, 2%) vs. one centre ($n = 1726$, 98%)	95.5% vs. 51.7%	32.88	<0.001

RCT Randomized controlled trial, *FDA* Food and Drug Administration.

Table 2 Multivariate analysis of parameters associated with publication in journals with an impact factor that's above the median (0.916).

	OR	95% CI		p value	p value vs reference
Affiliation				<0.001	
Europe	1				
America or Canada	0.275	0.157	0.482		<0.001
Asia	0.950	0.398	2.267		0.908
Middle East	0.624	0.254	1.531		0.303
Other: Australia or New Zealand, Central or South America and Africa	0.264	0.077	0.905		0.034
Type					
Oral presentation	1.000			<0.001	
Poster	3.290	2.384	4.540		
Prospective, Retrospective or Other				0.004	
Prospective	1				
Retrospective	0.598	0.433	0.827		0.002
Other	1.213	0.463	3.181		0.694
Multicenter	3.801	1.716	8.418	0.001	
subspecialty				0.003	
Genetics	1				
Amblyopia and vision	0.349	0.136	0.896		0.029
Strabismus or nystagmus surgery	0.425	0.170	1.066		0.068
Neuroophthalmology	0.514	0.181	1.463		0.212
Retinopathy of prematurity	0.646	0.227	1.836		0.412
Cataract, glaucoma, cornea	0.486	0.180	1.310		0.154
Oculoplastics	0.235	0.061	0.901		0.035
Other	1.017	0.377	2.746		0.973

OR odds ratio, *CI* confident interval.

publication. European affiliated studies, studies in genetics, prospective, multi-center, and poster presentations were published in higher IF journals, perhaps because studies presented as oral presentations often present novel findings and will not necessarily be published in high IF journals [1]. Oral presentations and funded studies were published in a significantly shorter time frame in addition to a higher rate of publication. Authors seeking to expedite or improve publication in journals of abstracts submitted to AAPOS annual meetings might gain some insight from these finding.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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