

Publication rate of abstracts presented at the American College of Physicians Japan Chapter Annual Meetings (2013-2014): A retrospective observational study

Junpei Komagamine MD 

Department of Internal Medicine, National Hospital Organization Tochigi Medical Center, Utsunomiya, Tochigi, Japan

Correspondence

Junpei Komagamine, Department of Internal Medicine, National Hospital Organization Tochigi Medical Center, Utsunomiya, Tochigi, Japan.
Email: junpei0919@yahoo.co.jp

Abstract

Background: Few studies have evaluated the publication rate of abstracts presented at Japanese medical specialty meetings.

Methods: A retrospective observational study was conducted to determine the publication rate of abstracts presented at the American College of Physicians Japan Chapter Annual Meetings (2013-2014). Publication rates were determined by searching the MEDLINE database for full-text articles.

Results: Of the 116 abstracts evaluated, 14 (12.1% [95% CI 6.1%-18.1%]) were subsequently published in peer-reviewed journals indexed in the MEDLINE database.

Conclusion: Further studies to investigate the barriers to publication among Japanese investigators and additional efforts to improve this low publication rate are needed.

KEYWORDS

abstracts, annual meetings, conference, internal medicine, publication

1 | INTRODUCTION

Although it is important to disseminate new research findings beyond a scientific meeting,^{1,2} only 45% of abstracts presented at annual medical specialty meetings are subsequently published.³ Therefore, some efforts to improve the publication rate of abstracts presented at scientific meetings are needed,^{1,4} but few studies have investigated this measure with respect to abstracts presented at Japanese medical scientific meetings.^{2,5} Thus, this study aimed to investigate the publication rate of abstracts presented at the American College of Physicians Japan Chapter Annual Meetings (ACPJCAM).

2 | METHODS

2.1 | Study design

A retrospective cohort study of abstracts presented at ACPJCAM (2013-2014) was conducted. The 2013 and 2014 meetings were selected because more than two-thirds of published articles are

published within 3 years of presentation.³ All poster presentations were included, and retracted abstracts were excluded.

2.2 | Outcome measures and search strategy

The primary outcome was subsequent publication of an abstract, and publication was determined by searching for full-text articles in the MEDLINE database using the names of the first and second authors as a keyword.³ Only articles published from the submission deadline of the index annual meeting to November 2017 were included. An abstract was considered published if the identified article presented the same content as the presented abstract. A research letter was also considered a published article.^{1,5}

2.3 | Characteristics

For abstracts presented at ACPJCAM, information on the year of the annual meeting, the study design, the sample size, the affiliation of the first author, and the number of authors involved were retrieved.

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For the published abstracts, the name of the journal and the date of publication were extracted.

2.4 | Statistical analysis

The total publication rate was calculated according to the year of the annual meeting, study design, sample size, affiliation of the first author, and number of authors involved. Relationships between publication and these variables were evaluated by a binary logistic regression analysis. Stata version 15 (LightStone, Tokyo, Japan) was used for the statistical analyses. The statistical significance threshold was set at $P < 0.05$.

3 | RESULTS

All 119 abstracts from the 2013 and 2014 ACPJCAM were evaluated. Of these, three abstracts were excluded for various reasons (one for withdrawal and two for publication before the submission deadline). Thus, 116 abstracts (40 in 2013 and 76 in 2014) were included in the final analysis. Of all included abstracts, 37 (31.9%) described observational studies, 73 (62.9%) were case reports or case series (Table 1), and 14 (12.1% [95% CI 6.1%-18.1%]) were subsequently published in peer-reviewed journals. Among the

published abstracts, the median time from the index scientific meeting to publication was 11.5 months (interquartile range, 2.4-24.2 months). Larger sample size, university affiliation of the first author, and observational study type tended to be associated with a higher publication rate, although these associations were not statistically significant. The 14 presented abstracts were published in 11 different journals (Table 2), and 10 (90.9%) of these 11 journals were English-language journals.

4 | DISCUSSION

This research study constitutes the first evaluation of the publication rate of abstracts presented at ACPJCAM. Compared with the publication rate of abstracts reported in past studies,^{3,6,7} the publication rate found for abstract presented at ACPJCAM was notably lower.

Several explanations for this result are reasonable. First, Japanese investigators might find it difficult to publish articles in international peer-reviewed journals due to a language barrier. Second, given that a lower abstract quality was previously identified as a risk factor associated with a lower publication rate,⁸ the quality of abstracts presented at ACPJCAM might be low. Third, lack of time and lack of interest might be barriers

TABLE 1 Publication rate of abstracts presented at the American College of Physicians Japan Chapter Annual Meetings (2013-2014) according to different subcategories

Variables	Total number of abstracts	Number (%) of published abstracts	Unadjusted bivariable analysis	
			OR (95% CI)	P-value
Total	116	14 (12.1)		
Year of the conference				
2013	40	6 (15.0)	1 [Reference]	0.48
2014	76	8 (10.5)	0.67 (0.21-2.08)	
Study design				
Observational study	37	7 (18.9)	1 [Reference]	0.17
Case report or case series	73	7 (9.6)	0.45 (0.15-1.41)	
Others	6	0 (0.0)	NA	NA
Sample size				
< 100	99	10 (10.1)	1 [Reference]	0.13
≥ 100	17	4 (23.5)	2.74 (0.75-10.02)	
Number of authors				
< 3	34	4 (11.8)	1 [Reference]	0.95
≥ 3	82	10 (12.2)	1.04 (0.30-3.58)	
Affiliation of the first author				
Non-university-associated institution	81	8 (9.9)	1 [Reference]	0.28
University-associated institution	35	6 (17.1)	1.89 (0.60-5.92)	

CI, confidence interval; NA, nonapplicable; OR, odds ratio.

to the publication of abstracts.^{9,10} Fourth, the absence of abstracts of randomized controlled trials or oral presentations in these annual meetings might have reduced the publication rate calculated in this study.^{3,6} However, further studies investigating the barriers to publication among Japanese investigators are warranted.

Considering the importance of scientific research publication, some strategies are needed to improve the publication rate of abstracts presented at ACPJCAM. First, in this study, abstracts describing case reports were less likely to be subsequently published than abstracts describing the results of observational studies. This difference may be caused by the emphasis among the scientific community regarding the hierarchy of evidence, with case reports receiving the lowest status.¹ If case reports are more likely to be rejected by medical journals, the submission of case reports presented at scientific meetings to case report journals may be one possible solution. In addition, a lack of informed consent may be a barrier to the publication of abstracts describing case reports in Japan. Therefore, a requirement of informed consent for all case reports before their submission to scientific meetings may be a solution. Second, in this study, abstracts presented by first authors affiliated with university-associated institutions were more likely to be subsequently published than abstracts presented by first authors affiliated with non-university-associated institutions. This finding may implicate a disparity in education systems with respect to the writing of academic papers. Therefore, it may be useful to strengthen the partnerships of universities with community hospitals and clinics. Finally, the abstract-to-publication ratio for a scientific meeting might be an effective quality indicator^{1,4} because this indicator may facilitate the efforts of scientific meetings to reject low-quality abstracts and support authors presenting abstracts at the meeting in publishing their work.

TABLE 2 List of journals in which the abstracts presented at the American College of Physicians Japan Chapter Annual Meetings (2013-2014) were published

Journal	Total number of publications
<i>Intern Med</i>	4
<i>ASAIO J</i>	1
<i>BMC Infect Dis</i>	1
<i>Diabetes Care</i>	1
<i>Endoscopy</i>	1
<i>Int J Gen Med</i>	1
<i>Int J Infect Dis</i>	1
<i>J Cardiol</i>	1
<i>Pharmacoepidemiol Drug Saf</i>	1
<i>Respir Investig</i>	1
<i>Kansenshogaku Zasshi</i> [in Japanese]	1

4.1 | Limitations

First, only a single database was used to search for published articles, and no authors of the abstracts were contacted. Therefore, this search strategy might underestimate the publication rate. Second, the short follow-up period might also underestimate the publication rate.³ Finally, the sample size of this study was too small to provide the statistical power required to investigate predictive factors associated with abstract publication.

5 | CONCLUSION

The publication rate of abstracts presented at ACPJCAM was low. Further studies investigating the factors associated with the lack of publication of abstracts presented by Japanese investigators and some efforts to improve this low publication rate are warranted.

CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflict of interest in connection with this article.

ORCID

Junpei Komagamine  <http://orcid.org/0000-0002-5899-4760>

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