

RESEARCH ARTICLE

Current Rates of Publication for Podium and Poster Presentations at the American Society for Surgery of the Hand Annual Meetings

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Abstract

Background: Research projects are presented at the Annual Meetings of the American Society for Surgery of the Hand (ASSH). It is unknown how many achieve publication in peer-reviewed journals. We sought to determine current rates of publication of podium and poster presentations.

Methods: All ASSH podium and poster presentations from 2000 to 2005 were reviewed, and an Internet-based search using PubMed and Google was conducted to determine whether the presented studies had been published. Times to publication and journal names were recorded. Data were analyzed with descriptive statistics. Fisher's exact test was conducted to compare current trends with previous trends.

Results: Of 1127 podium and poster presentations reviewed, 46% were published in peer-reviewed journals. Forty-seven percent of published presentations (242 presentations) were in *Journal of Hand Surgery*, and 11% (59 presentations) were in *Journal of Bone and Joint Surgery*. Forty-five percent of presentations were published within 2 years and 66% within 3 years. The publication rate for podium presentations was significantly higher than that previously reported for *Journal of Hand Surgery*, at 54% compared with 44% ($P=0.004$).

Conclusions: Currently, fewer than half of the studies presented at Annual Meetings of the ASSH achieve publication in peer-reviewed journals. Presentations are most likely to be published within 3 years, and almost half are published in *Journal of Hand Surgery*.

Key words: American Society for Surgery of the Hand, Peer-reviewed journals, Podium presentation, Poster presentation, Publication rate

Introduction

The ultimate goal of any research project is to share the findings with the scientific community by publishing the work in a scientific journal. However, before publication, numerous opportunities exist to share a portion of the work or to share the work in its entirety with a smaller number of people. The opportunities include podium or poster presentations at local, regional, national, and international meetings. It typically is believed that after a presentation of the

work, whether in part or in its entirety, the next step is to finalize the work and submit it to be considered for publication in a peer-reviewed scientific journal.

On the other end of the spectrum, one can attempt to evaluate the quality of the research presented at a scientific meeting by knowing whether the majority of presentations go on to be published in peer-reviewed scientific journals. This is because publication of a scientific work in a peer-reviewed journal is in some respect a validation of the work.

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Table 1. Podium and poster presentations of the 2000 through 2005 Annual Meetings of the American Society for Surgery of the Hand

Annual meeting year	Published n (%)	Not published n (%)	Total	Time to publication (yr)
2000	94 (38)	155 (62)	249	2.3
2001	75 (41)	108 (59)	183	2.4
2002	100 (56)	77 (44)	177	2.6
2003	68 (45)	82 (55)	150	2.1
2004	96 (50)	96 (50)	192	1.7
2005	85 (48)	91 (52)	176	1.6
Total	518 (46)	609 (54)	1127	Mean 2.1

Gavazza et al. previously reported the rate of publication for podium presentations at the 1990 through 1992 Annual Meetings of the American Society for Surgery of the Hand (ASSH) (1). However, the authors did not evaluate the publication rate of posters presented at those meetings. The purpose of the current study was to evaluate the current rates of publication for podium presentations and posters presented at the annual ASSH meeting. Additionally, the previous rates of publication were compared with the more current rates in an attempt to assess whether there has been an increase in the quality of research presented at annual ASSH meetings.

Materials and Methods

Each scientific presentation listed in the official programs from the 2000 through 2005 Annual Meetings of the ASSH was reviewed and categorized as either a podium or poster presentation. Subsequently, in 2010, the title and authors of each presentation were separately entered into PubMed (www.pubmed.org) and Google (www.google.com) searches to determine whether the work had been published in a peer-reviewed scientific journal. A minimum 5-year period was allotted to allow time for publication of each work. If the title of the published work was identical to that of the presentation,

it was determined to be a match. Titles of published works that contained similar key words and the same authors had the abstract reviewed for concordance with the abstract published in the official ASSH meeting program to determine whether it was a match.

All published presentations were further analyzed to determine the journal in which they were published and how long after presentation the publication occurred. The rates of publication for each annual meeting for all podium and poster presentations were determined. A simple linear regression was used to model the number of presentations published over time. Fisher's exact tests were then conducted to compare previous publication rates with the rates determined by the current study. All P values were two-tailed, and alpha for significance was set at 0.05. Statistical analysis was conducted by using STATA 11 software (StataCorp, College Station, TX).

Results

The 2000 through 2005 Annual Meetings of the ASSH included 1127 presentations. Four hundred twenty-five were podium presentations, and 702 were poster presentations. Overall, 518 (46%) presentations were published by 2010, including 231 (54%) podium presentations and 287 (41%) poster presentations. The observed higher publication rate for podium

Table 2. Podium presentations of the 2000 through 2005 Annual Meetings of the American Society for Surgery of the Hand

Annual meeting year	Published n (%)	Not published n (%)	Total
2000	50 (45)	62 (55)	112
2001	37 (49)	39 (51)	76
2002	50 (69)	22 (31)	72
2003	26 (55)	21 (45)	47
2004	41 (55)	33 (45)	74
2005	27 (61)	17 (39)	44
Total	231 (54)	194 (46)	425

Table 3. Poster presentations of the 2000 through 2005 Annual Meetings of the American Society for Surgery of the Hand

Annual meeting year	Published n (%)	Not published n (%)	Total
2000	44 (32)	93 (68)	137
2001	38 (36)	69 (64)	107
2002	50 (48)	55 (52)	105
2003	42 (41)	61 (59)	103
2004	55 (47)	63 (53)	118
2005	58 (44)	74 (56)	132
Total	287 (41)	415 (59)	702

Table 4. Publication rate of podium presentations by orthopaedic subspecialty

Orthopaedic subspecialty	Authors	Years	Overall podium presentation publication rate (%)	P value*
Hand	Abzug et al. [current study]	2000–2005	54	Reference
Hip surgery	Whitehouse et al. (11)	2003–2006	22	.001
Hand	Gavazza et al. (5)	1990–1992	44	.004
Pediatrics	Varghese et al. (9)	2003–2005	59	.192
Sports	Kleweno et al. (7)	1999–2001	59	.31

*Fisher's exact test

versus poster presentations was statistically significant ($P=0.001$) (Tables 1-3).

Assessment of the simple linear regression determined that most (66%) of the studies were published within 3 years of presentation, and 90% were published within 5 years of presentation. Overall, the average time to publication from presentation was 2.1 years, with a decreased length noted after the 2004 and 2005 meetings (Table 1).

Forty-seven percent of the presentations were published in The Journal of Hand Surgery; 11% in The Journal of Bone and Joint Surgery, American Volume; 4% in Clinical Orthopedics and Related Research; 3% in Plastic and Reconstructive Surgery; and 3% in the Journal of Shoulder and Elbow Surgery. The remaining articles (32%) were published in 69 additional journals, with 2% or fewer of the published presentations in each.

Comparing the mean publication rate of 54% for podium presentations with the previous rate of 44% reported by Gavazza et al. in 1996 (Appendix A) revealed a significantly higher current rate of publication ($P=0.004$) (1).

Discussion

Completion of a particular research project occurs upon publication of that project in a peer-reviewed scientific journal. During the process of preparing the project for publication, it is ideal to share early results with peers via presentation at a local, regional, national, or international meeting. This can occur via a podium or poster presentation.

Multiple recent studies have investigated the percentage of podium presentations that eventually go on to publication, with rates ranging from 21% to 59% (1-11). Data collected from international meetings showed that North American Studies had the highest rates of publication (2,3,8).

Evaluation of publication rates by orthopaedic subspecialty yielded a publication rate range of 22% (Appendix A) for hip surgery-related abstracts compared with 59% for sports medicine-related abstracts (7, 11). The publication rate for hand surgery-related abstracts seems to fall in the middle to upper range of orthopaedic subspecialties, with an average publication rate of 44% (Appendix A) noted by Gavazza et al. in the 1990s and a current overall rate of 54% for podium presentations (Table 4) (1).

An obvious limitation of the current study is that we compared overall publication rates with up to 10-year follow-up as opposed to the 3- to 5-year follow-up used in the previous report (1). Gavazza et al. used Kaplan-Meier methodology to project ultimate publication rates (1). However, that method may not be optimal for estimation or projection of ultimate publication rates, because as fewer and fewer events occur toward the end of the curve, estimates of survivorship become highly unreliable. Considering the unreliability of the Kaplan-Meier method for this purpose, we chose to evaluate publication rates at the time of literature search, which is mathematically most accurate but limits the conclusions that can be drawn from the comparison. Data regarding poster presentations are not currently available for comparison, but the current study showed a publication rate of 41%, which still falls within the range of orthopaedic subspecialty podium presentation publication rates.

Despite a relatively high publication rate for orthopaedic surgery abstracts compared with other specialties, length of time to publication seems to be somewhat longer. In the urology literature, Autorino et al. noted a mean time to publication of 14.6 months, with 80% published within 2 years of presentation (3). Another urological study by Autorino et al. noted a mean publication time of 13 months, with 61% of presentations published within 1 year (2). In a cardiology study, the average time to publication was 18 months, with 84% published within 2 years (5). Regarding orthopaedics, a study of sports medicine abstracts showed a median time to publication of 21 months and the current study showed a mean time to publication of 25 months, with 45% published within 2 years (7).

Gavazza et al. reported that the majority of presentations went on to be published in The Journal of Hand Surgery (59%) with the next largest groups of presentations being published in The Journal of Bone and Joint Surgery, American Volume (8%) and Clinical Orthopaedics and Related Research (5%) (1). The current study found the same trend, with 47% of publications occurring in The Journal of Hand Surgery; 11% in The Journal of Bone and Joint Surgery, American Volume; and 4% in Clinical Orthopaedics and Related Research.

The publication rate of podium presentations was found to be somewhat higher than the publication rate of poster presentations (54% versus 41%). This was

anticipated considering that most colleagues regard podium presentations to be more prestigious than poster presentations. Despite the lower publication rate for poster presentations, the rate still falls within the range of other orthopaedic subspecialties. Poster presentation rates were not previously investigated; therefore, these data serve as a basis for which future studies can compare poster presentation publication rates.

Overall, the publication rates of podium and poster presentations at the annual ASSH meeting seems to be favorable compared with other medical specialties and within orthopaedic subspecialties. These encouraging data seem to be consistent over time, considering that

Gavazza et al. reported very similar publication rates for ASSH meeting presentations 2 decades ago (1).

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