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High nonpublication rate from publication professionals hinders evidence-based publication practices

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Background. The need for timely, ethical, and high-quality reporting of clinical trial results has seen a rise in demand for publication professionals. These publication experts, who are not ghostwriters, work with leading medical researchers and funders around the world to plan and prepare thousands of publications each year. Despite the involvement of publication professionals in an increasing number of peer-reviewed publications, especially those that affect patient care, there is limited evidence-based guidance in the peer-reviewed literature on their publication practices. Similar to the push for editors and the peer-review community to conduct and publish research on publication ethics and the peer-review process, the International Society for Medical Publication Professionals (ISMPP) has encouraged members to conduct and publish research on publication planning and practices. Our primary objective was to investigate the publication rate of research presented at ISMPP Annual Meetings.

Methods. ISMPP Annual Meeting abstract lists (April 2009 to April 2014) were searched in November 2014 and data were extracted into a pilot-tested spreadsheet. MEDLINE was searched in December 2014 to determine the publication rate (calculated as the % of presented abstracts published as full papers in peer-reviewed journals). Data were analyzed using the Cochran-Armitage trend test (significance: $P < .05$) by an independent academic statistician.

Results. From 2009 to 2014, there were 220 abstracts submitted, 185 accepted, and 164 presented. There were only four corresponding publications (publication rate 2.4%). Over time, ISMPP's abstract acceptance rate (overall: 84.1%) did not change, but the number of abstracts presented increased significantly ($P = .02$). Most abstracts were presented as posters (81.1%) and most research was observational (72.6%). Most researchers came from the US (78.0%), followed by Europe (17.7%), and the Asia-Pacific region (11.2%).

Discussion. Research presented at ISMPP Annual Meetings has rarely been published in peer-reviewed journals. The high-rate of nonpublication by publication professionals has now been quantified and is of concern. Publication professionals should do more to contribute to evidence-based publication practices, including, and especially, their own. Unless the barriers to publication are identified and addressed, the practices of publication professionals, which affect thousands of peer-reviewed publications each year, will remain hidden and unproven.

ARTICLE TITLE

High nonpublication rate from publication professionals hinders evidence-based publication practices

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ABSTRACT

Background. The need for timely, ethical, and high-quality reporting of clinical trial results has seen a rise in demand for publication professionals. These publication experts, who are not ghostwriters, work with leading medical researchers and funders around the world to plan and prepare thousands of publications each year. Despite the involvement of publication professionals in an increasing number of peer-reviewed publications, especially those that affect patient care, there is limited evidence-based guidance in the peer-reviewed literature on their publication practices. Similar to the push for editors and the peer-review community to conduct and publish research on publication ethics and the peer-review process, the International Society for Medical Publication Professionals (ISMPP) has encouraged members to conduct and publish research on publication planning and practices. Our primary objective was to investigate the publication rate of research presented at ISMPP Annual Meetings.

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50 **Discussion.** Research presented at ISMPP Annual Meetings has rarely been published in peer-
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55 thousands of peer-reviewed publications each year, will remain hidden and unproven.

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INTRODUCTION

Rennie and Flanagan warned that the quest to improve publication practices requires "...a massive and prolonged effort on the part of researchers, funders, institutions, and journal editors..." (Rennie & Flanagan, 2014). Fundamental to this quest is research on publication practices. Such research should address important questions, be well-designed, conducted, and published - in full; published abstracts are insufficient to inform practice (Hopewell et al., 2008). Conducting and publishing research on publication practices, however, isn't easy, even for editors and the peer-review community (Rennie & Flanagan, 2014). Malički and colleagues reported that "...39% of research presented at Peer Review and Biomedical Publication (PRC) congresses had not been fully published..." (Malički, von Elm & Marušić, 2014). Publication professionals work with researchers and funders around the world to plan and prepare thousands of publications each year (Wager et al., 2014) and have a responsibility to join the research effort. These experts, who are not ghostwriters, must shine an empirical light on the integrity and effectiveness of their practices as these practices affect the quality and currency of the medical literature that influences patient care. Unless publication professionals publish their research results in peer-reviewed journals, much of what they do remains hidden. Similar to the analyses of research presented at PRCs (Malički, von Elm & Marušić, 2014), we investigated the publication rate of research presented at International Society for Medical Publication Professionals (ISMPP) Annual Meetings.

MATERIALS AND METHODS

This was a retrospective cohort study of ISMPP Annual Meeting abstracts (April 2009 to April 2014).

Abstract metrics and data were obtained from *Current Medical Research and Opinion (CMRO)* Supplements (2009 onwards) and verified against ISMPP records. Submission and acceptance data were obtained from ISMPP. Corresponding full-text publications were identified by searching (December 2014) MEDLINE using the first, second, or last author surname and key terms from the title.

Abstracts were categorized based on author affiliations and study type. Publication rate was calculated as the percentage of presented abstracts published as full-text publications in peer-reviewed journals. Data were analyzed by Cochran Armitage trend test. Differences in acceptance rate, abstracts published, study type, and contributor affiliations were considered significant at $P < .05$.

94 RESULTS

95 Of 220 abstracts submitted, 185 (84.1%) were accepted for presentation; of these, 164 were
 96 published in *CMRO*. The publication rate of research presented at ISMPP was 2.4% (4/164; Fig.
 97 1). Of the four abstracts published in full, only one was selected for oral presentation.

98

99 Most abstracts were presented as posters (133/164; 81.1%). Abstracts described mainly
 100 observational (119/164; 72.6%) or opinion-based (37/164; 22.6%) research; interventional
 101 research was rare (6/164; 3.7%). Over time, the number of abstracts in *CMRO* increased
 102 significantly (15 in 2009 to 36 in 2014; $P = .02$); there were no changes in acceptance rate ($P =$
 103 .44) or study type (observational $P = .52$, interventional $P = .62$, opinion $P = .82$). Abstracts were
 104 submitted by researchers from the US (453/581; 78.0%), Europe (103/581; 17.7%), and the Asia-
 105 Pacific region (65/581; 11.2%). Most research was conducted by medical communication
 106 agencies (91/164; 55.5%), rather than healthcare companies (38/164; 23.2%).

DISCUSSION AND CONCLUSIONS

Research from ISMPP Annual Meetings has rarely been published in peer-reviewed journals. The publication rate (2.4%) is approximately 25-fold lower compared with research presented at biomedical conferences (55.9%) (Scherer et al., 2015) and PRCs (60.5%) (Malički, von Elm & Marušić, 2014) (Fig. 1). For publication professionals to join editors and the peer-review community in the quest to drive evidence-based improvements in publication practices (Rennie & Flanagan, 2014), they need to “practice what they preach” – design, conduct, and publish meaningful and robust research. Doing so would help the broader research community in its quest to improve publication practices and enable Good Publication Practice guidelines (Battisti et al., 2015), which many publication professionals follow (Wager et al., 2014), to be based on evidence, rather than expert opinion. Our study has limitations (including focusing on ISMPP Annual Meetings), but reinforces that publication professionals, who plan and prepare thousands of peer-reviewed publications each year, should do more to contribute to evidence-based publication practices, including, and especially, their own.

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124 All authors participated in the research, were actively involved in preparing the manuscript,
125 provided approval for submission, and agree to be accountable for all aspects of the work in
126 ensuring that questions related to the accuracy or integrity of any part of the work are
127 appropriately investigated and resolved.

128
129 LC and KW had full access to all the data in the study and take responsibility for the integrity of
130 the data and the accuracy of the data analysis.

131
132 All authors are employees of Envision Pharma Group and members of not-for-profit associations
133 supporting ethical publication practices. SS, CK, LW, and KW are Certified Medical Publication
134 Professionals; KW serves on the ISMPP Board of Trustees.

135
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137
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140
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REFERENCES

- Battisti WP, Wager E, Baltzer L, Bridges D, Cairns A, Carswell CI, Citrome L, Gurr JA, Mooney LA, Moore BJ, Peña T, Sanes-Miller CH, Veitch K, Woolley KL, Yarker YE. 2015. Good Publication Practice for Communicating Company-Sponsored Medical Research: GPP3. *Annals of Internal Medicine* 163:461-464. DOI: 10.7326/M15-0288.
- Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG, Schulz KF; CONSORT Group. 2008. CONSORT for reporting randomised trials in journal and conference abstracts. *Lancet* 371:281-283. DOI: 10.1016/S0140-6736(07)61835-2.
- Malički M, von Elm E, Marušić A. 2014. Study design, publication outcome, and funding of research presented at international congresses on peer review and biomedical publication. *The Journal of the American Medical Association* 311:1065-1067. DOI: 10.1001/jama.2014.143.
- Rennie D, Flanagan A. 2014. Research on peer review and biomedical publication: furthering the quest to improve the quality of reporting. *The Journal of the American Medical Association* 311:1019-1020. DOI: 10.1001/jama.2014.1362.
- Scherer RW, Ugarte-Gil C, Schmucker C, Meerpohl JJ. 2015. Authors report lack of time as main reason for unpublished research presented at biomedical conferences: a systematic review. *Journal of Clinical Epidemiology* 68:803-810. DOI: 10.1016/j.jclinepi.2015.01.027.

165 Wager E, Woolley K, Adshead V, Cairns A, Fullam J, Gonzalez J, Grant T, Tortell S. 2014.
166 Awareness and enforcement of guidelines for publishing industry-sponsored medical research
167 among publication professionals: the Global Publication Survey. *British Medical Journal Open*.
168 4:e004780. DOI: 10.1136/bmjopen-2013-004780.

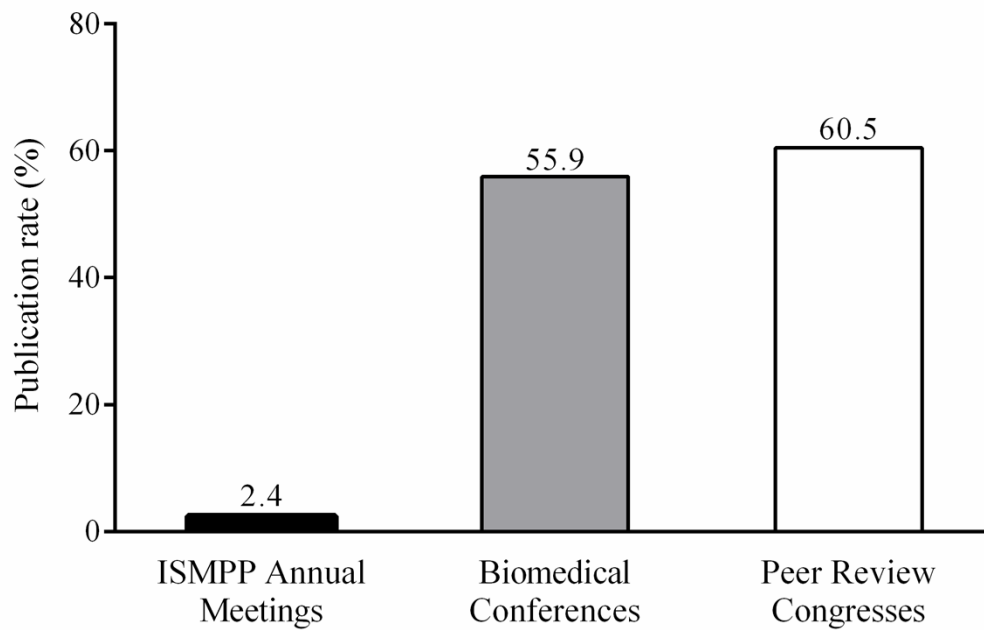
169 **FIGURE LEGEND**

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171 Figure 1. Low publication rates from publication professionals versus medical research

172 community. Abbreviation: ISMPP, International Society for Medical Publication Professionals.

173 Figure 1



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