Pharmacy resident research publication rates: A national and regional comparison

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Abstract

Objective: To determine the publication rate of pharmacy resident projects from 2004 to 2007, compare publication rates of abstracts from regional and national pharmacy conferences, and assess characteristics of published abstracts.

Design: A random sample of abstracts for residency years 2004–2007 was selected from the American College of Clinical Pharmacy (ACCP) Fall and Spring meetings and the regional resident conferences including: Alcalde, Great Lakes, Eastern States, Southeastern, Midwestern, and Western States. Based on an expected publication frequency of 10% and a 95% confidence interval, 161 national conference abstracts and 1335 regional conference abstracts were assessed for publication using a standardized strategy for searching for published articles in PubMed, International Pharmaceutical Abstracts, and Google Scholar.

Assessment: The overall publication rate of residency project abstracts presented at national and regional pharmacy meetings from 2004 to 2007 was 7.3%. The publication rate of abstracts presented at ACCP meetings was 13% while the rate of those at regional residency conferences was 6.6%. Among published abstracts, 74% had pharmacy residents as first author, 32% had pharmacy residents as corresponding authors, and 54% of publications were authored by a multidisciplinary team. Overall, 61% of these abstracts were published in peer-reviewed pharmacy journals, and 39% were published in peer-reviewed medical journals. Approximately 90% of articles were indexed in PubMed and the median time to publication was 24 months.

Conclusion: Abstracts presented at national pharmacy meetings were associated with higher publication rates when compared to regional meetings. Future studies should focus on identifying barriers to publication of pharmacy resident projects and strategies to overcome them.

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Keywords: Residents; Scholarship; Publications
rate of residency project abstracts presented at regional and limited.

on the speci present their research, but are typically optional depending meeting, provide additional opportunities for residents to conference. National meetings, such as the annual ACCP submit a formal abstract and present at a regional residency programs, and some PGY2 programs, require residents to complete a longitudinal residency project; however, publication in a peer-reviewed journal is not required. Residents are expected to take full ownership of the scholarship process through protocol development, institutional review board submission and approval, data collection and analysis, and dissemination of research findings.

While dissemination of clinical research results is essential for any discipline to thrive, it is especially important in pharmacy in order to distribute knowledge, improve patient care, as well as to better face the challenges of clinical pharmacy expansion, including obtaining provider status. Published work also serves as a voice for the profession to the public and other health care disciplines. As health care reform emphasizes the need for preventive care and optimal therapeutic outcomes, research in the areas of quality improvement, patient care, and medication safety is critically needed. It is expected that pharmacists will play a significant role in this effort through education and training of pharmacy students and residents as clinical researchers.

Pharmacy residents are afforded many opportunities to present their research findings at state, regional, and national meetings as poster and platform presentations. For example, most ASHP-accredited PGY1 residency programs, and some PGY2 programs, require residents to submit a formal abstract and present at a regional residency conference. National meetings, such as the annual ACCP meeting, provide additional opportunities for residents to present their research, but are typically optional depending on the specific residency program requirements. Although publication in a peer-reviewed journal is a goal for many residents, it is usually not required for completion of residency training. As a result, the literature that describes the rates of publication of complete research findings is limited.

To our knowledge, there are little data on the publication rate of residency project abstracts presented at regional and national meetings. McKelvey et al. identified a 16% publication rate among pharmacy resident projects presented at the Southeastern Pharmacy Residency Conference in 1981, 1991, and 2001. Olson et al. investigated the overall publication rate (6.3%) of pharmacy resident abstracts presented at the Western States Conference in 1995, 2000, and 2005. Additionally, Byerly et al. sought to determine the rate of publication of abstracts presented at 1994 ASHP Midyear Clinical Meeting and the 1994 ACCP Meeting and found rates of 11% and 33% respectively.

Rationale and objectives

The purpose of this study is to determine the publication rates of pharmacy resident research projects presented at national ACCP meetings and regional residency conferences from 2004 to 2007, compare publication rates of abstracts presented at these venues, and describe various characteristics of publications of pharmacy resident projects presented during the study time period.

Materials and methods

This article describes an institutional review board approved cross-sectional study. Abstracts presented at the national ACCP Fall or Spring Meeting in the resident category or at one of the six regional resident conferences (Table 1) for residency cycles 2003–2004, 2004–2005, 2005–2006, and 2006–2007 were eligible for study inclusion. The rate of publication within five years following abstract presentation was assessed. Since data collection concluded in February 2012, abstracts presented through 2007 were included in the analysis, based on an expected median lag time from abstract to publication of 45 months.

Meeting abstract booklets were obtained either electronically using publicly available websites or through direct contact with regional and national residency conference representatives. Resident abstracts from the ASHP Midyear meetings were unavailable for the study time period. All abstracts from ACCP meetings were included (n = 161). Because of the large number of eligible abstracts from the regional conferences (n = 5749), a random sampling of abstracts stratified by the six regional residency conferences (Alcalde, Eastern, Southeastern, Great Lakes, Midwest, and Western) was used to assure reasonable sample sizes within

<table>
<thead>
<tr>
<th>Conference</th>
<th>State representation</th>
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<tbody>
<tr>
<td>Alcalde or Southwest Leadership Conference</td>
<td>TX, but all states eligible to attend</td>
</tr>
<tr>
<td>Eastern States Conference</td>
<td>CT, DE, DC, ME, MD, MA, PA, NH, NJ, NY, RI, VT, VA, and WV</td>
</tr>
<tr>
<td>Great Lakes Pharmacy Resident Conference</td>
<td>IL, IN, OH, KY, MI, and WI</td>
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<tr>
<td>Midwest Pharmacy Resident Conference</td>
<td>AR, IA, KS, MN, MO, ND, NE, NM, OK, SD, and TX</td>
</tr>
<tr>
<td>Southeastern Pharmacy Residency Conference</td>
<td>AL, FL, GA, KY, LA, MS, NC, SC, TN, and PR</td>
</tr>
<tr>
<td>Western States Conference</td>
<td>AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, and WY</td>
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