

# Physician Assistant and Physician Assistant Student Exposure to and Perceptions of Pharmaceutical Representatives in the Clinical Setting: A Pilot Study at Wichita State University

Matthew A. Swanson\*, Cathryn Caputo\*, Timothy Quigley, Elizabeth Ablah

*Department of Physician Assistant, College of Health Professions*

**Abstract.** A physician assistant (PA) exercises considerable autonomy in diagnosing and treating illnesses, along with the responsibility of prescribing medication. In 2006, PAs transmitted approximately 286 million prescriptions.<sup>1</sup> Pharmaceutical companies thus market to physicians, medical students, PAs, and PA students to promote the use of their products. The purpose of this study was to fill a literature gap by conducting a survey that assessed WSU PA and PA student exposure to and perception of pharmaceutical representatives. Subjects completed a 45 question survey based upon a previous study among medical students at UCLA.<sup>2</sup> All respondents verified having at least one type of interaction with the pharmaceutical industry. A majority of respondents reported being less likely to be influenced by marketing strategies than would their colleagues, a finding similar to previous studies conducted on physicians and medical students. PAs and PA students are exposed to the same influences as their MD counterparts. This implies that interventions used for MDs should also be applied to PAs.

## 1. Introduction

Physicians have long been studied in regards to their interactions with the pharmaceutical industry. These studies have illuminated many problems including: making formulary requests for medications that rarely held important advantages over existing ones, irrational prescribing behavior, increasing prescription rate, and prescribing fewer generic and more expensive medications at no demonstrated advantage.<sup>3</sup> Studies also suggest problematic attitudes and habits of medical students in regards to their interactions including: thinking that their colleagues would be more influenced by pharmaceutical marketing than they would be themselves, receiving gifts less than \$50 yet thinking that such gifts were inappropriate, and eating a sponsored lunch even though believing that it was inappropriate.<sup>4</sup> These actions and attitudes have the potential to influence the quality of care received by patients.

In a survey completed in 2000 by Scott- Levin Associates, more than half of PAs polled reported that they saw more pharmaceutical representatives per week than their supervising physician.<sup>5</sup> However, after conducting a literature search, no research on PA perceptions and attitudes towards the pharmaceutical industry was found. Since current research has indicated that promotional activities can influence treatment decisions of MDs, residents, and medical students, perhaps these behaviors are also practiced by PAs. Medical students in a previous study indicated they did not feel adequately educated on pharmaceutical industry/medical professional interactions and suggested that possible guidance from their school would help improve appropriate interaction.<sup>6</sup> Similarly, interventions during a PA student's education may help alleviate some of these behaviors as well.

## 2. Methods and Results

For this pilot study, a survey was obtained with permission from previously published research that assessed interactions of first and second year medical students at UCLA with the pharmaceutical industry. Upon WSU Institutional Review Board approval, all WSU second year PA students and WSU postgraduate first year clinicians were invited to participate in a 45 item, anonymous, online survey through surveymonkey.com between May 2008 and June 2008. The survey contained questions relating to the following: evaluating PA opinions towards marketing strategies, frequency of exposure to pharmaceutical representatives, perceptions towards accepting pharmaceutical gifts, and self-reported influence on prescribing behaviors. Responses were available in multiple choice, likert scale, and open ended question format.

Of the 80 subjects invited to participate in the survey, 76% (61/80) responded. The response rate for the second year PA students was 92% (35/38) and 62% (26/42) for the WSU postgraduate first year clinicians. Participant ages

ranged from 24 to 51 years with a mean age of 28 years and a standard deviation of 6 years. Our sample was comprised of 82% (50/80) females and 18% (11/80) males.

Approximately 92% reported having received more than five small, non-educational gifts (pens, mugs, etc.), and half (51%) of respondents reported having received more than 15 small, non-educational gifts. Seventy-seven percent (77%) reported having eaten food provided by pharmaceutical reps more than 15 times. Thirty percent (30%) reported having received more than 15 journal reprints or glossy brochures, and 31% reported having received more than 15 drug samples. Although 92% of respondents reported being members of the AAPA and 51% reported being members of the KAPA, seventy-seven percent (77%) and eighty-five percent (85%) were unaware of the AAPA and KAPA policies, respectively. Less than half (44%) of respondents reported that their school/employer should teach them more about drug company-PA relationships.

Regarding influence on prescribing habits, fifty-six percent (56%) of respondents reported that their prescribing habits would *not* be affected by gifts from pharmaceutical companies. However, less than half (38%) of respondents reported that their colleagues would also be unaffected by the influence of gifts from the pharmaceutical industry. When ranking the appropriateness of gifts, ninety percent (90%) of respondents deemed that receiving a textbook or other educational material was appropriate, and 87% indicated that accepting a meal appropriate. One third (33%) of respondents reported that it was inappropriate to accept a gift worth less than \$50, and 79% reported that receiving a gift worth more than \$50 to be inappropriate.

### 3. Conclusions

This survey is the first glimpse into the influence of the pharmaceutical industry on PAs and PA students. It revealed results similar to previous studies done on physicians and medical students.

**Exposures-** A majority of the subjects did have interactions with the pharmaceutical industry. All respondents reported receiving food brought by pharmaceutical representatives, and approximately nine out of ten respondents also reported receiving more than five non-educational gifts. This indicates that any intervention implemented to decrease the number of physician-pharmaceutical industry interaction should also be applied to PAs.

**Attitudes-** Results revealed that PAs reported they thought they were less likely to be influenced by pharmaceutical influence than their colleagues. Fein et al. revealed that physicians and medical students reported similar attitudes regarding their prescribing practices. Inconsistency regarding the appropriateness of receiving gifts was evident. Ninety-two percent (92%) of respondents had accepted more than five non-educational gifts, however, one third of respondents deemed accepting a gift worth less than \$50 inappropriate. These actions reveal inconsistencies in medical provider opinion and behaviors they practice.

**Implications for Medical Education-** A large percent of respondents who are members of AAPA and/or KAPA were unfamiliar with the policies regarding appropriate interactions with the pharmaceutical industry. In fact, 52% wanted more education about these relationships, while 32% were undecided. This illustrates an educational opportunity for these policy makers to better inform their constituents.

[1] AAPA. Number of Patient Visits Made to Physician Assistants and Number of Medications Prescribed or Recommended by Physician Assistants in 2006. <http://www.aapa.org/research/06rx.pdf>. Accessed December 19, 2008.

[2] Fein EH, Vermillion ML, Uijtdehaage SHJ. Pre-clinical medical students' exposure to and attitudes toward pharmaceutical industry marketing. *Medical Education Online*. 2007;12.

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[4] Sierles FS, Brodkey AC, Cleary LM, et al. Medical students' exposure to and attitudes about drug company interactions. *Journal of the American Medical Association*. 2005;294(9):1034-1042.

[5] Green J. Drug reps targeting nonphysicians. *American Medical News*. March 27, 2000.

[6] Hyman PL, Hochman ME, Shaw JG, Steinman MA. Attitudes of preclinical and clinical medical students toward interactions with the pharmaceutical industry. *Academic Medicine*. 2007;82(1):94-99.