

(4) overall skills level. "Attention to patient comfort" and "draping" are reflections of attitudes and interpersonal skills, while "efficiency of exam" seems to be more a reflection of technical skills. The changes in each of the four items were not reported; only the composite score was reported. If PE checklist was evaluated based on technical skills, then the increment in the scored PE checklist could indicate enhances in "efficiency of exam" and/or "overall skill level." If so, the lack of change in PE process could actually indicate lower scores in "attention to patient comfort" and/or "draping," implying that this Web-based educational resource did not positively enhance students' attitude. Presenting the contribution of the individual components to the composite PE process score would help us know if this was the case or not.

PE consists not only of technical skills but also of interpersonal skills. Building good rapport with patients is vital for effective patient care. Emphasizing this in Web-based educational resources would enhance their evaluate.

Keiichiro Narumoto, MD
Department of Family Medicine
University of Pittsburgh

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Authors' Reply:

The authors agree with Dr Narumoto that "building good rapport with patients is vital for effective patient care" and appreciate the concern raised that Web-based video "might not address trainees' interpersonal skills, which are essential for a proper physical exam." We should point out that our initial hypothesis in improving student physical examination skills was directed at "standardizing" the technical approach to the elements

Item	2002 (n=77)*	2003 (n=81)*	2004 (n=80)**	2005 (n=81)**
Comfort	4.1 ± 0.5	4.3 ± 0.5	4.3 ± 0.6	4.4 ± 0.6
Efficiency	3.7 ± 0.8	3.8 ± 0.9	3.8 ± 1.0	4.2 ± 1.0
Draping	4.0 ± 0.7	3.8 ± 0.7	3.9 ± 0.9	4.1 ± 0.8
Skill level	3.9 ± 0.6	4.0 ± 0.8	3.6 ± 0.9	4.0 ± 0.7

* Prior to Web-based video

** Following introduction of Web-based video.

of PE technique for both teacher and student. To this end, as our PE Checklist results suggest, Web-based video may provide a suitable media.

Our omission of the PE process scores in the areas of (1) attention to patient comfort, (2) efficiency of exam, (3) draping, and (4) overall skills level was intentional, since this was not the focus of our study. However, it could be argued that "overall skills level" is a composite of both technical and qualitative aspects of student performance that is subjectively determined by standardized patient evaluators. These scores did not show any statistically significant improvement but do demonstrate a positive trend (Table 1). Relevant to Dr Narumoto's thoughtful question, these results do not demonstrate any diminution in the qualitative aspects of student physical examination performance following implementation of the Web-based video curriculum.

Eugene Orientale, Jr, MD
Lynn Kosowicz, MD
Carol Pfeiffer, PhD
University of Connecticut

New Research

Clinical Research in Family Medicine: Published Articles 2000 and 2005

To the Editor:

Research is an important part of the discipline of family medicine. However, whether or not family physicians are productive in research remains unclear. Few family physicians are funded by the National Institutes of Health (NIH),¹ faculty members of departments have produced an average of one scholarly product per year,² only half of residency programs "produced any nationally recognized research over a 3-year period," and the vast majority of programs do not have a single faculty with adequate protected time for research.³

Conversely, the North American Primary Care Research Group (NAPCRG), the leading family medicine research organization, is thriving, and Pathman et al's research concluded, "Family medicine's research enterprise in the US is larger and more productive than is generally recognized, and it is growing."⁴

Our purpose was to measure clinical research productivity of family physicians by evaluating published research articles from 2005 and comparing this productivity to 2000.⁵ Clinical or patient-oriented research is most relevant

to the practice of family medicine, basically a clinical specialty. We postulated that this study would provide a valuable gauge to the state of family medicine research and whether our own research guides the way we practice. We defined "Clinical Research" as the study of actual human subjects or the records of actual human patients or theoretical models that deal primarily with patient care or decisions that affect patients directly.

Methods

We retrieved clinical research papers published in one of the four leading US family medicine journals or published in one of 16 relevant, leading (high impact factor) non-family medicine journals and with at least one family medicine author. Two investigators independently assessed the articles for research design, relevance, and validity.

Results

We found 105 family medicine articles in 2005, compared with 135 in 2000. Of these, 55.2% of the 2005 articles were published in non-family medicine journals (compared with just 27.4% in 2000). The total number of randomized

controlled trials was the same in 2005 (13) as in 2000. There were 15 articles in 2005 of secondary analysis of existing databases versus none in 2000. There were fewer POEMS (Patient Oriented Evidence That Matters) (14) in 2005 than in 2000 (19).

Discussion

As measured by published clinical research articles in leading journals relevant to family physicians, research output in 2005 was actually lower than in 2000. Quality, as measured by research design and validity, did not increase over the same time period. To improve research productivity, it may be time to develop professional researchers in selected family medicine programs⁶ and expand or create another Graham Center focusing on clinical research.

Joel Merenstein, MD

Goutham Rao, MD

Department of Family Medicine

University of Pittsburgh

Steven Wolfe, DO, MPH

The Washington Hospital Family

Medicine Residency Program

Washington Family Practice

Canonsburg, Pa

Jacqueline Weaver-Agostoni, DO, MPH

UPMC Shadyside Family Medicine

Residency Program

Pittsburgh, Pa

Corresponding Author: Address correspondence to Dr Merenstein, UPMC St. Margaret, 3937 Butler Street, Pittsburgh, PA 15201. 412-622-7343. Fax: 412-621-8235. merensteinjh@upmc.edu.

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