



A Partnership Odyssey: Understanding the Impact of Journal Based CME on Physician Behavior



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A Partnership Odyssey: Understanding the Impact of Journal Based CME on Physician Behavior

Jeanne G. Cole, MS

Managing Director

Office of CME

Jefferson Medical College

Thomas C. Pizor

Former Vice President

Group Publisher

Medical Economics Company

Beth E. Brillinger

CME Specialist

Office of CME

Jefferson Medical College

Timothy P. Brigham, PhD

Associate Dean for Graduate and
Continuing Medical Education

Office of CME

Jefferson Medical College

Background

Medical literature is cited as the primary source of information for physicians (PERQ/HCI June 1998). While certified journal CME is a relatively low percentage of the total certified activities in any given year, the ACCME reports an increase in the number of certified journal based CME activities from 1998 to 1999.

	FY99	FY98
☞ Activities	2.0%	0.09%
☞ Hours	0.9%	0.06%
☞ Physician Participants	6.7%	5.7 %
☞ Total Participants	5.5%	4.3%

Information on the effectiveness of Journal CME as an educational activity and its impact on physician behavior is sparse. Frequently the design of journal based CME includes a set of objectives, the article and its accompanying figures and tables, a content quiz based on the article, and standard evaluation questions.



Background

Jefferson Medical College and the Contemporary Group Journals of Medical Economics designed their journal CME with the desired outcome of impacting physician behavior.

The evaluation mechanism for the journal CME emphasizes the participant's response to the information.

There are three journals published by Medical Economics that carry Jefferson Medical College certification under a joint sponsor agreement:

- ☛ Contemporary Pediatrics
- ☛ Contemporary OB/GYN
- ☛ Contemporary Urology

Participants choosing to submit requests for CME are expected to:

- ☛ read the article
- ☛ reflect on the information in terms of their own practice, and
- ☛ complete a questionnaire that attempts to examine what type of change the participant might make in his/her practice as a result of the information in the article. In addition, required evaluation questions are asked.

These data are collected in a database along with registration data.



Background

The Office of CME at Jefferson Medical College focused the evaluation process on outcomes to examine whether or not the participants anticipated making changes as indicated on their CME request and evaluation forms.

The specific questions of interest from the initial evaluation form are:

- ☞ Rate the overall effectiveness of this CME activity.
- ☞ Which of the following best describes a change you might consider making in your practice as a result of something you learned in this article?
 - A: Slightly modify what I do
 - B: Make a major change in what I do
 - C: Follow a new procedure
 - D: Adapt a procedure I use
 - E: None of the above, but some change
 - F: Not considering any changes
- ☞ How committed are you to making these changes?
- ☞ What change(s) are you considering?

We were interested in finding out if physician readers participating in these CME activities did make the changes they initially indicated

In addition, we wanted to examine whether or not it was feasible to develop a standard approach to conducting follow up studies on activities with similar outcomes expectations. Therefore, we developed a follow up survey to look at these questions



The Questions

WHAT DID WE WANT TO FIND OUT?

Logistics oriented information

- ☞ Will people return a follow up questionnaire w/o incentive?
- ☞ What questions should we be asking?
- ☞ Is it feasible for our office to conduct this type of study?
- ☞ How can we refine the tools, methods, and/or office procedures to make this efficient?
- ☞ What are the appropriate statistics to apply?

Outcome oriented information

- ☞ Did people actually make the changes they indicated on their initial form (did they make other changes in lieu of or in addition to these)?
- ☞ What else did they do with the information?
- ☞ Given the passage of time, did they still believe the article was effective CME?
- ☞ Do physicians make changes based on info found in journal articles, and how can we demonstrate it?



Design

A pilot study was designed to address these questions.

A follow up survey was sent to a sample of respondents from the December 1999 and January 2000 issues of the three journals. Selected questions from the initial evaluation were repeated on the follow up instrument, and other questions were added to it.

The follow up survey instrument developed in the Office of CME was reviewed by the CME Editor of each journal, by a physician member of the CME Committee, and by the Associate Dean for Graduate and Continuing Medical Education.

The initial mailing of the follow up survey occurred in May 2000; a reminder mailing to non-responders was done in July 2000.



Design

The Follow Up Questions:

- ✔ Did you make the changes in your practice as a result of something you learned from this article?
- ✔ Which of the following best represents your implementation of this change (not at all, started but not completed, mostly complete, complete)?
- ✔ Please describe any other changes you have made as a result of something you learned from this article?
- ✔ Whether or not you have made a change, please rate the usefulness of this article to your current practice (very useful, somewhat useful, useful, not useful)
- ✔ Has your decision to change or to try to change this practice behavior influenced any of your colleagues in your practice environment to make a similar change?
- ✔ Did you look for other resources on this topic (other articles, Internet, etc)?
- ✔ Was this journal article an effective learning tool for you?

Methods

Criteria

- 20 participants selected from the Dec 99 issues of each journal to receive follow up survey
- 20 participants selected from the Jan 00 issues of each journal to receive follow up survey
- n=120 (120/1539 = 7.8%)
- Stratified by type of change indicated:
 - A: Slightly modify what I do
 - B: Make a major change in what I do
 - C: Follow a new procedure
 - D: Adapt a procedure I use
 - Participants randomly selected from each of these 4 groups
- Each selected participant received
 - Personalized letter with a brief explanation of the purpose
 - The survey instrument
 - His/her original response form as submitted
 - Participants in the December 1999 group also received a copy of the article that had been certified for CME; Participants in the January 2000 group did not receive a copy of the article.

Responses were accepted by fax or regular mail.

Responses received were added to an Excel spreadsheet.

Non-responders were sent a second copy of the follow up packet to increase the response rate.

No incentive was offered to participate.



Methods

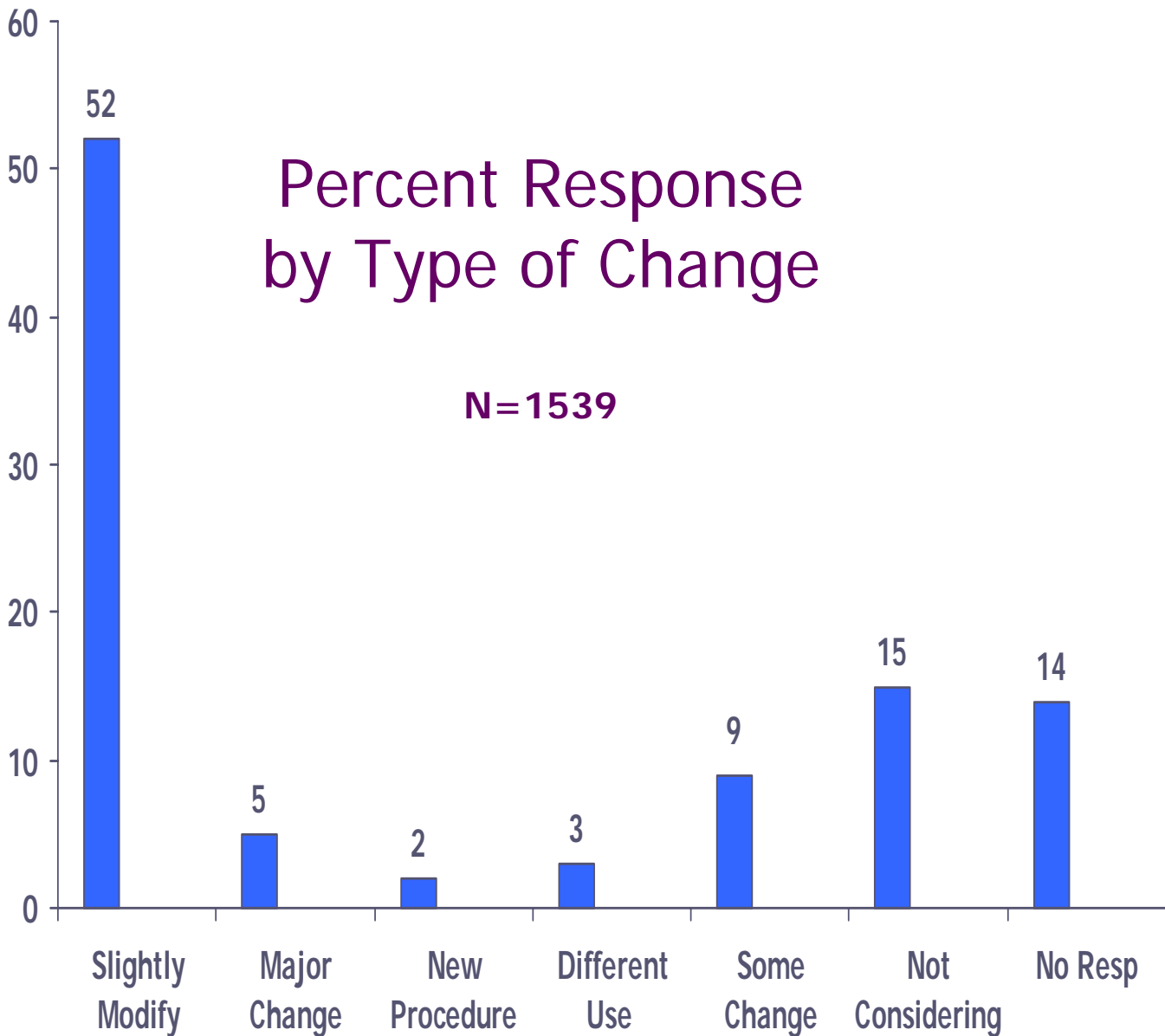
Basic statistical analysis was applied to the data received:

- ✔ Rate of return of responses
- ✔ Average responses by journal and month
- ✔ Average responses by journal combining months
- ✔ Summary responses across all journals and issues
- ✔ Years in practice

Comparisons between journals were made on the following points

- ✔ Original effectiveness rating
- ✔ Commitment to change
- ✔ Changes made
- ✔ Types of changes made
- ✔ Other reported behaviors

Results From the Initial Evaluation



Frequency of response from all Journal CME requests for months of Dec 99 and Jan 00

Results

Average response rate to the Follow Up

62%

Peds	55%
OB	55%
Urol	75%

Average Years in Practice from Follow Up

14.3

Peds	9.6
OB	16.7
Urol	16.7

Average Effectiveness Score on Evaluation

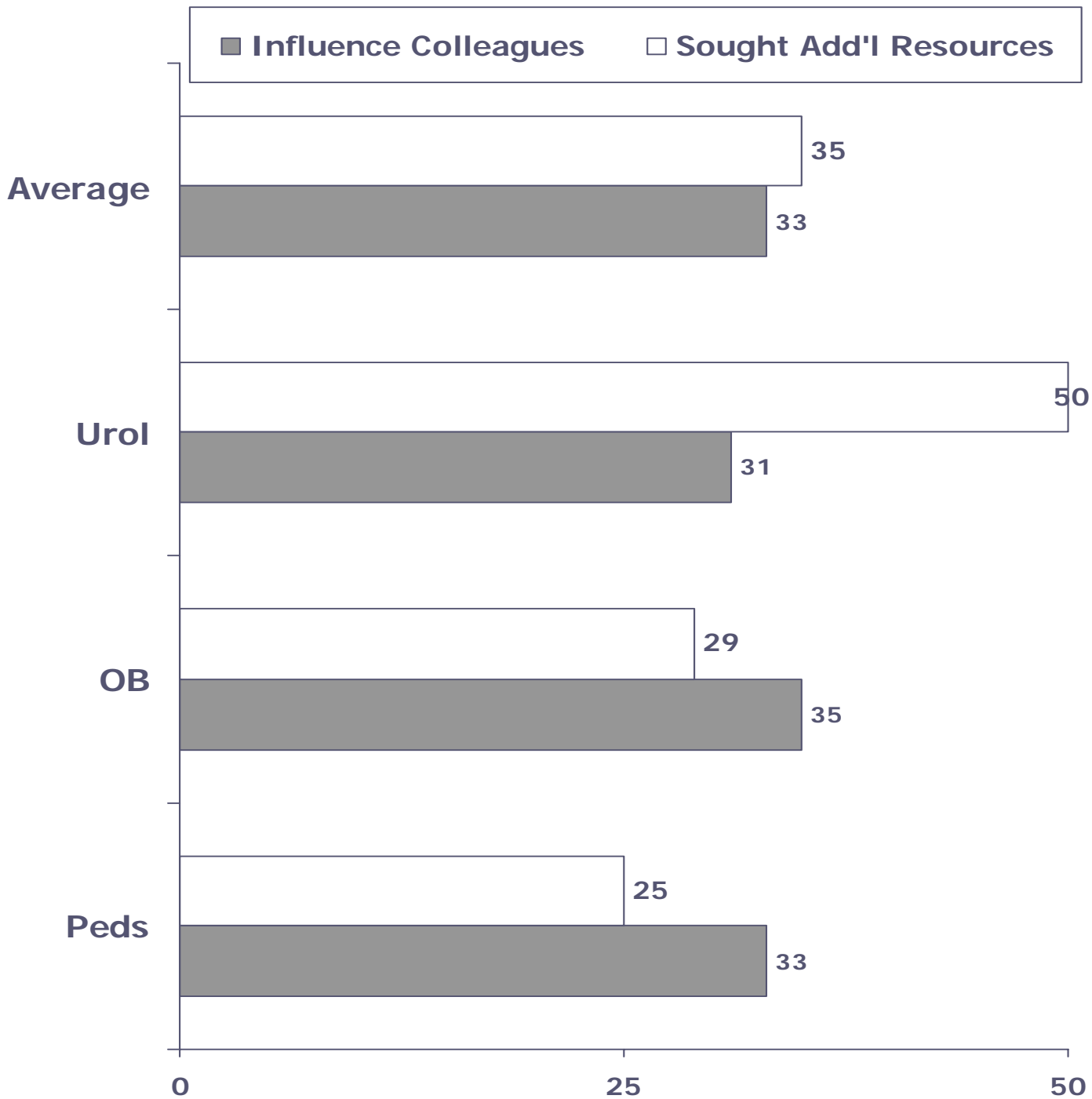
All 1539 initial requests	4.27
All 120 selected for resurvey	4.24
All 74 respondents from follow up	4.24

Average Commitment to Change Score on Evaluation

All 1539 initial requests	4.24
All 120 selected for resurvey	4.23
All 74 respondents from follow up	4.14

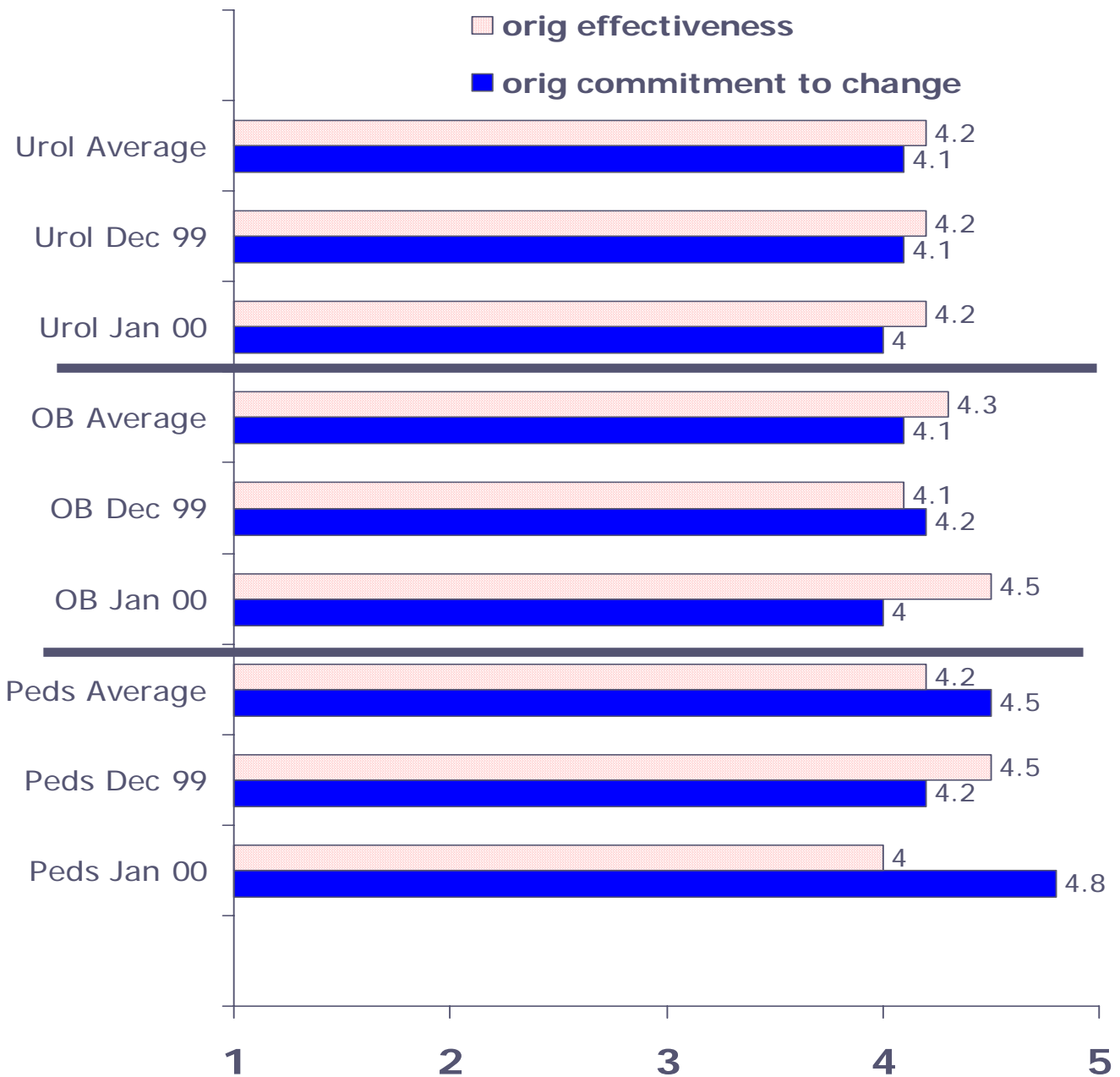
Results From the Follow up Study Respondents

Other Reported Behaviors (% reporting YES)



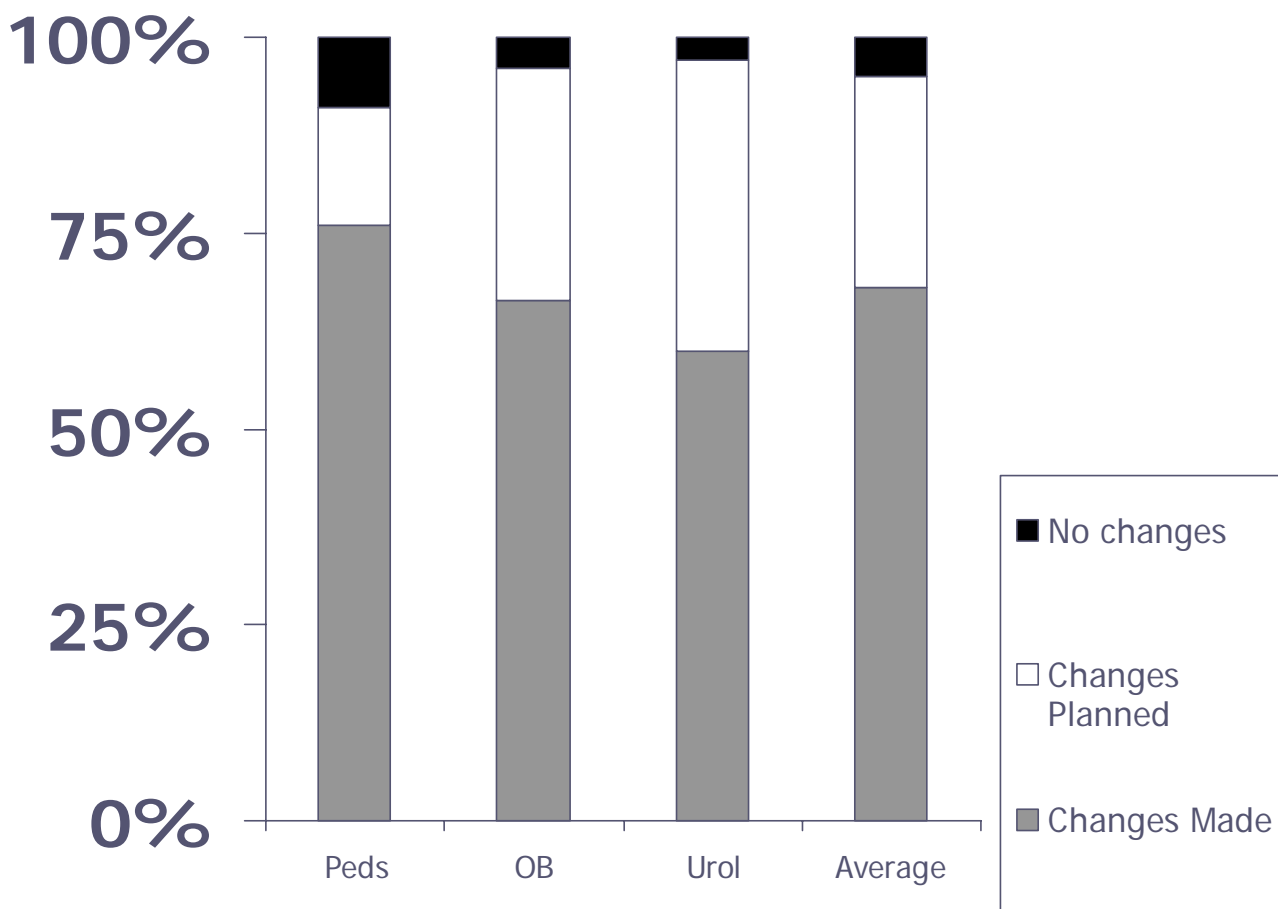
Results

Initial Scores for the Follow up Study Pool



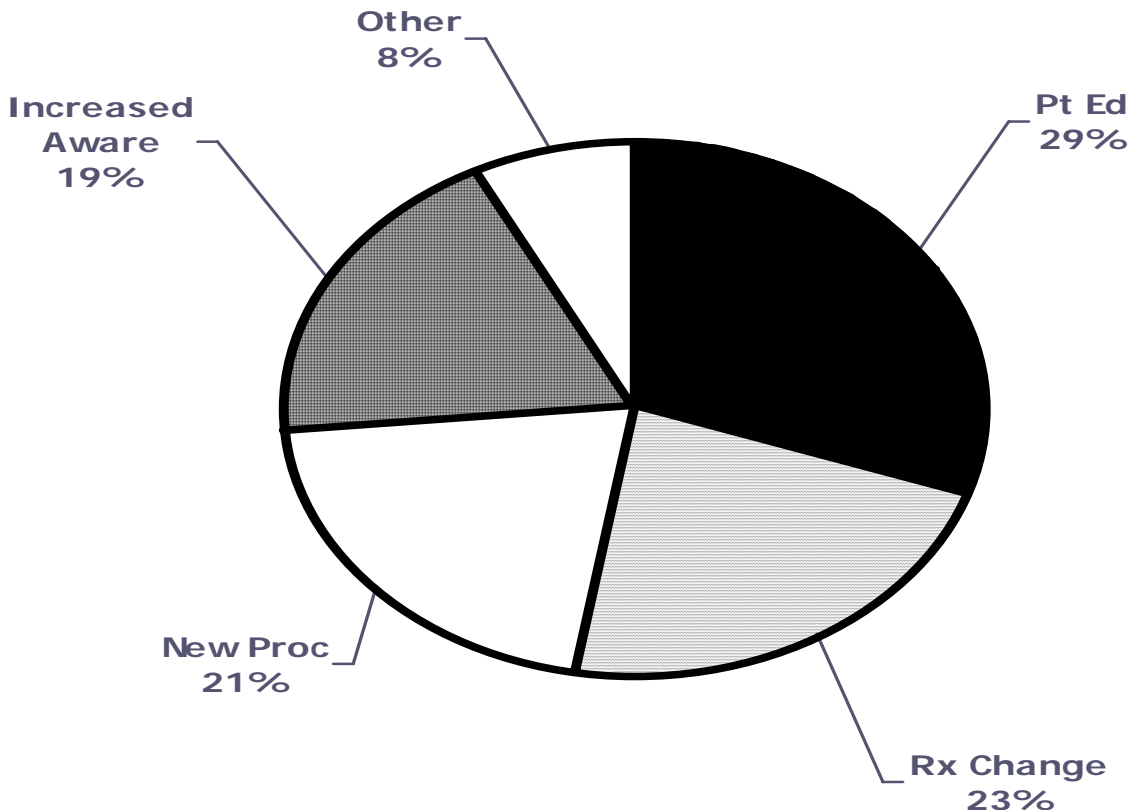
Results From the Follow up Study Respondents

% Follow up Respondents Who Implemented Changes



Results From the Follow up Study Respondents

64% of respondents shared a written description of change implemented





Discussion

Initial evaluation results for the two months of the Contemporary Journals that carry Jefferson Medical College CME credit indicated that the readers submitting for CME were both influenced to change their practice behaviors (over 60% of respondents indicated they would consider some type of change) and were COMMITTED to making a change, average commitment to change of 4.23/5.0 (range 4.1-4.5).

The study sample selected (120/1539) closely matched this profile with a similar commitment to change (4.23). Additionally, both groups had similar ratings for “overall effectiveness of the CME activity” of 4.3 and 4.2, respectively. The respondents to the follow up study had a slightly lower commitment to change score of 4.14 on their initial evaluation forms. However, on average, 67% had instituted a change.



Discussion

Among the different specialties studied (pediatrics, OB/GYN, and urologists) the pediatricians reported higher commitment to change scores (4.5) as well as higher reports of changes made (76%). They were also more likely to describe the type of changes they made.

Over two-thirds (67%) of the OB/GYNs reported implementing changes. Just under two-thirds of urologists (60%) reported making changes as well. Over half of both of these groups (57% and 58%) provided descriptions of changes.

The urologists were more likely to seek out additional information on the topics presented in the journal articles (50% vs. 25 and 29% for the pediatricians and OB/GYNs respectively). Approximately 1/3 reported that their change influenced colleagues to make similar changes (Average = 33%, Range = 31-35%).



Discussion

The willingness of participants to share the types of changes that were made assisted in the analysis. In adult education, the presence of a single intervention can seldom be realistically shown as a direct cause to an effect.

Changes indicated were practical in nature, and had direct impact on patient care – either through patient education avenues (several respondents spoke of adapting information from the articles into handouts for patients) or in changes in prescription writing behaviors (either increasing or reducing use of certain agents in given disease states).

In addition, increased awareness of an issue was cited by 19% of those providing a written comment. For those physicians, the articles may serve as a “prelude to change” indication: recognizing an issue is important can be a first step in understanding a need to change.



Discussion

Of particular encouragement to the Office of CME was the indication of follow up study respondents that after the lapse of 6 to 9 months since the articles being studied were published all the participants (100%) continued to rate them as effective learning tools.

There were some differences in responses between the December 99 group (which received a copy of the actual article being studied) vs. the January 00 group (which did not receive a copy of the article). The December groups consistently reported higher percentages of changes made, and appear more likely to have sought additional information. Whether or not the difference for either of these two items are attributable to the inclusion of a copy of the article is unclear.



Conclusions

We undertook this study to examine two basic questions:

- Do physician-readers of the Contemporary Journals that carry CME credit make changes in practice based on the articles they read?
- and
- Would the physician-readers of these journals be willing to participate in follow up surveys?

While small, this pilot study does demonstrate that for the groups of physicians studied, the certified CME articles in the Contemporary Journals had an impact on the practice behavior of the readers.

The 62% return rate of the follow up survey indicates an interest in this population to contribute to research in journal based CME.