Residency Education

Conference Formats in Family Practice Residencies

Susan J. Hill, MD; Dennis J. Butler, PhD; Clare Guse, MS

Background: *This study was intended to establish national baseline data of the current structure of conferences at family practice residencies and to determine if there are differences in conference formats among types of residencies.* Methods: *An author-developed survey was mailed to 331 programs stratified by type and randomly selected. Statistical analysis included chi-square tests and non-parametric tests.* Results: *The response rate was 84%. The average time devoted to lectures was 4.5 hours a week, with the noon hour the most common time. Most speakers were from within the program, and community-based family physicians were rarely present. Structural changes were frequent.* Conclusions: *Results indicate that a variety of formats are implemented for meeting Residency Review Committee requirements in the structure of family practice residencies' conferences. Program settings do influence how conferences are structured. More research is needed on this neglected area of formal resident education.*

(Fam Med 2000;32(6):417-21.)

Educational conferences are a required part of the curriculum for family practice residencies. Prior to 1997, the guidelines were specific, with requirements for conferences to be held at least twice per week, to be conducted by persons knowledgeable in the topics, to include residents as cases presenters, and that conferences designed solely for the medical staff were inadequate.[1] However, current Accreditation Council for Graduate Medical Education (ACGME) guidelines are flexible, simply stating that conferences must be designed for family practice residents and support the core curriculum of the program.

Conferences account for a significant amount of training time and can require extensive faculty and administrative effort to coordinate. Yet, as time-consuming as they are, the medical literature contains little information about how residency conferences are organized. What little literature exists includes articles about the development of teaching skills in lectures[2] and reports of innovative approaches to conferences, such as blocks of conference time[3] and shorter lecture length.[4] The educational value of lectures as a teaching method has also been challenged[5-9] and has recently been shown to have minimal effect on the practicing physician's behavior or health care outcomes.[10] The applicability of these latter findings to residency training is unclear. The transmittal of knowledge remains a primary goal of residency, and residents are in a different developmental stage than practicing physicians.

Our study collected national data about the current structure of conferences at family practice residencies. Our hypothesis was that significant differences would be found when comparing type of residency (eg, community based, medical school based), the physical location of conferences, or the time of day of the conferences. The findings are intended to provide normative and comparative data that will enable family practice residencies to evaluate and strengthen their conference organization.

Methods

We developed a survey that requested information from program directors regarding the days and hours per week and the length, location, and time of day of conferences. Opinions were elicited regarding the ease of conference organization and measured on a 5-point Likert scale. Additional items were designed to iden-

From the Medical College of Wisconsin, Milwaukee.

tify the professional background of the presenters and determine the influence of pharmaceutical firms. Changes in conference formats were also assessed, as were regional differences.

Family practice residencies were stratified by type of program: 1) community based, medical school affiliated, 2) community based, medical school administered, 3) community based, unaffiliated, 4) medical school based, and 5) military. Sample sizes within each stratum were determined using the methods for proportions found in Rea,[11] with assumption of a 50% response rate. Because the required survey sample in each stratum (except for community-based, medical school-affiliated programs) exceeded the number of programs in the stratum, surveys were sent to all the programs in those strata. For the community-based, medical school-affiliated programs, a random sample was taken. Through this process, 331 programs were selected. Community-based, medical school-affiliated and community-based, medical school-administered programs were later combined for analysis because of the similarity of their administrative structure.

Questionnaires were mailed in February 1998. A second mailing to nonrespondents was completed in April 1998.

Categorical data were analyzed using Pearson's chi-square tests or exact chi-square tests in the instances of small expected cell values. Kruskal-Wallis non-parametric tests and Wilcoxon rank sum tests were used for grouped continuous data. Correlation coefficients were used to examine the relationship between two continuous variables. All analyses were performed with the Stata 5.0® statistical computer software package (StataCorp, Stata Statistical Software: Release 5.0, College Station, Tex, Stata Corporation, 1997).

Results

Response—Two hundred seventy-nine usable surveys were returned, for a response rate of 84%. Military programs had the highest response rate at 92%, while medical school-based programs provided the lowest response rate at 79%. These responses resulted in an adequate sample size for estimating percentages with a confidence interval of ±10% or narrower in each stratum. All respondents reported scheduling conferences with assigned topics designed specifically for the family practice residents.

Hours—Across all programs and types, the average time devoted to lectures was 4.5 hours per week (range 1–15, median 4.0), and the most common length of each lecture was 60 minutes (mean 54.9). There was no significant difference among the types of programs for lecture length.

Days—The mean number of lecture days per week was 3.2 days (median 3.0 days) (Table 1). When comparing types of programs, medical school-based programs devoted the fewest number of days per week to lectures (2.2 days), which was significantly fewer than any other type of program (P<.001).

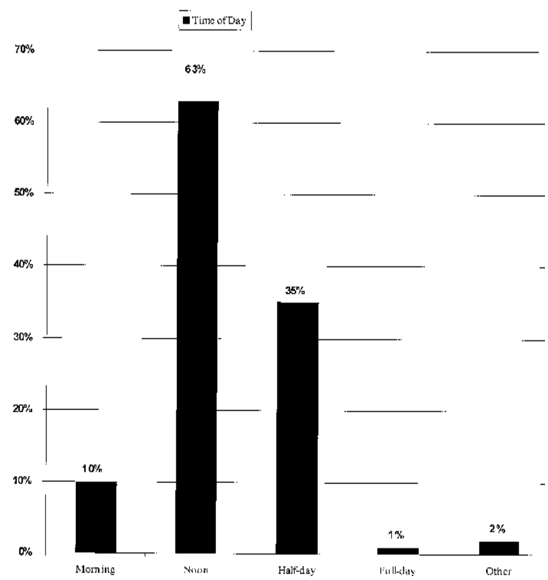
Table 1

Conference Frequency by Days Per Week

Days Per Week	Percent of Programs
≤1	21%
2–2.5	11%
3–3.5	22%
4–4.5	16%
5	30%

Figure 1

When Conferences Are Held (Not Mutually Exclusive)

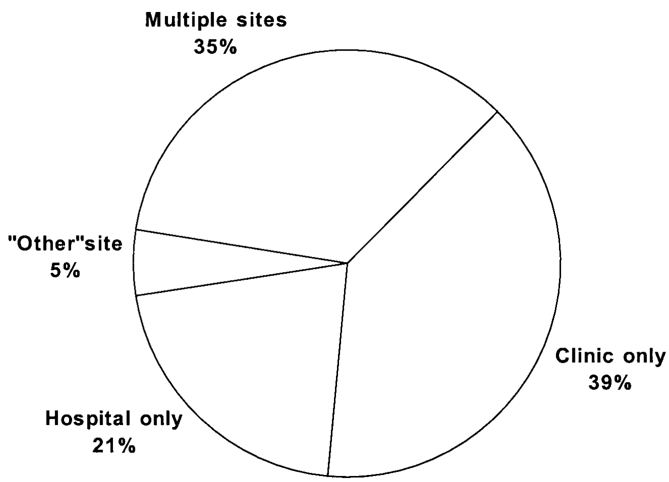


Timing—The noon hour is the most popular time for lectures (63%). Programs may have conferences at more than one time, such as a combination of noon and morning conferences. One hundred of the respondent programs use some type of block lecture format, either full or half day, but full-day blocks are uncommon (Figure 1). Eighty-one programs (29%) use block formats exclusively.

About half of the respondents disagreed that it was better from an organizational (46%) or educational (55%) standpoint to have conference blocks. However,

Figure 2

Where Conferences Are Held



programs that use a block format were found to significantly endorse the organizational (95% agreement) and educational (63% agreement) value of this format (P<.001, respectively).

Location—Conference locations included the family practice clinic, hospital, alternate sites, or a combination of these (Figure 2). There was a statistically significant difference among the types of programs (P< .001). Medical school-based programs tend to hold their conferences only at a clinic, while military programs are more likely to hold their conferences at the hospital. Community-based programs, whether affiliated or not, are more likely to use multiple sites. Alternate sites included nursing home, university conference center, educational building adjacent to hospital, health services library, and medical school. Lecture location was related to the number of hours and days used for lectures: programs with multiple lecture sites had the greatest number of hours for lectures per week (mean 5.3 hours, P<.001) and held them over more days (mean 3.7 days, P<.001).

The vast majority of programs had few problems with rooms, finding them easy to reserve and of adequate size and comfort. Lecture location or type of program were not related to difficulty with rooms.

Speakers—Speakers came from multiple backgrounds, but the majority (50%–62% among program types) came from within the family practice residency programs, eg, faculty and residents. "Other" physicians (non-family physician specialists) also made up a large portion (42%) of speakers overall. Only a fraction of lectures (7% on average) were presented by community-based family physicians. This number was similar to the use (6%) of non-MD nonfaculty (eg, dietitians, nurses, and physical therapists) (Figure 3). Military and medical school-based programs used community-based family physicians the least at 3%, but this difference was not statistically significant. Medical school-based programs used significantly fewer specialty physicians, compared with community-based, medical school-affiliated/administered programs (P=.001) and compared with all other types of programs combined (P=.003).

Pharmaceutical Companies—Drug company sponsorship was relatively low at an average of 6% of lectures. Medical school-based programs reported pharmaceutical-sponsored lectures significantly less often than military programs (P=.003). Six programs reported 50% or more of their conferences were drug company sponsored. Programs in the northeast United States were significantly less likely than programs in any other region to rely on drug company sponsorship of lectures.

Figure 3

Conferences Speakers

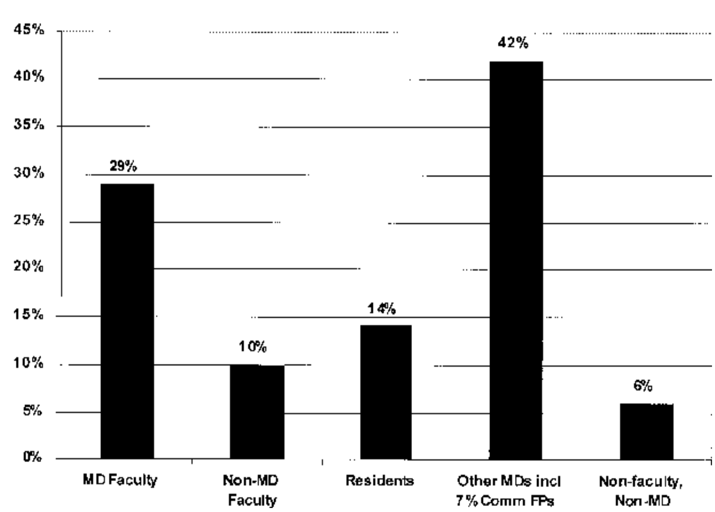


Table 2

Reasons for Changing Conference Formats

Developmental issues	1. New, expanded program 2. Change of conference coordinator 3. Meet Residency Review Committee requirements 4. Change in evaluation process
Attendance issues	1. Poor attendance 2. Change in location 3. Allow family medicine faculty to attend 4. Relieve residents from hospital duties
Content issues	1. Add specific topics or specialty areas 2. Increase family medicine focus 3. Increase case-based teaching 4. Change types of presenters 5. Cover more topics 6. Work with specific groups 7. Add themes or procedures 8. Increase hands-on aspects

Changes—Over the last 2 years, 42% of programs have made structural changes in their lecture format. The reasons given distilled into three main categories: residency program development, attendance issues, and curricular issues (Table 2). No significant difference was found between types of programs on this variable.

Discussion

The value of didactic conferences has been questioned, yet they are required and therefore a marker of the formal educational component in residency training. This study was intended to describe the length, days, timing, location, and speakers that make up these conferences. The importance of the data from this study is supported by a response rate of 84% from a systematically chosen stratified random sample and requests for a summary of the results by 67% of the programs.

Family practice residencies devote more than a half day of resident time per week to conferences specifically designed for residents, and the structure of these conferences ranges from a lecture a day to a day of lectures. It is conceivable that some systems are more efficient, practical, comprehensive, or effective, but our survey indicates that no ideal system has been identified. Given the volume of time dedicated to this portion of resident education, we conclude that conference teaching is a neglected area of family practice residency education research.

Conferences at medical school-based programs were found to be fundamentally different from those at all other programs, in that medical school-based programs allotted significantly fewer days and hours to lectures each week and used more speakers from within the program. One possible reason for this difference is that their residents may attend lectures from other departments, which are customary and readily available at a medical school/medical center. While educational, these presentations would not meet this survey's or ACGME's definition of conferences "designed specifically for the family practice residents." The availability of other specialty conferences may also explain the increased use of speakers internal to the program at medical school-based programs, since most of the specialist presentations will be done in other venues.

Block formats have been enthusiastically proposed as a viable alternative to the 1-hour conference.[3] Although block formats were not endorsed in general, those who use them were overwhelmingly positive about their educational value and ease of organization. Future investigations into this format could help clarify how blocks affect quality, content, and attendance and if they are more appropriate in certain circumstances (eg, procedural skills versus knowledge).

Due to the establishment of family practice as a distinct specialty in 1969, there is now a large group of well-experienced, residency-trained family physicians who have been practicing in the community for decades. Our investigation reveals that these physicians are rarely used in didactic efforts. The infrequent use of community-based family physicians as speakers at the residency level parallels the results of a study of family medicine CME grand rounds, which found only 10% of lectures were given by this same group.[12] Why are nearly 40% of conferences presented by other specialists? The risks of relying on non-family physicians include presentations that are too detailed, impractical to primary care, or that are intended to limit the scope of practice of primary care. If the reason is financial (specialists are willing to talk because it generates referrals), then perhaps programs should examine some form of speaker compensation for family physician speakers. Family practice programs must apply this finding to their setting. Given the rich experience of practicing family physicians and the difference in philosophy between specialists and generalists, programs may consider using more primary care physicians as speakers.

Conclusions

Conferences are a required component of residency education and involve extensive planning and effort. More than a half day per week is devoted to the formal curriculum, and countless additional hours are invested in organizing and arranging presentations for the more than 10,000 family practice residents in the United States. Although primarily descriptive, these results provide important baseline data regarding conference structure. Considering the amount of time and effort dedicated to conferences, the goals and objectives of didactic conferences need to be clarified and the selection of topics and speakers systematically evaluated. Further research is necessary to determine if such goals and objectives are being met and how the quality of this part of residency curriculum is being assessed.

Correspondence: Address correspondence to Dr Hill, Medical College of Wisconsin, Columbia Family Practice Residency, 210 West Capitol Dr, Milwaukee, WI 53212. 414-961-1810. Fax: 414-967-2124. E-mail: shill@mcw.edu.

References

1. American Medical Association. Graduate medical education directory, Chicago: American Medical Association, 1994–1995.
2. Whitman NA. There is no gene for good teaching: A handbook on lecturing for medical teachers. Salt Lake City: University of Utah School of Medicine, 1982.
3. Zweifler J, Ringel M, Maudlin RK, Blossom HJ. Extended educational sessions at three family practice residency programs. Acad Med 1996;71(10):1059-63.
4. Bayner CL. Learning as a function of lecture length. Fam Med 1995;27(6):379-82.
5. Cottrell K. Innovations making CME more clinically relevant, attractive. CMAJ 1997;156(10):1449-51.
6. Warner S, Williams D, Lukman R, et al. Classroom lectures do not influence family practice residents' learning. Acad Med 1998;73(3):347-8.
7. Gunzburger L. US medical schools' valuing of curriculum time: self-directed learning versus lectures. Acad Med 1993;68(9):700-2.
8. Falvo D, Smaga S, Brenner J, Tippy P. Lecture versus role modeling: a comparison of educational programs to enhance residents' ability to communicate with patients about HIV. Teaching and Learning in Medicine 1991;3(4):227-31.
9. Greenberg L, Jewett L. The impact of two teaching techniques on physicians' knowledge and performance. J Med Educ 1985;60(5):390-6.
10. Davis D, O'Brien M, Freemantle N, et al. Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? JAMA 1999;282(9):867-74.
11. Rea LM, Parker RA. Designing and conducting survey research: a comprehensive guide. San Francisco: Jossey-Bass Publishers, 1992.
12. Lewkonia R, Sosnowski M, Murray F. Hospital grand rounds in family medicine. content and educational structure. Canadian Family Physician 1996;42:301-6.