INT'L. J. PSYCHIATRY IN MEDICINE, Vol. 45(4) 345-356, 2013

FACULTY DEVELOPMENT ACTIVITIES IN FAMILY MEDICINE: IN SEARCH OF INNOVATION

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ABSTRACT

Objective: To describe the Accreditation Council for Graduate Medical Education's (ACGME) faculty development requirements, explore the range of faculty development activities and support currently used by family medicine residencies to meet these requirements, and describe one innovative approach to satisfy this need. *Method:* An electronic survey of faculty development activities and support offered to faculty by residency programs was sent to a random sample of 40 medical school and community based family medicine residency programs across the United States. Data were examined using *t*-tests, Fisher's exact tests, and Analysis of Variance. *Results:* Faculty development, beyond traditional clinical CME, was strongly encouraged or required by a large proportion of the sample (73%). Only 58% of programs reported having discussed the ACGME's faculty development component areas (clinical, educational, administrative, leadership, research, and behavioral). In each component area except the "clinical" area, the absence of discussing the ACGME component areas with residency faculty was associated with fewer faculty development activities and support being offered by the program. *Conclusions:* These results, although preliminary,

Manuscript based on material presented at the 33rd Forum for Behavioral Science Education in Family Medicine, 2012.

doi: http://dx.doi.org/10.2190/PM.45.4.e
http://baywood.com

suggest that family medicine residency programs may value and encourage faculty development. The majority of programs use traditional activities and strategies such as CME, faculty meetings, faculty conferences and workshops; and a smaller number of programs are exploring the utility of mentoring programs, faculty discussion groups, and technology based learning systems. The challenge is to develop faculty development activities tailored to individual program and faculty needs and resources.
(*Int'l. J. Psychiatry in Medicine* 2013;45:345-356)

Key Words: faculty, development, teaching, continuing medical education

INTRODUCTION

As teachers of family medicine, we are encouraged to participate in faculty development to further our knowledge and skills in the art and science of teaching and learning. In the United States, the Accreditation Council for Graduate Medical Education (ACGME) specifically requires family medicine residencies to have a structured faculty development program which addresses clinical, educational, administrative, leadership, research, and behavioral components of faculty performance [1]. However, residencies across the country likely address these components to varying degrees and in a variety of ways. Additionally, given competing interests and limitations on available time and financial resources, some of these components might be more challenging to fulfill. The goal of this article is to define faculty development, to discuss the ACGME requirements for faculty development, to present research on strategies currently used by family medicine residencies across the country for this purpose, and to describe one strategy used by our residency program to meet these requirements.

Faculty Development

Faculty development can be defined as the range of activities used to assist faculty in their academic roles, including those designed specifically to improve faculty performance in teaching, research, administration, and career development [2]. Common content areas include clinical teaching, small group facilitation, lecture skills, providing feedback, evaluating learners, curricular development, and career planning [3]. Methods are quite diverse and will be discussed below.

A literature review conducted by Steinert et al. supported some encouraging conclusions on the utility of faculty development. Overall participant satisfaction with faculty development programs was high; partakers valued their experiences and reported positive changes in attitude toward faculty development. More substantially, there were measurable gains in knowledge of educational principles and teaching skills. Additionally, learners were able to detect changes in teaching

behaviors of the participants, and the experience resulted in greater future involvement in educational activities [2].

Some key features of effective faculty development were also identified in that literature review and elsewhere. Experiential learning is critical; faculty members need to apply and practice what they learn during faculty development sessions and ideally receive feedback on their performance. Constructive feedback in general has been shown to result in improved teaching performance. Interestingly, peer support is also key; peers are valued as role models, co-supporters of change efforts, and for discussion of ideas and exchange of information. Finally, effective faculty development uses a wide variety of teaching methods, adheres to principles of teaching and learning, and is applicable to the learner [2, 4].

ACGME Program Requirements

The ACGME is a private professional organization which accredits residency programs in the United States and other countries. It issues Common Program Requirements, which are applicable to all specialties, but also includes specialty-specific committees, such as the Family Medicine Residency Review Committee, which details requirements unique to family medicine. The ACGME specifies a number of requirements for faculty development which will be reviewed. The Common Program Requirements set the stage for general expectations of the faculty:

> The faculty must establish and maintain an environment of inquiry and scholarship with an active research component. The faculty must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences [5].

More detailed information is provided in the ACGME Family Medicine Program Specific Requirements, which state:

> There must be a structured program of faculty development that involves regularly scheduled faculty development activities. Since family medicine faculty should demonstrate the same skills, knowledge and attitudes that are expected of the residents, faculty skill development and update are an important part of faculty development [1].

No frequency of activities is specified. However, the emphasis on skill development and update is clear; faculty development is not to be limited to passive clinical learning.

In the Family Medicine Requirements, the ACGME further delineates six component areas of faculty development that must be covered:

> The program is expected to address clinical, educational, administrative, leadership, research and behavioral components of faculty performance [1].

Clinical faculty development in the form of Continuing Medical Education (CME) is readily available and easily documented due to licensing and certification requirements, but addressing the remaining component areas may require

more foresight and focused efforts on the part of the faculty development coordinator and the individual faculty members [6]. Much is left open to individual program interpretation. The ACGME Program Director Guide, which functions as a guidebook to the requirements, specifies that CME activities are not sufficient and that didactic or experiential activities which develop teaching abilities or professionalism and assist with training residents in their six core competencies should be included [7]. The literature does support this; activities which combine didactic and interactive formats have been demonstrated to be more effective than either model alone at changing behaviors [8].

Covering all aspects of each of the six component areas is a challenge; programs must assess their program and faculty needs in order to prioritize and plan targeted faculty development sessions [9]. The ACGME suggests that:

> It should involve at least annual departmental, residency and individual faculty needs assessments, and may include structured group and individual activities [1].

Even though an educational component is cited previously as one of the six required areas, the ACGME highlights its importance with reiteration:

> Although clinical update is important, faculty development should provide experience to improve teaching in all settings [1].

We cannot assume that a clinician is an effective teacher; education on teaching is a vital part of faculty development [10]. Finally, the ACGME expects programs to measure their efforts and ask residents to evaluate their progress:

> This should be measurable and documented in evaluations by residents [1].

In addition to the faculty development requirements, in 2012 the ACGME Review Committee for Family Medicine added Scholarly Activity Guidelines for residents, fellows, and faculty. At a minimum, each core family medicine faculty member is expected to produce two scholarly works on average over 5 years. These works must entail contribution to the knowledge available to the discipline of family medicine or its subspecialty fellowship areas. Moreover, the results must be shared with peers at the regional or national level and be subject to peer review [11]. Previously it was acceptable for only some of the faculty to demonstrate scholarship; now all must.

The ACGME faculty development requirements above have been documented and available to medical education programs for more than 10 years. The authors of the current study performed a preliminary cross-sectional study to explore the range of faculty development activities currently used by academic medical programs. A survey was developed and sent to a random sample of family medicine residency programs to better understand the extent and scope of faculty development activities used across the United States.

METHOD

Family medicine residency programs were identified through the American Academy of Family Physicians [12]. Programs were grouped by region using the U.S. Census Bureau's census regions (Northeast, Midwest, South, and West) [13]. Forty residency programs were randomly sampled for the study, five each from medical school-based and community-based residency programs within each region. A request for participation was sent to Program Directors at each residency. Human subjects' approval for the study was obtained.

Surveys were distributed electronically via an online survey tool, and included forced choice and multiple choice items, including Likert-scale and checklists. Several survey items offered qualitative, free-text options for expanding on responses. The survey included demographic items (faculty member completing the survey; type, age and size of program), questions about whether the program sponsored a faculty development fellowship and the support available for faculty completing faculty development fellowships, and questions about the degree to which faculty development is encouraged beyond traditional clinical CME. The respondents were also asked what faculty development activities and support were provided for the faculty, and whether the program had discussed the ACGME requirements for faculty development including the ACGME's six component areas for faculty development (clinical, educational, administrative, leadership, research, and behavioral). Finally, respondents were asked to identify what faculty development activities and support were offered to address each of the six ACGME faculty development component areas. For some items, response codes were collapsed in order to achieve appropriate cell sizes for analyses. Survey data from two residency programs were eliminated due to only partial responses.

Categorical data analysis used Fisher's exact tests to determine the relationship between program characteristics and available methods for faculty development. A new variable was created to show the number of methods offered within each of the six ACGME component areas. *T*-tests were used to compare the mean number of elements within each component area between levels of program demographic and support variables. When more than two levels of independent variables were present, analysis of variance was used to compare means. All tests were considered significant at a p-value of < 0.05.

RESULTS

The response rate for the study was 70% ($n = 28$) and was proportional across program location (Northwest 23%, Midwest 23%, South 27%, West 27%). The majority of respondents were from medical school based residency programs (65%) compared to community based programs (35%). Ninety-two percent of the surveys were completed by residency Program Directors. A family physician other than the Program Director and a behavioral medicine faculty member each

completed one survey. Seventy-three percent of the respondents were responsible for the faculty development curriculum in their residency program.

Programs ranged in age from 14 to 43 years ($\bar{x}$ = 31 years) with 2 to 45 faculty ($\bar{x}$ = 16). Residency size ranged from 9 to 48 residents ($\bar{x}$ = 26). Twelve programs had fellowships, five each with one or two fellows and one each with three and four fellows. Nine programs (36%) sponsored a faculty development fellowship at their residency program.

Nineteen (73%) programs had supported residency faculty participating in a faculty development fellowship prior to the study. Support for these faculty included time (12%), funding (4%), or both (54%). Seventy-three percent of the programs planned to support faculty in future faculty development fellowships with time (23%), funding (4%), or both (54%).

Faculty development, beyond traditional clinical CME, was strongly encouraged or required by a large proportion of the sample (73%). Various faculty development activities and support were used by the programs (Figure 1). Medical school-based programs and newer programs were more likely to have informal mentoring activities ($p < 0.05$). Other individual program characteristics were not significantly associated with the frequency of specific faculty development methods. Respondents were asked to describe which activities and support were used specifically to address each of the six ACGME component areas. Ranking of these results are depicted in Figure 2.

An ANOVA was performed to examine the association between predictor variables (program type, location, age, size, and whether a faculty development fellowship was offered by the program) and the continuous outcome variable of mean number of faculty development activities and support provided by the programs within each core component area. The ANOVA did not find any significant main effects between predictor variables and the continuous outcome variable. Nonetheless, we performed a Tukey's Test to adjust for multiple comparisons and confirmed this result. Only 58% of programs reported having discussed the ACGME's faculty development component areas. These programs were statistically different from those who had not discussed the component areas when examining the number of faculty development activities and support provided for each of the component areas (Table 1). In each component area except the "clinical" area, the absence of discussing the ACGME component areas with residency faculty was associated with fewer faculty development activities and support being offered by the program.

DISCUSSION

These results, although preliminary, suggest that many family medicine residency programs value and encourage faculty development. The majority of programs use traditional activities and strategies such as CME, faculty meetings, faculty conferences, and workshops; and a smaller number of programs

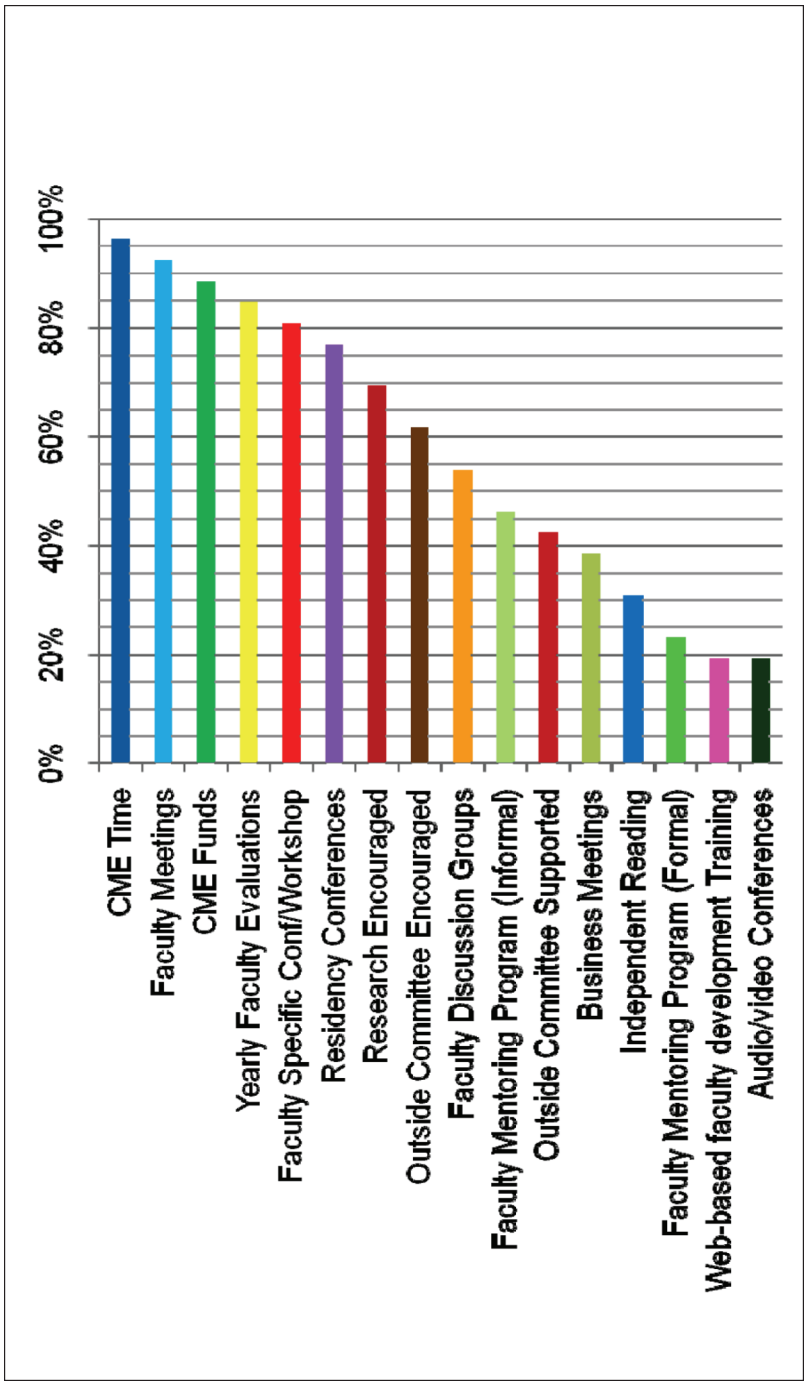

Figure 1. Percentage of residency programs offering specific faculty development activities and support (N = 26).

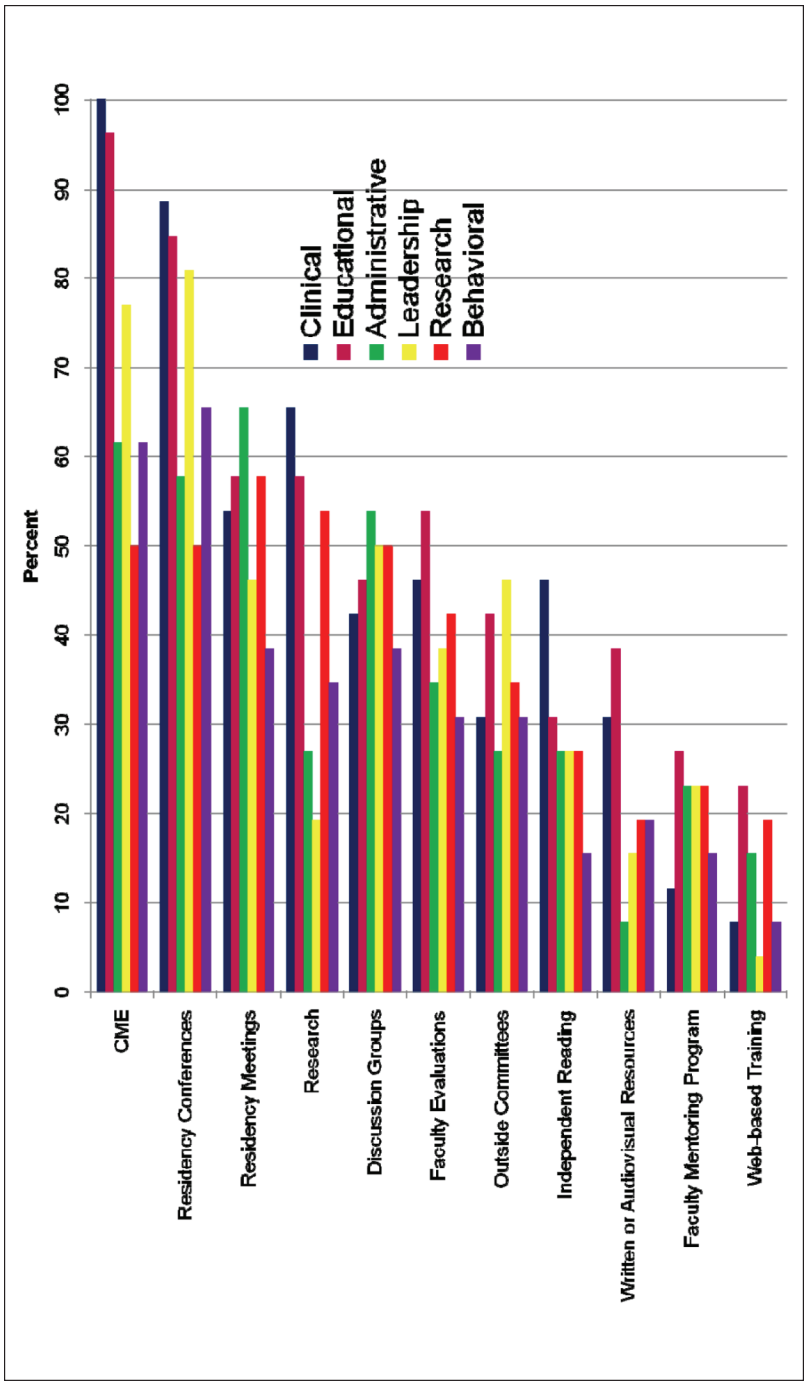

Figure 2. Frequency of faculty development activities for each of the ACGME component areas.

Table 1. Number of Faculty Development Activities and Support Provided for Each Faculty Development Component Area Analyzed by Whether the Program Discussed ACGME Requirements ($N = 26$)

Component area	Discussed ACGME requirements	Faculty development activities/support Mean (*SD*)	*p*-Value
Clinical	No	4.18 (1.78)	0.08
	Yes	6.00 (2.88)	
Educational	No	3.91 (2.66)	0.01*
	Yes	6.80 (2.65)	
Administrative	No	2.64 (2.38)	0.03*
	Yes	5.00 (2.70)	
Leadership	No	2.82 (2.04)	0.01*
	Yes	5.33 (2.55)	
Research	No	2.27 (3.20)	0.01*
	Yes	5.73 (2.84)	
Behavioral	No	1.91 (1.81)	0.01*
	Yes	4.80 (3.00)	

*Significant $p < 0.05$.

are exploring the utility of mentoring programs, faculty discussion groups, and technology-based learning systems. The challenge is to develop faculty development activities tailored to individual program and faculty needs and resources.

As an example of tailoring to an individual program's needs and resources, our program has developed a faculty discussion group, the *Innovations in Teaching* discussion group, to support faculty development in the areas of teaching and learning skills as well as promote peer mentoring and collaboration. This group meets monthly and is facilitated by our residency's behavioral scientist. The agenda is open, beginning with the processing of topics brought to the meeting by the group members. A formal topic is prepared in the event that no other discussion topics arise. The dialogue often centers on thoughts, experiences, and questions brought by the faculty but has also included residency process improvement ideas, discussing literature reviews on faculty development topics, and viewing web-based faculty development resources.

Several programmatic outcomes directly resulted from these discussions. The residency program redesigned its resident evaluation process to better match the six core competency areas. Some faculty members were inspired to design more creative, participation-based lecture presentations. Outpatient Rounding sessions were developed in our noon lecture series for residency-wide discussion of challenging or interesting outpatient cases. The formal faculty development curriculum was altered to include fewer clinical and procedural topics and more emphasis on teaching skills. Lastly, a curriculum in the Art of Outpatient Medicine is being developed to focus on teaching residents the outpatient behaviors and skills required of a successful family physician.

In developing this discussion group, as there would be in developing any innovative faculty development activity, there were challenges. In our experience, the initial concerns were: who would facilitate the group, who would attend, and where and when would we meet? Beyond logistics, a lack of support or commitment from faculty members can also be an obstacle. A core group of attendees and a culture of willingness to consider proposals originating from our discussion group have been essential to the group's usefulness and success. A final obstacle common to many faculty development activities is inertia, both in overcoming a reluctance to try something new and in converting innovative ideas into actions. For our residency, this discussion group has helped the program work towards meeting the educational, administrative, leadership, behavioral, and research components required of our faculty development program.

Our faculty discussion group was initiated by the behavioral scientist on our faculty who also currently facilitates the group. Behavioral scientists are uniquely situated to take a leadership role in residency faculty development. Their training in human behavior, interpersonal communications, educational theories, research, and organizational behavior prepares them to provide didactics in the ACGME faculty development component areas of educational, leadership, research, and behavioral. Their psychological testing and research training also allows them to contribute to faculty development evaluation efforts. Finally, their unique background might make them more likely to consider innovative approaches to meeting program faculty development requirements.

This study was a preliminary study to identify faculty development activities used by other family medicine residency programs. There are some key limitations of the study that should be considered when interpreting the results. First, it is not known if these findings are generalizable to the population of family medicine residency programs, other medical residency programs, or even other academic medical departments. Second, the survey instrument was developed for this study and has unknown reliability and validity. Third, the data include only self-reported practices of faculty development activities in residency programs and so are limited by potential self-report biases.

CONCLUSIONS

Only a little over half of the programs sampled in the current study had discussed the ACGME requirements with their faculty, and those which had not were found to offer fewer faculty development activities and strategies than those programs which had discussed the requirements with their faculty. It is clear that to meet future accreditation requirements it will be imperative for residency programs to have effective faculty development activities that address the six ACGME component areas, utilize active (Socratic and experiential) learning, include learning of educational principles and teaching skills, and include an evaluative component. Programs that offer a variety of faculty development activities tailored to the needs of the program and faculty and that support faculty in developing innovative approaches to meeting their own personal faculty development interests will undoubtedly be the benchmark.

ACKNOWLEDGMENT

The authors wish to thank Tracy Johns, PharmD, for statistical support.

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