

# Value Placed on Formal Training in Education by Pediatric Department Chairs and Residency Program Directors

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## ABSTRACT

**Background** While much is known about how educational leaders at the medical school level (eg, deans) view the importance of formal training in education for medical school teachers, little is known about how leaders at the clinical level (eg, department chairs) view such training. We sought to determine how pediatric department chairs and residency program directors view the value of formal training in education, such as that at a Master of Education (MEd) level, and to estimate the number of clinical pediatric faculty with or pursuing such training.

**Methods** A survey designed to assess the value placed on formal training in education and to estimate the number of clinical faculty with or pursuing such training was mailed to pediatric department chair persons and residency program directors at all 131 allopathic medical schools in the United States and Puerto Rico.

**Results** Eighty department chairs (61%) responded, and most indicated that when hiring new faculty, they view an applicant with an MEd as having an advantage. Both chairs and residency directors considered an MEd to be advantageous for a residency director by a ranking of 4.5 and 4.2, respectively, on a scale of 1 to 5 ( $P = .008$ ). Of the 80 chairs who responded, 58.8% of respondents reported one or more faculty in their department had or was pursuing an MEd. Of the 72 responding residency directors (55%), 11 respondents (15.3%) indicated that they had an MEd.

**Conclusion** More than half the medical school pediatric chairs responding to the survey had one or more clinical faculty with or pursuing an MEd in their departments. Survey results indicated that such training is valued by both department chairs and residency directors. Given the time and expense involved in obtaining an MEd, awareness of these data may be helpful to those considering pursuing, offering, or requiring such training.

## Background

The numbers of medical schools offering faculty degree programs in education and faculty members obtaining such degrees appear to be increasing, yet there are no data for the

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number of clinical faculty who have or are pursuing a degree in educational science. Studies show how educational leaders at the medical school level (eg, deans) view such training,<sup>1-3</sup> but little is known about the perspectives of educational leaders at the clinical level (ie, department chairs and residency program directors). There is increasing recognition among medical school deans that clinical faculty heavily involved in education need to have in-depth knowledge about education and skills to be educators.<sup>1</sup> However, it is not known whether pediatric department chair persons and residency directors share this view. One study of internal medicine chairs regarding promotion criteria for clinician-educators reported that formal courses in education are a resource for clinician-educators, but the survey did not address such training.<sup>4</sup>

The number of medical schools offering a Master of Education (MEd) degree increased from 9 in 1998,<sup>5</sup> to 21 in 2005<sup>6</sup>; of these, only 6 schools were in the United States. In 2008, master's level programs in medical education were proliferating, with 17 in the United Kingdom.<sup>7</sup> Master's degrees in medical education are now available online,<sup>8</sup> and there are fellowship training programs that do not lead to a formal master's degree.<sup>9-11</sup>

We sought to (1) determine if and to what extent pediatric department chairs and residency directors value

formal training in education, such as an MEd, and (2) estimate the number and percentage of clinical pediatric faculty and residency directors with or who were pursuing such training.

## Methods

### Survey Instrument

Two survey instruments were designed for pediatric chairs and pediatric residency directors. As content experts, we formulated survey questions by an iterative process until consensus was achieved. Pilot testing was not conducted. Chairs were asked to rate the value of formal training in education for clinical faculty in general and for residency directors in particular on a 5-point Likert-type scale. Formal training was defined as training in educational science taught at least in part by an educator with a degree in education. Chairs were also asked to estimate how many of their clinical faculty had such training. Residency directors were asked to rate the value of “formal training in education” (same scale and same definition) for residency directors and to indicate what, if any, formal training they had. Demographic variables included size of the categorical pediatric residency program, number of faculty in the department, year of graduation from medical school, and years at post as chair or residency director. This study was reviewed and approved by the Institutional Review Board of Baylor College of Medicine as “exempt” research (IRB no. H-23716).

### Survey Distribution

Surveys were mailed from September to December 2008 to medical school pediatric department chair persons and residency program directors at all 131 allopathic medical schools in the United States and Puerto Rico. As an incentive to respondents to complete the questionnaire, surveys were mailed with a complimentary copy of *The Clinician-Educator's Handbook*,<sup>12</sup> a textbook written by the authors of this paper. After 90 days, the survey was mailed a second time to those from whom no response was received after the initial mailing, and the survey was closed in August 2009.

### Statistical Analyses

Data were analyzed using SYSTAT version 11.00.01 software (SYSTAT, Richmond, CA), utilizing both parametric and nonparametric methods. As results were similar, we reported only the parametric results. A paired *t* test was used to compare responding chairs' perceived value placed on advanced training when hiring new clinical faculty in general versus their perceived value placed on advanced training when hiring a residency director. To explore differences between groups, *t* tests for independent samples were used. When we compared 2 or more proportions, the

TABLE 1  
REASONS GIVEN BY RESIDENCY DIRECTORS FOR NOT HAVING FORMAL TRAINING IN EDUCATION AND PERCENTAGE OF RESPONDENTS LISTING THAT REASON

| Reason                      | % of Responses <sup>a</sup> |
|-----------------------------|-----------------------------|
| Time constraints            | 87.1                        |
| Not conveniently available  | 67.7                        |
| Cost                        | 54.8                        |
| Chairs not supportive       | 5.5                         |
| Such training not important | 2.8                         |

<sup>a</sup> The total percentage exceeds 100% because respondents could select more than one reason.

Pearson  $\chi^2$  technique was used. If the sample size in any group was 5 or less, a Fisher exact test was performed. To determine statistically significant relationships between demographic and program characteristics of the respondents and perceived value of advanced training, the Spearman rank order coefficient ( $r_s$ ) was computed. The alpha level for all analyses was set at 0.05, and a two-tailed test of significance was used for all calculations.

## Results

The response rate was 61% (80 of 131) for chairs and 55% (72 of 131) for residency directors.

### Numbers of Faculty with Formal Training in Education

Of the responding pediatric chairs, 58.8% of respondents reported at least 1 faculty member with an MEd in their department. Chairs reported a total of 8166 faculty members, with an estimate of 143 members (1.8%) with an MEd and an additional 314 faculty members (3.8%) with other formal training in education. Eleven residency directors (15.3%) reported having an MEd, compared to 1.8% of faculty in general ( $P < .001$ ). Thirty residency directors (41.7%) indicated they had some formal training in education not leading to a degree, ranging from single workshops to longitudinal faculty development programs. Thirty-one residency directors (43%) reported no formal training in education; 4 residency directors (5.5%) did not answer this question. Reasons cited for having no formal training in education are shown in

TABLE 1.

### Perceived Value of Formal Training in Education

On a 5-point Likert-type scale (where 1 = a strong disadvantage and 5 = a strong advantage), most responding pediatric department chairs (82.5%) reported they would view an applicant with an MEd as having an advantage (4 or

5 on the scale) when hiring new clinical faculty. Mean and median ratings were 4.1 and 4, respectively.

Both department chairs and residency program directors considered an applicant with an MEd as having a strong advantage for a residency director. Chairs rated the MEd as more important than the program directors did (4.5 versus 4.2, respectively;  $P = .03$ ). Chairs also rated formal training as more advantageous for residency directors than for faculty in general (4.5 versus 4.1, respectively;  $P = .001$ ). Residency directors with and without an MEd were equally likely to rate the degree as important. Only 4 of the responding residency directors reported having no formal training in education because their chairs were unsupportive, and only 2 residency directors said they considered such training unimportant.

### Correlation with Program Size and Respondent Demographics

For program size, there was a weak positive correlation ( $r_s = 0.260$ ) with the chairs' value placed on formal educational training for residency program directors.

For years at post, there was a weak negative correlation ( $r_s = -0.128$ ) with the residency directors' value placed on formal educational training for residency directors. No other correlations were found for program size, year of graduation, or years at post.

### Discussion

Our findings indicate that academic pediatric leadership nationally values formal training in education. Most responding pediatric chairs view an applicant with an MEd as having an advantage when they are hiring new clinical faculty and place even more value on such training for residency directors. More than half the chairs reported having at least one faculty member with an MEd in their department, suggesting broad interest in formal training. The high cost of time and money in obtaining an MEd may explain why more than twice as many faculty had formal training other than one leading to an MEd. The percentage of residency directors with an MEd was almost 10 times greater than that of pediatric faculty in general. In addition, directors without an MEd rated the degree as highly as those with the degree did. These findings indicate that those in leadership roles in clinical education place a strong value on formal training in education.

The value placed on an MEd by chairs and program directors did not correlate strongly with program size, years at post, or other demographics, suggesting that such value is not limited to a specific program size or leadership demographic.

Training clinicians to teach should include input from experts in the science of education. There is increasing

formalization of training clinician-educators and the increasing requirement by European regulatory bodies that physicians who teach need to provide evidence that they have attained the necessary competencies.<sup>15</sup> This same formalization is occurring in the United States in undergraduate and graduate medical education. Further evidence of "professionalization" of medical educators is shown by the growing number of professional associations focused on medical education and the burgeoning of medical education journals.<sup>16</sup> There may be a distinction between a "teacher" and a "teaching scholar" or "educator," and the Association of Surgical Education has developed a model for classifying faculty members according to their skills and levels of achievement in education.<sup>17</sup> One criterion for the highest level, Master Educator, is pursuit of "further training in education through courses, workshops, faculty development programs, or participation in an educational fellowship program."<sup>17</sup>

Our study limitations include having a single specialty focus, which limits generalizability, and an unvalidated survey instrument. In addition, participants may have interpreted "formal training in medical education," differently from one another. Also, it is likely that the reported numbers of faculty with or pursuing an MEd were not accurate because chairs may have based their responses on memory rather than on an actual review of faculty credentials. It is possible that responders valued formal training in education and may have been more likely to respond to the survey.

Finally, our study did not address the nature of or the reasons for the value placed on formal training in education by these clinical leaders. Further studies should address these questions.

### Conclusions

Our findings indicate that formal training in education is strongly valued by pediatric chairs and residency program directors and that such value is broadly based and widespread. Our data also indicate that the number and percentage of pediatric faculty currently with or pursuing such training are consequential.

Given the time and expense involved in obtaining an MEd, awareness of these findings should be helpful in the decision-making process of faculty members considering such training, as well as department chairs counseling these individuals. These data should be reassuring to those medical schools and pediatric departments fostering formal advanced training in educational science.

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