Toward Performance Based Graduate Medical Education

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In a 1977 article in the *Journal of Family Practice*, Geyman underscored the need for more attention to the quality of continuing medical education (CME) activities.[1] He emphasized the desirability of performance based learning as opposed to the highly prevalent knowledge based CME activities. Most continuing medical education (CME), which is usually in lecture format, increases knowledge but fails to alter practice behavior. Only CME efforts that specifically identify objectives and reinforce their use in a practice situation consistently alter physicians' behavior in patient care.[2,3] This situation parallels continuing education among many other professionals.[4]

More than 15 years ago, Miller set down five conditions that he saw as essential to meaningful adult learning: (1) students must be adequately motivated to change their behavior, (2) they must be aware of the inadequacy of their present behavior (and the superiority of the behavior they are required to adopt), (3) they must have a clear picture of the new behavior, (4) they must have opportunities to practice the new behavior with a sequence of appropriate materials, and (5) they must get continuing reinforcement of the new behavior.[5]

Likewise, Geyman strongly encouraged family medicine educators and practitioners to use audits of actual practice experience as a means of better identifying educational needs and applying performance based educational standards to continuing medical education.[1] Should such important ideas be implemented only after physicians complete their family practice residency? As residents acquire specific knowledge and skills during their training, do they improve patient care correspondingly?

A recent study at the University of Connecticut[6] suggests that Miller's conditions for adult learning deserve as much attention during residency as in continuing education. A lecture was first planned for residents based on deficiencies found in a chart audit of children in their ambulatory practices. Next, their cognitive knowledge and patient care in response to the lecture was carefully monitored. Residents easily acquired the information needed to correct deficiencies in their patient care but, true to Miller's conditions,[5] improved patient care only in response to direct feedback about their performance. As in continuing medical education[2,3] and other cases of adult learning,[4] the initial knowledge based (lecture) experience failed in itself to alter residents' patient care. If it is recognized that continuing medical education should be performance based,[1] why not pursue performance based residency training?

The current atmosphere in family medicine residency programs supports objective based education. I suggest that we emphasize routine, vigorous performance evaluation of residents based on newly acquired knowledge and skills. Evaluation of each and every objective would prove overwhelming; selected objectives, however, would indicate individual resident performance in response to specific educational programs. Applying performance based graduate medical education could further identify family medicine as a sophisticated and innovative specialty in medical education and perhaps serve as a model for residency training in other specialties.

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0094-3509/81/110735-01$00.25
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