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The Right Ingredients: Essential If You Want to Bake the Cake Right!

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The Right Ingredients: Essential If You Want to Bake the Cake Right!

Abstract
Docēre, the Latin root for *doctor*, means to teach. At the heart of what we do as physicians is teaching; we teach our patients, their families, and our future physicians. Why do we devote so much time to education? No matter how well we diagnose and treat, if patients and families do not understand their treatment, it may be unsuccessful. No matter how knowledgeable and skillful we are, if we do not nurture the next generation, key knowledge, skills, and values will disappear.

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The Right Ingredients-Essential If You Want To Bake The Cake Right!

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Docēre, the Latin root for *doctor*, means to teach. At the heart of what we do as physicians is teaching; we teach our patients, their families and our future physicians. Why do we devote so much time to education? No matter how well we diagnose and treat, if patients and families do not understand their treatment, it may be unsuccessful. No matter how knowledgeable and skillful we are, if we do not nurture the next generation, key knowledge, skills and values will disappear.

Despite this awesome responsibility most clinicians have no formal training in methods, theory, or even the practical aspects of being an effective teacher. Perhaps the numerous years or rigorous curriculum of medical education are considered sufficient qualifications to allow physicians to educate the next generation. The *"see one, do one, teach one"* mentality still pervades medical education. Is this appropriate? Is there any information available to guide physicians, specifically anesthesiologists, about how to become better teachers? Unfortunately, there is precious little. Do we know what the "right ingredients" are to be effective teachers? Sadly, the answer to these questions in the past has been NO; happily, that is changing!

In this issue of ANESTHESIOLOGY, Haydar and colleagues enlighten and assist us in the faculty development process [1]. Through an ethnographic study of faculty evaluations by anesthesiology residents, these Authors describe the ingredients, ie, qualities that characterize effective and respected clinical educators. This has been defined for internal medicine faculty in the past but not for anesthesiology [2]. Haydar et al demonstrate that evaluation of teachers by residents is a valid way to identify the traits of effective clinical educators.

The Accreditation Council for Graduate Medical Education mandates that residents evaluate faculty on teaching abilities, professionalism, clinical knowledge, scholarly activity and commitment to education. This charge is often ineffectively accomplished. It is important to our patients and trainees that faculty identify what they might improve and what resources are available to make them better so that they can model what the best teachers do well. The "Compact Between Resident Physicians and Their Teachers" (originated by the Association of American Medical Colleges and supported by the Association of University Anesthesiologists and the American Board of Medical Specialties, parent Board for the American Board of Anesthesiology) asserts that resident education is paramount and that faculty must strive to become excellent teachers [3]. It is also important that clinical teachers understand the ways they can improve their teaching, not only to become better educators but also because deficiencies will negatively impact their year-end appraisals, academic promotions, clinical teaching assignments and compensation.

In a previous study, Baker pointed out the value of clinical evaluations of anesthesiology faculty. He showed that faculty pay attention to their clinical teaching scores and modify their behavior accordingly[4]. This investigator suggested, however, that normative data alone might not be sufficient for identification of the best teachers. The risk is that normative data will eventually succumb to "grade inflation" and describe teachers like the children of Lake Wobegon, ie, "all above average". Adding narrative feedback to numeric evaluation may further improve clinical teaching [4].

Haydar and colleagues' study takes Baker's earlier data further. They characterized the behaviors of "above and below average" clinical teachers by classifying evaluations of anesthesiology faculty generated by their residents. They reviewed normative data *and* free text comments from resident evaluations. The normative data were compiled to identify teaching scores that were 20% above or 15 % below the mean and this data subset was then reviewed in the context of their associated written comments.

The free text comments were coded by reviewers, blinded to the teaching scores, who identified 15 positive and 13 negative themes that fell within 4 general categories; a) teaching, b) supervision, c) feedback and d) interpersonal skills. Based on logistic regression analysis of the comments and their association with teaching scores, a summary of *key recommendations for clinical faculty* was generated. It should come as no surprise that the recurring positive themes that describe characteristics of effective teachers include, "…supporting and explaining clinical decision-making, making teaching in the operating room a priority, maintaining a balance between supervision and autonomy and providing clear, constructive and developmental feedback..." (See Haydar et al Table 5: Summary: Key recommendations based on above- and below-average evaluations) [1]. These recommendations suggest that:

It's not just about teaching the content of anesthesiology.

It is about the process of the teaching that assures the learning.

Why are these findings so important? They define ingredients that make effective teachers. This can facilitate the growth of current faculty members as they gain insight into how their teaching behaviors compare to those deemed above average and also serve as a guide for residents who will become future faculty. The authors remind us that the behaviors of above average clinical teachers accurately reflect what "…trainees desire to learn and develop as…clinician[s]. [1]"

Many young physicians enter academic anesthesiology primarily because they want to do challenging cases, continue to work alongside their mentors and have the privilege of educating our future clinicians. They may like teaching but not know how to be effective. Evaluating the teaching

effectiveness of these young faculty members and sharing their scores and narrative feedback with them are the crucial first steps in their becoming above average educators.

Baker has shown that clinical teaching improves as a result of resident evaluation of faculty. Hadyar now shows us that there are specific, identifiable behaviors of above average faculty from which aspiring teachers can learn. Where do we go from here? These authors provide only a foundation, albeit a valuable one, in understanding how to make our anesthesiology faculty more effective teachers. It is not enough to simply know which behaviors we should emulate to achieve above average teaching. It is the responsibility of and challenge for administrators of graduate medical education programs to incorporate this knowledge into faculty development and mentorship programs for junior faculty. There is a range of useful pedagogical behaviors and experts know how to deploy appropriate ones in context. This must become our faculty development curriculum. While programs do exist in general internal medicine and other ambulatory specialties, the fast paced, procedure-laden quality of anesthesiology presents special challenges of balancing patient safety and operating room efficiency with resident and fellow education.

Faculty development experts agree that there are some key steps to developing and implementing programs [5]. While a sizable body of literature spanning 30 years seeks to identify methods for developing the qualities of effective programs, they have not been proven to alter patient outcome. This presents a huge opportunity for educational research. Administrators should seek faculty support and participation and these resource-intensive programs should also demand sustained improvement in clinical teaching and ultimately improvement in patient outcomes through excellent medical education.

To this end, administrators should identify internal "champions" to serve as educational leaders, faculty development experts and peer mentors to develop and grow junior faculty early in their careers, as early as at the time of faculty appointment [5]. Teaching must be afforded status. Acknowledging its value will incent faculty to strive to become excellent teachers. This will allow administrators to develop a targeted needs assessment for the programs and the participants, alike, while considering and recognizing local barriers to successful faculty development. Faculty development experts recognize unique characteristics of specialties such as anesthesiology and local influences such as operating room environments that require specialized programs[5]. Now is the time to develop specialty-specific programs to encourage the professionalization of teaching and to support academic anesthesiologists in their endeavor to be superior clinical teachers.

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