

Title : RATING THE IMPORTANCE OF CLINICAL TEACHING ATTRIBUTES

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**Introduction.** Little of a systematic and continuing nature has been done to study the process of teaching in anesthesiology. We are beginning a long-term evaluation of clinical teaching which involves each resident's evaluation of teaching received from each faculty member. This paper reports the delineation of areas of evaluation<sup>1,2</sup>, the relative importance accorded each area by both residents and faculty, and the validation of the evaluation instrument.

**Methods.** A list of 41 attributes of a clinical faculty member was presented to 14 residents who were asked to indicate the importance of each attribute to their learning. The 8 categories of attributes included: availability; preoperative and intraoperative case-related teaching; didactic teaching; conference/discussion teaching; evaluation/feedback; personal/professional attributes; and interpersonal relationships. A 5 step, low-high response scale was used. The same list and scale were presented to 10 faculty members with instructions to indicate the importance of each attribute in their teaching.

Data from the evaluation forms were tabulated by assigning a value of 1 to represent a "low" rating and 5 a "high" rating. Analysis of the data included calculation, for each item, of mean values (to determine an aggregate rating of importance) and of standard deviation (to measure consensus among raters). A product-moment correlation coefficient was used to reflect general correspondence between resident and faculty ratings. Student's t-tests were used to determine significance between residents' and faculty members' item means. Means and standard deviations were plotted to display the relationship between consensus and importance for each item.

**Results.** The grand mean of all items on the fourteen resident forms and ten faculty forms was 4.15; the means ranged from 2.57 to 5.00. The standard deviation of item means was 0.47; the item standard deviations ranged from 0 to 1.44. Graphic display of means and standard deviations showed that 93% of the items clustered in the area between means of 3.38 and 4.88 and standard deviations of 0.32 and 1.13.

A high degree of consistency between resident ratings and faculty ratings was evidenced by the correlation coefficient  $r = 0.77$ . There was agreement between faculty and residents that the following four items were the most important.

Clinical judgement as a personal/professional attribute ( $\bar{X} = 4.88$ )  
Accuracy of information in didactic teaching (4.87)  
Emphasis on clinical reasoning in preoperative case-related teaching (4.76)  
Intraoperative availability for supervision and teaching (4.64)

The following two teaching attributes were rated least important by both residents and faculty.

Use of audiovisual aids in didactic teaching ( $\bar{X} = 2.75$ )  
Availability after completion of OR schedule or on lab days (2.80)

The items showing the greatest ( $p < .005$ ) difference between resident (R) and faculty (F) ratings were:

Explanation of practical/technical considerations in intraoperative teaching ( $\bar{X}_R = 4.64$  and  $\bar{X}_F = 3.75$ )  
Presentation of factual information in intraoperative teaching ( $\bar{X}_R = 4.71$  and  $\bar{X}_F = 3.75$ )  
Responsiveness to questions in didactic teaching ( $\bar{X}_R = 4.79$  and  $\bar{X}_F = 3.88$ )

**Discussion.** Our results demonstrate that the 41 attributes of a clinical teacher evaluated in this study are important to both residents and faculty. The data support a general picture of agreement between faculty and residents on attributes considered important in teaching. Specific attributes on which the two groups disagree may identify areas of concern in current clinical teaching practices, and may also indicate the need to analyze reasons for disagreement between the two groups. The inconsistency between resident and faculty ratings of importance for the intraoperative teaching attributes identified them as one focal point for the evaluation of clinical teaching performance.

#### References

1. Stritter FT, Hain JD, Grimes DA: Clinical teaching reexamined, *J Med Educ* 50:876-881, 1975
2. Irby DM: Clinical teacher effectiveness in medicine, *J Med Educ* 53:808-815, 1978