Title: CLINICAL COMPETENCE AND TRAINEE PERSONALITY TRAITS

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Introduction. The American Board of Anesthesiologists requires certification of the trainee in many areas, including "appropriate clinical and character skills, and personality suitable for assuming independent responsibility for patient care and for serving as the leader of the anesthesia care team".[1] A previous study reports those personality traits perceived as important by an anesthesia faculty.[2] These were included in a prospective assessment of anesthesia trainees, examining the relationship between a global assessment of clinical competence and specific character traits.

Method. The Faculty of the Anesthesia Department of Northwestern University Medical School assessed all trainees in the clinical portion of their continuum for the academic year July, 1984 through June, 1985. An assessment form was based on the semiannual clinical competence committee report to the ABA. Clinical competence was appraised at the end of each clinical rotation, consisting of one to four months, by those faculty who had acted as preceptors during the rotation. The thirteen character traits judged were performance under stress, integrity, relations with others, calm under stress, punctual, sets priorities, decisive, admits errors, honesty, disciplined, reliable, emotionally stable, and common sense. The form provided a five point grid for various categories including character skills and overall clinical competence. For the global assessment of clinical competence the faculty were instructed to indicate appropriate performance expected for the resident's current level of training. A score of "1" indicated "outstanding: far exceeds reasonable expectations", "2" "good: usually exceeds reasonable expectations but is not outstanding", "3" "satisfactory: always meeting reasonable expectations", " 4" "doubtful: occasionally falls short of reasonable expectations", and "5" for those judged "unsatisfactory: often falls short of reasonable expectations". The assessments for each resident over the twelve month period were pooled and the weighted mean was generated for each characteristic and for overall competence.
These data were subjected to multivariate statistical analyses using an SPSS program for factor analysis and multiple linear regression.

Results. As many as twenty-eight of the faculty assessed each of the thirty-six residents (19 males and 17 females) during this twelve month period. The assessments were made on 17 PGY II, 13 PGY III, 6 PGY IV residents during one to seven rotations. Clinical rotations consisted of general operating room and subspecialty training, from one to four months duration and devoted exclusively to one area of anesthesia; general operating room, cardiothoracic anesthesia, neuroanesthesia, obstetric anesthesia, pediatric anesthesia, pain management, and respiratory critical care. Assessments for all categories showed a wide range of responses with all five receiving entries, however for any one individual the ratings tended to be internally consistent.
Factor analysis of the fourteen variables selected only the global assessment of clinical competence; this accounted for 89% of the variance. Stepwise inclusion multiple linear regression analysis was used to select those personality traits which were the best predictors of overall clinical competence (table). Clinical compentence was highly correlated with "common sense", which in combination with "sets priorities" and "performance under stress" accounted for 97% of the variance.

TABLE Factors Related with Overall Competence Ratings

		R	R^2
STEP 1	Common sense	.97	.94
STEP 2	Sets priorities	.98	.96
STEP 3	Performance under stress	.98	.97

(All steps were $p<.001$)

Discussion. The ABA defines a competent physician as "possessing adequate measures of ... - skills for assuming independent responsibility for patient care". A previous study established the most important attributes thought essential for anesthesia practice; they were included in the departmental form to guide the Clinical Competence Committee in their deliberations.
The resulting analysis showed a strong relationship between the trait called "common sense" and overall clinical competence. Common sense can be defined as an average degree of the ability to reach intelligent conclusions without sophistication or special knowledge.[3] The same faculty who thought certain personality characteristics were important for clinical competence in anesthesia, did not use these in practice, when actually rating overall competence. In the present study there was a correlation between the perception of "common sense", in addition to "setting priorities" and "performance under stress" when assessing overall competence of trainees. The relationship between these factors and the global assessment required by the ABA of the Faculty remains to be examined.

References:
1. American Board of Anesthesiology Booklet of Informantion, 1987

2. Funk DI, Ronai AK, Kinzer JB, Barrett MS: Personality Traits in Anesthesia Residents Evaluation. Anesthesiology A316, 1984

3. Webster's Ninth New Collegiate Dictionary, Merriam-Webster, Inc. Springfield, Mass, 1983