Assessing Professionalism and Ethics Knowledge and Skills: Preferences of Psychiatry Residents

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Background: *Professionalism is one of the fundamental expectations and a core competency in residency education. Although programs use a variety of evaluative methods, little is known about residents' views of and preferences regarding various methods of assessment.*

Method: *The authors surveyed residents at seven psychiatry residency programs in the United States regarding their attitudes on professionalism, ethics preparation, and evaluation in psychiatry residency training. This report describes their views on methods of assessing professionalism.*

Results: *Residents strongly agreed that clinical supervision is an appropriate assessment method. Moreover, they rated clinical supervision more highly than oral examinations, short-answer questions, essays, and standardized patient interactions. Residents also strongly favored direct faculty observation of residents' interactions with actual patients and clinical team members.*

Conclusion: *This study suggests that both direct faculty supervision and other clinically-based assessments are methods accepted by psychiatry residents. Future research on the validity and effectiveness of these modes of assessment is needed.*

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Psychiatry educators and training programs are charged with facilitating trainees' growth as professionals who not only possess the requisite knowledge and skills to treat patients appropriately but also uphold ethical standards and embody the values central to professionalism. Professionalism, as operationalized by the Medical Professionalism Project (1), requires attending to patient welfare, patient autonomy, and social justice. Furthermore, it entails commitments to professional competence, honesty, confidentiality, maintaining professional boundaries, improving quality of care and access to care, scientific knowledge, managing conflicts of interest to maintain trust, and professional responsibilities.

All medical specialties must assess trainees' professionalism as one of six core competencies mandated by both the Accreditation Council for Graduate Medical Education and the American Board of Medical Specialties (2–4). Not surprisingly, diverse views exist regarding how best to evaluate trainees' professionalism, evaluate changes over time, provide useful feedback, and evaluate the efficacy of educational programs (5).

Methods to assess professionalism include structured clinical oral exams; simulated patients; evaluations from patients, nursing staff, resident peers, and faculty (often referred to as 360-degree evaluations); clinical supervision; and written tests varying from essays to multiple-choice. Most research has focused on medical students and trainees in specialties other than psychiatry, although literature is emerging concerning the assessment of specific competencies, including professionalism, in psychiatry training (6–12).

Minimal evidence exists on the views and preferences of psychiatry residents toward various methods of assessing professionalism. Trainees may view certain methods as more valuable for their evaluation, which may reflect their perspectives on the validity of the methods or underlying beliefs and attitudes about the training process and educational assessment that educators should understand. Therefore, we examined the perspectives of psychiatry trainees regarding methods of evaluating professionalism, utilizing a subset of data from a larger survey of psychiatry residents' perspectives on ethics and professionalism in training (13).

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On the basis of our previous research (14), we predicted that diverse learning approaches and clinically-oriented assessment methods would be preferred.

Method

Participants

All psychiatry residents in postgraduate years (PGY) 1–6 at seven training programs were asked to respond to this survey. The seven programs, a convenience sample selected to represent a range of training settings, were 1) Mayo Clinic College of Medicine; 2) Medical College of Wisconsin; 3) University of Arkansas for Medical Sciences; 4) University of California San Diego School of Medicine; 5) University of Chicago Pritzker School of Medicine; 6) University of Massachusetts Medical School; and 7) Walter Reed Army Medical Center.

Instrument

The survey instrument was derived from a questionnaire developed at the University of New Mexico School of Medicine (UNM) to explore views on professionalism, ethics preparation, and evaluation in medical education held by medical students and residents. Results from the original survey can be found elsewhere (14–16). The original instrument, consisting of 124 items, was organized into 10 domains on the basis of the American Board of Internal Medicine's definition of professionalism (17): attitudes, goals, learning methods, curricula, knowledge-assessment, skills-assessment, and educational needs concerning informed-consent topics, principles, vulnerable populations, and relationship boundaries. Each item was rated on appropriately-labeled 9-point scales. For the present study, we added 28 questions relevant to psychiatry residency training, resulting in a revised instrument with 149 questions in the 10 content domains, with 6 items pertaining to personal ethics experiences during training and 5 demographic questions. Of the 149 content questions, 14 items examined attitudes toward knowledge- and skills-assessment. This latest format intended to look at psychiatry residents' perspectives on the strength, integrity, and value of a number of teaching and assessment methods regarding professionalism and ethics in medical education. Our revised instrument survey has been developed focusing on core aspects of ethics training in medicine, but it has not been validated. Although most of the survey questions have been used in other studies, those studies may have weaknesses and limitations.

Procedure

The institutional review boards of all seven sites reviewed the protocol and either approved it or deemed it exempt. The survey was distributed by mail or to resident mailboxes at each site, with a cover letter stating the study's purpose and procedures for anonymity. Candy was provided as a small token of compensation. Two follow-up surveys were distributed at 1-month intervals, requesting that those who had not already completed the survey do so. The study coordinator at each site collected the surveys and returned them unopened to the Medical College of Wisconsin for data entry.

Data Analysis

Repeated-measures multivariate analysis of variance for Item (within-subjects repeated measures) × School (between subjects) × Gender (between subjects) was conducted to examine rating-scaled responses. Correlations were performed among assessment-method items and the six questions regarding ethics-related training experiences.

Results

Participants

From the seven medical schools (N=249), 61% of residents (N=151) responded to our survey. The response rate varied across schools from 51% to 77%. Participants included psychiatry residents in all training levels (PGY−1: 13%, PGY−2: 21%, PGY−3: 30%, PGY−4: 23%, PGY−5 and PGY−6: 13%). In general, about half of respondents (47%) were women, and the majority (59%) were married or living with a partner. Gender composition varied among schools from 25% to 75% women ($p < 0.02$). Respondents' ethnicity was 75% White, 17% African American, 4% Asian American, and 4% other or unreported ethnic group. The variation in ethnic composition among schools was statistically significant ($p < 0.01$), ranging from 47% to 93% White, 0%−47% African American, and 0%−19% Asian American. The mean (standard deviation [SD]) age of participants was 31.1 (4.4) years.

Residents had encountered a moderate degree of ethical conflicts during their training (mean=5.16 on a scale of 1: Never to 9: Constantly). Residents reported receiving more ethics training in medical school (mean=5.20 on a scale of 1: None to 9: Very Much) than in residency (mean=4.60). The amount of ethics training during residency varied from Little (mean=2.93) to Moderate (mean=5.44) across schools ($p < 0.01$). Respondents rated their overall medical education as Somewhat Helpful in dealing with ethical conflicts (mean=5.62 on a scale of 1: Not at All to 9: Very Much).

TABLE 1. Methods of Assessing Knowledge, Rated by 151 Psychiatry Residents at 7 Medical Schools[a]

Method for Assessing Knowledge of Professional Attitudes, Values, and Ethics	Appropriateness Rating Range Across Schools			Overall
	Minimum Mean	Maximum Mean	Maximum Cohen's *d*	Mean (SD)[b]
Clinical supervision	7.06	8.13	0.48	7.59 (1.56)
Oral examinations	4.64	7.02	1.08*	5.49 (2.52)
Short-answer questions	4.42	5.50	0.49	5.08 (2.44)
Essays	4.14	6.55	1.09*	5.07 (2.53)
Standardized patient interactions	3.84	6.83	1.36*	4.96 (2.41)
Multiple-choice examinations	3.68	4.92	0.56	4.03 (2.30)
Mean[c]	4.76	6.14	0.88	5.37 (1.64)

Cohen's *d*: an effect size measure that is the standardized mean difference; SD: standard deviation.

[a]Scale: 1: Strongly Disagree to 9: Strongly Agree.

[b]Means are from a repeated-measures Method Item × School × Gender MANOVA. Item effect: $p < 0.0001$; Item × School interaction $p < 0.001$; pooled SD=2.20. Maximum or minimum Item differences >1.05 and Overall Item differences >0.37 are significant at $p < 0.05$ by Fisher's LSD.

[c]Maximum and minimum marginal means represent means across all items for a single school, and are not the means across the maximum or minimum item means reported in the columns above, which represent various schools.

*Maximum and minimum means differ at $p < 0.05$ by Fisher's LSD for single items.

Participants viewed supervising residents and faculty as positive role-models of ethical and professional behavior (mean=6.60 on a scale of 1: None to 9: All). Also, respondents reported that supervising residents, faculty, and their training institution treated them in an ethical and professional manner (mean=6.88 on a scale of 1: Never to 9: Always).

Methods of Assessing Knowledge (Table 1)

Psychiatry residents rated agreement (scaled from 1: Strongly Disagree to 9: Strongly Agree) that six methods are appropriate for assessing knowledge of professional attitudes, values, and ethics. Residents strongly agreed that clinical supervision is an appropriate knowledge-assessment method (mean=7.59); somewhat agreed that oral examinations are appropriate (mean=5.49); neither agreed nor disagreed that short-answer questions, essays, and standardized patient interactions are appropriate (means=4.96 to 5.08); and disagreed that multiple-choice examinations are appropriate (mean=4.03; Method Item main effect $F[5, 133]=68.59$; $p < 0.0001$, maximum Cohen's $d=1.53$).

Psychiatry residents' ratings for some methods differed across the seven medical schools (Item × School interaction $F[30, 534]=2.18$; $p < 0.001$). Residents from all schools expressed similar agreement concerning clinical supervision (means=7.06 to 8.13; maximum $d=0.48$), short-answer questions (means=4.42 to 5.50; maximum $d=0.49$), and multiple-choice examinations (means=3.68 to 4.92; maximum $d=0.56$). In contrast, school mean ratings ranged from neither agreement nor disagreement to agreement that oral examinations are an appropriate method for assessing knowledge (means=4.64 to 7.02; maximum $d=1.08$) and ranged from disagreement to agreement that essays (means=4.14 to 6.55; maximum $d=1.09$) or standardized patient interactions (means=3.84 to 6.83; maximum $d=1.36$) are appropriate methods.

Respondents' ratings of oral examinations, short-answer questions, essays, standardized patient interactions, and multiple-choice examinations showed substantial variation and greater variation than ratings for clinical supervision (SDs: 2.30 to 2.53 versus 1.56; all $p < 0.001$). Responses ranged across the scale for all methods considered. For all methods except clinical supervision, greater agreement that the method is appropriate for knowledge-assessment was associated with more training in ethics during residency and greater perceived helpfulness of medical education in dealing with ethical conflicts (r=0.16 to 0.33; mean r=0.22; all $p < 0.06$).

Methods of Assessing Skills (Table 2)

Psychiatry residents rated agreement (scaled from 1: Strongly Disagree to 9: Strongly Agree) that eight methods are appropriate for assessing skills related to professional attitudes, values, and ethics. Residents agreed that direct faculty observations of residents' interactions with patients and clinical team members are appropriate for assessing skills (means=7.09 to 7.29) and agreed less, but still agreed, that faculty observation of videotaped interactions of residents with patients, evaluation of residents by patients, residents' written and observational skills in analyzing "trigger" videotapes, and evaluation of residents by

TABLE 2. Methods of Assessing Skills Rated by 151 Psychiatry Residents at 7 Medical Schools[a]

Method for Assessing Skills Related to Professional Attitudes, Values, and Ethics	Appropriateness Rating Range Across Schools			Overall
	Minimum Mean	Maximum Mean	Maximum Cohen's *d*	Mean (SD)
Faculty direct observation of residents' interactions with actual patients	6.81	7.96	0.59	7.29 (1.57)
Faculty observation of residents' interactions with clinical team members	6.79	7.42	0.32	7.09 (1.70)
Faculty observation of videotaped interactions of residents with actual patients	5.68	6.90	0.62	6.17 (2.00)
Evaluation of residents by patients	5.04	6.28	0.63	5.85 (2.41)
Residents' written and observational skills in analyzing "trigger" videotapes	4.30	6.30	1.02	5.41 (1.92)
Evaluation of residents by non-faculty staff	4.67	6.01	0.69	5.29 (2.24)
Standardized patients' assessment of their interactions with residents	3.83	6.30	1.26*	4.64 (2.30)
Written exercises as follow-ups to standardized patient interactions	3.60	6.05	1.25*	4.61 (2.16)
Mean[c]	5.43	6.42	0.76	5.80 (1.37)

Cohen's *d*: an effect size measure that is the standardized mean difference; SD: standard deviation.

[a]Scale: 1: Strongly Disagree to 9: Strongly Agree.

[b]Means are from a repeated-measures Method Item × School × Gender MANOVA. Item effect: $p < 0.0001$; Item × School interaction $p < 0.01$; pooled SD=1.96.

Maximum or minimum Item differences >1.05 and overall Item differences >0.38 are significant at $p < 0.05$ by Fisher's LSD.

[c]Maximum and minimum marginal means represent means across all items for a single school, and are not the means across the maximum or minimum item means reported in the columns above which represent various schools.

*Maximum and minimum means differ at $p < 0.05$ by Fisher's LSD for single items or by analysis main effect for means over items.

non-faculty staff are appropriate (means=5.29 to 6.17). Residents slightly disagreed that standardized patients' assessment of their interactions with residents and written exercises as follow-ups to standardized patient interactions are appropriate for assessing skills related to professional attitudes, values, and ethics (means=4.61 to 4.64; Item main effect $F[7, 131]=32.79$; $p < 0.0001$; maximum $d=1.30$).

Psychiatry residents' ratings for some of the methods of assessing skills related to professional attitudes, values, and ethics differed across the seven medical schools (Item × School interaction $F[42, 618]=1.74$; $p < 0.01$). Students at all schools agreed that the three methods involving faculty observation of residents were appropriate, although the strength of agreement varied across schools (means=5.68 to 7.96 for the three items; maximum $d=0.62$ for an item). However, school mean ratings ranged from neither agreement nor disagreement to agreement that evaluation of residents by patients is appropriate (means=5.04 to 6.28; maximum $d=0.63$) and ranged from disagreement to agreement that evaluation of residents by non-faculty staff (means=4.67 to 6.01; $d=0.69$), analysis of "trigger" videotapes (means=4.30 to 6.30; $d=1.02$), standardized patients' assessments (means=3.83 to 6.30; $d=1.26$), and written follow-ups to standardized patient interactions (means=3.60 to 6.05; $d=1.25$) are appropriate.

For all skill-assessment methods, greater agreement that the method is appropriate was associated with greater perceived helpfulness of medical education in dealing with ethical conflicts (r=0.16 to 0.27; mean r=0.22; all $p < 0.05$).

Discussion

Assessment of future psychiatrists' skills and knowledge related to professionalism and ethics is a critical task for psychiatric educators. Even as evaluation methods of professional behavior continue to evolve, educators remain limited in their ability to identify professionalism strengths or, more worrisomely, concerns among trainees (18). The perspectives of trainees can help inform the development of effective methods for conducting such evaluations, because feedback may be more likely to be incorporated into future behavior if presented to a receptive learner (19–21).

We found that psychiatry residents were open to multiple procedures for assessing their knowledge and skills with respect to professional attitudes, values, and ethics. Stronger preferences were found, however, for clinically-oriented assessments (e.g., clinical supervision, faculty observations of residents' interactions with patients and team members) than for structured assessment methods (e.g., short-answer questions, essays, standardized patient interactions, and multiple-choice examinations). The least-favored methods for assessing both knowledge and skills involved the use of standardized patients. Moreover, both among schools and among residents, there was more

variability in ratings of structured assessment methods than routine clinical supervision.

This set of findings fits with the larger literature emphasizing clinically-attuned teaching and evaluation as being more "authentic" or valid. According to Branch et al. (22), the humanistic aspect of patient care is best taught in the clinical settings where key role-modeling and direct faculty supervision occurs. Also, direct observation by qualified faculty allows for proper assessment of a trainee's professionalism and humanistic competence while reinforcing the importance of those skills in a physician's development and growth (23). Across the schools that we surveyed, there was substantial agreement that the three methods involving faculty observations of residents were appropriate to assess residents' skills. This finding is consistent with previous studies in which medical students, residents, and physicians in other fields rated clinical supervision as their preferred assessment method (14, 24). Our survey also showed that the strength of residents' agreement with appropriateness of assessment methods increased with greater perceived helpfulness of medical education in dealing with ethical conflicts. This finding should be interpreted cautiously because it may simply indicate that those residents who were more attuned to teaching about ethics were also more open to various assessment methods. This finding thus may reflect some underlying tendency, trait, or attitude, rather than implying any causal relationship. Higher variability among schools was seen in ratings of assessment methods involving standardized patients, videotapes, and evaluations of residents by patients and non-faculty staff. It is unclear what explains such differences of opinion on assessment methods. It is possible that residents' experience with particular evaluative techniques during their training may play a role. Each training institution may possess unique cultural characteristics—where certain training and assessment methods may be valued or emphasized over others.

Using direct faculty supervision in assessing professionalism has many practical advantages. First, direct faculty supervision is generally straightforward to implement and fits with the ecology of usual teaching in clinical settings (24), which is probably why clinical supervision is the most common assessment method used among medical schools and residency programs (9). Second, it offers the opportunity to evaluate trainees in real-life situations (25). Third, direct faculty supervision allows for immediate feedback to students (24, 26), which is particularly helpful when the purpose of the assessment is to promote the learning process tailored to individual students' needs (formative assessment). Furthermore, previous empirical work has shown that when faculty members supervise students, they exhibit increased awareness of their own professional behavior (27). A positive feedback loop may therefore result, as supervisors, in turn, become better role-models for trainees.

Despite all the benefits that direct faculty supervision offers, it also has drawbacks. For instance, learners may behave differently when they know they are being observed (24, 26). Another major disadvantage of clinical supervision is its low interrater reliability (24), especially when the evaluation is not accompanied by a structured assessment tool. Because of these and other limitations, new methods of assessment have been proposed in recent years.

Standardized patient evaluations are one of the tools increasingly used in medical schools and residencies to assess medical professionalism. Cohen (28) reported that ethical behavior and cultural sensitivity were reliably and validly assessed through standardized patient evaluations. Standardized patient evaluations also have limitations, however. This method can be costly (9, 28, 29). Also, it can lack the reality of daily environmental factors (25, 29, 30). This perceived "artificiality" may reduce residents' preference for this assessment modality.

Several limitations of the study should be noted. As with any survey, the possibility of response bias is present: those with more positive or more negative attitudes may have been more likely to complete the survey. We have no information about non-responders and how they match with the base population. Our sample of seven U.S. psychiatry residency programs only reflects a small portion of the many diverse programs that exist, and therefore we cannot truly say with certainty that our findings can be generalized for all psychiatry training programs. Also, the subjective nature of the questions raises the possibility that respondents gave socially desirable answers. We also did not ask residents to explain their preferences for various methods over others. Furthermore, despite the response rate and diversity of programs represented, the views of residents who responded may not generalize to psychiatric trainees in general. Respondents' opinions may have been influenced by the culture of ethics and professionalism in their respective institutions. Nevertheless, this study had several strengths: it involved participation from seven residency training programs from several different regions; it had a response rate of 61%; and it used questions that had been examined in previous research.

Our study suggests that psychiatry residency programs that use direct faculty supervision and other clinically-oriented assessment methods when evaluating professionalism and ethics-related knowledge, skills, and attitudes in trainees will find their residents relatively receptive to

these efforts. Future studies need to link the preferred assessment methods with their validity and reliability. Our research supports medicine's long legacy in training of physicians where students look up to their teachers for guidance. In this study, psychiatry residents highly valued the feedback of their clinical supervisors and saw them as the best evaluators of trainees' work ethics and professional growth.

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