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Third-Year Medical Students' Participation in and Perceptions of Unprofessional Behaviors

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Abstract

Background

Students' perceptions of and participation in unprofessional behaviors may change during clinical clerkships.

Method

Third-year students anonymously reported observation, participation, and perceptions of 27 unprofessional behaviors before and five months after clerkships.

Results

Student observation (21 of 27) and participation (17 of 27) in unprofessional behaviors increased ($P < .05$). Students perceived unprofessional behaviors as increasingly appropriate ($P < .05$ for six behaviors). Participation in unprofessional behaviors was associated with diminished likelihood of perceiving a

behavior as unprofessional ($P < .05$ for nine behaviors).

Conclusions

Student observation and participation in unprofessional behaviors increased during clerkships. Participation in unprofessional behaviors is associated with perceiving these behaviors as acceptable.

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Medical students are shaped by positive and negative experiences which may influence their behaviors. Experiences may include formal curricular instruction and the informal or "hidden" curriculum. Expert opinion and research suggests that noncurricular elements¹ are powerful contributors to the development of unprofessional behaviors.^{2–9} Understanding the relationship between the informal curriculum and student participation in unprofessional behaviors is especially important in light of recent research demonstrating the association between unprofessional medical student behavior and subsequent disciplinary action by a medical board.¹⁰ To better characterize the hidden curriculum, the Liaison Committee on Medical Education (LCME) has a new standard requiring medical schools to assess the learning environment.¹¹

Some authors have assessed the moral and ethical development of medical students,¹² and others have conducted longitudinal observations of unprofessional behavior through the use of critical incident techniques.¹³ This study aims to examine changes in student perceptions of and participation in unprofessional behaviors immediately

before and midway through their clinical clerkships.

Method

Survey development

As part of an institutional initiative to address professionalism, The Pritzker Roadmap to Professionalism, five medical students, representative of the student body, volunteered to identify unprofessional behaviors relevant to training. Both preclinical and clinical surveys were developed to account for differences in settings. Students participate in brief weekly clinical activities with residents before beginning their third year and have the opportunity to observe and participate in unprofessional behaviors. Results of the preclinical survey are reported elsewhere.¹⁴ Students developed questions on the basis of their experiences of unprofessional behaviors in clinical rotations. Two faculty (S.R., V.A.) reviewed questions for clarity and consistency with institutional initiatives and recent literature and adjusted accordingly.^{15,16} The end result was a 27-item survey with yes/no response options containing questions pertaining to inappropriate dress (e.g., white coat in poor condition), violations of hospital policy (e.g., discussing patient information in public places), disregard for education and learning (e.g., arriving late to rounds), disregard for patients and

staff (e.g., making fun of patients, peers, or staff), misrepresentation (e.g., not correcting someone who mistakes you for a physician), and personal demeanor (e.g., competition with other students). Recognizing that there is ambiguity in what is considered unprofessional,¹⁷ the survey contained behaviors ranging from egregious (making fun of patients) to discourteous (wearing dirty white coat) to controversial (attending pharmaceutical dinners). These scenarios were chosen to reflect the range of dilemmas students face.

For each behavior, students were asked to report yes/no whether they (a) observed, (b) participated in, and (c) considered the behavior unprofessional. The order of the questions reflected escalating levels of disclosure by students. The post survey included a constructed response section for comments. The institutional review board approved this study.

Survey administration

Paper surveys were administered to medical students before the start of their clinical clerkships during a required orientation in June 2006. To protect student identity and facilitate truthful reporting, no identifying information was collected, rendering all data anonymous. Students were resurveyed electronically after a mandatory symposium five months into their clinical clerkships

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using Perseus Survey solutions software (Perseus Development Corporation, 1993–2006). Students received an electronic invitation to complete the survey at the end of the symposium, followed by two weekly reminders.

Data analysis

Survey data were merged into a single database with a variable identifying surveys as collected before or after the start of clinical rotations. For each behavior listed, descriptive statistics were used to describe student observation, participation, or perception of the behavior as unprofessional. Two sample tests of proportion were performed to detect significant differences between pre and post surveys. The association between participation in a behavior and perception of that behavior as unprofessional was tested using χ^2 tests. All data were analyzed using STATA 9.0 (Stata Corporation, College Station, Tex), with statistical significance defined as $P < .05$. Open-ended comments were coded using constant comparative method, an inductive approach with no a priori hypothesis, to generate initial categories. The remainder of data were coded using the initial categorical scheme, allowing for the grouping of related categories, or the generation of new categories. The initial categorical scheme was reviewed by four reviewers (J.F., V.A., S.R., H.H.) with near perfect agreement on categorization.

Results

Response rates for the pre and post surveys were 100% ($n = 104$) and 62% ($n = 61$) respectively. Table 1 shows the changes in student observation, participation and views of professional behaviors for the two time periods. For 21 of the 27 behaviors, there was a significant increase in student observation of these behaviors. Only four behaviors were observed less frequently during clinical clerkships: women's and men's dress issues (e.g., wearing revealing clothing), taking food from lectures, not attending, and inebriation at school events. Students reported a significant increase in participation in 17 behaviors. Students reported increased participation in all behaviors *except* the four behaviors observed less frequently (listed above) and four additional behaviors: arriving late for rounds, wearing scrubs on

noncall days, reporting an impaired colleague to faculty before approaching the individual, and competition between students. For 15 of the 17 behaviors students reported participating in more frequently, students' perception of the behavior as unprofessional declined by at least 5%. These changes were consistent with students perceiving unprofessional behaviors as increasingly appropriate. The magnitude of this change was greater than 14%, achieving statistical significance, for six behaviors (Table 1).

Table 2 shows the association between student participation in a behavior and perception of that particular behavior as unprofessional. This analysis was restricted to the post survey because preclerkship participation in the majority of these behaviors was low, limiting the ability to test meaningful associations between participation and perceptions. Students who acknowledged participation in the following behaviors were significantly less likely than those who did not participate to consider these behaviors as unprofessional: (1) absence from mandatory lectures, (2) being introduced as *doctor* or *student doctor*, (3) attending a drug-rep-sponsored event, (4) eating or drinking in patient corridors, (5) taking food from lectures you are not attending, (6) taking food meant for patients, (7) inebriation at school events, (8) discussing with patients information beyond your level of knowledge, and (9) consenting a patient for minor procedures without supervision.

Major themes from qualitative analysis of comments confirmed professionalism breaches (poor student/role model behavior, lack of patient care focus, and disregard for student needs) and overt hostility towards professionalism education. A student comment regarding role model behavior describes that "faculty do not adhere to the same standards that are being taught." Students reported a lack of a patient care focus by describing how "students should put patient well-being/teamwork highest on their priorities list; everyone needs time to study but it is more important to take care of our patients." A student who felt that students needs were disregarded stated, "eval[uations] should not be required to be turned in before clerkship grades are given, this . . . does not allow for accurate feedback from . . . the student." Finally, overt hostility towards

the current professionalism curriculum was supported by comments such as "get over it . . . this seems to the new 'in' topic in medical education. Quite honestly I feel harassed by all of this professionalism talk. . . ."

Discussion

Survey results demonstrate changes in student perceptions of unprofessional behaviors during a five-month period of exposure to clinical medicine. Increased participation was seen in almost all areas, consistent with the transition to more intense clinical activities. Participation in unprofessional behaviors was associated with an enhanced likelihood of viewing the behaviors as acceptable. One possible explanation for this phenomenon is that students are more likely to participate in behaviors they consider acceptable. An alternate hypothesis, based on cognitive dissonance theory, is that students altered their initial perceptions to be consistent with any participation in unprofessional behaviors.¹⁸ This could have been amplified by the order in which the questions were asked. Although we cannot make causal inferences, it is worth noting that students were more likely to perceive unprofessional behaviors as acceptable in the post period, suggesting that perceptions did change during this time period.

An initial interpretation of these data is that students must do a better job of maintaining their professional values in the face of the transitions to the clinical setting. However, it is important to consider why students may have incentives to participate in such behaviors. First, third-year medical students receive evaluations they perceive to be largely subjective but nevertheless important for securing increasingly competitive residency positions.⁴ Ginsburg et al⁶ describe the tensions students experience when faced with situations that create conflict between the "avowed" principles of professionalism and the "unavowed" principles of obedience, deference, allegiance, and education, which are more implicitly taught through the hidden curriculum.¹⁹ When students face these latter principles or even confront principles they openly disavow (e.g., self-interest), they may feel that they are forced to choose between the ideals of professionalism and the reality of educational survival in a hierarchical learning environment.

Table 1

Changes in Student Observation, Participation, and Views of Unprofessional Behaviors (pre n = 104; post n = 65)

Behavior	Observed (%)			Participated (%)			Issue of professionalism (%)		
	Pre	Post	Change (95% CI)	Pre	Post	Change (95% CI)	Pre	Post	Change (95% CI)
Late to rounds	54.2	78.1	24 (9.7 to 38.2)*	25.5	23.0	-2.5 (-16.2 to 11.1)	86.7	72.6	-14.2 (-27.1 to -1.2)*
Absent from mandatory lectures	33.3	84.1	50.8 (37.5 to 64.1)*	2.2	13.1	10.9 (1.9 to 19.9)*	87.8	70.5	-17.3 (-30.6 to -4.0)*
Use workrooms for nonclinical activities	32.5	75.8	43.2 (28.7 to 57.7)*	14.6	60.0	45.4 (31.0 to 59.8)*	31.9	11.7	-20.2 (-32.8 to -7.6)*
Wear scrubs on noncall days	30.0	39.1	9.1 (-6.2 to 24.3)	5.6	1.7	-3.9 (-9.6 to 1.8)	28.6	27.8	-0.7 (-15.3 to 13.9)
Wear scrubs out of the hospital	70.7	85.5	14.8 (2.0 to 27.6)*	17.8	35.0	17.2 (2.8 to 31.6)*	34.4	20.3	14.1 (-28.2 to 0.0)
Women's dress	48.9	41.0	-8 (-23.9 to 8.0)	4.3	5.0	0.7 (-6.2 to 7.6)	85.9	79.7	-6.2 (-18.7 to 6.3)
Men's dress	52.6	41.9	-10.7 (-26.6 to 5.2)	10.6	1.7	-9 (-16.0 to -1.9)*	87.4	75.0	-12.4 (-25.2 to 0.5)
Making fun of patients, peers, or physicians	53.7	82.2	28.6 (14.8 to 42.4)*	23.2	36.7	13.5 (-1.3 to 28.4)	89.6	83.3	-6.3 (-17.5 to 5.0)
Not correcting someone who mistakes you for a physician	36.2	70.5	34.3 (19.3 to 49.3)*	16.8	32.2	15.3 (12.6 to 29.5)*	82.3	59.3	-23 (-37.6 to -8.3)*
Being introduced as <i>doctor</i> or <i>student doctor</i> to patients	67.7	91.9	24.2 (12.7 to 35.8)*	54.7	81.6	26.9 (12.9 to 40.9)*	64.2	53.3	-10.9 (-26.8 to 5.0)
Attending a drug rep social event	38.9	67.8	28.8 (13.6 to 44.0)*	24.2	50.0	25.8 (10.5 to 41)*	35.4	26.7	-8.8 (-23.5 to 6.0)
Accepting a pen from a pharmaceutical representative	54.7	86.9	32.1 (19.0 to 45.3)*	37.9	66.7	28.8 (13.4 to 44.2)*	22.7	23.3	0.7 (-12.9 to 14.2)
Reporting an impaired colleague to faculty before approaching the individual	6.5	8.2	1.7 (-6.8 to 10.3)	1.1	1.7	0.6 (-3.3 to 4.6)	78.5	76.3	-2.2 (-15.9 to 11.5)
Poor condition of white coats	63.8	83.9	20 (6.7 to 33.4)*	20.2	50.8	30.6 (15.5 to 45.8)*	70.8	60.3	-10.4 (-26.0 to 5.0)
Eating or drinking in patient corridors	40.4	83.6	43.2 (29.6 to 56.8)*	16.0	61.0	45.1 (31.0 to 59.5)*	38.9	30.5	-8.4 (-23.7 to 6.9)
Taking food from lectures you are not attending	83.2	68.9	-14.3 (-28.2 to -0.5)*	33.7	13.6	-20.1 (-33.0 to -7.2)*	68.8	71.2	2.4 (-12.4 to 17.3)
Taking food meant for patients	17.2	80.0	62.8 (50.0 to 75.5)*	7.4	62.7	55.3 (41.8 to 68.7)*	77.1	22.0	-55 (-68.5 to -41.5)*
Discussing patients in public spaces	38.7	55.7	17 (1.1 to 32.9)*	16.1	28.8	12.7 (-1.1 to 26.4)	93.8	91.4	-2.4 (-11.1 to 6.3)
Having personal conversations in patient corridors	68.9	95.1	26.3 (15.4 to 37.1)*	58.5	91.5	33 (20.8 to 45.2)*	27.7	11.9	-15.8 (-28.0 to -3.6)*
Making derogatory comments about patients	25.5	67.2	41.7 (26.9 to 56.4)*	0.0	8.5	8.5 (1.4 to 15.6)*	92.6	89.7	-3 (-12.4 to 6.5)
Inebriation at school events	78.7	73.4	-5 (-18.7 to 8.8)	26.6	19.0	-7.6 (-21.1 to 5.8)	67.0	66.1	-0.9 (-16.3 to 14.4)
Competition between students	83.2	95.2	12 (2.8 to 21.2)*	30.5	31.7	1.1 (-13.8 to 16.1)	40.4	35.0	-5.4 (-21.0 to 10.2)
Discuss with patients information beyond your level of knowledge	14.0	31.7	17.7 (4.0 to 31.4)*	10.0	27.6	17.6 (4.5 to 30.7)*	74.2	79.3	5.1 (-8.6 to 18.8)
Consent a patient for minor procedures without supervision	2.2	25.0	22.8 (11.4 to 34.2)*	0.0	27.6	27.6 (16.1 to 39.1)*	65.2	67.2	2.1 (-13.5 to 17.7)
Perform procedures beyond your level of skill on patients	1.1	21.7	20.6 (10.0 to 31.2)*	0.0	13.8	13.8 (4.9 to 22.7)*	78.2	70.2	-8.1 (-22.6 to 6.5)
No feedback to residents or faculty regarding their inappropriate behavior	7.5	44.8	37.3 (23.4 to 51.2)*	1.1	12.3	11.2 (2.4 to 20.0)*	84.0	86.0	1.9 (-9.7 to 13.6)
Unclear expectations or insufficient feedback by faculty or residents	23.7	88.3	64.7 (52.8 to 76.5)*	15.2	84.5	69.3 (57.4 to 81.1)*	69.1	77.6	8.4 (-5.8 to 2.3)

* $P < .05$.

Table 2

Participation in and Perception of Unprofessional Behavior after Clerkships (n = 61)

Behavior	Number of students participating in behavior		% students stating that behavior is unprofessional		Difference in view: is the behavior unprofessional? (P-NP, 95% CI)
	Nonparticipants (NP)	Participants (P)	NP	P	
Arriving late to rounds	47	14	76.7	64.3	-12.3 (-40.1 to 15.6)
Absence from mandatory lectures	53	8	75.5	37.5	-37.9 (-73.5 to -2.5)*
Using workrooms for nonclinical activities	24	36	20.8	5.6	-15.3 (-33.2 to 2.6)
Wearing scrubs on noncall days	59	1	28.8	0.0	-28.8 (-40.4 to -17.2)
Wearing scrubs out of the hospital	38	21	26.3	9.5	-16.8 (-35.6 to 2.0)
Women's dress	56	3	80.4	66.7	-13.7 (-68.0 to 40.7)
Men's dress	59	1	76.3	0.0	-76.3 (-87.1 to -65.4)†
Making fun of patients, peers, or physicians	38	22	89.5	72.3	-16.7 (-37.8 to 4.3)†
Not correcting someone who mistakes you for a physician	40	19	65.0	47.4	-17.6 (-44.5 to 9.2)
Being introduced as <i>doctor</i> or <i>student doctor</i>	11	49	81.9	46.9	-34.9 (-61.6 to -8.1)*
Attending a drug rep event	30	30	40.0	13.3	-26.7 (-48.0 to -5.3)*
Accepting a pen from a pharmaceutical representative	20	40	30.0	20.0	-10.0 (-33.6 to 13.6)
Reporting an impaired colleague to faculty before approaching the individual	57	1	77.2	100.0	22.8 (11.9 to 33.7)
Poor condition of white coats	28	30	71.4	50.0	-21.4 (-45.9 to 3.1)†
Eating or drinking in patient corridors	23	36	52.2	16.7	-35.5 (-59.3 to -11.7)*
Taking food from lectures you are not attending	51	8	76.5	37.5	-38.0 (-74.5 to -3.5)*
Taking food meant for patients	22	37	40.9	10.8	-30.1 (-53.0 to -7.2)*
Discussing patients in public spaces	42	16	92.9	87.5	-5.4 (-23.3 to 12.6)
Having personal conversations in patient corridors	5	54	0.0	13.0	13.0 (4.0 to 21.9)
Making derogatory comments about patients	53	5	90.6	80.0	-10.6 (-46.5 to 25.4)
Inebriation at school events	47	11	72.3	36.3	-36.0 (-67.1 to 4.8)*
Competition between students	41	19	34.1	36.8	2.7 (-23.4 to 28.8)
Discussing with patients information beyond your level of knowledge	42	16	85.7	62.5	-23.2 (-49.2 to 2.8)*
Consenting a patient for minor procedures without supervision	42	16	81.0	31.3	-49.7 (-75.3 to -24.1)*
Performing procedures beyond your level of skill	49	8	71.4	62.5	-8.9 (-44.8 to 26.9)
Not providing feedback to residents or faculty regarding their inappropriate behavior	50	7	84.0	100.0	16.0 (5.8 to 26.2)
Unclear expectations or insufficient feedback from faculty or residents	9	49	66.7	79.6	12.9 (-19.9 to 45.7)

* $P < .05$; P values obtained from χ^2 tests; confidence intervals obtained from two-sided tests of proportions.† $P < .10$ (see above).

Limitations include the lack of pairing between pre and post behaviors and a lower survey response rate to the follow-up survey. Although anonymity may have

facilitated truthful reporting, it prevented paired analyses to detect subtle differences. The lower post survey response rate may reflect "hostility

towards professionalism education" and could potentially bias the results if the most hostile students did not respond. In this instance, we would be less likely to

detect any differences suggesting that our findings are significant. It is possible that students misrepresented their true perceptions because of hostility, raising concerns regarding the validity of future longitudinal assessments of this nature. Notably, serial assessments to monitor changes in student participation and perception of professionalism behaviors have been recommended by the LCME.

Our findings are consistent with recent calls to “shift the culture” in educating students about professionalism.²⁰ To truly alter perceptions of and, ultimately, behaviors, change must include faculty, housestaff, students, and staff. Additionally, innovative modalities for teaching, evaluating, and understanding the etiology of professional behaviors in the clinical environment are needed.¹⁷

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