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Faculty Members' Expectations of Student Behavior in the Small-Group Setting

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Abstract - This study examined faculty members' expectations of student behavior in three types of small group settings (student-directed, teacher-directed, and skill-based) at a single institution. Twenty-eight faculty members participated in in-depth, semi-structured interviews that addressed how students should prepare for small-group sessions, what learning behaviors informants expect students to exhibit, strategies informants use to stimulate group interaction, and how informants evaluate student performance in the small group settings. Analysis of informant responses indicates small-group instructors have similar expectations of student behavior across all small-group settings. Students are expected to have good interactive skills, be well-prepared and participate in the group, and demonstrate knowledge of the material or facility with the skill taught. Given the results that indicate faculty members' have largely undifferentiated approaches to their evaluation of student performance, efforts should be taken to help faculty hone their small group teaching skills to enhance students' knowledge and skill acquisition in small-group teaching formats.

To address the 1984 recommendations of the Panel on the General Professional Education of the Physician concerning active learning situations for students[1], United States medical schools have increasingly modified their curricula to incorporate small-group learning activities. In particular, several schools have adopted problem-based learning (PBL) approaches for both basic science and clinical instruction. Many medical schools are also using other variants of the small-group process, including group discussion where an instructor-led, case-based discussion applies didactic material or skills-based instruction where students, coached by an instructor, work to acquire interviewing and physical examination skills. Literature describing characteristics of the effective tutor exists to enhance faculty development in the PBL setting.[2-5] Literature on fostering learning in small groups is also available for faculty teaching in medical schools.[6-7]

With the impetus to incorporate small group instruction into medical school curricula, more information to assist faculty and medical students in preparing for the small-group process would be helpful. Many questions can be explored: How should students prepare for small-group learning? What learning behaviors do instructors want students to display? How does the ideal student behave in a group? How do faculty members characterize a problem student in the small-group setting? What teaching behaviors do faculty use to facilitate group interaction among students? How do faculty members evaluate student performance in small groups? Answers to these questions will aid in the development of programs to train faculty unfamiliar with small group teaching as well as assist in advising students about faculty expectations for small-group activities. The purposes of the present study were 1) to examine faculty members' expectations of student behavior in small-group activities, 2) to identify faculty members' perceptions of particular teaching behaviors they use in small-group activities, and 3) to compare faculty members' expectations across types of small-group activities in our curriculum.

Methods

The study was designed as a qualitative investigation of faculty members' expectations of student behavior in three different types of small-group activities. The curriculum of the study institution includes a variety of small-group activities in which instructors meet with groups of 4 to 16 students. These activities include PBL sessions, case-based

discussions, and skills-based groups. An inventory of the small-group activities in curriculum years 1 through 3 was conducted by interviewing all 21 course directors and asking them to describe the type of small-group activities in their courses. In addition, course directors were asked to identify all faculty members who had taught in their course's small-group activity for at least three academic years. Using that criteria, course directors identified 98 faculty eligible for participation in the study. Course directors were informed of the nature of the study and were told that identified faculty members would be randomly selected for semi-structured interviews pending approval of the project by the University Institutional Review Board.

Once course directors had been interviewed and the inventory of teaching activities had been completed, the four author-investigators met to decide upon a classification of course activities. S*tudent-directed groups* described courses in which students determined learning issues to be researched after group sessions (N = 12 courses; 66 faculty). Examples of these small groups included the PBL sessions used in the third-year clerkships and a PBL-format course about the psychosocial, legal, and ethical aspects of health care. (The PBL format used at the institution requires students to discuss a problem-based, patient-oriented case and to identify learning issues during the discussion that will be researched independently by students and then presented to the group at the next class session. Faculty serve as facilitators, not directors, of the group's activities.) *Teacher-directed groups* described those courses that used learning issues predetermined by the course or by the instructor for case-based discussion (N = 5 courses; 24 faculty). Examples of these groups were pathology and histology case-based discussions in which students met for one or two sessions with a faculty member to discuss a case that expanded material previously addressed in lecture. *Skill-based groups* described those courses that used the small-group format to teach a specific skill, such as patient interviewing or physical examination (N = 4 courses; 8 faculty).

The selection of informants for this study was guided by purposeful sampling.[8] Using the course activity classification, we selected one instructor from each small-group activity in each course over the first three years of the medical curriculum for participation in the study. For courses in which the small-group activity accounted for 75% to 100% of the course's teaching, two instructors were selected. Of the 98 faculty members meeting the study criteria, 30 faculty were selected as informants. Two of the thirty informants, one of whom was leaving the institution, opted not to participate in the study. Thirteen instructors were selected from student-directed groups, 8 from teacher-directed groups, and 7 from skill-based groups (11 women and 17 men). Sixteen instructors were M.D.'s, 10 were Ph.D.'s, 1 was an Ed.D., and 1 was an M.D./Ph.D.

The four author-investigators conducted in-depth, semi-structured interviews with 28 informants [9]. The following probe questions were included in each interview: background information about the course and the instructor's experience teaching in small groups; suggestions for preparing for the small group sessions; expectations of students' learning behaviors in small groups; teaching behaviors used to promote student interaction; and the instructor's method of evaluation of students, including descriptions of a successful and an unsuccessful student. One investigator (A.B.) pretested the interview instrument with an instructor while the other investigators observed. This pre-test served the dual purposes of refining the instrument and of modeling conduct of the interview. Each interview session was audiotaped. Investigators recorded responses to each question on the instrument form; notes were transcribed verbatim. Data relevant to all identified probe questions were organized by content; conceptually similar responses were grouped together [10]. For each response, its associated small-group format was identified. Responses per question item were counted to report the frequency of response content. The number of times a small-group format was identified in a response was also counted. In answer to a single question, informants may have made statements that were sorted into more than one response category.

Results

The informants (N = 28) had an average of 15.3 years of teaching experience (S.D. = 8.5; range = 3 to 44 years). Twenty-four informants had received training in small-group teaching. Specifically, 21 reported that they had been trained as PBL tutors at the study institution. On a five-point scale (1 = very uncomfortable; 5 = very comfortable), informants rated their mean comfort level with teaching in the small-group setting as 4.5 (S.D. =0.76).

Question responses across the small-group teaching formats were remarkably similar. Thus,

unless noted, the results are presented without distinguishing small-group teaching formats. Informants were asked how they communicated their expectations of student behavior in the small group setting. Most informants (18) stated that they explicitly told students what is expected of them at the first small-group meeting. Five informants refer to the course syllabus or to the instructions given to students during the course orientation. Five informants do not explicitly tell the students their expectations.

Instructors were asked how students should prepare for their small-group sessions. Nineteen informants representative of all types of small-group activities stated that students should read the course material, review class notes, and, when necessary, research assigned learning issues before the small-group session. Seven instructors responded that students' preparation for the small-group sessions should also include accessing additional learning resources beyond those assigned. Examples of other means of learning included consulting with clinicians about PBL learning issues, visiting the library to look for additional resource material, viewing videotapes, and practicing interviewing and physical examination skills outside the formal small-group setting. Six instructors from the teacher-directed and skill-based groups commented that students should attend course lectures.

Across the three types of small group activities, informants' expectations of students' learning behaviors in the group centered on interactive skills. The ideal student was described as an active member of the group who participates and contributes to discussions (13 comments); helps other classmates and provides them with appropriate feedback (8 comments); volunteers to do something during the session (3 comments); is not intimidated by questions and voices opinions (3 comments). In addition to being an active member of the group, the ideal student demonstrates a positive attitude toward the group members and the group process. Learning behaviors indicating a positive attitude included listening attentively to classmates (9 comments), being pleasant and respectful (7 comments), being serious about the group process and the material discussed (5 comments), and being enthusiastic about learning (4 comments). The ideal student is also well-prepared and demonstrates conscientiousness in completing reading assignments (11 responses) and is involved with the course material. This student could easily relate the learning objectives to the case and would read beyond textbook assignments (12 comments). For the student-directed courses, two informants stated that ideal students share their reasoning processes and can describe how they conceptually approach a problem.

In contrast, across the three types of small-group formats, descriptions of the problem student's learning behavior in the small-group setting centered on difficulties with group interaction. Three types of interaction problems were identified from informants' responses. The first type was the non-participating, quiet, and passive student (19 comments). The second type was the disruptive student who is sarcastic, disrespectful, or interrupts discussions (14 comments). The third type was the student who tries to take over the group and control it (7 comments). Besides having difficulties with group interaction, problem students were not sufficiently involved with the course material. They exerted little effort to learn in the group and did not come to the session prepared (9 comments). They did not take the group's efforts seriously and were uninterested in group activities or in their fellow students. Two informants described problem students as "show-offs" or "competitive". One informant reported that problem students did not seek help when needed.

With regard to group process, the majority of informants (27) agreed that it is beneficial for group members to work well together. Most informants (23) actively attempted to facilitate group interaction. Strategies used by informants to facilitate group interaction included asking students questions about course content (7 comments), creating a need for an interaction among students through role-play or debate, giving feedback about the group's ability to work together (4 comments) and, in the skills-based groups, pairing students to work together on skills (6 comments). Seven informants enhanced group interaction by creating a relaxed atmosphere in the group through having an informal, non-course related conversation at the beginning of each session, having parties with the students, or meeting with a problem student outside of the group. Two informants from skill-based courses encouraged the students to work together on course material outside of the small-group setting. Informants monitored their group's success at working together by noting the extent and quality of interaction among students (11 comments), cooperation on learning issues and help given each other (8 comments), participation in group discussion (7 comments), students' respect for and comfort with each other (5 comments), and attentiveness to group members who are speaking (3

comments). Three informants from the student-directed groups stated that their directive instructional interventions decreased over time and that the group could function without their presence by the end of the course.

Most informants found that both openly shy as well as talkative students impacted group interaction. To deal with shy students, 21 informants asked them direct questions seeking their comment about a point of discussion. Other strategies for dealing with shy students included asking them to role play or read case material aloud, or speaking to them outside of the group to encourage participation (4 informants). Strategies for dealing with talkative students included interrupting them, asking them to talk less and wait for other students to speak, re-directing questions to others, and refocusing them by participation in role-playing, reading the case material aloud, or recording learning issues (17 informants). Three informants would speak to the talkative student outside of the small group.

Finally, informants were asked to describe their criteria for evaluating students' performances in the small-group setting. While 21 informants noted that the formal evaluation of students was based on their performance on examinations prepared by the course director, most informants did give summative feedback to students on their performances in the small group setting. Students rated as successful by the informants generally demonstrated learning behaviors descriptive of the ideal student while unsuccessfully rated students demonstrated behaviors similar to those of the problem student. Characteristics of both successful and unsuccessful students in the small-group setting are summarized in Table 1.

Discussion

Medical schools are increasingly incorporating small group instruction in their curricula. Because of recent curricular reform at the study institution, the number of curriculum hours devoted to small group instruction in years 1 through 3 has increased twofold since 1992, to approximately 765 hours in the curriculum for the study year period. However, no formal efforts had previously been made to explore the instructional effects of this change. In this pilot study, we sought to determine differences in faculty members' expectations of student behavior across three types of small group activities (student-directed, teacher-directed, and skill-based). The most unanticipated finding in this study was that faculty members' expectations for student behavior were similar across the three types of small-group activities. The exceptions were the few situations where course goals dictated different learning objectives according to the type of group (such as recording learning issues in PBL, student-directed groups or practicing skills in skill-based groups). Informants expected students to have good interactive skills as well as positive attitudes toward peers. Students were also expected to be well prepared for the sessions, engaged with the course material and able to demonstrate knowledge of the material or facility with the skill taught, and demonstrate a willingness to participate in the group. Group size has been demonstrated to affect members' participation in a group, [11] thus to maximize members' participation, the number of small-group members should be considered in course design and faculty expectations of students' behavior in a small-group setting.

Nearly all informants reported interactions with problem students in small groups. Problem students were defined by the informants as non-participating, ill prepared, or disruptive. Given the rigorous admission criteria used to select academically capable students likely to excel in the medical school curriculum coupled with the widespread belief among medical school faculty that professional students will accomplish any educational requirement, it is somewhat surprising that certain students fail to meet the behavioral expectations of faculty. These findings have implications for admissions officers. First, admission officers should communicate the medical school faculty's expectations for student learning behavior to premedical advisors. With such knowledge, advisors can better counsel potential applicants as to which additional interactive college courses will prepare them for the medical school small-group experience. Second, care should be taken to communicate a clear description of the medical school curriculum and of instructional methods used to potential applicants. Equipped with such information, applicants can better choose which medical schools subscribe to a curricular approach in keeping with their learning styles.

The study findings also provide valuable information for currently enrolled medical students by suggesting ways for them to meet faculty members' expectations of their behavior in small-group settings. The current findings complement the few pieces in the literature advising students about the mechanics of PBL or other small-group activities [12-13] by outlining how instructors expect students to

behave in groups and by describing the techniques that instructors use to modulate students' behavior. During medical school orientation, student affairs and/or curriculum officers should articulate to students institutional and faculty expectations for performance in small-group teaching activities.

The study also has implications for faculty development. Although most informants in the study had had some PBL training and expressed comfort in teaching in the small group setting, most expressed frustration in dealing with shy, talkative, or problem students. The institution's PBL training consisted of discussion about the PBL method, a brief demonstration of an experienced PBL facilitator with students, and PBL trainee participation as a facilitator with students. The training lasted for 6 hours over a two-day period. Discussion of the PBL method included some tips about dealing with problem students.

Table 1

Evaluation of Student Performance in a Small-Group Setting

Characteristics of Successful Students

Behavior	Frequency of Comments	Examples
Good Interactive Skills	15	Talks and engages others in discussion
	4	Not rude or arrogant with peers
	3	Listens and is attentive
	2	Good attitude
	2	Present at all sessions
Comprehension of Content	9	Well-prepared, completed assignments
	6	Applies content to group activities
	3	Presents learning issues well
	2	Seeks out new information

Characteristics of Unsuccessful Students

Behavior	Frequency of Comments	Examples
Poor Interactive Skills	10	Not participating in group activities
	4	Not present at sessions
	3	Inattentive
	2	Refuses to see alternate views or values
Comprehension of Content	7	Exerts little effort to learn
	6	Doesn't learn content
	4	Not prepared

However, this may not be sufficient for effective faculty development about teaching in the small-group setting. Role-playing instructional situations where faculty members need to work with difficult students may increase their skill in dealing with this aspect of the group process. The undifferentiated approaches to evaluation of student performance also suggest the need for faculty development activities to help instructors hone their expectation levels for students' group work and differentiate learning outcomes according to group format. Research in classroom-based education demonstrates that teachers' expectations have significant influence on student achievement [14]. The knowledge and skills students acquire through small-group experiences will be enhanced by improved faculty facility with the variety of small-group formats being implemented in medical school curricula.

This study has several limitations. As a pilot study, it was conducted at a single institution and sampled a group of relatively experienced faculty.

Replication of this study with inexperienced faculty may reveal somewhat different results. Implications for future research include determining the extent of problem behavior in the small group setting, identifying idiosyncratic characteristics of students or of instructors, or complexities, redundancies, or ambiguities in course materials which may contribute to problem behavior in the small group, and contrasting faculty members' expectations for students' learning with the instructional methods used across groups to determine whether faculty are enhancing the natural learning opportunities common to all formats.

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