

Comparing Ambulatory Preceptors' and Students' Perceptions of Educational Planning

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To compare ambulatory preceptors' and students' perceptions of the use of educational planning (setting goals, assessing needs, formulating objectives, choosing methods, and providing feedback and evaluation) in the office setting, we mailed a survey, which was returned by 127 longitudinal ambulatory preceptors and 168 first-year and second-year medical students. Faculty perceptions did not match student perceptions of what occurred in the longitudinal preceptor program teaching sessions in educational planning areas. Students perceived these activities were occurring with much less frequency than faculty perceived. Medical education needs to move beyond the usual faculty development workshop paradigm to a more comprehensive educational development model that includes training both faculty and students in core educational skills. This will enable the ambulatory setting to reach its full educational potential in training future physicians.

KEY WORDS: medical education; clinical teaching; ambulatory teaching; performance evaluation; faculty development. *J GEN INTERN MED* 1999;14:196-199.

The expectations of ambulatory teaching have increased since gaining attention almost a decade ago.¹⁻⁴ In addition to traditional curricula, which often focus on content areas such as hypertension and cancer screening, the unique qualities and strengths of the ambulatory setting allow teaching of concepts more closely connected to processes of care such as continuity, expectations and attitudes around chronic illness, and the medical interview.²⁻⁴ Typically, ambulatory teaching uses an apprenticeship model in which an experienced practitioner at work is observed by a learner. Teaching is done by more faculty in a diversity of settings with limited time for teaching. Not only are curricular changes necessary, but also changes in teaching methodology. The challenge remains for institutions to ensure that the teaching skills of preceptors are consistent so that explicit educational outcomes are achieved.⁵

In order to achieve educational outcomes, preceptors need to understand how to meet learners' needs. They also need to have knowledge of what constitutes educa-

tional planning. Planning involves five steps: developing goals, assessing the learner's needs, developing specific educational objectives, deciding what methods would best achieve these objectives and finally, conducting evaluation and feedback.⁶

The purpose of this study was to examine preceptors' perceptions of their use of educational planning and determine if students' perceptions matched preceptors' perceptions. For the purpose of this paper, the initial step of goals was omitted as goals were explicitly provided to both faculty and students.

METHODS

The study was conducted with first-year and second-year medical students and preceptors from the Longitudinal Preceptor Program (LPP) at the University of Massachusetts Medical School. The LPP curriculum requires students to spend one half-day every other week with their preceptor throughout the first two years of medical school. The LPP recruits community physicians, 85% of whom practice in primary care. Letters of invitation are sent to community physicians within a 20-mile radius of the medical school. The faculty preceptors volunteer to participate in the program, and a small remuneration is provided. Course goals and individual session objectives are set by the program director and recorded in the syllabus that is given to students and preceptors.

A questionnaire was developed in which specific items asked both students and preceptors to rate their perception of the frequency that educational planning is demonstrated during LPP visits. There were 2 items for needs assessment, 3 items for objectives, 10 items for methods, and 1 item for evaluation. Responses were recorded on a 5-point Likert scale (1 = not at all, 2 = seldom, 3 = sometimes, 4 = frequently, 5 = always). On the student questionnaire, there was also an open-ended question in which students were asked to identify factors that influenced their confidence in addressing educational needs with their LPP preceptor.

Two hundred questionnaires were mailed to preceptors at their office. After a 2-week period, an e-mail or telephone call reminder was sent. One hundred twenty-seven preceptor evaluations were returned for an overall response rate of 64%. Student questionnaires were administered during classroom time. One hundred sixty-eight of 200 questionnaires were returned for a response rate of 84% from first-year and second-year students.

A comparison of faculty and student perceptions of the frequency of occurrence of educational planning was assessed by independent *t* tests. Qualitative data from

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surveys were analyzed by developing a coding system involving multiple analytic steps.⁷ Data were reviewed for regularities and patterns, and then appropriate codes were devised that identified emerging themes. As the data were reviewed and coded by a single individual, measures were taken to ensure validity and standardization of codes. Check coding was utilized,⁸ a method whereby the same transcript is coded until there is 90% consistency in coding. This process is repeated at random over the course of coding the entire data set. This process also allowed the researchers to avoid premature closure of themes.⁸

RESULTS

Statistically significant differences between faculty and students were identified in 4 of 16 items. These items were areas of setting educational objectives, giving feedback, and using observation as a teaching method (Table 1). For each item, the average frequency of occurrence was higher for faculty than students. The largest difference between the groups was the perceived frequency of occurrence of feedback.

Of the 168 student questionnaires received, 67% of first-year students and 58% of second-year students responded to the open-ended question in which students were asked to list the factors that determined their confidence in addressing educational needs with their LPP preceptor during the visit. The results demonstrated four broad categories of importance to students: personality of the preceptor, receptivity of the preceptor to students, perceived practice time constraints, and communication skills of the preceptor.

First-year students listed preceptor personality as a prime factor in determining whether or not they would approach the preceptor with their educational needs. This

characteristic was also overwhelmingly described in a positive manner. Students mentioned such observations as, "He's a nice, approachable guy," or "We are good friends as well as teacher/student," and even, "My preceptor is very easy going." Second-year students responded with fewer answers in this category, but they reflected similar positive views.

A second important factor, affecting the students' confidence in stating their educational needs, was the preceptors' perceived receptivity toward having students in their office. First-year students commented, "He's very receptive and he knows the objective of the exercise and always tries to accommodate them," ". . . they seem accepting of our attitudes and just help us explore them further," or "My preceptor is very helpful when I ask questions, I told her I was doing statistics so she brought me in a video/handbook." Unlike personality, there were also some negative perceptions by students: "[My preceptor] is not very receptive to having students," or "Sometimes I feel like I would be inconveniencing him or disrupting the ways things work." There was no difference in the perceptions of second-year students as their responses were similar to those of first-year students.

Another strong theme was time pressure in the office. This area was a great concern for both first-year and second-year students. In responding to what factors influenced their ability to make explicit their needs, many students made comments, such as, ". . . how busy my preceptor is that day. His busy schedule does not leave much time for discussion and feedback on my performance," "I feel my preceptor is already being very generous with his time and with his practice. I would not want to be perceived as a demanding guest," "He's also very busy so sometimes I feel bad asking to. . .," or "I feel he doesn't have enough time for me to meet all my objectives so I don't want to overburden him."

Table 1. Comparison of Faculty and Student Means from Educational Planning Questionnaire*

| Item | Group | | p Value [†] |
|--|--------------------|---------------------|----------------------|
| | Faculty, Mean (SD) | Students, Mean (SD) | |
| Sets educational objectives | 3.52 (0.79) | 3.18 (1.18) | .006 |
| Elicits students' needs | 3.52 (0.91) | 3.30 (1.09) | NS |
| Observes learner | 3.81 (0.70) | 3.49 (0.98) | .002 |
| Provide feedback about performance | 3.88 (0.67) | 3.23 (0.97) | .001 |
| Demonstration | 4.05 (0.65) | 3.89 (0.94) | NS |
| Asking questions | 4.00 (0.59) | 3.84 (0.98) | NS |
| Reading | 2.79 (0.87) | 2.60 (1.16) | NS |
| Using other personnel | 2.61 (0.91) | 2.58 (1.16) | NS |
| Computer aids | 1.38 (0.64) | 1.40 (0.82) | NS |
| Videos | 1.17 (0.42) | 1.20 (0.58) | NS |
| Curriculum communicates objectives | 3.73 (0.71) | 3.00 (0.93) | .001 |
| How often curriculum objectives match student objectives | 3.42 (0.67) | 2.99 (0.77) | .001 |
| Confidence in role as preceptor | 4.31 (0.68) | 4.14 (0.93) | NS |

*Item scale: 1 = not at all; 2 = seldom; 3 = sometimes; 4 = frequently; and 5 = always.

[†]p Values >.05 not reported; NS indicates not significant.

Over and over, the majority of students felt as if they were a burden to their preceptor because “teaching” them or meeting their needs took time—time they perceived the preceptor did not have. When discussing time, they often used words, such as overburden, impose, assert, or fit in, that reflect the feeling they are stepping over some imaginary boundary if they ask for more than they perceive the preceptor can give.

The last area students identified was their preceptor’s communication skills. This related to areas of *feedback* (“not much feedback,” “positive feedback also helps”), *general communication skills* (“we spend a lot of time talking both about medical, ethical and personal issues,” “it’s a very free conversation,” “my preceptor is easy to talk to”), and *listening skills* (“I feel that she listens to what I have to say”). The area of communication was also frequently commented on by second-year students, but their reaction tended to be more negative: “I have plenty of confidence, but I don’t feel like what I say will make a difference,” “Preceptor does not listen or act on my needs/want; I have stated them often,” or “He is not much into interpersonal communication.”

DISCUSSION

Faculty report they are frequently using educational planning; however, students believe that these processes are occurring less frequently. This discrepancy may be because faculty and students do not consistently recognize the educational planning process as it occurs in ambulatory settings. Preceptors and students may also have different definitions of the vocabulary of planning such as “feedback.” Preceptors may overestimate the quality and quantity of their observations and may need to learn how to observe as well as make this process more explicit to students in their office.

The differences in perception between students and preceptors can be assigned to either a knowledge deficit (understanding by both groups as to what constitutes educational planning in the ambulatory setting), a skill deficit (lack of both preceptors and students having the appropriate skills to educate in the ambulatory setting), or an attitude deficit (failure of preceptors to perceive the importance of naming what they are doing and failure of students to come forward with their needs).

The educational planning process closely mirrors the clinical process: assess patients’ needs (control of hypertension), set objectives (i.e., a good blood pressure of 120/80), decide methods to achieve those objectives (medications, exercise), and conduct evaluation and feedback (follow-up visit). Physicians possess these skills as clinicians and are able to conduct the process effectively under time pressures. Faculty development involves training our teacher-preceptors to recognize that the skills they developed as physicians are transferable to their role as a teacher. What makes “good doctors” will also help to make “good teach-

ers” if those skills are recognized and utilized in a slightly different context. Preceptors must view themselves not only as clinicians but also as educators.

The qualitative feedback mirrored Wright, Wong, and Newill’s 1997 study, which found similar responses when asking students to rate the qualities of a good mentor.⁹ The results suggest a difference in how first-year and second-year students perceive the ambulatory experience and may have implications for how preceptors and students should be matched. First-year students strongly emphasized the process of teaching. Their lack of medical knowledge may make the relationship of primary importance. Second-year students commented less on the relationship. Their increased medical knowledge may allow them to focus more on what the preceptors know as opposed to how they relate. Further study is needed to see if matching first-year students with preceptors in terms of mentoring characteristics, and matching second-year students in terms of content area of interest, would lead to greater student/preceptor satisfaction.

The frequent comment about time constraint from both first-year and second-year students could reflect a lack of confidence and lack of knowledge in what their rights are as learners in an office setting. Preceptors need to explain to students their rights and responsibilities within the office and articulate the importance of being assertive in expressing their educational needs despite the busy pace.

It may be necessary to reframe faculty development into a broader context of “educational development” that includes the learner. By educational development, we mean a comprehensive, preceptor/student training process whereby both parties involved in teaching and learning undergo training that provides several important steps: (1) identify and make explicit to all participants the process of good educational planning, (2) provide a common vocabulary, (3) provide a common set of expectations prior to the experience, and (4) monitor the experience using an outcome assessment model.⁵

There are limitations to this study. The study was conducted in one medical school with one group of preceptors and students over one year. It would be important to see if the same perceptions exist in medical schools with entirely different LPP formats. Response bias is another limitation of this study. Forty-three percent of our preceptors did not respond. The opinions and needs of nonrespondents may have important implications for faculty development. Also, differences were observed in only a subset of the questions, so care must be taken not to overstate the findings. Nevertheless, the items on which there are differences relate to the very heart of clinical teaching; i.e., observation and feedback are the core of the apprenticeship model.

Educational development involves training both our preceptors and learners to understand the teaching process that takes place in the office. For preceptors, this means making explicit the parallels between the clinical process

and the educational process. For learners, ambulatory teaching in the clinical years is a form of apprenticeship learning, a model foreign to most medical students. The skills to make an apprenticeship valuable are often different from the skills that made classroom learning valuable, and there are currently few mechanisms to help students develop this different set of skills. As ambulatory education becomes the model for training physicians, medicine needs to merge the principles of traditional educational practices with those of apprenticeship in a new setting.

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