Teaching the Medical Interview: Methods and Key Learning Issues in a Faculty Development Course

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OBJECTIVE: To describe the American Academy on Communication in Healthcare's (AACH) Faculty Development Course on Teaching the Medical Interview and report a single year's outcomes.

DESIGN: We delivered a Faculty Development course on Teaching the Medical Interview whose theme was relationship-centered care to a national and international audience in 1999. Participants completed a retrospective pre-post assessment of their perceived confidence in performing interview, clinical, teaching, and self-awareness skills.

PARTICIPANTS AND SETTING: A total of 79 participants in the 17th annual AACH national faculty development course at the University of Massachusetts Medical School in June 1999.

INTERVENTION: A 5-day course utilized the principles of learner-centered learning to teach a national and international cohort of medical school faculty about teaching the medical interview.

MEASUREMENTS AND MAIN RESULTS: The course fostered individualized, self-directed learning for participants, under the guidance of AACH faculty. Teaching methods included a plenary session, small groups, workshops, and project groups all designed to aid in the achievement of individual learning goals. Course outcomes of retrospective self-assessed confidence in interview, clinical, teaching, self-awareness, and control variables were measured using a 7-point Likert scale. Participants reported improved confidence in interview, clinical, teaching, and self-awareness variables. After controlling for desirability bias as measured by control variables, only teaching and self-awareness mean change scores were statistically significant ($p<.001$).

CONCLUSIONS: The AACH Faculty Development course on Teaching the Medical Interview utilized learner-centered teaching methods important to insure learning with experienced course participants. Perceived teaching and self-awareness skills changed the most when compared to other skills.

Research has indicated patient-centered practices improve patient health outcomes,[1] satisfaction,[2–4] adherence to therapy,[5,6] and decrease malpractice claims.[7] Whereas these studies did not directly evaluate interviewing practices, many agree that patient-centered interviewing will produce these outcomes. Recent data demonstrate that systematic patient-centered methods are effectively learned[8] and that integrating this learning into patient care practices is associated with improved outcomes.[9]

Although the medical interview is commonly taught in most US and Canadian medical schools,[10,11] and communication skills and provider–patient relationships are receiving increased attention from certifying bodies,[12,13] the need for faculty development for teachers of these skills is critical.[12,14–17] In this era when patients' experiences of care are used as a marker of individual and organizational performance, it is likely that the need for skills in teaching the medical interview to a broad range of learners will increase.[18–20] A recent Cochrane Review underscored the need for clear descriptions of teaching methods for those developing communication skills programs.[21]

To date, much of the published literature has focused on the teaching of skills pertaining to a single task of the interview, such as screening for domestic violence,[22] and delivering bad news.[23] One recent study implementing a broad curriculum in the third year at three US medical schools showed encouraging changes in medical students' communication skills as a result of the implemented curriculum.[24] Methods used to achieve these skills included lectures, workshops, demonstrations, role-play involving student–student, student-standardized patient, and student–patient interactions, as well as ward teaching rounds.[25]

The American Academy on Communication in Healthcare (AACH, formerly the American Academy on Physician and Patient or AAPP) is focused on teaching the medical interview. Whereas its courses have had great success as measured by participant satisfaction and personal testimony, there are no peer-reviewed publications focused on teaching methods. Outcomes of the courses have been published only in the early years of the AACH experience before communication skills were widely taught.[26,27]

Our aim is to provide a clear, practical, and systematic description of the AACH's 17th annual Faculty Development course on Teaching the Medical Interview. We will describe in detail the novel methods used so that educators can use these principles in designing curricular interventions and faculty development activities for experienced participants. We also report this course's learning outcomes.

METHODS

The Faculty Development Intervention

The course, titled *Expanding the Center: Moving From Patient-Centered to Relationship-Centered Care*, sought to describe the concepts of relationship-centered care (a concept that suggests the centrality of physician–patient, physician–physician, and physician–community relationships to health care)[28] and explored its implications for how the medical interview is taught and practiced. We advertised to specialty societies involved in Primary Care education, through educational list serves, and to past course participants both nationally and internationally.

The course focused on development of discrete interviewing, clinical, teaching, and self-awareness skills. We developed this course based on principles of learner-centered learning, which suggests that learning is most effective when learners are able to formulate learning goals, describe clear, measurable, behavioral objectives, choose learning methods to achieve these objectives, and evaluate whether objectives have been met through formative (feedback) and summative evaluation mea-

sures.[29] We contacted course participants before the course, and asked them to formulate learning goals for the course in writing. These were submitted to the course director, and distributed to participants' small group faculty who worked with learners most closely during the 5-day experience.

A course schedule is seen in Table 1.

Course time over 5 days was 35.5 hours, with slightly more than 60% in small groups (22 hours) divided between skills work and personal awareness work (in proportions negotiated with groups but approximately a 50–50 split). The remaining hours were devoted to lecture (1.5 hours), workshops (4.5 hours), project groups (6 hours), and course logistics/announcements (1.5 hours).

We utilized multiple teaching methods to achieve learning objectives. A *Plenary lecture* by a national figure to highlight the relationship-centered care course theme (Jon Kabat Zin, PhD, lectured on *Embodying the Hippocratic Calling: The Healing Power of Remembering to be Present*).

Workshops were offered and participants attended up to 3 workshops selecting from a menu of workshops including several on: 1) teaching methods, techniques, and models, 2) challenging interactions, and 3) theme-related workshops. Table 2 has a full list of workshops.

Workshops had an introduction of concepts, experiential skill-building activities, and reflection to reinforce learning, allowing participants to work on a focused skill over a short period of time. Although not all workshops dealt directly with patient communication skills, they did address applying the principles and skills of relationship-centered care to work (Building a Relationship-Centered Academic Department, Clinician to Clinician communication) and home (Medical Marriages).

Small group sessions focused on interview, clinical, teaching, and self-awareness skills. In these small groups, participants engaged in skills practice and reflected on their skills through self-assessment, peer and faculty assessment, and feedback. Reflection on skills was broadened to include discussing personal responses to patients, patient care, and teaching, and the possible effects these reactions have on encounters. The faculty-to-participant ratio of 1:4 for these

Table 1. Course Schedule

	Day 1	Day 2	Day 3	Day 4	Day 5
8:00	Announcements				
8:30	Workshops	Plenary	Workshops	Workshops	Learning Groups
9:00					
9:30		Learning Groups			
10:00					Project Group Presentations
10:30			Learning Groups	Learning Groups	
11:00	Learning Groups				
11:30					
12:00					
12:30					
1:00					Course Reflection/Evaluation
1:30					
2:00					
2:30					
2:45		Break			
3:00			Break	Break	
3:15		Project Brainstorming			
3:30			Project Group	Project Group	
4:00		Project Group			
4:30					

Table 2. Workshop Selections

Day 1 Workshops	Day 3 Workshops	Day 4 Workshops
Teaching Methods	Teaching Methods	Teaching Methods
Learner-centered Learning	Learner-centered Learning	Learner-centered Learning
Feedback	Feedback	Feedback
Patient-centered Interviewing	Patient-centered Interviewing	Patient-centered Interviewing
Competency-based Interview Curriculum	Three-function Model of Interviewing	Three-function Model of Interviewing
		Standardizing Standardized Patients
Challenging Interactions	Challenging Interactions	Challenging Interactions
Motivational interviewing	Somatization	Working with the Addicted Patient
Breaking Bad News	Alliance and Adherence in Health Behavior counseling	Working with Members of the Addicted Family
	Family Interviewing	Somatization
Theme-Related	Theme-Related	Theme-Related
Clinician–Clinician Communication	Building Relationship-centered Departments	Mutual learning between Doctor and Patient
Curricular Approaches to Personal Awareness	Medical Marriages	Meditation/Mindfulness in the Interview
Meditation/Mindfulness in the Interview	Narratives of Relationship	
	Mutual learning between Doctor and Patient	
	Meditation/Mindfulness in the Interview	

small groups allowed for knowledge and skills acquisition tailored to established needs of small-group members. Small group sessions are described in greater detail below.

Project groups took place in which the entire cohort of course participants brainstormed ideas for projects, then formed 13 project groups utilizing a modified Delphi technique, a common technique used to build consensus and prioritize group interests.[30] Project group criteria included that more than 1 individual was interested in the topic, individuals committed to working on the project during the course, and each group committed to a presentation of their work at the end of the course. Three meetings of project groups took place. Project groups embody the concepts of learner-centered learning in action: learners organized according to their own interests, and by the end of the week produced an outcome in the form of a presentation to all course participants that met agreed-upon learning goals articulated by group members during their meetings.

Small Group Sessions

In the first small group session, learners articulated and refined their learning goals and objectives, facilitated by course faculty. Throughout the course, faculty worked closely with their small groups to ensure that focused learning objectives were met. For example, 1 small group session consisted of having a participant work on the interviewing skill of talking with patients at the end-of-life in a role play with 1 of the other group members taking on the patient role. Another course participant worked on delivering feedback, whereas the final member also worked on end-of-life skills through focused observation of the role play. Once the interaction took place, the interviewer provided a self-assessment of his interview followed by feedback from the "patient"-participant, other group members (with special attention to the group member who was working on end-of-life skills in the observer role), and faculty. The post-interview feedback facilitated by the group member focused on improving her feedback skills. Faculty then facilitated a portion of the session to ensure that the group member working on delivering feedback received input on her skills of facilitating a feedback session. These activities underscored the importance of experience and reflection to reinforce learning.[31]

Whereas a typical session described above took approximately 2 hours (20 minutes set up of task and group participant roles, 30 minutes interview with self-assessment from interviewer, 20 minutes of other group feedback and reactions from interviewer with lessons learned, 20 minutes of feedback to the participant facilitating the feedback session, followed by 15 minutes of final lessons, and 15 minutes of planning for the next session), the course schedule allowed for large portions of the day to be designated as learning groups so that if tasks took shorter or longer times, there was flexibility built into the schedule. In subsequent sessions, faculty worked with other group members on their learning needs, thus ensuring that all individuals had an opportunity to work on their own learning needs during the week.

In some small group sessions, termed *Personal Awareness groups*, participants discussed challenges they faced in teaching and patient care encounters (and sometimes their personal life) to examine how these issues affected their communication with patients, colleagues, or teaching performance. For example, 1 course participant reflected on his challenges with a dying patient, and through gentle probing, came to realize that his own discomfort with death was a contributor to this difficulty. Methods utilized to facilitate personal awareness groups included challenging case discussions, based on methods or Balint groups,[32] discussing family of origin[33] and its effect on communication, as well as more open-ended discussion based on methods advocated by Carl Rogers.[34]

Program Evaluation and Analysis

We used a retrospective pre-post design for course evaluation. Participants completed a 29-item evaluation immediately after the course that assessed their skill level at two points: before (retrospective pretest) and after (posttest) the course.[35–37] The questionnaire assessed participant confidence in using interview (10 items), clinical (3 items), teaching (7 items), and self-awareness skills (3 items). Six items, designated control variables, were not formally or systematically taught during the course and were included to provide a measure of desirability bias.[35,38] Questionnaire responses were on a Likert scale of 1 to 7, with anchors of 1=not at all confident and 7=completely confident. The evaluation instrument out-

lining all four subscales and the control variables is included as Appendix.

Demographic variables were gathered including gender, age, years teaching in a medical school, years teaching the medical interview, and the number of prior AACH courses attended. Descriptive statistics were computed for demographic variables. Paired-samples t tests were used to assess if mean change scores were different across skill category. Additional t tests were performed to assess pre/post mean differences in confidence in utilizing skills before and after adjusting for desirability bias as measured by the control variables. The adjustment was calculated by subtracting the average of the pre/post mean difference of the control variables from each skill category post measure. Reliability analysis was conducted on all questionnaire items (excluding the control variables) and the four subscales using Cronbach's alpha as the measure. Linear regression was used to determine whether participant demographic variables predicted post-course skills assessment.

RESULTS

Seventy-nine participants took part in the course. Approximately one-half of the sample (52%) was 45 or younger, 54% were male. Forty-six percent were first-time course participants, 28% attended 1 prior course, and 26% attended 2 or more prior AACH courses (see Table 3).

Participants had been practicing medicine an average of 14 years, with a mean of 8 years teaching medical school, and 6 years teaching the medical interview (data not shown). Participants were from the United States and 4 additional countries, were predominantly physicians, although 15 (20%) were educators trained in social work, psychology, and education.

Sixty-five participants (82%) completed course evaluations. Initial analysis indicated statistically significant changes in mean scores of participants' confidence in interview (mean pre=5.0, Standard deviation or SD 0.8, post=5.6, SD 0.6; $p<.001$), clinical (pre=4.1, SD 0.9 post=4.8, SD 0.9; $p<.001$), teaching (pre=4.1, SD 0.9 post=5.2, SD 0.8; $p<.001$), self-awareness (pre=4.3, SD 1.1 post=5.5, SD 0.8; $p<.001$) skills and control variables (mean pre=4.4, SD 1.1, post=5.0, SD 0.9; $p<.001$). Scores in interview skills demonstrated the smallest change, although the participants rated their interview skills highest of all categories before the intervention.

Table 3. Descriptive Characteristics of Course Participants

Demographic Characteristic	N	%
Gender		
Male	31	54
Female	26	46
Age		
29–35	14	23
36–40	8	13
41–45	10	16
46–50	16	26
51 or greater	14	23
AAPP Experience		
No prior course	28	46
One course	17	28
Two or more courses	16	26

Further analysis using a paired t test after adjusting for the average of the control variables' pre/post difference demonstrated that only teaching and self-awareness mean change scores were statistically significant ($p<.001$). Figure 1 reflects the mean change scores with their respective confidence intervals, after accounting for desirability bias.

There was no significant effect of years of practice, gender, or age on the 4 skill variables, except the personal awareness variable where the training increased personal awareness most in older female participants (51 years and older; $p<.01$).

Results for the reliability analysis showed a high alpha for the overall scale (pre=0.93, post=0.93) and 3 of the 4 subscales: interview (pre=0.88, post=0.86), teaching (pre=0.88, post=0.90), and self-awareness (pre=0.84, post=0.82). Clinical skills pre and post were lower (pre=0.58, post=0.61). These alpha levels suggest that evaluation responses measured participants' confidence and changes were not because of different interpretations of the questionnaire content.

One additional outcome is that some project groups continued to work after the course, and this led to the publication of scholarly work.[39,40]

DISCUSSION

The AACH's 17th annual Faculty Development course demonstrated that, guided by needs assessment of learners' goals, a faculty development intervention can be designed to meet diverse needs of a national and international group of participants with a broad range of experience teaching the medical interview. We used teaching methods that allowed participants to form specific goals and objectives and take concrete steps to achieve them during the course. In contrast to a self-study process, our program emphasized the importance of small group learning and the teacher–learner relationship to ensure learning. The importance of goal-setting, observation, guided reflection, and feedback based on participant goals in the learning process has been described as critical in teaching communication skills[41] and in developing expertise with complex learning tasks.[42] More than half of the participants in this faculty development program had previously attended a similar AACH course. The extent to which these experienced learners influenced the learning of others is unknown, but may have been significant given our emphasis on small-group learning and shared experiences.

There are other medical interview teaching interventions that have demonstrated success, but these are typically with a single skill set[22,23] with undergraduate medical students[25,43] or at single institutions.[8,9] Our teaching that utilizes learner-centered teaching methods requires a faculty well versed in teaching communication skills, but also adept at modifying his or her teaching to specific participant learning needs. This results in a course that ultimately has no "standard" curriculum, but whose process embodies the learner-centered principles it seeks to teach.[29]

Our teaching intervention produced clear outcomes in perceived skills for a faculty development program, while overcoming common sources of bias. We observed improvement in two broad skill areas: teaching skills and self-awareness skills, consistent with our focus on teaching and skills unique to the AACH model, self-awareness. Smaller changes in interviewing and clinical skills were not statistically significant.
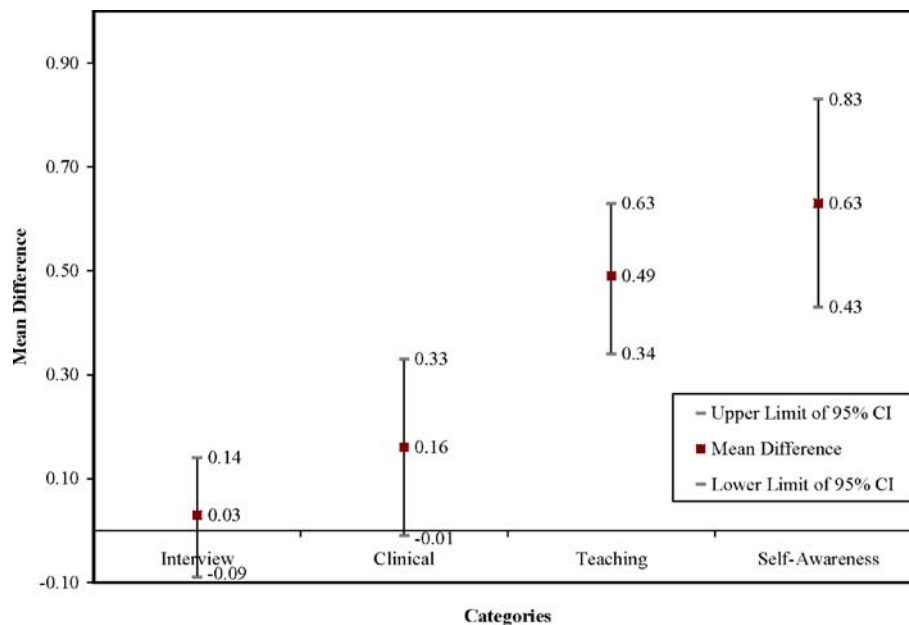
Figure 1. Change in pre/post skill categories after accounting for desirability bias

The presence of feelings related to encounters have been demonstrated to potentially affect performance in the medical interview,[44,45] providing a rationale for including content related to self-awareness in this faculty development intervention. In addition, reflection promoting self-assessment, self-awareness, and learning is felt by many to be integral to professional training,[46] teacher development,[46–49] and for learners to effectively learn patient-centered interviewing skills.[45,50] A recent article stems from AACH work and describes how personal awareness can be taught by teachers without specific psychological training.[51]

Whereas a recent review points out the limited correlation of physician self-assessment compared to observed measures of competence,[52] three studies directly related to our subject matter and evaluation methods show a positive correlation. Smith[8] demonstrated that improvement in resident attitudes of self-efficacy in interviewing skills was accompanied by improved skills performance with both real and simulated patients. Williams and Deci[53] demonstrated that the use of learner-centered teaching methods for interviewing skills led to increased self-assessed perception of learner competence and improvement in interview skills at 6 months as assessed by standardized patient interviews. Hewson's faculty development interventions demonstrated positive correlations between participant's self-assessed retrospective pre-post teaching skills evaluations, and improved teaching evaluations by learners.[54,55] This suggests that the improved self-efficacy we observed could be similarly paralleled by improved skills.

Several faculty development programs have used experiential teaching methods like our course and demonstrated that faculty development in teaching skills related to the medical interview were improved as assessed by videotape analysis of teaching,[56] and that interview skills of students improved after being instructed by teachers trained to teach the medical interview.[57]

This paper has broader implications for educational programs with experienced national and international audiences.

Whereas prior curricular interventions have stressed the importance of insuring buy-in and fitting curricular interventions into an already existing context,[25,26] our intervention assessed and met learners' needs over a relatively short period of time. The process by which faculty rapidly and repeatedly assessed learning needs and took steps to meet them is important in allowing learners to meet their learning goals and objectives.[29] This approach requires significant investment in small group sessions and skilled faculty who can teach the material pertinent to the medical interview, while being flexible enough to meet individual learner's needs. This framework parallels the one derived empirically by Fryer-Edwards who broke down this teaching process into the following steps: 1) identifying a learning edge (setting goals), 2) proposing and testing hypotheses (trying new skills), and 3) calibrating learner's self-assessments (feedback and evaluation).[41] Educators running faculty development programs should consider adapting their methodology to allow individual learners to establish their own learning goals and objectives and choose methods that allow for their achievement during their programs.

This course, with its emphasis on and commitment to learner-centered learning, skills practice, and reflection for skills improvement provides a unique approach to faculty development and could serve as a model for other faculty development efforts, especially those with the goal of disseminating the practice of health care relationships and communication that integrates best medical practices with patients' and clinicians' values, needs, and choices, the mission of the AACH.

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APPENDIX

Table 4. Items from Assessment Instrument

Interview	1. Can make patients comfortable and set stage for medical visit
	2. Efficiently negotiate the patient's agenda for the visit
	3. Elicit patient's explanatory model for their illness
	4. Can elicit patient's personal story in an open-ended manner
	5. Elicit the patent's emotional reactions in an open ended manner
	6. Effectively inform the patient about necessary information
	7. Effectively motivate patient to change unhealthy behaviors
	8. Manage the patient's expressed emotion
	9. Conduct the open ended, patient centered aspect of the medical interview efficiently
	10. Obtain patient's description of physical symptoms in open-ended manner
Clinical	1. Effectively manage patients with substance abuse problems
	2. Effectively manage patients with many somatic symptoms without a disease explanation
	3. Effectively manage patients with anger/hostility
Teaching	1. Provide effective feedback on communication skills
	2. Facilitate small groups
	3. Teach in a learner-centered way
	4. Work effectively with a resistant learner
	5. Work effectively with a learner who dominates group
	6. Use role play or simulations to teach medical interviewing
	7. Recognize specific interviewing behaviors that promote or impede effective encounters
Personal Awareness	1. Promote personal growth in myself and others
	2. Recognize personal responses to patients and how they affect the interaction
	3. Recognize personal responses to learners and how they affect the interaction
Control Variables	1. Effectively manage patients with different socioeconomic needs
	2. Effectively manage patients with depression
	3. Effectively manage patients with anxiety
	4. Effectively work with patients from different cultural backgrounds
	5. Develop an interviewing skills curriculum for my institution
	6. Use videotape reviews to teach the medical interview

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