RESIDENCY TRAINING IN INTERVIEWING SKILLS AND THE PSYCHOSOCIAL DOMAIN OF MEDICAL PRACTICE

This curriculum, called the "Med-Psych Rotation," was implemented in 1979 at the Johns Hopkins Bayview Medical Center. Faculty primarily responsible for the development of this curriculum have included L. Randol Barker, M.D., Sc.M.; Karan A. Cole, Sc.D.; Archie S. Golden, M.D.; Marsha Grayson, M.A.; and David E. Kern, M.D., M.P.H. Several other faculty have contributed to developing the consultation liaison psychiatry, smoking cessation, and substance abuse components of the curriculum.* Not only has this curriculum progressed through all six stages of curriculum development, but it has also addressed issues related to curriculum maintenance, enhancement, and dissemination.

The curriculum was initially designed for pediatric and internal medicine residents. It included a seminar series, interviews of simulated patients, cointerviews of selected patients with a psychiatrist, and video reviews of ambulatory primary care patient visits. Two of the original faculty, a pediatrician and behavioral scientist, had developed a similar program for physician assistant students, so that much of the groundwork for the curriculum had already been developed. Progress on all steps proceeded simultaneously.

The program evolved during the first few years, based upon institutional changes such as the development of a consultation-liaison psychiatry service and the discontinuation of the pediatric residency program, and based upon evaluation results and feedback from residents. Early changes included the abandonment of lectures, an increase in the number of experimental learning exercises, establishment of a mutually beneficial role for residents and faculty in a new consultation-liaison psychiatry service, an increased emphasis on the recognition and management of psychosocial problems commonly seen in primary care practice, and an increased emphasis on the organization and efficiency of office visits. By 1983, the basic structure described below had been established.

Step 1: Problem Identification and General Needs Assessment

Literature searches were the major strategy for accomplishing this step. An in-depth literature review was conducted as part of a descriptive article on the rotation that was published in 1989 (7). One faculty member previously had conducted job and task analyses of primary care practice (8). Discussion among informed faculty members and interaction with colleagues from other institutions also contributed to the conceptualization of the ideal approach.

Problem Identification	▪ Interviewing skills are critical to the establishment of an effective doctor-patient relationship, diagnosis, and patient management. ▪ Psychosocial problems are common in medical practice. ▪ Most of these psychosocial problems are not managed by mental health providers. ▪ Psychosocial factors affect the management and outcomes of biomedical problems.

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- Psychosocial and biomedical aspects of health frequently cannot be separated.
- Physicians are frequently "hypocompetent" in interviewing skills and in the management of psychosocial components of care, with the consequences of poor patient satisfaction, malpractice suits, and suboptimal health outcomes.

Current Approach (1970s–1980s)

Society: There has been pressure from patient advocacy groups and from malpractice insurance carriers, and promotion by government agencies, medical professional organizations, and pharmaceutical companies (interest in patient compliance) to improve the training of physicians in these areas; and there has been pressure on physicians from managed care organizations and other insurers to improve physicians' communication skills, to improve patients' satisfaction, and simultaneously to become more efficient.

Patients: An increasingly educated and assertive patient population is more likely to demand information, to demand service, and to complain when their needs are not met. Patients are more likely to prefer a collaborative rather than an authoritative doctor–patient relationship.

Healthcare Providers: Physicians usually have been authoritative and physician-centered rather than patient centered in doctor–patient interactions, frequently have interrupted patients and ignored their concerns, frequently have accepted ill-defined complaints without clarification, frequently have not met patient educational or behavioral change needs. Physicians frequently have failed to recognize, have misdiagnosed, or have mismanaged the psychosocial problems of their patients.

Medical Educators: Effective techniques for teaching interviewing skills have been identified: real-time observation or video or audio reviews of trainee performance with real patients, simulated patients or role-plays, combined with feedback and discussion based on trainees' performance. Most medical schools, most family practice, and almost all federally funded primary care residency programs include training in interviewing skills and psychosocial medicine. Formal training is provided for a minority of pediatric residents. Traditional track internal medicine residents receive little training. Most training programs use at least one experiential educational method, but few use two or more. Simulated patients and role-plays are underutilized. Most medical school training is concentrated in the preclinical years. Interviewing skills training has emphasized data gathering and rapport building; organization, efficiency, patient education, behavioral counseling, office psychotherapy, and the ability to diagnose and manage the psychosocial problems that are common in medical practice are sel-

	dom addressed. Training is usually provided by behavioral scientists/psychiatrists and not by faculty who are in the same specialty as the trainees. Despite a shortage of adequately trained faculty, little attention has been paid in the literature to faculty development in this area. Funding and departmental support for training are often inadequate.
Ideal Approach	*Physicians:* Should be proficient in using communication skills to gather important information from patients, to build therapeutic relationships with patients, and to effectively educate and counsel patients. They should be proficient in recognizing, diagnosing, and managing psychosocial problems common in medical practice. They should be proficient in integrating the biomedical and psychosocial components of medical care. *Medical Educators* should: ▪ Train all medical students and residents in the above proficiencies. ▪ Use effective educational methodologies, including two or more experiential learning methods. ▪ Cover content relevant to the training level and specialty. ▪ Include role model faculty in the same specialty that the trainees are in. ▪ Train faculty to teach effectively in this domain. ▪ Provide sufficient resources to accomplish the above.

Step 2: Needs Assessment of Targeted Learners

Based upon literature review, faculty experience with previous residents, and faculty knowledge of the existing residency program, the curriculum developers knew that (a) the residents' previous training as medical students in this area would be nonexistent to spotty, (b) most residents' mastery of the content area of the curriculum would be low, (c) learning needs would vary considerably among residents, and (d) residents received no formal training in this area in the existing residency. A formal precurriculum needs assessment of targeted learners was, therefore, thought to be unnecessary. It was decided, however, to integrate a needs assessment of targeted learners into the actual curriculum in order to address differences in the needs of individual learners.

Targeted Learners	PGY-1 (post-graduate year 1) residents. The first year of residency was chosen because it is a time when practice habits are being formed, when residents are likely to be looking for direction, and when residents have not yet developed defenses that interfere with learning.
Needs Assessment	Before implementation of the Med-Psych rotation, there was virtually no training in this domain in the residency program. Based upon information from the literature and *orientation meetings* with the residents on the rotation, training prior to residency was vari-

able but usually minimal. Residents varied considerably in life experiences and baseline communication skills. At the beginning of each rotation, residents complete a *self-assessment instrument,* rating their perceived knowledge, their attitudes regarding importance, and their proficiencies in the content areas of the curriculum, and they identify their individual learning goals. Individual needs are also ascertained during experiential learning sessions by resident self-assessment and *faculty observation.*

Step 3: Goals and Objectives

The goals and objectives have evolved somewhat over the years. They derive directly from the general needs assessment described above. Individual objectives are defined in greater detail in syllabus material related to each content area and learning exercise.

Goals	The major goal of this curriculum is to help residents become humane and effective physicians by assisting them in developing their interviewing skills and their ability to recognize and manage patients' psychosocial problems. The curriculum concentrates on the types of patients and problems commonly seen in medical practice, so that what is learned can be applied, reinforced, and further developed as the residents mature. Related goals are to help residents become accurate assessors of their own feelings and behaviors with respect to patients and directors of their own learning in this area.
Objectives	*Cognitive Objectives:* By the end of the rotation, residents will have a clinically useful knowledge base in each of the following areas: ▪ Medical interview ▪ Psychosocial evaluation ▪ Psychotherapy/counseling ▪ Patient compliance with therapeutic regimens ▪ Smoking cessation management ▪ Alcoholism and coalcoholism ▪ Adjustment disorders ▪ Anxiety ▪ Depression and mood disorders ▪ Somatization and somatoform disorders ▪ Personality types and disorders ▪ Organic mental syndromes (dementia, delirium, determination of mental competence) ▪ Psychosis and psychiatric emergencies (e.g., assessment of suicide risk) *Affective Objectives:* By the end of the rotation, residents will believe the following:

- An integrated biopsychosocial model of illness is more accurate than a dualistic, reductionist model that tries to separate the biomedical from the psychosocial.
- It is a physician's role to attend to the emotional and behavioral as well as the biomedical aspects of a patient's illness and health care.
- The cognitive and psychomotor skill objectives of the rotation are relevant and important.
- A collaborative, patient-centered approach to doctor–patient interactions is generally superior to an autocratic, physician-centered approach, and most interactions require a balance between the two.
- They are capable of providing patient-centered, biopsychosocial care to their patients; their skills in this domain have increased; and a patient-centered biopsychosocial approach to patient care is personally and professionally satisfying.

Psychomotor Objectives: By the end of the rotation, residents will have increased their proficiency in the following areas:
Interviewing skills:

- Using effective data-gathering methods: determining patient's agenda and concerns; using a balance of open-ended and focused questions; avoiding leading questions; using listening, responding, and observing skills
- Using affective/relationship building skills: expressing interest in, partnership with, and commitment to the patient; recognizing, understanding, and responding to patient and physician feelings; being supportive, nonjudgmental, and nondefensive; using nonverbal communication; appropriately using self-disclosure
- Using patient education skills: assessing patient's knowledge, beliefs, needs; tailoring education to needs; giving verbal information (avoiding jargon; categorizing information; being brief, clear, and explicit; using dialogue rather than monologue); providing written instructions; using printed materials; checking patient's comprehension and agreement
- Conducting organized and efficient visits: reviewing the chart before seeing the patient; establishing an agenda and time limits with the patient; prioritizing; focusing on one topic at a time; avoiding premature education; using smooth transitions; summarizing; logically bridging to next visit and negotiating follow-up appointment

Evaluation of a patient's psychosocial status:

- Obtaining a social/psychological history
- Performing a mental/psychological status examination
- Developing a multiaxial diagnostic formulation that includes patient problems (medical and psychosocial), personality characteristics, psychosocial stressors, premorbid and present functional status

Step 4: Educational Strategies

Because the faculty chose to emphasize the attainment of psychomotor (skill) objectives, *experiential learning strategies* are integral to the rotation. Cognitive and attitudinal objectives are addressed through targeted readings and discussions during related experiential learning exercises. *Multiple educational strategies* are used to teach and reinforce learning in most areas. For example, patient education skills are addressed in syllabus readings; in a role-playing and discussion exercise that includes a review of a demonstration videotape; in simulated patient exercises, including one with a noncompliant patient; in observation of a practicing internist who uses these skills; and perhaps in a video review and discussion of the educational segment of an interaction with a patient from the resident's clinic (the resident chooses the focus for video reviews).

Content	The content of the curriculum relates directly to the above listed objectives and is provided in a course syllabus and videotape.
Educational Methods	*Orientation Meeting:* To help faculty and residents get to know one another, to have residents reflect on their learning needs and goals, to convey explicit overall goals and responsibilities for the rotation, and to orient residents to the schedule for the month. *Syllabus/Readings:* Provides a schedule of curriculum events and other practical information, such as locations and directions; defines specific learning objectives in 15 content areas; and provides required and elective readings (handouts or published chapters/articles) for each content area. *Demonstration/Observation:* Demonstration videotape of less- and more-skilled approaches to data gathering, emotion-handling/relationship-building, and patient education used during role-playing sessions. Residents observe one real-life session of a general internist faculty member integrating the various skills as he sees patients in an outpatient setting. Residents gain firsthand experience of resources that they can use during the remainder of their residency by attending Alcoholics Anonymous, Narcotics Anonymous, and Home Care meetings with a faculty facilitator. *Discussion:* Facilitated discussion is part of all experiential learning exercises in order to promote the resident's development of self-awareness, accurate self-assessment, elicitation of feedback, understanding of the material being discussed, and definition of personal learning objectives. Emphasis is placed on creating a positive, safe, and supportive learning environment. *Didactic Lecture/Discussion:* A minilecture/discussion on multiaxial diagnosis, psychosocial history, and mental status examination precedes the experience on the consultation-liaison psychiatry service. There are also minilectures/discussions on the diagnosis and management of anxiety disorders, depressive disorders, and somatoform disorders. Sessions immediately before each of their

general medicine ambulatory continuity clinics address integrating learned skills into ongoing patient care, organizing office visits, utilizing available resources, and maintaining primary care records.

Role-Plays: Used in two to three-hour sessions on data gathering/agenda setting, emotion handling/relationship building, patient education and compliance, smoking cessation counseling, and alcoholism screening and counseling. Sessions also include discussion, self-assessment, elicitation and receipt of feedback from faculty and fellow residents, and review of learnings/plans for the future.

Simulated Patients: Eight sessions of two to three hours are used to give residents supervised practice in the integrated use of interviewing skills, to teach office psychotherapy skills, and to provide supervised experience in the biopsychosocial diagnosis and management of patients with specific problems. The problems include adjustment reaction; noncompliance; alcoholism in a patient presenting with physical complaints; somatoform disorder; and a primary physical disorder masquerading as a primary psychological disorder. Sessions include discussion of the multiaxial diagnosis of the specific patient; formulation of a biopsychosocial approach to management; self-assessment of skill use and the results; elicitation and receipt of feedback from the patient, fellow residents, and faculty; and review of learnings/plans for the future.

Real-Patient Experience: Residents perform initial evaluations of patients referred for psychiatric evaluation from medical and surgical services. The patient is then seen with the attending consultation-liaison psychiatrist, diagnosis and disposition are discussed, and the consultation note is written collaboratively. In this manner residents gain experience in the evaluation of depressive syndromes (40% of patients), delirium and dementia (20%), personality disorders (10%), and a variety of other psychiatric problems, including anxiety and somatoform disorders. Residents also see and videotape interactions with patients in their own Medical House Staff Practice (two sessions per week).

Video Reviews: During three one-hour sessions with a faculty facilitator, residents review selected videotapes of real or simulated patient encounters.

Role Models: Faculty include general internists in addition to behavioral scientists. Residents observe a faculty internist in his general internal medicine practice (see above). The internists' own clinical experiences often enter the discussions during the above described learning sessions.

Tailoring of Content and Methods to Individual Learners: Ongoing self-assessments, discussions, and faculty observations during the various learning sessions described above provide faculty with

a good understanding of residents' learning styles and needs. Sessions are generally flexible enough for faculty to address individual needs within the sessions. Occasionally faculty will meet during a rotation to discuss a coordinated approach to learners with special needs or learners who present difficulties for specific faculty.

Self-Assessment: As described above, before eliciting or receiving feedback from others, residents are asked to assess their own performance after each role-play and simulated patient experience. They are often coached to describe what they did well, as well as to identify what they would like to have done differently and what they would like help with. At the beginning of most experiential learning sessions, residents are asked to identify the skills on which they would like to work and receive feedback. In addition, residents rate themselves relative to the accomplishment of curricular objectives at the beginning and end of the rotation.

Independent Learning Projects: Each resident is required to identify a specific content area, related learning objectives, and appropriate learning resources. Residents are provided with time to pursue independent learning in this area, which usually involves reading; direct observation or experience with the content; reflection; and/or discussion. They describe their experience and learning during a three-hour sign-out with the course coordinator.

Step 5: Implementation

This ambitious and innovative curriculum (at the time of its inception in the early 1980s) required careful planning, anticipation and address of barriers, considerable resources, external funding, faculty development, coordination of multiple faculty and staff, complicated scheduling, and a strategy that would permit mistakes and would encourage ongoing cycles of improvement.

Resources (for each month of operation)

Personnel

- Faculty: 0.5 FTE behavioral scientist, who serves as coordinator for planning, scheduling, training of simulated patients, and evaluation, and as facilitator of orientation, four simulated patient office psychotherapy sessions per resident, one role-playing session, video review sessions, and the residents' self-directed learning projects; 0.2 FTE general internist facilitator for two role-playing sessions, three simulated patient sessions, two to three clinic observation and planning sessions; 0.1 FTE additional faculty (behavioral scientist and general internist) for facilitation of smoking cessation and alcoholism sessions; 0.3 FTE psychiatrist who teaches, supervises, and makes rounds with residents on the consultation-liaison psychiatry service. Faculty development during the first few years involved behavioral scientist–internist coteaching, which increased faculty time.

- Simulated patients: 24 to 29 hours per month of the rotation.
- Support staff: 0.1 FTE secretary for scheduling, producing and distributing syllabi, coordinating and paying simulated patients, collecting evaluation forms, and coordinating correspondence related to the course.
- Residents: One month of each resident's time; two to three residents per month.

Facilities: One examining and viewing room equipped with built-in videotaping and viewing capabilities; conference room equipped with a portable videotaping and viewing unit.

Funding: Partial salary support, and funding for simulated patients, comes from a federal grant for generalist residency training; other support is provided by the hospital and the faculty practice group from clinical revenues.

Support

External Support: Faculty and curriculum in this area are required by a federal grant that provides partial funding for the GIM residency program (Bureau of Health Professions, Health Resources and Services Administration). External grant support has been obtained for all but two years of the program's existence.

Internal Support

- Department chair: Evaluations and example videotapes were shared with the department chair during the first few years of the curriculum. As a result, the curriculum was expanded in 1983 to include traditional track as well as GIM track residents.
- Resident support: Residents perceive the rotation as valuable. Their support helped maintain the curriculum and its associated faculty when the GIM residency program temporarily lost federal funding from 1988 to 1990.
- Hospital and faculty: The Med-Psych rotation is an integral part of the hospital's GIM residency program, which has gained a national reputation for its training of generalists and for ongoing curriculum development. The program and its faculty are important in attracting excellent candidates to the residency program and in attracting external funding.

Administration

Administrative Structure: A faculty coordinator, supported by a secretary/administrative assistant, is responsible for planning, implementation, and evaluation of the curriculum.

Communication: The coordinator meets with involved faculty to plan any revisions in the curriculum. Monthly meetings, during which the faculty internist, psychiatrist, and behavioral scientist/curriculum coordinator complete final evaluations of individual residents, also serve a coordination function. Copies of minutes from the orientation meeting, which provide information on the background and interests of each resident, and from the sign-out meet-

	ing, which provide feedback on residents' perceptions of the month, are distributed to all faculty members. Formal evaluation results are distributed yearly. Curriculum objectives and expectations are conveyed to the residents in writing in the syllabus and in person during learning sessions. *Operations:* The secretary/administrative assistant, under the direction of the curriculum coordinator, puts together and distributes the schedule of learning sessions and the course syllabus. She ensures that evaluations and self-assessments are collected from the residents. She schedules and pays the simulated patients and maintains the relevant financial records.
Barriers	*Resident/Faculty Resistance:* In 1979, the curriculum developers expected some resident and faculty resistance to the introduction of psychosocial training into an internal medicine residency training. Having a funded external mandate was helpful in countering any institutional resistance to freeing up curricular time. To counter resident resistance, the curriculum was introduced initially to interested residents (see below). Anticipated resident resistance to role-playing was addressed through facilitation techniques that elicited previous resident experiences with the technique, acknowledged discomfort and artificiality, and provided a safe and supportive learning environment (see Chapter 6). Occasional resident responses that interfered with learning early in the history of the rotation, such as excessive defensiveness and withdrawal after receiving direct feedback on performance, led to changes in facilitator behaviors and amelioration of the problem (7). *Faculty Inexperience:* The behavioral scientist faculty for the rotation, while experienced in the teaching of communication skills and psychiatry, were not experienced in the practice of internal medicine. The internal medicine faculty were interested but inexperienced in teaching interviewing skills and the content of the curriculum. During the initial years, the curriculum was cotaught by behavioral scientists and internists who taught one another. The faculty also attended external courses and activities that enhanced their teaching/facilitation skills. *Ineffective Curricular Components:* Ongoing evaluation, which included systematic feedback from residents and faculty, as well as summative evaluation results, was used to drive revisions that have strengthened the curriculum, such as attention to the organization and efficiency of office visits, the elimination of unnecessary didactic sessions, and increases in clinically relevant experiential learning.
Introduction	*Phase-In:* The curriculum was introduced initially to interested GIM track residents who chose the program knowing that such

	training would be included. This phase-in period permitted time for faculty development and curricular revisions (see above). By 1983, the curriculum was considered so successful that the department contributed additional resources so that the curriculum could be expanded to include all residents.

Step 6: Evaluation

Formative learner and program evaluation are emphasized. Early in the history of the curriculum, quantitative analyses of self-assessments and end of rotation curriculum assessments were performed for summative purposes to assure program effectiveness for the curriculum developers, department chair/residency program director, and the federal agency providing grant funds for the GIM Residency Program. In addition, the faculty conducted a partially funded, focused, randomized, objective assessment of program effectiveness in order to address their own needs for scholarly work and in order to accomplish a more rigorous evaluation of program effectiveness that might be useful to colleagues in other institutions. Consistent with the educational priorities for the rotation, a major focus of the formative and summative evaluation strategies has been the assessment of skill attainment.

Users	Residents, department chair/residency program director, curriculum faculty and coordinators, and professional colleagues.
Uses	Formative information to help the residents achieve learning objectives; formative information to help the faculty improve their individual performances and to help the curriculum coordinator/core faculty improve overall program performance; summative information to help the department chair/residency program director assess individual resident performance and determine program effectiveness/worthiness of continued or increased support; objective summative information that could help professional colleagues from other institutions develop curricula in this area.
Resources	Resources for evaluation have included the following: limited external funds from a federal training grant, an institutional research grant, and a National Institute of Mental Health grant; interested faculty with limited protected academic time; and a colleague from the associated School of Public Health who has research expertise in analyzing doctor–patient interactions
Evaluation Questions	Are learning objectives being achieved by individual residents and by the group of residents who experience the curriculum? What are the strengths of the curriculum? What are its weaknesses? How can the curriculum be improved?
Evaluation Designs	$O_1 - - - X_1 - - - O_2 - - - \ldots - - - X_{n-1} - - - O_n$ Ongoing self-assessment as well as peer and faculty observation during each experiential learning exercise.

O_1 - - - X - - - O_2
There is a self-assessment instrument for program-defined and individual learning objectives.

X - - - O
End-of-rotation Department of Medicine evaluation form on each resident which is completed by core Med-Psych faculty; end-of-rotation debriefing with residents; end-of-rotation curriculum evaluation form, which is completed by residents.

E X - - - O
R
C - - - O(- - - X)
Posttest only randomized controlled evaluation, 1983–86, during which 48 residents were videotaped two months after (or before) completion of the rotation as they interviewed a trained, simulated patient, who was blinded to the pre-post status of the resident.

Evaluation Methods and Instruments

Observation, self-assessment, and feedback are used during experiential learning sessions, sometimes with a communications skills rating form.

Self-assessment instrument on which residents rate the importance and degree of accomplishment of program-defined and individually defined learning objectives, as well as their confidence in diagnosing and treating common psychosocial disorders.

A standard Department of Medicine rating form is completed by faculty at the end of each rotation. It ranks residents on several attribute scales (knowledge; independent learning; gathering of clinical information; quality of consult notes; presentation of clinical data; clinical reasoning ability and judgment; responsibility, initiative, and motivation; organization and efficiency; rapport with patients and family; patient education; relations with co-workers/role as a consultant; humaneness of patient care; ability to take and respond to constructive criticism; integrity; required reading) and asks for written comments on strengths, weaknesses, and areas/suggestions for improvement.

Standard Department of Medicine elective/specialty evaluation rotation forms were completed by residents from 1983 to 1987.

During end-of-rotation meetings with residents, the curriculum coordinator assesses residents' perceptions of rotation, its strengths, its weaknesses, and suggestions for improvement. A typed summary of the meeting is distributed to core faculty and is filed for end-of-year review.

End-of-rotation curriculum assessment forms are completed by residents. These forms elicit ratings of and comments on readings and other curricular components.

	From 1983 to 1986, interactions between a trained simulated patient and a resident were videotaped for evaluation purposes before, or two months after, the rotations. Evaluation included: a process and content analysis of the videotapes; simulated patient's ratings of the interaction, and an analysis of the visit note recorded by the resident. The simulated patient and coders were blinded to the pre/post status of the resident.
Ethical Concerns	Standard Department of Medicine rating forms are maintained in the resident's file. The information is considered confidential; access is limited to the resident and responsible faculty. Curriculum assessment forms are completed anonymously by the residents, to encourage candid assessments and to prevent the faculty from being influenced by residents' assessments of the curriculum when the faculty complete the end-of-rotation rating forms for each resident. Evaluation material from the randomized controlled evaluation, which included analysis of each individual resident's interaction with only one simulated patient, was considered appropriate for program (pooled resident) evaluation, but not for individual resident evaluation. This material, therefore, was used for summative program but not summative individual evaluation. The randomized controlled evaluation was designed in a manner that did not withhold the curriculum from control residents.
Data Collection	To the extent possible, evaluation activities are integrated into the curriculum schedule. The secretary ensures that self-assessment and end-of-rotation curriculum assessment forms are completed and returned by the last day of the rotation. If necessary, time is made in the resident's schedule to complete the evaluations before the end of the rotation debriefing meeting.
Data Analysis	Pre-post self-assessments are reviewed by the curriculum coordinator. Tallied summaries of the curriculum-specific assessment forms and the end-of-rotation meeting summaries are reviewed at the end of each year. Analysis of the tallied self-assessment results from 1985 to 1986 revealed significant perceived progress by residents in the achievement of program-defined learning objectives from the beginning to the end of the rotation. Analysis of tallied rotation evaluation forms from 1983 to 1987 revealed that the med-psych rotation compared very favorably to elective/specialty focused rotations. Trained coders were hired to analyze the interactions between residents and the evaluation-simulated patient that were videotaped from 1983 to 1986 and to analyze the recorded notes from the visits. Statistical analysis was performed by a colleague from the School of Public Health. Results revealed that trained residents were more skilled than untrained residents in their use of interviewing skills and tended toward more appro-

	priate management of the patient. There was no significant difference between groups in charting practices.
Reporting of Results	During the first several years of the rotation, evaluation results were shared with the department chair. Analyses of summative program evaluations have been reported in two separate publications (7, 9).

Because quantitative analyses of self-assessments revealed similar results from year to year and required time and energy, they were discontinued, although the data are entered into a computer and are accessible if needed. The self-assessments are reviewed with respect to individual learners by the curriculum coordinator and are felt to be part of the learner-centered, self-directed approach to learning that is emphasized in the rotation.

Although the randomized controlled evaluation demonstrated significant differences in the use of interviewing skills between trained and control residents, the trend toward more appropriate management by trained residents did not achieve statistical significance. In retrospect, the case used for evaluation appeared to have been too difficult for many PGY-1 residents and should have been more thoroughly piloted before use. To accurately assess changes in diagnostic and management skills, it would have been preferable to have included several different simulated patient interactions, but there were insufficient resources for such an approach.

Curriculum Maintenance and Enhancement

The curriculum coordinator fulfills important roles in (a) maintaining an ongoing understanding of the curriculum, its faculty and its learners; (b) coordinating changes in the curriculum in response to evaluation results, evolving needs, and changes in available resources; and (c) sustaining the curriculum team through processes of communication, involvement, meetings, and celebrations. The division has encouraged faculty members to participate in related activities that promote continued development as educators and scholars and to network with colleagues with similar interests beyond the institution. The division has also developed programs that are complimentary to the med-psych curriculum.

Understanding the Curriculum	The curriculum coordinator maintains a good understanding of the curriculum through involvement in the evaluation process, review of all evaluation results, and formal and informal meetings with residents and faculty.
Management of Change	Minor operational changes, such as adjustments in a resident's schedule, are made by the curriculum coordinator. Fundamental changes in the curriculum, such as changes in the syllabus or experiential learning exercises, are made by a group of core faculty, consisting of the behavioral scientist (who also serves as the curriculum coordinator), two internists, and the consultation-liaison psychiatrist.
Sustaining the Curriculum Team	During the first several years of the curriculum, faculty development occurred and interest was maintained through a process of coteaching of experiential learning sessions. Currently, faculty

	meet periodically to discuss or evaluate individual learners, to review evaluation results, and to revise curricular components. The recognition of individual learner accomplishments is motivating to faculty and sometimes is best appreciated in these meetings, where faculty experiences can be shared. Core faculty have a yearly luncheon meeting with the simulated patients to thank them for their contributions to the program, to elicit their perceptions of how the year went and their suggestions for changes, and to communicate program results and anticipated changes. Minutes from the orientation and end-of-rotation meetings with residents are shared with all faculty members.
Related Activities That Strengthen the Curriculum	*Faculty Development:* Faculty participate in related external faculty development courses and training programs, such as the ones sponsored by the American Academy on Physician and Patient. Med-psych faculty have also developed, participated in, and served as facilitators for the Johns Hopkins Faculty Development Program for Clinician-Educators. Many of the residents' clinical preceptors have been trained in the latter program, which includes a module on interviewing skills. *Networking/Scholarly Activity:* Networking with colleagues who are from other institutions and who have similar interests has resulted in the integration of new teaching techniques, such as the development of the skill-based role-plays described above, and the use of methods to help residents identify and discuss unrecognized behavioral responses and feelings during interviews with patients. Networking has also led to scholarly work related to the evaluation of our own program (9), the development of block curricula in this area for residents (10), the development and evaluation of continuing education in this area for practicing physicians (11), and a study of personal growth in relation to professional growth (in process).

Dissemination

Dissemination activities have forced faculty to evaluate critically and refine their own teaching and educational strategies. The activities have led to networking with colleagues at other institutions. The activities have benefited the med-psych curriculum in terms of additions and improvements; med-psych faculty members in terms of professional growth and promotion; clinical preceptors in our residency program; and colleagues and curricula at other institutions.

Target Audience	The target audiences are (a) faculty who are clinician educators with similar interests at other institutions and (b) faculty with administrative responsibility at home and other institutions.
Reasons for Dissemination	Help address the health care problem defined in Step 1, prevent redundant work, and stimulate change at other institutions.

	Promote feedback and interchange/collaboration with colleagues at other institutions. Help curriculum developers achieve recognition and academic advancement.
Content	Literature review problem identification and general needs assessment, at the request of the journal editor as part of the description of the curriculum.
	Description of the curriculum.
	Guidelines/approaches to designing block curricula (multi-institutional effort).
	Curricular materials.
	Evaluation results.
Methods	*Workshops* on teaching methods at regional and national professional meetings.
	Abstracts on teaching methods and evaluation results at regional and national professional meetings.
	Curricular materials (syllabus and demonstration videotape) distributed by direct request or through educational clearing houses.
	Articles in peer-reviewed professional journals: Literature review, curriculum description, and some evaluation results (7); randomized controlled evaluation of the curriculum (9); multi-institutionally authored paper on developing block curricula for residents that compares this and two other similar curricula (10).
	Faculty Development of GIM Clinical Faculty: module on interviewing skills included in Johns Hopkins Faculty Development for Clinical Educators.
Resources	Semiprotected academic time of some faculty and reimbursement for travel, supported by academic group practice (Johns Hopkins Bayview Physicians, P.A.).
	Partial grant support for the randomized, controlled evaluation study (see above, Step 6).

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