



IMPLICATIONS FOR STUDENTS

## A Model for Educating Humanistic Physicians in the 21st Century: The New Medicine, Patient, and Society Course at Tel Aviv University

JEFFREY M. BORKAN, MD, PhD<sup>1</sup>, MICHAEL A. WEINGARTEN, MD<sup>1</sup>, EVA SCHLANK, MD<sup>1</sup>, JUDI FADLON, PhD<sup>1</sup>, SHIMON KORNITZER, PhD<sup>1</sup>, NETTE NOTZER, PhD<sup>2</sup>, RONEN AVIRAM, MD<sup>1</sup>, HENRY ABRAMOVITCH, PhD<sup>1</sup>, SUE LEHMANN, MSW<sup>1</sup>, NAOMI SMIDT-AFEK, MD<sup>1</sup> & MENAHEM FAINARU, MD<sup>3</sup>

<sup>1</sup>Department of Behavioral Sciences, <sup>2</sup>Unit of Medical Education, and <sup>3</sup>Office of the Dean, Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel

**ABSTRACT Background:** *The impact of the social and behavioral sciences on medical education has often been limited due to a variety of organizational, curricular and professional barriers. The new “Medicine, Patient, and Society (MPS)” program in Tel Aviv attempts to rectify this educational shortcoming by exploring new ways to help students acquire the knowledge, attitudes and skills needed for becoming humanistic physicians and for helping patients (and themselves) adopt healthy behaviors. To work toward this goal, this program integrates the biomedical and psychosocial aspects of health care, providing developmentally appropriate learning experiences according to levels of training, together with a variety of educational methods, including learner-centered approaches.*

**Objectives:** *To implement and evaluate the MPS pilot program.*

**Methods:** *The MPS program uses a “seamless” model of behavioral science education. This integrated curriculum interweaves several elements: behavioral science topics (presented through multiple approaches), clinical experiences, practical medical skills, and an independent project. During the program’s first year there is a strong focus on “health” rather than “disease,” with activities designed to encourage healthy behaviors, including smoking cessation, stress management, birth control, AIDS education, life cycle and preventive health services. Assessment of the pilot for first-year students*

Author for correspondence: Jeffrey Borkan, MD, PhD, Department of Behavioral Science, Sackler Faculty of Medicine, Tel Aviv University, PO Box 39040, Ramat Aviv, Tel Aviv 69978, Israel. Tel: 972 3 640 9858. Fax: 972 3 6406916. E-mail: Borkan@shani.net

*included standardized questionnaires, student focus groups, participant observation of educational activities, and committee feedback.*

**Results:** *Students' quantitative evaluations indicated high levels of satisfaction with the MPS program, but their qualitative evaluations revealed some concerns. Participant observations and focus groups added unexpected insights. Student concerns included performance fears, difficulties with "learner-centered" education, and incompatibilities between more traditional first-year courses and the MPS program. Long-term follow-up will be needed to determine the impact of this emphasis on health during the first year. We assume it serves as a helpful foundation for students before they focus on disease and its sequelae in their later years.*

**KEYWORDS** *Behavioral science, curriculum reform, clinical exposure, seamlessness.*

## **Background**

Behavioral science teaching in medicine has often been a thankless job, with less than optimal impact. Although the humanistic disciplines are highly relevant to producing future medical professionals who will be effective at helping their patients and themselves adopt, nurture, and maintain healthy behaviors, many barriers exist to helping students develop the capabilities they will need.

The new Medicine, Patient, and Society (MPS) program at Tel Aviv, begun in 1999 as part of an overall curriculum reform, attempts to break the traditional model that dominated this school since its inception in 1964. Until the reform, this six-year medical school might best have been categorized as "discipline-oriented," with a research-oriented basic science faculty, a strong subspecialty base that emphasized the curative medical model, and a curriculum that was decentralized and particularistic. There was a near total separation between the three years of pre-clinical and clinical education, including a division of faculties, curriculum committees, and even geographic locations. The Department of Behavior Sciences provided individual discipline-specialized courses in psychology, life cycle, medical anthropology, family, and death and dying, as well as electives. There was no systematic attempt at integrating behavioral science into the rest of the educational program. Not surprisingly, attendance at courses was generally low. Students, who were selected solely on academic ability without personal interviews, seldom saw their first patient until their fourth year. The students' primary tasks were acquiring large volumes of facts and passing multiple-choice exams. Teaching was the same for all students, by lecture and laboratory, with limited elective time.

Change began in 1996–1998, deriving from discontent among students, faculty, and local hospital chiefs regarding both the traditional curriculum and the quality of the graduating students. Collaboration between the Dean, the head of the Curriculum Committee, and a large number of faculty committed to a more humane and community-oriented medicine produced a major reform of the curriculum and the school. The new philosophy emphasizes adult education

**Table 1.** The Medicine, Patient, and Society program

Year	Educational activities	Start date
1	Lecture and multimedia (doctor–patient, life cycle, cultural diversity, alternative medicine, etc.) Clinical experiences (site visits at clinics, laboratories, and hospitals) Small groups (same students and leaders for three years) Practical medicine (skills such as CPR, blood drawing, birth control counseling, stress management, etc.) Independent project & study days	Initiated 1999–2000  Pilot of sections of elements of MPS 1998–1999
2	Clinical experiences Clinical laboratory program Communication laboratories Small groups Family and illness project Study days	To be initiated 2000–2001
3	Clinical experiences Small groups Integrated communication, physical diagnosis and clinical decision making course	To be initiated 2001–2002
4	Introduction to clinical medicine Medical ethics Doctor–patient communication, physical examination and clinical decision making	Initiated 1999–2000  To be initiated 2002–2003
5	Biopsychosocial teaching on clinical rotations	Pilot 2000–2001
6	Medical ethics Medicine and the law Telling bad news	Pilot 2000–2001 Initiated 1998–1999

(student-centered learning, information retrieval skills, problem-oriented learning, etc.), and humanistic and social science approaches (ethics and communications skills in particular). In addition, it allowed for the introduction of a clinically relevant syllabus, by means of integration of clinical applications into the study of the pre-clinical sciences.

The reform began in the 1999–2000 academic year. The MPS program is one of the “flagships” of the school’s curriculum change. The program stretches across all six years (see Table 1). The primary goal is creating and enhancing humanistic medical proficiency (“good doctoring”). The secondary goal is breaking down the walls separating the three institutional cultures at the school, the *behavioral*, *basic*, and *clinical* sciences. The MPS program attempts to provide an integrated, “seamless” model of medical education, bringing together multiple disciplines, including anthropology, sociology, psychology, psychiatry, history of medicine, ethics, law, humanities, and communication, plus hospital, community, specialty, outpatient and complementary/alternative medicine.

The organizing concepts for the MPS program are in Table 2. The focus is

**Table 2.** Organizing concepts of the MPS program

- 
- Provide seamless integration of disciplines, creating a holistic approach to medicine
  - Provide experiences to shape attitudes and develop skills rather than just providing facts
  - Use learner-centered approaches with opportunities to accommodate varied learning styles
  - Provide developmental experiences at the appropriate time
  - Progress from the health-centered to disease-centered
  - Vertical and horizontal themes, which should reflect and be coordinated with the content of other elements of the curriculum
  - Use multiple types of evaluation
  - Emphasis on well-being
- 

on providing the right experiences at the appropriate time; building attitudes and skills rather than just providing facts; integrating the biomedical and psychosocial/cultural; and using learner-centered approaches with opportunities for multiple and varied learning styles. Students are expected to master a set of knowledge, skills, and attitudes, adapted from the guidelines suggested by the Curriculum Task Force of the Association of Behavioral Sciences and Medical Education (ABSAME, 1995). The MPS program is organized around vertical (multi-year) and horizontal (same-year) themes that reflect other parts of the pre-clinical and clinical curriculum. The first year has three major elements: doctor–patient relationships, life cycle, and “other,” including sample themes such as doctor–patient communication, early childhood, studenthood, and traditional and folk medicine. The teaching methods range from more theoretical lectures and background readings to lively multimedia and multidisciplinary experiential examples, to hands-on learning of practical medical skills, and clinical exposures. Small groups, made up of 12 students, a behavioral scientist and a senior physician, meet every two weeks. The same participants will continue for at least three years. The tasks of the small groups are to discuss issues and practice exercises linked to the MPS themes, as well as to provide a “safe space” for such issues as professionalization, socialization, studenthood, support, communication, and later Balint discussions (Balint, 1964) (see Table 3).

**Table 3.** Sample day in year 1

Topic		Time
Life cycle: pregnancy and birth	World of medicine	8:30–10:00
Ethics and pregnancy issues	Spirit of medicine – panel	10:15–11:45
Emergency childbirth	Practical medicine – w/models	12:00–13:30
Visit to obstetrics ward (observe birth, interview mother)	Clinical exposure/or small group discussion Monthly leader seminar/Balint	14:00–16:00 16:15–18:30

---

During the first year there is a strong emphasis on equipping students to maintain healthy behaviors and to be effective at influencing patients' conduct and habits. This starts with an explicit focus on *health*, rather than *disease* in all the activities and formats. For example, discussing normal sexual function rather than sexual dysfunction, or exploring healthy development throughout the life cycle and theories of personality, rather than developmental and psychiatric pathologies. Multiple activities have been conducted, designed to encourage healthy behaviors, including smoking cessation, stress management, birth control, AIDS education, life cycle, and preventive health services. Students are also instructed on how to counsel patients in most of these areas. Finally, ample discussion time is provided in small groups for assisting the development of positive mechanisms for coping with the pressures of studenthood.

### *Evaluation of the Impact of Pilot Course and First Semester of MPS Program Pilot Course*

The first pilot of the MPS curriculum ("Early Clinical Experience") (ECE), was conducted March to June 1999. All 120 students of the first-year class participated, as did a staff of eight behavioral science faculty and nearly 100 clinicians.

The ECE course included introductory lectures, videos, and readings in preparation for three clinical experiences (emergency room, labor and delivery, outpatient medicine). Each exposure was followed by a small group discussion, generally 20 students with two faculty. Although each clinical experience had separate goals and tasks, all were designed to introduce students to clinical medicine, primarily through the eyes of patients. Students were required to take part in the exposure, the small group discussions, and to complete written reports.

*Methods of Pilot Course Assessment.* Multiple assessment techniques were used to evaluate the ECE course. After each small group discussion, all students completed evaluation forms, composed of standardized questions, designed for computer scoring. In addition, three students acted as participant observers during the clinical exposures, providing written fieldnotes of their observations. Following the last small group discussion, three focus groups were conducted with all the students. In addition, student and faculty representatives informally polled students and reported their results back to the Student-Faculty Committee. The use of qualitative and quantitative methods allowed the capture of both systematic data and unexpected insights (Miller & Crabtree, 1992; Borkan, 1993).

Data analysis included a group meeting of focus group moderators and observers, review of focus group transcripts and notes, and review of the participant observation fieldnotes and other memos. The standardized questions

were scored, tabulated, and analyzed by computer, providing descriptive statistics.

*First Semester of the MPS Program.* The full MPS program was initiated in October 1999 with the 138 members of the incoming first-year class. The course (described above and in Tables 1–3) was facilitated by an overall coordinator, five additional section coordinators, 20 small group leaders (nine physicians, two dentists, six psychologists, two social workers, and one sociologist), other part time faculty, as well as two teaching assistants.

*Methods of MPS Course Assessment.* As in the pilot course, multiple assessment techniques are being used to evaluate the MPS program. Evaluation strategies are designed to capture not only the progress of individual students, but also students' feedback on teachers and the program. Student assessment is multifaceted and multidimensional, covering both content and process, ranging from multiple-choice exams to student projects, OSCEs (objective structured clinical examinations), group leader and self-assessment. All curriculum and program elements are being assessed through standardized questionnaires, as well as ongoing participant observation and focus groups.

## **Results**

### *Pilot Program*

Overall, the findings pointed to a high level of satisfaction with the pilot program among students, though with reservations about particular aspects. Perhaps most important was the near uniform request that the course be continued for the students during their second year of education.

### *Students' Feedback*

Although there were concerns with individual tasks, students felt strongly that the course had contributed to their education (average 3.4 on a four-point Likert scale from 1, "disagree" to 4, "strongly agree," with 0 as "cannot assess" or "irrelevant"). Individual clinical exposures were also rated highly (3.1 for both the outpatient clinic and the emergency department, and 3.5 for labor and delivery). Concern was raised regarding the logistics of the clinical experiences, which was rated 2.8.

### *Qualitative Evaluation*

Despite a wide scope of comments, the focus groups, participant observers, and Student–Faculty Committee displayed a high level of uniformity. Students evaluated the course extremely positively, stating their excitement at seeing

patients and the opportunity for exposures to various medical contexts. In particular, viewing a birth for the first time was exhilarating for nearly all students. For some, the ECE course even served to remind them why they had wanted to be physicians and why behavioral sciences are relevant to their training. The qualitative data collection techniques also succeeded in providing a series of unexpected insights not revealed by the evaluation forms. These ranged from performance fears among students to difficulty connecting the content of the other, more traditional first-year medical school courses to the MPS experience.

The major findings included the following.

*Fears.* Although students were very concerned at the onset of the course about facing actual patients and about “invading privacy,” the clinical experiences allayed most of their fears. Students reported being easily accepted in the three milieus. Despite performance anxieties, students spoke of their fears being replaced by a deeper understanding of the clinical arena. The students realized that the patients not only agreed to speak to them but were often pleased to do so—enjoying speaking with someone “like” a doctor who was interested in them as human beings.

*Logistics.* Many comments focused on logistical difficulties. For example, physician tutors were often noted to be unaware that students were expected, and even when they were aware, many were poorly informed of the goals of the clinical experience.

*Course Requirements.* Students had difficulty applying some of the goals and objectives of the clinical exposures, supplied to them in written detail, to the actual patient encounters. Though this did not seem to dim their enthusiasm, it caused frustrations and questions. Many of the issues the students were meant to consider were seen either as irrelevant (e.g. life cycle issues in the labor and delivery ward) or incomprehensible at their level of education (e.g. cultural aspects of the doctor–patient relationship).

*Impressions of their On-site Physician Tutors.* Students were critical of many of their physician tutors in the emergency room and family practice experiences. For some students, the abruptness and impatience of certain emergency physicians was perturbing. Opinions about the family practice clinics were sharply divided. Although many students felt they had opportunities to meet role models who understood their patients on multiple levels, many others felt their experience reinforced their bias that doctors’ work outside the hospital is routine, anti-intellectual and frustrating.

### *First Semester of the MPS Program*

The evaluation of the MPS program during the 1999–2000 academic year is currently underway, although first impressions have surfaced from participant observation, group discussions, and feedback from the Student–Faculty Committee. Overall, the MPS program has been a success, although the first semester encountered “birth pangs” that included mismatches between student and faculty expectations and an excess of programmed hours (eight per week). One of the biggest difficulties was that first-year students’ inability, initially, to appreciate learner-centered instruction, requiring more direction than planned. Although the clinical experiences and practical medicine portions of the program were clear successes, the formal didactic sessions suffered from too many lectures and lecturers. In addition, the small groups were perceived to be “too psychodynamic” by many of the students. Some of these concerns were addressed in the second semester, with a reduction in lecture hours, more continuity between lecturers, an increase in experiential learning, and the addition of more tasks in small groups. More individual study time was added, with greater emphasis on individual projects, which are proving to be extremely popular.

The strong emphasis on health and healthy behaviors was accepted by the students without expectation. Students were enthusiastic about the counseling sessions on smoking cessation, stress management, birth control, AIDS education, and preventive health services, although many felt that their limited medical knowledge precluded effective counseling of others. There is only anecdotal information regarding the influence of these efforts on their own lifestyles. For example, smoking among first-year students is said to have been reduced. The small groups have made genuine progress, with leaders and students reporting the establishment of trust-based relationships among students and between students and mentors, improved listening and interpersonal communication skills, and greater displays of empathy.

## **Discussion**

Abundant medical school curriculum reform literature confirms that undue emphasis has been placed on technology and tertiary care during the past century, without adequate responsiveness to the needs of patients and communities. Such misgivings are often associated with calls for curricular reform. The required elements of curriculum reform often include: *learner-centeredness, self-directed learning, integrated curriculum of which PBL is a major example, primary care emphasis, community orientation, and population health awareness* (Quirk, 1994; Jolly & Rees, 1998).

The curriculum reform at Tel Aviv, including MPS, is an attempt to follow these principles, while adding some dimensions. The goal of “*seamlessness*,” the integration of disciplines, is perhaps the most striking new element. This attempt at breaking down institutional and educational barriers can be seen as part of a

trend that is apparent in innovative medical education today (Jolly & Rees, 1998). There are several current manifestations of this trend, ranging from the narrative-based medicine, popularized by the *British Medical Journal* (Greenhalgh & Hurwitz, 1998) to the assertions that all medicine, including complementary–alternative medicine, must be considered under the same rules and considerations (Fontanarosa & Lundberg, 1998; Relman, 1998).

It is impossible at this point to gauge the long-term impact of the MPS program on students, either before or after graduation. Nonetheless, many of the faculty feel that the first-year students are developing skills that will be of great service in the process of developing humanism and promoting well-being and healthy behaviors. Some of these are as basic as the ability to listen and discuss in small group settings, developing the capability of being reflective on actions and experiences, and being encouraged to examine attitudes, actions, and habits.

### *Remaining Challenges*

Many challenges are ahead for the curriculum reform at Tel Aviv University (TA). At present, the major challenges for the MPS program are:

1. *Changing the medical school's teaching/learning culture.* The tradition of teaching at TA is via lecturing and great efforts will need to be extended to substitute alternative methods. Similarly, students have grown accustomed to being “spoon-fed” and are unprepared for individualized learning, searching the medical literature, or even reading texts.
2. *Finding, training, or retraining teachers and facilitators.* New skills and new attitudes are required, whether leading small groups, PBL, or even thinking as facilitators rather than as conveyors of specialized information.
3. *Engaging and appealing to a diverse group of students.* The student body is now more than 50% female, many are religiously orthodox, with a growing number are Arab Israeli students (nearly 10%). In addition, nearly 40 dental students study with the medical students until the end of the third year and take part in all MPS activities. The growing diversity of the students presents a major challenge.
4. *Providing continuity and progression.*
5. *Conceptualizing what is to be done in large groups and what in small.*
6. *Finding resources.* The reform is very expensive in comparison to past methods of instruction.
7. *Providing opportunities for evaluation on several levels (students, classes, teachers and curriculum).*

Although the pilot and MPS programs may well be experiencing a “halo effect” related to their newness, they clearly fill a previous vacuum and support the goals of behavioral/social science instruction. Further work is needed to improve and refine the program, using insights gained from the initial experiences.

## References

- BALINT, M. (1964). *The doctor, his patient and the illness*. London: Pitman Medical.
- BORKAN, J.M. (1993). Conducting qualitative research in the practice setting. In: M.J. BASS, E.V. DUNN, P.G. NORTON, M. STEWART & F. TUDIVER (Eds), *Conducting research in the practice setting: research methods for primary care*, Vol. 5 (pp. 69–84). Newbury Park, CA: Sage.
- CURRICULUM TASK FORCE OF THE ASSOCIATION FOR BEHAVIORAL SCIENCES AND MEDICAL EDUCATION, THE ASSOCIATION OF MEDICAL SCHOOL PROFESSORS OF PSYCHOLOGY, AND THE ASSOCIATION OF DIRECTORS OF MEDICAL STUDENT EDUCATION IN PSYCHIATRY (ABSAME) (1995). *Behavioral science curriculum guide*.
- FONTANAROSA, P.B. & LUNDBERG, G.D. (1998). Alternative medicine meets science. *Journal of the American Medical Association*, 280, 1618–1619.
- GREENHALGH, T. & HURWITZ, B. (1998). *Narrative-based medicine*. London: BMJ Books
- JOLLY, B. & REES, L. (Eds) (1998). *Medical education in the millennium*. Oxford: Oxford University Press.
- MILLER, W.L. & CRABTREE, B.F. (1992). Primary care research: a multimethod typology and qualitative roadmap. In: B.F. CRABTREE & W.L. MILLER (Eds), *Doing qualitative research* (pp. 3–28). Newbury Park, CA: Sage.
- QUIRK, M.E. (1994). *How to learn and teach in medical school: a learner-centered approach*. Springfield, IL: Charles C. Thomas.
- RELMAN, A.S. (1998). A trip to Stonesville: Andrew Weil, the boom in alternative medicine and the retreat from science. *New Republic*, 4378, 28–37.