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BRIEF COMMUNICATION

A Tale of Two Exposures: A Comparison of Two Approaches to Early Clinical Exposure

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ABSTRACT **Purpose:** *Early Clinical Exposure (ECE) programs are an increasingly widespread component of undergraduate medical education. Little systematic research exists on the topic. This report compares the approach and cost/benefits of two parallel ECE programs at the Sackler School of Medicine, Tel Aviv University.*

Method: *The two ECE programs were compared using student questionnaires, faculty questionnaires, focus groups and participant-observations.*

Results: *ECE for American medical students in Israel was based upon a semi-structured mentoring relationship with a hospital-based specialist, in which students were able to practice interviewing skills. ECE for Israeli students emphasized structured exposure to a wide variety of primary care settings and informal patient contact. Both ECEs were supplemented by campus-based small group discussion. Students, preceptors and group leaders in both ECEs all reported very high levels of satisfaction and perceived impact on medical training.*

Conclusion: *There appears to be no ''best'' way to conduct ECE. The ECE should be tailored to the specific needs and goals of the student population. Further research and international comparison is needed.*

KEYWORDS *Medical education, medical students, clinical education, clinical exposure, Israel, innovation.*

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Introduction

Early Clinical Exposure (ECE) makes unique contributions to the education of medical students. (Branch *et al*., 1991; O'Brien-Gonzales *et al*., 2001). In contrast with classroom teaching, ECE involves an active, experiential learning from real patients with practicing clinicians, designed to be the 'beginning of a life-time of learning focused on the patient' (Wartman *et al*., 2001). Although ECE programs are increasingly widespread, there is relatively little research on the topic (Wartman *et al*., 2001; O'Brien-Gonzales *et al*., 2001). In this report, we describe contrasting approaches to ECE in parallel tracks at the Sackler School of Medicine, Tel Aviv University: a four-year medical program for American college graduates (Abramovitch *et al*., 2000; Schreier & Abramovitch, 1997) and a six-year European-style undergraduate program.

ECE: The NY State/American Program

In the NY/American Program, ECE physicians were senior university hospital-based specialists whom students selected according to their area of interest. No formal time was set aside in the syllabus and students had to make their own arrangements for the nine ECE meetings. Four sessions illustrated the role of medicine in the life cycle (birth, neonatology, pediatrics, geriatrics) illustrating what was being learned concurrently in the classroom. One session was devoted to an in-depth biopsychosical interview of a hospitalized patient. Students wrote up and presented their interviews in discussion groups, led by a family physician and a behavioral scientist, in what was symbolically their first case conference. The remaining four meetings were left to the discretion of the physician and students. In the second year, students learned history-taking and physical diagnosis, one day a week, in hospital settings.

ECE: The Israeli Program

The Israeli ECE was part of an innovative course, Medicine, Patient & Society (MPS) Program (Borkan *et al*., 2000). ECE focused on the medical care system and the life cycle (ER, birth, primary care clinic, maternal and child health clinic, rehabilitation). These visits were also designed to be discussed in ongoing small groups led by a physician and behavioral scientist.

Guidelines for ECE focused both on observation and interaction with patients, especially listening skills. For example, in ER, students followed a patient from entry to admittance to ward or discharge. In the second year, students visited two community settings and followed a family with a chronic illness. Students were required to write up at least one clinical exposure per semester.

Evaluation

Both American and Israeli medical students completed questionnaires evaluating ECE. In addition, students' comments were elicited via written comments, interviews, and focus groups. Group leaders completed questionnaires and provided written and verbal comments. Further data were obtained by participant-observation of Israeli ECE visits. Medical students in both groups were enthusiastic about ECE and provided high satisfaction ratings. American students rated both specific patient interview as well as the entire ECE very highly. A majority of students (55%) gave their ECE physicians highest marks. Only two or three ECE physicians received fair to poor ratings.

Typical student comments included: "The best part of the first year" and "Learned an enormous amount of clinical medicine and doctor-patient relationship". Negative comments focused on difficulties with scheduling, lack of organization, or inadequate preparation by the physician.

Faculty also rated the ECE discussion group highly, especially the group atmosphere and student participation.

Israeli students also gave very high satisfaction ratings for the ECE portion of the course, with highest scores for Birth/Delivery Room and Emergency Room. Typical Israeli student comments were: "Made me feel like a doctor", "Motivated me to study" and "Saw what it was really like". Based on their ECE, two Israeli medical students realized that they did not want a career in medicine and left medical school. Student and faculty reports revealed that individual small groups varied considerably concerning how well they prepared students or processed the ECE. Participant-observers noted that some preceptors had difficulty changing their existing culture of clinical teaching. Physicians focused on initiation and professionalism while non-physicians stressed feelings and group process.

Comparison between the Two ECE Programs

Most American students entered medical school with extensive experience in hospital and/or primary care settings but faced a double adaptation to Israel as well as medical school. Previous research found that some American medical students experienced significant distress (Schreier & Abramovitch, 1997). As a result, their ECE program provided ongoing contact with mentors who could also identify vulnerable students as well as provide support.

The shortcomings of the American ECE are difficulties of making *ad-hoc* scheduling outside the formal syllabus, possible language difficulties with patients, little exposure to community, outpatient settings or to the workings of the health care delivery system. In contrast, Israeli students had little previous exposure to the world of medicine. Their ECE, therefore, stressed diversity through exposure to a wide variety of settings. Continuity was provided by

Table 1. Comparison of two approaches to ECE

	N.Y. State/American	Israeli
Setting	Hospital	Outpatient/community
Preceptor	Ongoing specialist MD	Changing junior MDs
Timing	*Ad-hoc* arrangements	Fixed times in syllabus
Choice	Select MD by interest	Between available slots
Structure	Semi-structured	Highly structured
Mentoring	High	Low
Discussion groups	Yes	Yes
Focus on		
Interviewing	High	Low-moderate
Health Care System	Low	High
Integration	Moderate-low	Moderate-high
Language	Language difficulty	Minimal difficulty

ongoing small discussion. The ECE was highly integrated with classroom instruction and familiarized students with the patient's perspective and the workings of the health care system.

Its shortcoming were lack of mentoring in clinical settings, and lack of direct patient care or medical interviewing, although informal patient contact was included. Comparisons between the two approaches to ECE are summarized in Table 1.

Both ECE programs served as an ''early warning system'' for medical student distress and ''early identification of students'' emotional issues surrounding entering the medical profession... [and] students in need of remediation in clinical skills or around professionalism' (O'Brien-Gonzales, 2001, p. S50). The role of ECE in primary prevention is worthy of further attention.

Conclusion

ECE forms a crucial part of the initiation into medicine. During a time when students often spend long hours in the classroom, it serves to remind students why they wanted to be physicians. The apparent benefits of ECE include: improved communication skills, exposure to the health care system, instilling the qualities of a patient-centered humanistic physician, and increased motivation for classroom learning (Borkan *et al*., 2000; O'Brien-Gonzales *et al*., 2001; Simpson *et al*., 1991; Smith *et al*., 1998). The comparison of the two different ECE programs highlights the tradeoff between depth and breath, between fostering mentoring via a one-to-one relationship with a senior clinician, as opposed to exposure to a wide variety of clinical settings. There

appears to be no "best" way of doing ECE; rather the ECE should be tailored to the specific needs of medical student population. Further cross-national and longitudinal research is needed.

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