In This Issue:

Gender Differences in Career Paths in Psychiatry
Penelope Krener, M.D.

What Components Should Be Evaluated in a Psychiatry Residency
Paul C. Mohl, M.D.
John Z. Sadler, M.D.
Deborah A. Miller, Ph.D.

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Gender Differences in Career Paths in Psychiatry

Penelope Krener, M.D.

Although psychiatry has one of the highest proportions of women entering its residency programs, women have not assumed a proportionate amount of academic or research leadership positions in the field. This literature review identifies three general groups of models that explain disparities between men's and women's careers, but these do not fully account for observed differences in psychiatric practice and academic progression of women in psychiatry. Gender differences in career paths in psychiatry are not only affected by individual traits and choices, but also by economic factors. Theories based on organizational discrimination, and systems and market factors are also reviewed. No single explanatory model accounts for disparities between the careers of men and those of women. Because psychiatric practice patterns may be broadly distributed across labor sectors, more diverse career patterns are possible in psychiatry than in more constrained and traditional fields. Research on gender differences in psychiatry careers must consider not only the individual work style and choice, but also the position of individuals within the organization and the position of those organizations across the labor market. (Academic Psychiatry 1994; 18:1-21)

The choice of most careers is not made once, but many times, in successive approximations. Each person brings to the occasions of choice an individual personal history—which includes the distillations of vital identifications, experiences, beliefs about his or her capabilities, and a constellation of goals—that may evolve over time. Thus, there is a progression of career choices made over a person's working life, within the range of opportunities available.

That men and women are different in several ways is well recognized in popular culture and has been consistently reinforced in the mass cultural media. How does this difference trace itself into the career paths discovered by women or men in the course of their work lifetimes? Are traditional career patterns related to individuals' role behavior choices? If so, are there gender differences in career patterns and are they related to different sets of choices men and women make?

Among medical specialties, psychiatry attracts a most heterogeneous group, from bookish theoreticians to flamboyant entrepreneurs. It is also among a handful of specialties with a large proportion of women. Consideration of the literature on gender differences in work patterns in the field of psychiatry might address these questions and bring to light some explanatory models for the differences between the distributions of men and women in occupational roles. The purpose of this literature review is to

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discover whether gender differences result from 1) personal choices, 2) responses to interpersonal events at home and in the workplace, or 3) a combination of these factors, and 4) whether other factors exist that are beyond individual control and bring about the observed gender differences.

In this article, the psychiatric literature and available relevant statistics on gender differences in the field of medicine and the specialty of psychiatry are reviewed. From that review, three general explanatory models and issues for debate are then extracted. Finally, three economic theories explaining the observed differences in the career paths available to men and women in the field of psychiatry and the subfield of academic psychiatry are briefly addressed. Issues affecting the career choices of men and women psychiatrists, which include economic factors as well as personal and interpersonal factors, are discussed.

GENDER DIFFERENCES IN CAREER PATHS IN MEDICAL EDUCATION

In the past decade, the number of women entering medical school has increased from 26% to 37% and their representation on medical school faculties has increased from 15% to 20% (1-4). Women select residencies in different proportions to men (J. Bickel, R. Quinne, personal communication, June 1991). The specialties with the highest proportions of women residents are psychiatry (40.6%), child psychiatry (50.2%), pediatrics (50.3%), and obstetrics/gynecology (44.2%). Women presently comprise 21% of psychiatrists in the United States. They also represent a higher proportion of younger psychiatrists; although 25.2% of all physicians under age 35 are women, 34.9% of psychiatrists under 35 are women (5), and 72.2% of women physicians are under age 45 (6). The distribution of women on the faculties of different specialties parallels that in residency selection (Bickel, Quinne, personal communication, June 1991), but the ratios of women to men on medical school faculties are smaller when compared with medical school enrollments.

Moreover, women medical school faculty are disproportionately concentrated in the lower academic ranks. The percentage of women assistant professors grew from 41% in 1978 to 49% in 1988, while the percentage of women professors increased only from 8% to 9%. Women are also underrepresented in administration and other leadership positions in psychiatry (7). Statistics on rank and gender of full-time medical school faculty from the Association of American Medical Colleges (AAMC) in 1991 (Bickel, Quinne, personal communication, June 1991) show that the percentage of men professors exceeds that of women professors by 21.9% and that of associate professors by 5.4%. The opposite is true for junior faculty members; the percentage of women assistant professors and instructors exceeds that of men assistant professors and instructors by 15.2% and 10.4%, respectively. Is this smaller number of women senior faculty explained by a cohort effect resulting from a previously smaller pool of women physicians? Not entirely, based on a study by the American College of Physicians entitled Promotion and Tenure of Women and Minorities on Medical School Faculties that looked at the cohort joining the medical faculty in 1976. By 1987, 12% of men but only 3% of women had become full professors (7). Thus, statistical surveys of career patterns suggest that although women are presently entering medical school in higher numbers than in the past (approximately 40% of medical students are women) (1), they advance more slowly and do not attain positions of power and leadership in the field in numbers equal to men.

EXPLANATORY MODELS FOR DIFFERENCES BETWEEN MEN'S AND WOMEN'S CAREERS: DEBATED ISSUES

Reported differences in the career paths of men and women raise the question of
whether women's career progression would be similar to that of men if they were to make the same occupational choices in role behavior that men do. For the sake of argument, Table 1 outlines the pattern of the traditional stereotype of a unitary focus on work, contrasting it to an alternative one combining career and family responsibilities. The blended role pattern is characterized in current lay literature as The Mommy Track. Stereotypes are presented because they distill shared cultural assumptions that serve as cognitive organizers for new social experiences. Thus, stereotypes may capture implicit assumptions underlying social research investigations or the interpretation of their findings. It is postulated that the two alternative choices in occupational role behavior would consistently influence the individual's attitudes about work, money, time, travel, professional relationships, response to discrimination, and use of personal energies. These stereotypes suggest that it is solely the individual's chosen behavior that determines the person's progression in a given field as opposed to socialization or economic factors. To a great extent that is true, both for men and for women, although cultural factors may shape individual choices more than free will at the moment of decision. Consider whether a man would be regarded by his peers as a potential leader if he consistently organized his energies according to the blended role pattern on the right side of Table 1.

Do the foregoing stereotypes of gender

<table>
<thead>
<tr>
<th>TABLE 1. Professional choices of women</th>
<th>Traditional Attitudes for Success</th>
<th>&quot;The Mommy Track&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Doing &quot;a man's job&quot; the way a man would do it; having the same career goals, etc.</td>
<td>Combining career and family (accepting responsibility for child care and maintenance of the home, physically and psychologically</td>
</tr>
<tr>
<td>Attitude about work</td>
<td>Goal-oriented</td>
<td>Experience-oriented</td>
</tr>
<tr>
<td>Attitude about money</td>
<td>A symbol of success or a vehicle for success (e.g., getting a grant, if not the first time, then on reapplication)</td>
<td>Money is traded for time (e.g., writing a grant and not getting it might be seen as &quot;wasted time&quot;)</td>
</tr>
<tr>
<td>Attitude about time</td>
<td>Focus on future: 10-year plan of full-time employment (or more) is assumed; same time-line as men for career advancement, credential-gathering (long-term) Power lunch (short-term) (All time is money)</td>
<td>Focus on present: &quot;getting through this year&quot;; part-time schedules an option, protection from pressure by choosing structured or less rigorous work situations Skip lunch to finish in time to pick up child at day care Time is divided between work time and home time</td>
</tr>
<tr>
<td>Self: measure of success</td>
<td>Self-promotion; competition challenging when necessary achieving recognition</td>
<td>Sharing, &quot;fairness,&quot; seeking consensus, compromising, relatedness, feeling one has done a good job or tried hard</td>
</tr>
<tr>
<td>Self: use of</td>
<td>Organizing, delegating, producing a product</td>
<td>Accommodating, responding, or getting job done by oneself</td>
</tr>
<tr>
<td>Self: defense vs. discrimination</td>
<td>Various; may confront high price paid for this, or ignore. Likely to be vigilant, aware of discrimination, microinequities</td>
<td>Often ambivalent about success, participates in &quot;auto-discrimination,&quot; may avoid or ignore discrimination gestures, and be unaware of microinequities</td>
</tr>
<tr>
<td>Attitude about travel, professional relationships</td>
<td>Important for making one's work known and for networking with colleagues at other institutions</td>
<td>Meetings seen as &quot;stimulating&quot; but feeling conflicted because of discomfort at leaving children, and imposing extra demands on colleagues</td>
</tr>
</tbody>
</table>
differences shape the perceptions of professionals and academics, including psychiatrists? To explore this, a review of recent literature cited under women, psychiatrists, leadership, psychiatry training, and occupational roles was conducted. Its purpose was to identify actual data on career differences or implicit assumptions and explanatory models. However, methodological constraints on the study of the question of gender differences in psychiatric career paths were also identified. There are few longitudinal studies and only one cohort study (7). Most studies focus on only one variable, rather than using complex models and a multivariate approach.

Methodological obstacles limit the clarity of information about gender differences. Some variables are easily measurable (e.g., years between hiring and promotion, number of years at each rank, number of publications). Other important variables are attitudinal and subjective (e.g., the climate in a department that may discourage a certain faculty member from taking initiative) or are the result of informal interpersonal interactions for which no measurement is possible at the time (e.g., subtle slights at work, family decision processes about household chores, the pattern of formation of professional affiliations). Hence, the information about women's careers is necessarily derived partly from empirical literature and partly from the thoughtful reflection of individuals reviewing their own histories and situations. However, the data analyzed in empirical studies consist of quantifiable events (e.g., number of years to advancement in rank within a department), which are themselves the results of interpersonal decisions; hence, subjectivity underlies the apparent objectivity of the variables. Anecdotal recall or editorial comment is a balance of memory, which is subject to distortion, and the intelligent integration of subtle and cumulative episodes, which may be more accurate than attempts to count measurable events.

Several explanatory models are found within the references reviewed. In some cases, they are implicit assumptions. In others, they are the focus of the reviewed article. They can be grouped into three general areas: Role Strain, Discrimination, and Systemic and Interpersonal Barriers.

Role Strain

The traditional division of role assignment delegated to men the task of breadwinner and to women the task of caring for the home and children. As women have moved into the labor market, they have retained most of their former home and child care obligations and have added to them the new demands of a job or profession. The ensuing role strain receives much attention in the psychiatric literature. This issue is divided into two themes. First, the question is raised of whether women's careers are slowed by childbearing and child-rearing. Second, it is found that women do double work and experience chronic role strain as a result. The effect of this on their professional lives is explored.

Discrimination

The second general area is that of discrimination based on gender. This issue is found in three themes emerging from the literature review. First, it is asserted that women fail to progress in their careers because they lack effective mentors. Second, it is agreed that microinequities and sexual harassment obstruct women's progression in the field of psychiatry as in other work domains. Third, it is stated that women hit a "glass ceiling," which constrains their progression regardless of their competence.

Systemic and Interpersonal Barriers

The third general area discussed is the barriers that women experience when they try to pursue professional and academic ca-
reers. These are more intangible and self-perpetuating, and tend to be phrased in various ways. Gender-specific attitudes and work styles influence women's and men's career choices differently. Second, the question is raised whether women are cognitively and emotionally liable to limit their own career opportunities. Finally, it is proposed by some researchers that women's work is different from men's in topic and workstyle and that it is not rewarded in equal measure.

This section reviews the literature addressing these issues. The reader will note that the literature is varied and includes both empirically based papers, books that provide syntheses of issues in and beyond the field of psychiatry, peer-reviewed non-psychiatric journals, official publications for academic governing bodies or official publications from the U.S. Department of Labor, and non-peer-reviewed presentations and communications. A variety of sources were drawn from because the influences on gender differences in career progression in the field of psychiatry are contributed to by factors extending beyond the field itself, factors that are currently in a state of change. Therefore, they may not have been fully scrutinized with empirically based research. Table 2 summarizes some examples of the salient literature addressing each debated issue.

Role Strain—Model 1. The first explanatory model for role strain states: Women's careers are slowed by childbearing and child-rearing. Pregnancy is one obvious difference between men and women, and it is likely to occur during the early years of a woman's career. A 1983 survey of pregnancy during residency by the ad hoc Committee on Women Physicians of the American Medical Association found that of the two-thirds of women in practice with children, half had had their first child and one-quarter had had a second child during training (2). Nonetheless, it has been found that most training institutions are unprepared when women trainees become pregnant. For example, in one study of 66 residencies in 15 hospitals, four-fifths had no maternity leave policy (8). According to AAMC surveys, only 57% of teaching hospitals have maternity leave policies and only 15% of teaching hospitals provided on-site day care for children of housestaff. In one study of women at Harvard-affiliated programs, none quit a residency because of pregnancy. Also, having children rarely affected their achievement of board certification (9). However, Bickel and Quinie point out that a lack of formal program mechanisms for accommodating to childbearing and rearing turns these life events into stressful disruptions for young professional parents (7). The medical profession has long been harsh about the personal needs of its members, and the preemptive needs of babies and young children are likely to affect mothers more than fathers (10–14).

It appears that both women and men believe that childbearing and child-rearing slow women's careers. In a study by Levinson et al. (11), 67% of women holding full-time faculty appointments in departments of medicine said that they thought their career had been slowed by childbearing, although their median length of maternity leave was only 6 weeks and 86% later returned to a 52-hour or more workweek. Braun (15) recently presented at an annual meeting of the American Psychiatric Association (APA) findings based on resident responses to a questionnaire that covered maternity leave, compensation for time missed from training, and redistribution of service obligations. He found that 48% of the women and 78% of the men believed that pregnancy interfered with work performance. The men were more likely to anticipate personal inconvenience secondary to a peer's pregnancy and to endorse the statement that a pregnant peer would take more sick time. Men accurately predicted what their women colleagues would say about the issues, but women overestimated the extent of the men's negative responses and underestimated their
willingness to provide special consideration for pregnant colleagues, such as schedule changes.

However, Cole and Zuckerman (16) found that eminent women scientists with up to four children published as much during their careers as their unmarried counterparts did. After matching two groups of women by birth dates, there was no significant difference in publication rates before and after the birth of the first child and between those women who did and did not have children. Cross-sectional surveys may obscure the fact that the lifetime productivity of a woman may be equal to that of a man (10), albeit on a different schedule (17). Family size and professional achievement have not been found to be correlated (18), and the correlation of a woman's faculty academic rank was higher with her medical school class rank than with the size of her family (19).

Therefore, the literature on the career effects of bearing and raising children is con-

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<table>
<thead>
<tr>
<th>Explanatory Model or Debated Issue</th>
<th>Literature for</th>
<th>Literature against</th>
</tr>
</thead>
<tbody>
<tr>
<td>and child-rearing</td>
<td>15Braun 1991</td>
<td></td>
</tr>
<tr>
<td>Women do double work</td>
<td>16Cole &amp; Zuckerman 1987</td>
<td></td>
</tr>
<tr>
<td>Women experience discrimination</td>
<td>3Cole 1987</td>
<td></td>
</tr>
<tr>
<td>Women lack (effective) mentors</td>
<td>31Berg &amp; Ferber 1983</td>
<td></td>
</tr>
<tr>
<td>Women hit a &quot;glass ceiling&quot;</td>
<td>33Silver 1991</td>
<td></td>
</tr>
<tr>
<td>Systemic and interpersonal barriers exist</td>
<td>42Lenhart 1991, 43Sandler 1986</td>
<td></td>
</tr>
<tr>
<td>Women are cognitively &amp; emotionally different</td>
<td>45Roitman 1991, 46Scadron et al 1982</td>
<td></td>
</tr>
<tr>
<td>Women have cultural differences and different styles of work</td>
<td>47Rowe 1990</td>
<td></td>
</tr>
<tr>
<td>Women's work is different from men's work in topic and style</td>
<td>48Asenberg &amp; Harrington 1988</td>
<td></td>
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<tr>
<td></td>
<td>49Braun 1987</td>
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<tr>
<td></td>
<td>50Hamilton &amp; Jensvold 1991</td>
<td></td>
</tr>
<tr>
<td></td>
<td>53Riba 1991, 54Gilligan 1982</td>
<td></td>
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</table>

1No references found supporting the opposing point of view for double work or sexual harassment. The authors whose names are in parentheses addressed both sides of the debated issue.
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tradicory. On the one hand, quantitative figures, such as time away from work or number of publications, suggest that parental functions do not interfere with professional productivity for many physicians. On the other hand, the subjective experience of individual professionals who become parents is that their babies and children change the balance of their energy and time between home and work (20).

Role Strain—Model 2. The second explanatory model related to role strain states: Women must do double work and experience chronic time pressures.

Independent of the tasks of childrearing, women are socialized to care for all family members, to maintain the home, and to perform many caring activities that sustain the family-community connections. As women continue to manage the roles they have traditionally filled while undertaking the roles traditionally filled by men, they have more to do every day. A sociological review of working women's schedules found that they work the equivalent of a "second shift" every day in carrying out such activities (21). Empirical evidence is contradictory as to whether this extra burden affects their work productivity (22,23). Therefore, women occupy more status sets, defined as the array of social positions a person has, such as professor, laboratory director, wife, mother, and citizen. Consequently, they experience more role strain. This is not only true for women physicians but also for other working women as well. As noted by Teich (9), physicians do not usually drop out of the work force when children are born. A random sampling of physicians in the Detroit area by Heins et al. (24) found that 84% of women and 96% of men continued to work after a child was born. At the time of the survey, 7% of the women were not working because of reasons related to the woman's traditional role. After graduation, women spent 90% as much time in medical work as did the men despite the fact that most of the women also had home and family responsibilities. When the authors compared the work productivity levels of the women in a 1969 study with the women in a 1957 study, they found it had increased, even though the women in the former group were married and had more children.

However, families pay a price for this work pattern. A study of residents found a correlation between the residents' overall level of dissatisfaction and the high number of hours worked outside the home by the respondents' spouses. Not surprisingly, the husbands of residents worked much longer hours than the wives of residents; the women physicians spent substantially more time on household chores than their male counterparts (24–26).

Does her work as wife and mother impair a woman's ability to do the work of a scientist? A study by Cole and Zuckerman (16) of family status and research performance found that marriage and children did not hinder scientific productivity. Productive women scientists in their study achieved this by specific management of their status set. Three interconnected aspects of status sets were considered: size (number of positions held simultaneously), congruence (extent to which various obligations are consistent rather than in conflict), and the timing of the addition and deletion of status obligations. Congruence is frequently achieved when the woman marries another scientist. Successful women reported compartmentalizing their lives, sacrificing discretionary time for leisure pursuits, and cutting back their work during periods of their lives when they were locked into family schedules. Parallel to this is the previously noted finding in one survey by Heins et al. (25) that found that women worked 10% fewer hours than men. Women more often choose institutional work settings with regular hours, choices that assist in reducing the size and increasing the congruence of their status sets (27).

The question of how professionals manage their work and personal time lends itself
to quantitative evaluation. Work patterns and productivity are known to be affected by fatigue, diversification of work activity, and personal well-being. There is a need for further studies that examine the work patterns chosen by both men and women in academic psychiatry.

**Discrimination—Model 1.** The first explanatory model for discrimination states: Women fail to progress because they lack effective mentors. Professional and academic development does not result exclusively from scholarly work and meritorious practice; it requires interaction with colleagues. Promotion and advancement to leadership positions can only come about through consensus by peers and by those in positions of responsibility or power within the institution. Informal support patterns and affiliation networks underlie the formal structures within and between academic settings. This phenomenon has been popularly termed the "old-boy network." The formation of a supportive, growth-fostering relationship between a new member of a system with one who is an established member of that system is called mentorship (13). Mentors are crucial for serving as role models (11), teaching an individual how to succeed, and also for connecting young professionals to available opportunities for success (1,20,28,29). This is particularly true in institutions where the formal structures are not current, or where established or written guidelines for tenure and promotion procedures are not comprehensive (30). A survey by the American College of Physicians in 1991 (1) found that junior faculty members with mentors publish more (2) and are likely to experience greater professional confidence and more rapid advancement (1).

Are the gender differences in patterns of professional affiliation and mentorship noted in academia generally (31) also to be found in psychiatry? As previously noted (1,7), a smaller proportion of women occupy senior positions in academic medicine and psychiatry. In a study by Silver (32), both women and men report having had mentors during their professional development, but the pool of mentors is mostly men. More men report that the mentor relationships occurred after as well as during their residencies. This indicates that although there are more women than men at the rank of instructor or assistant professor (Bickel, Quinlin, personal communication, June 1991), fewer women than men have mentors at this stage. Potential women mentors may consider themselves inadequate, more professionally isolated, and lacking access to more experienced researchers, administrators, and clinicians (27,33–35). In a sociological study of mentors by Ochberg et al. (36), "respondents with powerful male mentors believed their careers had been more effectively sponsored by virtue of the mentor’s rank, whereas those with lower-ranking women mentors said they received more personal advice and also more easily retained their autonomy in the process."

The intellectual growth of the pupil occurs through more than transmittal of tactical and factual information, and mentors may be critical of women and have the perception that they have "visibility and credibility gaps that their very real professional attainments cannot fill" (29). The relationship between mentor and mentee may comprise a blend of professional and personal exchanges. This relationship may be intense, may extend beyond the 9-to-5 workweek, and be outside of the work setting (37). Such flexible sites and contact times may be difficult for a young woman to access if she is primarily responsible for small children, and the intensity may become too difficult for both teacher and student to manage if they are of the opposite gender (14). Mentor relationships have been characterized by such descriptors as paternal, competitive, or supportive, and over time such relationships may become lasting friendships and collaborations, or they may be destructively disrupted if the pupil’s rising talent is perceived as challenging or threatening. A special as
pect of the mentor relationship between women and men is the so-called daughter transference process, in which a young woman is taught and encouraged by an older man. Because she is a woman, she may rise more quickly at first within an institution because she is not perceived as a potential serious threat. However, she may reach a non-negotiable limit, a glass ceiling, early in her mid-career. Silver (32) found that women reported having mentors earlier during medical school and residency, but fewer later became mentors themselves. In general, however, women have had fewer role models (7,29), and if those models are other women, they are seen as less connected to power than men.

The mentor-pupil relationship is complex and does not lend itself to objective scientific investigation. Hence, the literature on mentorship includes many statements that derive from personal experience rather than empirical studies. No longitudinal studies were found, nor were there studies in which mentors and mentees were interviewed to evaluate their “fit” with each other, their shared or differing perceptions of their work, and the evolution of their relationship. Although these studies may illuminate trends and attitudes that are not yet subject to quantitative measure, they still describe an important aspect of professional development, which, like many others, exhibits gender differences.

Discrimination—Model 2. The second explanatory model for discrimination states: Women hit a glass ceiling that constrains their career progress regardless of their competence. The glass ceiling is defined as “those artificial barriers based on attitudinal or organizational bias that prevent qualified individuals from advancing upward in their organization into management level positions” (38). Do such barriers exist in medicine? Whereas in the last 10 years the number of women in medical school faculties has grown from 5,249 in 1978 to 10,840, the hope that such a large increase would translate into a larger proportion of women in senior positions remains largely unfulfilled. It has been stated that the problem is not one of recruitment into academic medicine but that “women fail to get promoted” (27). They are also less likely to be board-certified in many specialties (39), and in a 1981 survey of 60,000 women physicians, fewer than 5% were engaged in research as a primary commitment.

Do such barriers exist in academic psychiatry? The concentration of women in the lower ranks of medical school faculties has been noted (5,7,40,41). In 1989, 18.8% of physician faculty members in U.S. medical schools were women, mostly concentrated in the lower ranks, and fewer than 10% of full professors were women. This compares unfavorably with nonmedical university faculties, where men are the majority. Of academics who are 47 years or older, only 28% of women vs. 61% of men are full professors. In a survey of institutions, women progressed more slowly toward promotion and were disproportionately involved in activities that would not reap the rewards or lead to tenure (42,43).

How do women fare as administrators? Silver (32) found that women psychiatrists become administrators at younger ages than men do. They tend to have lesser titles and fewer years of experience when compared with men of similar age (10). In a study by Dickstein and Stephenson (44) of physician-administrators, women were evenly spread across professorial levels, but surprisingly many held positions of power without academic rank. Even the most successful women reported that they wished they had had more training in using power, making decisions, working as a minority, and understanding leadership styles.

Cited authors identify two unanswered questions. Are there disproportionately low numbers of powerful women leaders because there is no pool of qualified women for positions as deans and department heads? Is this because women faculty members
choose nontenure or clinical tracks? Or are women considered less qualified because they do not often generate the research productivity essential for an academic promotion, which is the result of an inability to put research involvement above all other goals, at least for part of their career? Longitudinal studies that allow for a dual focus, both on the individual academic and on the institution, are necessary to answer these questions.

**Discrimination—Model 3.** The third explanatory model for discrimination is this: microinequities and sexual harassment obstruct women's career progression. Medicine, like all other fields, harbors discrimination based on gender (26,45,46). Sexual harassment requires three conditions established by 15 years of case law: 1) the behavior must be unwelcome, 2) it must be repetitive, and 3) it must be considered offensive by the subject of the action. A subtler form of harassment stems from a hostile work environment. Even subtler are microinequities, categorized by Rowe (47) in four levels of severity. Least detrimental are unconscious slights. Examples are being left out of formal and informal peer networks or being unconsciously eliminated from consideration for opportunities for professional advancement. Next in severity is invisibility, exemplified by the classic cartoon caption of a boardroom scene, "That's an excellent suggestion, Ms. McCarthy. Perhaps one of the men would like to make it." Third, conscious slights are exemplified by such actions as knowingly scheduling important meetings at the end of the day when a woman may have to pick up a child from day care or telling a young surgeon that she lacks stamina and cannot expect to succeed. The fourth and most severe microinequity is exploitation, for example, assigning women disproportionately into intensive clinical positions that offer no hope of academic advancement. Through the power of negative reinforcement, microinequities erode self-confidence. By intermittent, unpredictable reinforcement, these acts produce anxiety. Neither men nor women have time to do creative work when overloaded with trivial, devaluing tasks. Microinequities consume time and energy. Underreacting to them allows the pattern to continue, but reacting to each incident is emotionally draining and is interpreted as hypersensitivity. These microinequities serve to perpetuate power and status. Subordinates are recipients of microinequities, thus they maintain barriers between men and women and between the majority and minority. Because microinequities are often unintentional, their damaging effects are difficult to appreciate, and speaking up about them evokes skepticism or disbelief.

Sexual harassment is routinely overlooked and often deliberately forgotten. Dickstein and Stephenson (44) questioned 1,233 women physician-administrators; almost half asserted that they had never encountered sexism in general, but when pressed for particular examples, they each could remember experiencing specific instances. Lenhart and Evans (48) note women physicians have difficulty conceptualizing reasons why they advance more slowly than men. The authors have developed terminology to differentiate gender bias, gender discrimination, sexual harassment, microinequities, and subthreshold gender discrimination. They argue that objectionable behavior arising from other causes should be differentiated from that motivated by sexual harassment.

The prevalence of microinequities or sexual harassment is virtually impossible to objectively determine, except in the most flagrant cases leading to institutional or legal action. This holds true for academic psychiatry and other settings.

**Systemic and Interpersonal Barriers—Model 1.** The first of these explanatory models proposes that women are cognitively and emotionally liable to limit their own career choices. In its starkest form, it states: The critical elements of success—assertiveness,
ambition, and competitiveness—are difficult for women and are avoided because the woman may be seen as "too aggressive." Women are acculturated to avoid self-promotion (it is "pushy," "bitchy," or "hysterical"). Thus, women defer being principal investigators or put the names of other authors first on their publications "to be fair" or to "give my student a chance," genial behaviors that have negative career consequences despite their altruistic intent. It is further stated that to assume and project authority is difficult because of "feminine" characteristics of responsiveness, accommodation, and nurturance (27). Failure of self-promotion (29) added to the token status of women in academic medicine leads to "treatment as a symbol of a group rather than as an individual" (14). Ambivalent about pushing to excel and be recognized, women may acquiesce to the subtle discrimination against them that may occur, intentionally or not, and may ignore even overt discrimination, a pattern that Kilson has termed "autodiscrimination" (49). Thus, it is explained that they may avoid "masculine" careers (or specialties) (50-52), fail to get promoted, have work patterns that mitigate against their seeking success (autodiscrimination), and experience more role strain than do men.

What actual differences have been systematically observed in the responses of men and women at different stages of their career? It has been noted (1,4) that the acceptance rates of men and women to medical school are nearly equal. Observed gender differences are that women have higher overall grade-point averages (GPAs) than men and score higher in reading on the Medical College Admission Test (MCAT), although men have higher GPAs in science and have higher MCAT scores in the sciences and quantitative skills. In medical school, women have a more difficult time. They matriculate with less parental or financial support and report more sources of stress. Yet no measured difference in empathy and attitudes toward social issues and human relations could be found between men and women medical students in one study, although empathy scores for both women and men declined during medical school (53). Several studies found increased stress and higher levels of affective symptomatology in women (10,54-57), as well as more personal and emotional problems associated with alcohol use (58). Still, women perform as well as men and have a greater commitment to primary care as a career choice. For men, cognitive characteristics were the best predictors of clerkship and internship performances, but for women, the best predictors were noncognitive qualities, a ratio derived from letters of recommendation, interviews, work experience in health care, and the like (7).

Do women make different choices than men after the completion of their residences? Practical and strategic reasons may affect women's choices and may interact with personal reasons, which are affected by cognitive and emotional factors. Two empirical studies and one survey have explored the career trajectories of women and men. Heins et al. (24) have compared the productivity of women and men physicians and found that fewer women are married, but more are married to M.D.'s or other professionals. Of physicians with children, women M.D.'s have slightly fewer. They are more likely to have completed more residencies than men and are less likely to be board-certified. They make less money and their spouses make more to achieve about the same family income as families with men physicians whose wives work.

In this sample, the men were more likely to have had their training interrupted by military service than were the women to have theirs interrupted by children. A more current study of the same breadth would be useful to evaluate whether these findings have changed. An analysis of a national sample of 1960 medical school graduates, with no specific focus on academic careers, found
that men physicians built their careers in a sustained fashion, but women physicians did not. Men's professional attainment could be better predicted based on their achievement motivation and performance in medical schools than could that of the women (59). Recently presented data from 1989 AAMC Faculty Roster regarding psychiatrists who received their first academic appointment in 1978 indicated that women experience higher attrition rates from academia than men. A recent presentation of an APA survey of members' academic activities and career influences showed that men do more research, are more likely to have research training, and are more likely to have published more original research papers (40). Robinowitz et al. reviewed issues related to the politics and progress of women in academic psychiatry and concluded from reported professional and personal experience that differences existed in part because of social and institutionalized patterns and in part because of women's "self-limiting" behaviors, such as avoiding conflict, sharing credit, seeking approval, and being resigned to the existence of institutional unfairness (42). Nadelson and Tighe report on a description of a 17-month series of Tavistock group experiences addressing these differences. The groups were held at a university undergoing major turmoil, triggered by university women seeking to gain greater access to positions of power and authority. In men-led groups, traditional sex-role patterns of behavior were exhibited by both men and women group members. In women-led groups, the men were either hostile and uncooperative or were dependent as if trying to gain the leader's approval, although the women group members were initially assertive, instrumental, and task-oriented. But over time, the women gradually adopted behavior that sought to keep male attention in a traditional manner. The analysis of the group experience found deep attitudinal patterns in men and in women, who both reverted to traditional sex-role behaviors, even after attempts to restructure them into groups (60).

Systemic and Interpersonal Barriers—Model 2. The second explanatory model in this group speculates that specific attitudes and work styles influence women's and men's choices differently. Informal social recognition of gender differences takes the form of gender stereotypes. As noted, stereotypes distill shared cognitive organizers, even though they may be impossible to validate or quantitatively measure. They exemplify a level of organization of memory and thought that is implicit and at times nonverbal and that coexists with explicit, declarative, and logical thought. Hence, they may accurately incorporate subtle social observations, or they may foster overgeneralization and distortion of interpersonal information. This is as true for attitudes about gender as for other variables. Stereotyped organization of new information will cause the same actions to be interpreted differently if the actor is a woman or a man. This is exemplified by the humorous sign posted in many offices: "How to Tell a Professional Man from a Professional Woman: He's aggressive; she's pushy. He's firm; she's stubborn. He's discreet; she's secretive. He's intense; she's bitchy," etc. Stemming from this are different expectations for men and for women, for example: "His desk is cluttered; he's obviously a hard worker and a busy man vs. Her desk is cluttered; she's obviously a disorganized scatterbrain," or "He's leaving for a better job; He recognizes a good opportunity vs. She's leaving for a better job; women are undependable" (61).

Cognitive organization underlies individuals' generalizations from their own experience and affects their judgments about what is right or wrong in a given setting. Gilligan has described the differences in women's response to social and moral issues (62), differences that have obvious applications in medicine and psychiatry. The mores in many fields influence women to select or be chosen for particular career
patterns (63). Women perceive and are perceived differently, even if their productivity is the same as men in the same setting. Such attitudinal structuring of experience will not only vary among individuals, but also will be more marked in some regions and specialties than in others. In 1987, for example, 37% of those who matriculated in medical school were women, overall, but the proportion in Southern and North Central regions was lower than in the West and Northeast, suggesting regional differences in women's attitudes toward pursuing a medical career, or possibly, in how women's roles are regarded by admissions committees (44). In regard to choosing academic medicine, Riba (64) found significant differences between men and women in a 1989 survey on postresidency career choice sent to 859 APA members-in-training with a graduation date of 1989. It has been found that some of the factors mitigating against a woman's choosing a career in academic medicine were 1) significant educational debt, 2) current marriage, and 3) plans to have one or two children (39).

Nadelson and Tighe have noted that women are socialized to achieve vicariously and "to measure their success by the success of individuals to whom they are related, with whom they identify, and to whose success they have contributed." In positions of authority, men lead men, who they relate to as peers and competitors. When women, who are socialized to be less assertive, lead men, it's different (60). This is potentially awkward. Leadership styles may range from authoritative, "command-and-control" (transactional) styles to a participatory and interactive (transformational) style, and not surprisingly women more frequently select the latter (63). Consistent differences are perceived in the leadership styles of men and women (33,65,66). Nonetheless, Silver (32) found no difference between men and women leaders in perceived importance of various factors on their own development on their ideal development. Both felt key factors for success were personality traits, on-the-job training, unit chief experience, and mentor relationships.

Attitude measurement, although methodologically difficult, only reports the respondents' stated opinions. If there are mixed attitudes, ambivalence, or personal conflict, the individual behavior in specific situations may not be predictable based on their stated attitudes. This may account for the apparent disparities between opinion data obtained through questionnaires and the findings of actual career choices. Future study of the questions of career decision made by men and women should supplement reported attitudes with observations of behavior over time.

Systemic and Interpersonal Barriers—Model 3. The final explanatory model in this group states that women's work is different from men's work in topic and style, and it is not rewarded in equal measure. Between 1980 and 1990, the percentage of women physicians in patient care increased by 116%, largely due to the increase in office-based practices (6). Medical specialty choice patterns differ between women and men. Almost 70% of women physicians are in internal medicine, pediatrics, family practice, and psychiatry (the four lowest paid specialties), although more women now choose obstetrics/gynecology.

The practice patterns of women physicians also differ from men's. In their practices, women see more women patients than men (70% vs. 60%) and more black and minority patients (20% vs. 10%), reflecting the fact that women are more likely to practice in underserved areas. Women physicians also see fewer patients and spend more time with each patient. This results in fewer malpractice suits, greater patient satisfaction, and lower income (27).

These studies indicate that women may tend to select different research topics, prac-
ttice settings, and work patterns, and have different goals than men. Psychiatry, which has "softer," more humanistic and clinical research topics, is predominantly out-patient-oriented, practiced in nonemergency settings, and is congruent with maternal values, is therefore a subspecialty that women might "naturally" gravitate toward.

Aisenberg and Harrington (68) observe that a large body of women's scholarship is marked by common distinct characteristics, such as loyalty to "soft" subjects in the humanities and an insistence on humanistic values, treatment of subjects in cultural context, and pursuit of value-added-related questions propelling their work across lines of existing definitions and disciplines.

Promotion and advancement, however, are more often judged by the focus, not the breadth of the work and are awarded for data-based "bench-science" rather than theoretical syntheses, and grants are funded for proposals that describe in advance the quantitative criteria for evaluating results. Although many women scientists carry out data-based work and many men academics write theoretical and humanistic works, the question arises of whether women choose work that may develop in directions orthogonal to the reward system in the research establishments.

This raises the question of whether gender disproportion among researchers may beget gender bias in research. In 1987, the National Institutes of Health (NIH) established new guidelines that stipulated that all grant proposals were to include both men and women in studies or provide scientific justification for exclusion of one gender. This resulted from the findings of a 1985 U.S. Public Health Service Report on women's health that found that women were disadvantaged with respect to research and clinical practice. However, a recent APA presentation of preliminary findings disclosed that the guidelines were not being followed when the implementation process was examined in 1989 (69).

The question of whether the field of psychiatry has systematic biases toward data-based empirical research does not have a simple answer. Certainly, research grants are more likely to be awarded to data-oriented projects. Individuals who choose other directions for their work may find that they work without grant support, which consequently affects their academic progression. Hamilton and Jensvold (69) suggest that women's patterns of work choices do not favor academic advancement. This remains to be evaluated objectively.

MODELS TO EXPLAIN GENDER DIFFERENCES IN CAREER PROGRESSION

Because the foregoing explanations of differences between the careers of men and women do not address economic or societal structural patterns that may promote discrimination, economic theories about gender differences in the work force will be briefly reviewed.

Income Disparity and Work Attitudes

Not only are professional women distributed in jobs with lower authority and income than men, but they also earn less. Overall, a working woman earns 74 cents to every working man's dollar, even if they both have the same job (63). Women and men leaders have different perceptions about what factors are important in their own or ideal development, which may explain in part the income gap.

Three theories will be described to explain the relative absence of women in high-level positions, and illustrations of the treatment they receive are provided. The theories fall into three groups: 1) theories based on sex and gender differences, 2) theories based on organizational discrimination, and 3) theories based on systemic barriers in the labor market.
Theories Based on Sex and Gender Differences

Economic theories that might explain gender differences include statistical discrimination (employers judge individual women in terms of group characteristics) (70,71), and the human capital model (women anticipate shorter, more disrupted work lives when they have traditional family roles) (52). The human capital model describes a supply side factor, which, added to barriers in women’s socialization process, result in fewer qualified women candidates for the more prestigious, higher-paying positions. These explanations generally place responsibility for success or failure on the individual. The researchers consider such issues as the effect of childhood socialization on the attainment of aspirations, motivations, and skills appropriate for career success. Much of the psychiatric literature just reviewed on women’s work lives takes this point of view, which is encompassed by the foregoing explanatory models. This is understandable in part because psychiatry is a field that historically has focused on the individual.

Although men and women obviously have overlapping, not mutually exclusive personality traits and characteristics, they appear to gravitate toward different patterns of managerial and leadership behavior. According to Gilligan (62), men and women are motivated differently in seeking leadership positions. Men are goal-oriented or operate in a context of loyalty to a superior. Women are motivated by service to the profession or to others. Traits of so-called successful bureaucratic individuals are more likely to resemble those ascribed to men. In putting this theory to the test in an actual evaluation of individuals in positions of responsibility, however, Kelly (63) found consistent variations among men and women on individual traits. This suggests that even if gender differences in behavior do affect advancement or leadership, their effect is limited to a clustering of characteristics into behavioral patterns. Thus, there is no compelling evidence that behavior differences resulting from sex roles explain the gender disproportion in psychiatric leadership positions.

Theories Based on Organizational Discrimination

Discrimination theories ascribe the limited success of women (and of minorities) to the systematic biases of those who hold power in organizations, the economy, and the political system (i.e., the demand-side factors that influence women’s occupational choices) (52). They correspond to explanatory models within the discrimination group. These theories postulate that traditional sex-role stereotyping is accepted by men and women, and by supervisors and supervisees alike. Systematic discrimination is applied to women or to anyone who threatens the traditional hierarchy. Discrimination theories propose that women and minorities will be hired only if no real change in power relations occurs. Evidence for this has been found in academic studies of professors (72) and other occupations (73).

Lynn Martin, Secretary of Labor during the Bush administration, identified gender discrimination as pervasive (74).

Bayes (75) has used the segmented labor market theory to help explain continual gaps between the salaries of men and women. Two intersecting theoretical axes are relevant in market theory. The first axis describes internal vs. external markets (dual market theory), and the second axis describes the distribution of market sectors from the core sectors through the peripheral and public sectors to the volunteer sector (dependencia market theory).

According to the dual market model, pricing and allocation of labor are determined differently in the external market, where allocation of labor is determined by supply-and-demand, compared with the internal market, where it is determined by ad-
ministrative rules and procedures. The dual labor market model developed by Priore (77) emphasizes the distinction between primary and secondary jobs. Primary jobs in internal market occupations tend to have stability, high wages, and advancement potential. Significant competition exists only at the entry point; thereafter, advancement is in a queue toward the top. Secondary jobs pay less, offer fewer promotion opportunities, and have high turnover rates. In academic medicine, women are more likely to be in such positions, for example, as clinical instructors as opposed to tenured professors on the academic track.

According to the dependencia market theory, there are core, periphery, public, and voluntary sectors (63). Examples of core economy firms are heavy industry, large banks, and manufacturing firms. Examples of primary jobs in this sector are corporate lawyers and accountants, top managers, bankers, and administrative leaders of the 500–800 core economy firms, whose companies account for half of the GNP (75). Periphery economy firms number in the thousands, comprise about one-quarter of the GNP, and are competitive, entrepreneurial, and geographically dispersed. The public sector, comprising about one-quarter of the GNP, is noncompetitive and budget-driven. In general, secondary jobs are more likely to be found in competitive industries (52). Examples of intermediate and secondary jobs are skilled crafts workers, middle managers, and professionals. Medicine is among the competitive industries, generally falling within the service category of the peripheral sector. Physicians, including psychiatrists, work predominantly in the peripheral (private practice) and public (public health, state hospitals) sectors, although a handful of physicians may have special appointments in core economy settings.

Jobs in medicine and psychiatry are predominantly in the competitive sector of the marketplace. Although physicians do not currently have trouble finding jobs, the circumstances under which they work may be subject to change. Women are disproportionately employed in the less stable, more competitive industries and in the public sector (74,75), and they are also preferentially distributed in the private practice (competitive) and community or state mental health (public) positions (6). Wage discrimination occurs in part because highly educated women are concentrated in professions in the peripheral sector, whereas women’s jobs in the core economy are predominantly in clerical and support positions (74). Once men and women are channeled into different types of jobs, the everyday ongoing operations in those positions will perpetuate gender differences in productivity, promotion, and pay. This is called institutional discrimination (73). If women do gain access to the core sector of the economy, they find themselves in “pink ghettos” or “velvet ghettos,” defined as the group of management and leadership positions that are subordinate, nonlinear, and supportive, such as directors of personnel departments, accounting, management information systems, and public relations (63,72). Parallel positions in academic psychiatry are directors of medical student clerkships or outpatient clinics. In administrative positions they have titles such as associate dean of women with little power.

The comparable worth of an individual’s effort differs depending on which economic sector their occupation is located in. Peripheral sector jobs have less stability in the market than do core sector occupations even if both are professional. Only 1.5% of women are employed in core sector specialties, according to data derived from the U.S. Bureau of Labor Statistics (63). The highest proportion of women are employed in intermediate and secondary jobs in the public sector or in the voluntary sector. Employment stability is relatively less assured for competitive industries, of which medicine is one, than for monopoly industries, such as transportation, finance, and manufacturing.
(63). Only 12.8% of women are employed in peripheral sector-oriented specialties, and the stratification within these specialties favors men. In medicine, less than 20% of physicians and 95% of registered nurses are women. Kelly (63) summarizes, "If one ignores the economic segment in which people are employed, then there is a tendency to focus on individual explanations of wage discrimination, such as educational levels, work experience, and family responsibilities. " Variations in individual characteristics fail to fully explain gender-based pay inequities. Sex segregation by economic sector and by type of occupation is critical for assessing pay equity and advancement opportunities. Research on gender differences in advancement in medicine and psychiatry must establish dimensions to describe the extensions of the stability of particular occupational positions before ascribing salary and power differences to the personal characteristics of women and men.

Theories About Systemic Barriers

These theories describe structural patterns promoting discrimination. Occupational segregation by gender is greater than differences in occupational distribution between whites, African-Americans, and Hispanics of the same sex (76). Moreover as noted, dual labor market theory identifies primary and secondary jobs. Men tend to hold the primary jobs that have the greatest stability and promotion potential, and women hold the secondary jobs that have lower stability and lower wages. As groups, men and women are positioned in different segments of the U.S. economy, with women in the most vulnerable positions (63). The odds of increasing the percentage of women chief executive officers at Fortune 500 companies are poor largely because so few women work in that part of the U.S. economy. Structural constraints of career success should not be mistaken for differences in individual qualifications and/or ability.

It has been observed that physicians work in the peripheral economy, in highly competitive entrepreneurial hospital systems, and in the public sector if they are involved in community medicine. Career systems exhibit a range in cohort competition and openness of the labor market. Sonnenfeld (78) organizes these in a grid with four quadrants. The first is described as The Club (closed labor market, low competition). Examples are phone companies and government agencies. The second is The Academy (closed labor market, high competition). Examples are IBM, Polaroid, and other large companies. The third is The Baseball Team (open labor market, high competition). Examples are public relations firms and the broadcasting and entertainment industries. The fourth is The Fortress (open labor market, low competition). Examples are the publishing, hotel, and retail industries. Men are more likely to predominate in core or primary occupations, careers that have relatively closed labor markets and those that have high-cohort competition.

Interestingly, careers in psychiatry can also fall into groups with any of these permutations of open and closed market and high and low competition. The Club is characterized as a fraternal order, where members are treated loyally, seniority is a premium, and status attainment before entry is valued. A stable group practice is an example. The Academy is a more stable career system where a person, once in, develops into a member of a modern guild. The individual's interchangeability among organizations is limited because the organization invests heavily in the person. The academic psychiatrist in a strong department and a physician working for an HMO, such as Kaiser Permanente, are examples. The Baseball Team promotes competition among highly talented performers with transferable talents. An example in psychiatry is the top-funded career investigator who is highly pursued by several departments. The Fortress is an institution under siege, with a low
commitment to individuals. Examples are a community mental health institution in a state with budget deficits and a psychiatry department rendered weak by perpetual financial crises. A handful of psychiatrists work as consultants in a Fortune 500 company, at the core of the most stable and privileged sectors. Although they are hardly representative, this illustrates that physicians, particularly psychiatrists, may practice across an extremely broad range of the labor market, and psychiatric practice options are broadly distributed across both open and closed labor market systems.

The individual characteristics of men or women will have different valences in these four different configurations. Discrimination will be more effectively applied in some settings than in others. For example, talented researchers with national reputations are sought after regardless of gender, and universities with vigilant affirmative action programs and sexual harassment policies have safeguards against discrimination.

CONCLUSION

Factors influencing gender differences in career paths in psychiatry extend beyond the personal choices of individuals and beyond the relationships between individual psychiatrists and their supervisors, chairmen, or employers. A preponderance of attention in psychiatric literature has been devoted to uncovering interpersonal explanations for the disparities between the careers of men and women in psychiatry. A review of this literature yields recurring themes, which have been grouped as three explanatory models adduced as causes of women's disproportionate lack of stature in the field. References can be found to argue both sides of the case for all but two themes. These are 1) that women experience sexual harassment and microinequities, and 2) that women shoulder the greater burden of more housework and child care responsibilities than men. However, variations in personal characteristics do not fully explain gender-based income differences. Organizational discrimination is also affected by market factors and systemic factors. The practice contexts of psychiatry extend broadly across labor sectors, from salaried positions in public settings through a range of private practice settings to privileged appointments in powerful, stable organizations.

Similarly, academic psychiatrists may range from those with year-to-year appointments in settings where they cannot influence the operations of the organization to more entrepreneurial, often mobile faculty appointments, which often depend on grant support maintenance in order to progress to the senior tenured positions that have considerable power.

Economic theories may posit certain models to explain observed differences in occupational patterns, but in carrying out data-based studies, economists cannot study the influence of one factor in isolation from others. As stated by Blau and Ferber (52), "There is good reason to believe that each of these explanations contributes to our understanding of a complex reality, where factors keeping women in segregated and poorly paid jobs, rather than being mutually exclusive, are far more likely to have reinforced each other." In pursuing explanations for gender differences in career paths in psychiatry, it is important to consider not only individual and organizational factors, but also economic factors affecting the field of psychiatry in the changing health care marketplace.

The diversity of possible job descriptions for a practicing psychiatrist, or for an academic psychiatrist, make it difficult to generalize about what personal and professional qualities are optimal for success; indeed, the definitions of success itself differ for psychiatrists in different sectors of the labor market. The broad variation of psychiatric practice options described previously results in the broad distribution of psychiatrists across labor sectors. This opens more
directions in which to develop different career patterns, presents fewer stereotypes, and may actually provide more opportunities for women in psychiatry than in more constrained and traditional fields. It also demands that researchers explore career differences between men and women psychiatrists. They must not only consider individual work style and choice, but also the position of the individual within the organization and the position of the organization within the labor market.

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What Components Should Be Evaluated in a Psychiatry Residency

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In this pilot study, the authors examined faculty responses to a proposed new evaluation form for residents. Because past research on priorities for psychiatric residency curricula have depended on direct surveys, previous findings may represent curricular ideals instead of what faculty actually evaluate. The goal of the study was to draw inferences about priorities in psychiatric education by studying what components (knowledge, skills, and attitudes) of a psychiatry residency that faculty are willing to spend their time evaluating. The responses were grouped by agreement about whether the item 1) could be evaluated on their site, 2) could be evaluated during psychotherapy supervision, 3) should be combined with other items, and 4) should be eliminated. The results showed much agreement about which items to include and little agreement about which ones to exclude. Fundamental psychiatric skills and attitudes were rated as most important, and there was widespread interest in a diversity of knowledge, skills, and attitudes that psychiatric residents should possess. The authors found this method, which could be easily applied to other programs, useful in setting curricular priorities. (Academic Psychiatry 1994; 18:22–29)

In recent years, there have been a number of surveys about what should be included in psychiatry residency training programs (1–3) that have focused on various objectives and skills that have been deemed appropriate for future psychiatrists. As Borus and Yager have pointed out, objectives and evaluation go hand in hand (4). Training programs need to evaluate only those areas considered crucial for a psychiatrist to function competently. Among professional educators, there is a longstanding debate over the relationship between goals, objectives, and evaluation (5). The recent psychiatric literature on evaluation has not focused on what should be evaluated, despite massive changes in the content of psychiatry in the last 15 years, but on the form of evaluation (narrative summary vs. numerical scores vs. direct observation vs. written examination) (6). If the objectives of training programs have changed, then surely what needs to be evaluated has changed as well.

We hypothesized that surveying what areas faculty members were willing to spend time evaluating in their programs might result in identifying what goals and objectives...
to establish for residency training, ones that would be different from those obtained from direct surveys. In the course of developing a new evaluation form, we designed a pilot study to test this idea.

We thought the length and detailed nature of our proposed new form might test this hypothesis. Our faculty seems to prefer to spend as little time on evaluation as possible, but we assumed that they would be willing to spend the time and energy evaluating areas that have a high educational priority for them. The proposed new form was considerably longer and more detailed than previous evaluation forms. Our study gave faculty members an opportunity to edit the new form to identify which areas they felt should be eliminated or combined with other items in the evaluation. We saw this as a way of asking our faculty to identify which areas of psychiatry were important for them to spend the time and energy to evaluate in detail and which were not.

METHODS

We developed a proposed new evaluation form (see Appendix) that included 73 items: 32 “knowledge” areas, 33 “skill” areas, and 8 “attitudes” areas. The form was circulated in 1991 to all 80 faculty psychiatrists active in teaching residents (43 clinical faculty members, mostly in private practice, and 37 full-time faculty members).

These faculty included psychoanalysts, neuropsychiatrists, psychopharmacologists, cognitive therapists, behavior therapists, family therapists, and basic and clinical researchers. The settings included private practice, two different private psychiatric hospitals, a Veterans Affairs hospital, a children’s hospital, and a city-county hospital.

The faculty were asked to respond with one of four choices on each item: 1) item can be evaluated on this rotation, 2) item can be evaluated during psychotherapy supervision, 3) item should be combined with others, and 4) item should be eliminated.

On each of the 73 items, none, some, or all of the choices could be endorsed. The frequencies of responses were tabulated for each item.

RESULTS

Fifty-six faculty (70%) returned the proposed new evaluation form, 29 (78%) of the full-time, and 27 (63%) of the clinical (voluntary) faculty polled. The respondents represented all varieties of service sites and clinical treatment ideologies in the department. We could determine no differences between the respondents and nonrespondents.

Of the 73 items in the evaluation form, 60 of them had at least one respondent who thought that it should be deleted. However, the highest percentage of respondents favoring elimination of a given item was 16%. Table 1 lists those items that more than 10% of the respondents felt should be deleted.

<p>| TABLE 1. Evaluation items that more than 10% of faculty felt should be eliminated |
|-------------------------------------|----------------|</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic neuroanatomy and neurophysiology (K)</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Principles of preventive and social psychiatry (K)</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Principles and applications of imaging in psychiatry (K)</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Perform a thorough neurological examination (S)</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Indications for polysomnographic sleep studies (K)</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Administer and monitor ECT (S)</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Epidemiology of the major psychiatric disorders (K)</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Do family therapy (S)</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Recognize the need to interpret upward and maintain a supportive stance (S)</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Genetics of psychiatric disorders (K)</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Do group psychotherapy (S)</td>
<td>6</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: K = knowledge item; S = skill item.
from the proposed form.

None of the respondents wanted to eliminate or combine nine specific items (see Table 2), suggesting unanimity on the high value of these areas for any psychiatrist. Many of these items address fundamental skills in psychiatric assessment. No items in the knowledge category were among these nine.

Our respondents put a high valence on therapeutic alliance, countertransference, and attitudes as educationally important. None of the eight attitudinal items had more than one respondent who wanted it eliminated.

These trends reappeared when the faculty were asked to endorse those items that could be evaluated on site. Fifty percent or more of the respondents said that 21 items were well evaluated on their service site. These items reflect skills and attitudes instead of particular knowledge areas.

Also, 50% or more of the respondents felt that even a larger number of items, 30 to be exact, could be evaluated by psychotherapy supervisors. These 30 items included all eight attitudes and, not surprisingly, most of the items related to psychotherapy and psychodynamic theory (12 items). However, less than half of the respondents said that six items related to psychotherapy training could be evaluated in psychotherapy supervision. These items tended to relate to specific forms of psychotherapy, such as family therapy or cognitive therapy. Interestingly, 50% or more of the respondents responded that 16 items could be evaluated both by psychotherapy supervisors and site supervisors (see Table 3). These 16 items seem to

<table>
<thead>
<tr>
<th>TABLE 2. Evaluation items that no faculty felt should be eliminated or combined with other items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine and implement a thorough diagnostic workup (S)</td>
</tr>
<tr>
<td>Perform a comprehensive mental status exam (S)</td>
</tr>
<tr>
<td>Readily establish an alliance with most psychiatric patients (S)</td>
</tr>
<tr>
<td>Manage countertransference (S)</td>
</tr>
<tr>
<td>Elicit a comprehensive history (S)</td>
</tr>
<tr>
<td>Maintain boundaries and set limits effectively for appropriate patients (S)</td>
</tr>
<tr>
<td>Flexible, willing to modify approach to varying clinical circumstances (A)</td>
</tr>
<tr>
<td>Recognize countertransference (S)</td>
</tr>
<tr>
<td>Creatively alter standard interview techniques to develop an alliance with challenging patients (S)</td>
</tr>
</tbody>
</table>

*Note: S = skill item; A = attitude item.*

<table>
<thead>
<tr>
<th>TABLE 3. Items that most faculty members felt could be evaluated on their site and/or by psychotherapy supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can Be Evaluated on Their Site</td>
</tr>
<tr>
<td>Perform a comprehensive mental status examination (S)</td>
</tr>
<tr>
<td>Flexible, willing to modify approach to varying clinical circumstances (A)</td>
</tr>
<tr>
<td>Elicit a comprehensive history (S)</td>
</tr>
<tr>
<td>Develop a thorough differential diagnosis (S)</td>
</tr>
<tr>
<td>Determine and implement a thorough diagnostic workup (S)</td>
</tr>
<tr>
<td>Creatively alter standard interview techniques to develop an alliance with challenging patients (S)</td>
</tr>
<tr>
<td>Readily establish an alliance with most psychiatric patients (S)</td>
</tr>
<tr>
<td>Maintain boundaries and set limits effectively for appropriate patients (S)</td>
</tr>
<tr>
<td>Develop a comprehensive, multidimensional treatment plan (S)</td>
</tr>
<tr>
<td>Recognize and infer recurrent interpersonal patterns in early interviews (S)</td>
</tr>
<tr>
<td>Ethical, strives to recognize and maintain appropriate boundaries (A)</td>
</tr>
<tr>
<td>Empathic, seeks to understand and connect with others' inner experience...(A)</td>
</tr>
</tbody>
</table>

(continued)
### TABLE 3. Items that most faculty felt could be evaluated on their site and/or by psychotherapy supervisors (continued)

<table>
<thead>
<tr>
<th>Can Be Evaluated on Their Site (continued)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintain empathetic connection to most patients (S)</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td>2. Diagnostic criteria of adult mental disorders (K)</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td>3. Curious, wants to explore/understand patients and psychiatry, avoids premature closure (A)</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td>4. The role of personality traits/disorders in the presentation/treatment of Axis I disorders (K)</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td>5. Critical/skeptical, does not accept own or others’ viewpoint unquestioningly (A)</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>6. Respectful, sees patients as seeking optimal adaptation, nonjudgmental (A)</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>7. Integrates experience, takes a synthetic approach to diversity…(A)</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>Form a supportive, collaborative alliance with a patient’s family (S)</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>8. Recognize countertransference (S)</td>
<td>28</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Can Be Evaluated by Psychotherapy Supervisors</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic psychoanalytic theory (K)</td>
<td>45</td>
<td>80</td>
</tr>
<tr>
<td>Commonalities and differences between exploratory and supportive psychotherapies (K)</td>
<td>43</td>
<td>77</td>
</tr>
<tr>
<td>Clarify and/or interpret unconscious material (including transference) (S)</td>
<td>42</td>
<td>75</td>
</tr>
<tr>
<td>Develop psychotherapeutic treatment plans based on patient history, formulation (S)</td>
<td>41</td>
<td>73</td>
</tr>
<tr>
<td>Maintain an exploratory interpretive stance with a patient (S)</td>
<td>31</td>
<td>61</td>
</tr>
<tr>
<td>Manage countertransference (S)</td>
<td>31</td>
<td>61</td>
</tr>
<tr>
<td>Identify and maintain an appropriate focus for brief dynamic psychotherapy (S)</td>
<td>37</td>
<td>66</td>
</tr>
<tr>
<td>Recognize the need to interpret upward and maintain a supportive stance (S)</td>
<td>37</td>
<td>66</td>
</tr>
<tr>
<td>9. Recognize countertransference (S)</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>10. Maintain boundaries and set limits effectively for appropriate patients (S)</td>
<td>35</td>
<td>63</td>
</tr>
<tr>
<td>11. Integrates experience, takes a synthetic approach to diversity…(A)</td>
<td>35</td>
<td>63</td>
</tr>
<tr>
<td>Strives for self-awareness and to use it in understanding patients (A)</td>
<td>35</td>
<td>63</td>
</tr>
<tr>
<td>12. Recognize and infer recurrent interpersonal patterns in early interviews (S)</td>
<td>34</td>
<td>61</td>
</tr>
<tr>
<td>Evaluate and manage a patient’s suicide potential (S)</td>
<td>34</td>
<td>61</td>
</tr>
<tr>
<td>13. Empathic, seeks to understand and connect with others’ inner experience (A)</td>
<td>34</td>
<td>61</td>
</tr>
<tr>
<td>14. Flexible, willing to modify approach to varying clinical circumstances (A)</td>
<td>33</td>
<td>59</td>
</tr>
<tr>
<td>15. Curious, wants to explore/understand patients and psychiatry, avoids premature closure (A)</td>
<td>33</td>
<td>59</td>
</tr>
<tr>
<td>16. Maintain empathetic connection to most patients (S)</td>
<td>33</td>
<td>59</td>
</tr>
<tr>
<td>17. Ethical, strives to recognize and maintain appropriate boundaries (A)</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>*Critical/skeptical, does not accept own or others’ viewpoint unquestioningly (A)</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>Normal growth and development (K)</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>18. Elicit a comprehensive history (S)</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>19. Respectful, sees patients as seeking optimal adaptation, nonjudgmental (A)</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>Observe sequential, interactive behavior during an interview, infer inner experience (S)</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>Ethical obligations of the psychiatrist (K)</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>20. Develop a thorough differential diagnosis (S)</td>
<td>30</td>
<td>54</td>
</tr>
<tr>
<td>Interpersonal and group dynamic theories (K)</td>
<td>30</td>
<td>54</td>
</tr>
<tr>
<td>The role of personality traits/disorders in the presentation/treatment of Axis I disorders (K)</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td>Determine and implement a thorough diagnostic workup (S)</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>21. Diagnostic criteria of adult mental disorders (K)</td>
<td>28</td>
<td>50</td>
</tr>
</tbody>
</table>

**Note:** K = knowledge item; S = skill item; A = attitude item; Item on both lists.
reflect fundamental psychiatric skills and attitudes. Nine items were left blank by 30% or more of the respondents (Table 4).

Four items that were left blank also appear in Table 1 as items that several respondents thought should be eliminated. Six of the remaining seven items from Table 1 were left blank by 27% of the respondents.

DISCUSSION

We found this survey to be a useful technique for soliciting faculty input into the development of a new evaluation form. The response rate was good, and there were a number of surprises in the results that gave us new insight into our faculty’s educational priorities and attitudes. We were unprepared for the number of items they left blank. We had expected that the respondents would want more items deleted than we found. In addition, there was more overlap concerning where an item could be evaluated than we had thought likely. Contrary to our hypothesis, this study tended to confirm previous direct surveys of curriculum priorities. Fundamental skills (e.g., making a differential diagnosis, performing a mental status examination, managing countertransference, etc.) were rated as essential. We also found a high interest in evaluating and (presumably) fostering attitudes such as empathy. In essence, this pilot study demonstrates that there is little consensus about what components in residency training programs no longer need to be evaluated, with general agreement (at least among our large and diverse faculty) for retaining an inclusive approach to evaluation and education.

No one respondent left more than a few items blank, which suggests that leaving an item blank did not result from rushing impatiently through the form. Because deleting an item was an option, a blank response probably did not mean that the respondent did not like the item or was biased against it. Most of the items left blank seemed to address fundamental psychiatric skills that tend to be practiced on specialized units (e.g., electroconvulsive therapy, behavior therapy, substance abuse, diagnosis of childhood disorders). One surprise, however, was that 17 respondents left blank the item about a resident’s ability to direct a multidisciplinary treatment team. These respondents might be our voluntary faculty, who spend most of their departmental time in outpatient psychotherapy supervision.

We had expected large numbers of respondents to want many of the items eliminated, if for no other reason than to reduce the length of the new form so that it would take less time to complete. There was clearly no consensus on what should be eliminated, even though 85% of the items had at least one respondent who wanted it deleted. Almost all respondents wanted at least one item on the proposed form deleted. No respondent wanted to eliminate more than ten items. We interpreted this finding as a faculty endorsement of the continued diversity in our training program. Despite the large increase in material that residencies must present, and despite shifting practical and

<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administer and monitor ECT (S)</td>
<td>23</td>
<td>41</td>
</tr>
<tr>
<td>Indications, contraindications, mechanisms, and techniques for ECT (K)</td>
<td>22</td>
<td>39</td>
</tr>
<tr>
<td>Diagnostic criteria of child mental disorders (K)</td>
<td>21</td>
<td>38</td>
</tr>
<tr>
<td>Perform a thorough neurological examination (S)</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td>Basic neuroanatomy and neurophysiology (K)</td>
<td>18</td>
<td>32</td>
</tr>
<tr>
<td>Direct a multidisciplinary treatment team (S)</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>Principles of preventive and social psychiatry (K)</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>Psychosocial treatment of substance abuse (K)</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td>Do behavior therapy (S)</td>
<td>17</td>
<td>30</td>
</tr>
</tbody>
</table>

Note: K = knowledge item; S = skill item.
theoretical orientations (which are well represented among our faculty), there is no agreement about what residency components might no longer be important to spend time and energy observing and evaluating. Knowledge items were overrepresented among those for which deletion was advocated and underrepresented among items conducive to site evaluation, suggesting that faculty may prefer a formal cognitive examination as the method to evaluate knowledge areas. We wondered whether this might reflect the effect of the Psychiatry Residency In-service Training Examination. The few items that no one wanted to eliminate or combine with others reflect very fundamental psychiatric skills and attitudes.

To simplify several administrative procedures, the proposed new form was designed to be applicable to site-based evaluation as well as to psychotherapy supervision (previously there were several separate forms). Nonetheless, we expected most items to be primarily identified with one setting or the other as the site where it could be evaluated. Although most of the items were primarily identified with one setting or the other, the majority of our respondents felt that 16 items (22%) could be effectively evaluated in both settings. This overlap resulted from the majority opinion that psychotherapy supervisors could evaluate such areas as the “ability to determine and implement a thorough diagnostic workup” and that site attending physicians can evaluate an item such as the “ability to recognize and infer recurrent interpersonal patterns during early interviews.” This challenged a bias we had unknowingly held going into this study. The faculty seemed to be telling us that locations that we thought of as more purely biological in orientation can serve as sites to evaluate psychodynamic issues and vice versa. We interpreted this as additional, indirect evidence of the faculty’s commitment to maintaining an inclusive diversity in evaluation and training. Not only should almost everything continue to be evaluated, but many items can also (and presumably should) be evaluated in all settings, regardless of primary orientation.

A methodological issue that confronted us in this study was determining the educational significance of various responses to our queries. For example, if 10% of our respondents want an item deleted and 8% want some other item deleted, is the former necessarily more significant? In this sense, the cutoffs we have selected in presenting the data are somewhat arbitrary and could be unique to our program. Although the response of any individual faculty member on any given item might well represent bias, educational commitment, habit, confusion about an item, haste and overwork, or a thoughtful opinion about evaluation, we were interested in the overall pattern of our respondents. We wanted to avoid over-interpreting responses that might reflect some subgroup within the faculty (analysts, inpatient attending physicians, biological psychiatrists, etc.). We also wanted to identify areas of significant consensus that cut across several different segments of the respondents. The cutoffs selected reflect our opinions based on inspection of the data, our knowledge of our own faculty and their idiosyncrasies (e.g., how many analysts were among our respondents), and what constitutes a significant minority opinion and what constitutes real consensus. Smaller programs or programs with a more homogeneous theoretical perspective or with a different mix of faculty seeking to do similar studies might need to define significant responses differently.

The survey performed here was a useful means of developing a resident evaluation form with meaningful faculty input. We believe it revealed a faculty consensus to pursue and maintain diversity in the curriculum. In the end, it will be an evaluation of how this form is actually used that will determine which items are truly meaningful, and will provide the data for a follow-up study to this one.
We believe the process we piloted may also be useful in helping other departments develop their curricula and evaluation procedures, as it was in ours.

References

APPENDIX. Comprehensive psychiatry resident evaluation form

KNOWLEDGE OF:
Normal growth and development
Basic psychoanalytic theory
Basic neuroanatomy and neurophysiology
Neurobiology of major psychiatric disorders
Principles of learning theory and behavior therapy
Psychopharmacology (i.e., kinetics, biochemistry, et al.) of neuroleptics
Psychopharmacology of antidepressants
Psychopharmacology of anxiolytics
Psychopharmacology of lithium carbonate
Applications of anticonvulsants to psychiatric disorders
Family systems theory
Diagnostic criteria of adult mental disorders
Diagnostic criteria of child mental disorders
Physical causes of psychiatric syndromes
Relevant neurological syndromes
Indications, contraindications, mechanisms, and techniques for ECT
Commonalities and differences between exploratory and supportive psychotherapies
Interpersonal and group dynamic theories
Principles and applications of imaging in psychiatry
Principles of preventive and social psychiatry
Pharmacology of drugs of abuse
Pharmacologic treatments of acute intoxication and withdrawal from drug abuse
Basic psychological tests and their indications
Cultural determinants of normal and pathological behavior
Ethical obligations of the psychiatrist
Basic concepts in mental health law
Signs, symptoms, and treatment of life threatening side effects of psychotropic drugs
Psychosocial treatment of substance abuse
Genetics of psychiatric disorders
Epidemiology of the major psychiatric disorders
Indications for polysomnographic sleep studies
The role of personality traits and disorders in the presentation and treatment of Axis I disorders

(continued)
APPENDIX. Comprehensive psychiatry resident evaluation form (continued)

**ATTITUDES:**
Integrates experience, takes a synthetic approach to diversity of knowledge, theory, and clinical experience
Strives for self-awareness and to use it in understanding patients
Ethical, strives to recognize and maintain appropriate boundaries, attitudes
Empathic, seeks to understand and connect with others' inner experience, overidentifies
Respectful, sees patients as seeking optimal adaptation, regards them as intrinsically worthwhile, not judgmental
Curious, wants to explore/understand patients and psychiatry, tolerate ambiguity, avoid premature closure
Critical/skeptical, does not accept own or others' viewpoint unquestioningly
Flexible, willing to modify approach to varying clinical circumstances

**ABILITY TO:**
Readily establish an alliance with most psychiatric patients
Creatively alter standard interview techniques to develop an alliance with challenging patients
Elicit a comprehensive history
Develop a thorough differential diagnosis
Document clinical observations and clinical course
Determine and implement a thorough diagnostic workup
Select, prescribe, and monitor neuroleptics
Select, prescribe, and monitor antidepressants
Select, prescribe, and monitor anxiolytics
Select, prescribe, and monitor lithium, and other anti-bipolar medications
Administer and monitor ECT
Perform a comprehensive mental status exam
Perform a thorough neurological exam
Maintain empathetic connection to most patients
Maintain boundaries and set limits effectively for appropriate patients
Recognize countertransference
Manage countertransference
Evaluate and manage a patient’s suicide potential
Evaluate and manage a patient’s potential for violence
Direct a multidisciplinary treatment team
Recognize and infer recurrent interpersonal patterns, early interviews
Develop a comprehensive, multidimensional treatment plan
Form a supportive, collaborative alliance with a patient’s family
Do cognitive therapy
Do behavioral therapy
Observe sequential, interactive behavior during an interview and use it to infer patients' inner experience
Identify and maintain an appropriate focus for brief dynamic psychotherapy
Maintain an exploratory interpretive stance with a patient
Recognize the need to interpret upward and maintain a supportive stance
Clarify and/or interpret unconscious material (including transference)
Develop psychotherapeutic treatment plans based on patient history, relevant theory, and psychodynamic formulation
Do group psychotherapy
Do family therapy
An Emerging Consensus in Behavioral Science Course Content

Myrl R. S. Manley, M.D.

The results of a survey of North American medical schools (N = 65) about the content of their behavioral science courses are presented. Child psychological development and psychodynamic theory are the most frequently taught subjects in the schools (for 94% and 88% of the programs, respectively). Greater agreement on topics is found than in earlier surveys. The historical reasons for disagreement on content and objectives are explored and proposals for reform are offered. (Academic Psychiatry 1994; 18:30–37)

Preclinical courses in “behavioral science” became an established fixture of American medical schools when behavioral science questions were added to Part I of the National Board of Medical Examiners (NBME) in 1971 and 1972, and then reported as a separate subsection in 1973 (1,2). In the intervening two decades, there has been considerable disagreement about the objectives and content of such courses.

Pattishall (3) recognized the lack of consensus in 1970 but accepted it as reflecting different conceptual models used by individual departments and being, simply, the state of the art in behavioral sciences at the time. Dacey and Wintrob (4) repeated this observation in 1973.

A decade later, the persistent lack of agreement on the content of behavioral science courses was confirmed by Gutnick, Haffke, and Strider (5), who surveyed the textbooks used in behavioral science courses across the country, and by Fletcher (6), who reviewed course listings in medical school catalogues.

Werner (7), in presenting a model for a behavioral science curriculum in 1983, took as his point of departure the lack of agreement on content and the ambiguity in the very term “behavioral sciences.”

HISTORICAL REVIEW

The lack of consensus is best understood in the context of the historical development of behavioral science courses. Although courses called “behavioral science” have been taught for over 40 years, different meanings have been attached to the name and changing objectives imposed on the courses over time. The term “behavioral sciences” was coined in the late 1940s to provide a description for topics in medical sociology, anthropology, and psychology that would be acceptable to both biological and social scientists and that, at the start of the cold war period, avoid associations with socialism (8).

Although there had been a steady increase in the number of preclinical teaching hours in psychiatry in American medical schools during the first half of the twentieth century (9), the pace accelerated after 1951...
when the first teaching institutes of the Association of American Medical Colleges (AAMC) included a conference on psychiatry teaching (8). The report of that conference included a proposed curriculum for a preclinical psychiatry course designed by Norman Cameron called “Human Ecology.” It included 13 separate topics in 4 subject areas (Table 1). The explicit rationale for the course was academic: to accommodate new advances in knowledge that were “immediately useful” to medical students (10). Cameron’s outline drew heavily on developments from the 1940s in cognitive psychology and learning systems theory, and it became “a blueprint for preclinical courses in the basic science of behavior” (8).

Between 1951 and 1966, the average number of hours in preclinical psychiatry and behavioral science teaching in U.S. medical schools jumped by over 70% (9). By the end of the 1960s, a major shift occurred in the perceived purpose of behavioral science courses. They had originated to make space in the curriculum for new advances in knowledge. During the period of social turmoil and political unrest of the late 1960s and early 1970s, a political agenda was superimposed: they became instruments of social change. Their objective was not only to teach students but also to change their attitudes in the interest of “rehumanizing” medicine (11,12).

Although individual papers from that period may only indirectly reflect the evolving content of behavioral science courses, they do convey the intellectual climate in which curriculum decisions were made.

In many cases, the discussions were explicitly political. “The idiom of the times is revolutionary,” announced Stainbrook in 1972 (13). He proceeded to quote Kenneth Clark’s 1971 address to the American Psychological Association:

The behavioral sciences are now the critical sciences. They will determine the answers to the ultimate moral questions of human survival (13).

In similar fashion, Stainbrook, then professor and chairman at the University of Southern California School of Medicine, went on to propose:

The psychiatrist knows, perhaps better than anyone what it is in the society and the culture that people need in order to be resourceful, competent and gratified. . . Sociologic and cultural sanitation are just as urgently the concern of the psychiatrist as physical sanitation is the concern of the epidemiologist (13).

Mawardi (14) stated badly in 1968 that behavioral science teaching was intended to change the behavior of medical students by expanding their cultural awareness and making them confront their own social prejudices. Jeffreys (15) argued in 1971 that the purpose of behavioral science teaching was to prepare students to define social objectives and to bring about social change.

Several authors pointed out, and in some cases applauded, the fact that the politicization of behavioral science originated with students themselves. In 1970, Davis (16) took comfort from the fact that

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<th>TABLE 1. Topics listed in Cameron’s 1951 essay Human Ecology</th>
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<td>Extend or include in medical physiology</td>
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<td>Social organizations and disorganizations</td>
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medical students are no longer the stuffy, defended, conservative sons and daughters of the professional classes. They participate in student movements and provide contingents for sit ins... [They] are asking for, even if not yet demanding more teaching of behavioral science.

Similarly, Pattishall (11) saw the reaction against what he called fragmentation and dehumanization in medicine as originating from medical students themselves who were “insisting on a reordering of many traditional priorities in medicine and society.”

The political pressure for curriculum change was widespread and forceful enough to prompt countervailing words of caution. In a 1971 address to the AAMC, Melinkoff (17) expressed concern about the religiosity and zeal with which curriculum reform was being embraced, and he called for a wariness of “intolerant party lines, however, virtuous the rally slogan.”

It is of considerable importance in the history of behavioral science curricula that the period of politicization coincided with the period of expansion and consolidation. Unlike the expansion during the 1950s, when curriculum time was made available to teach new subject material, the expansion of the 1960s and early 1970s was in response to pressures for social change. Significant increases were made in the number of teaching hours available to behavioral science courses but with no determination about which topics were either appropriate or necessary in an expanded schedule. Spurred by the incentive of federal grants to increase preclinical psychiatry teaching (M. Haas, Acting Chief, Education and Training Branch, NIMH, personal communication, February 1992), individual departments of psychiatry and behavioral science appear to have filled the additional hours by drawing heavily from existing resources without carefully considering the relevance of these courses to a general medical education.

The resulting confusion about both the content and goals of behavioral science prompted numerous attempts to provide order and clarity during the 1970s and 1980s. In 1973, drawing from teaching staff interviews, Sheldrake (18) sorted behavioral science teaching goals into three general approaches: 1) basic science knowledge, necessary to understanding but with little direct clinical relevance, 2) applied knowledge, helpful in diagnosis and directly relevant to medical practice, and 3) acquisition of interpersonal skills. In the same year, Block (19), reporting the results of a literature review, described four goals, the first three of which are directly analogous to those proposed by Sheldrake: 1) to teach the science of behavior, 2) to provide preparation for clinical psychiatry, 3) to “humanize” medical students, and 4) to teach the relevance of human behavior in a medical setting.

Block and Sheldrake formulated the issues that would dominate behavioral science discussions up to the present. Is behavioral science a basic or applied discipline? Should behavioral science courses teach knowledge, attitudes, or skills, and in what proportions? Numerous theoretical papers and course descriptions have responded to these questions in different ways, underscoring the ongoing lack of agreement (7,12, 16,19–26).

During the 1980s, several surveys were published that described behavioral science teaching as actually practiced. Blackwell and Torem (27) surveyed the administrative structures of behavioral science teaching at 130 medical schools, with a response rate of 69%. They found that a slim majority of programs were organized within a single department of psychiatry (or psychiatry and behavioral science), which they concluded to be preferable to multidepartmental programs. Haffke, Strider, and Gutnic (28) solicited information from 123 schools with a usable response rate of 50%. They found an average of 133 teaching hours in the first and second year devoted to behavioral science,
including psychopathology, and reported only general agreement on content with wide interschool variability in the areas emphasized most. They also found "general correlation" between what programs taught and what was tested on Part I of the NBME.

Arnett and Hogan (29) queried American and Canadian medical school deans. With a response rate of about 40%, they reported the mean number of behavioral science teaching hours to be 89.55 for U.S. and 103 for Canadian schools. (The median for Canadian schools was 61; one program reported 370 hours.) Their survey confirmed the diversity of content (Table 2). No single topic was taught at more than 60% of the responding schools, and only one topic was included in more than half.

This article reports the results of a survey undertaken to update and more clearly define the specific topics currently being taught in behavioral science courses. Of particular interest was whether any greater degree of agreement would be found than was reported in earlier surveys.

METHODS

Questionnaires were mailed in 1990 to 92 members of the Association of Directors of Medical Student Education in Psychiatry who were affiliated with medical schools.

The survey asked which of 21 specified topics were currently being taught in the respondent's behavioral science course and also asked for a listing of additional topics not specified in the questionnaire. Additional questions were included on course structure.

We received 65 usable responses, for a return rate of 71%. These represented 33 different states from all regions of the country, the District of Columbia, and four Canadian provinces.

RESULTS

Course Structure

In the study, 72% of the respondents indicate that behavioral science and psychopathology are taught in separate courses in the first and second year, respectively. The average number of lecture hours in behavioral science courses is 45.7 (range = 4–170), and the average number of seminar or small group hours is 20.6 (range = 0–120). Seventy-seven percent of the programs have more lecture than small group hours, and 23% of the programs report no small group hours at all.

Course Content

Specific topics and the percentage of programs reporting their inclusion are listed in Table 3. Additional topics frequently mentioned but not included on the questionnaire are given in Table 4.

DISCUSSION

This survey's high response rate may be attributable to the fact that the questionnaires were mailed to individuals more directly involved in teaching—the directors of medical student education in psychiatry—as opposed to deans or department chairs. Psychopathology was explicitly excluded from this study (but not earlier ones) because most
schools teach behavioral science and psychopathology as separate first- and second-year courses, and because the course content of psychopathology was believed to be more self-evident. Consequently, direct comparisons between studies of the number of teaching hours are not possible. However, the total of 66.3 combined lecture and small group hours found here is roughly comparable to the 59.7 hours found by Haffke et al. (28) in 1984 for first-year teaching.

Time and experience appear to have forged a beginning consensus in behavioral science content. Each of the first five topics listed in Table 3 is taught by more than 80% of the responding schools, a striking change from the 1983 findings of Arnett and Hogan (29), in which only human development was taught in as many as 60% of the programs. Whatever satisfaction one may find in the apparent consensus, however, must be quali-

| TABLE 3. Course content in 58 North American medical schools |
|-------------|---------------|
| Topic Area                                    | 1990 (%) |
| Child psychological development               | 94       |
| Psychodynamic theory                          | 88       |
| Adult psychological development               | 83       |
| Human sexuality                               | 83       |
| Doctor-patient relationship                   | 82       |
| Behavioral learning theory                    | 75       |
| Patient interviewing                          | 69       |
| Coping and adaptation                         | 68       |
| Sociologic issues                             | 66       |
| Behavioral neurosciences                      | 57       |
| Other theories of personality (nondynamic, nonbehavioral) | 52 |
| Sleep physiology                              | 52       |
| Ethics                                        | 37       |
| Forensic medical issues                       | 34       |
| Health care delivery systems                  | 34       |
| Ethology                                      | 34       |
| Behavioral genetics                           | 31       |
| Pain physiology                               | 29       |
| Sociobiology                                  | 28       |
| Biostatistics                                 | 15       |
| Appetite physiology                           | 14       |

ifed on two counts. First, although there is some agreement on which of the named topics are included, the extraordinary range of 0–170 lecture hours suggests substantial continued variation in what is actually being taught. Second, mere agreement does not mean the right topics are being taught.

In the last 30 years, there has been significant growth in our knowledge of human behavior and psychopathology, with major contributions from molecular biology and genetics, neurochemistry, and neurophysiology. These remarkable advances appear to be at best only a minor part of the curriculum. Rather, behavioral science courses tend to rely on familiar theoretical topics, relatively unchanged since the courses were first established. Over 90% of the respondents reported teaching theories of child psychological development and nearly 90% principles of psychodynamic theory. By contrast, less than one-third of the courses teach behavioral genetics.

It is possible that topics in the biology of behavior are well covered in psychopathology and in nonpsychiatry courses, and this warrants further study. A more disquieting possibility is that departments of psychiatry have been insufficiently thorough in introducing new biological advances to medical students. A review of behavioral science teaching at 12 prominent American medical schools in 1968 by a team of British investigators concluded that there was an over-reliance on psychoanalytic theory:

it was disappointing to find how few departments seemed, or claimed to be, empri-
cal in their approach to normal or abnormal behavior. Much of the teaching time was spent outlining in detail the development of the individual, and in even greater detail his disorders, within a framework which often leaned heavily on the psychoanalytic model (30).

Whether one agrees or disagrees with the prominence given psychodynamic theory, the shape of the curriculum described by this criticism is strikingly similar to what this survey has found 22 years later.

As psychoanalysis has become less dominant and descriptive biological models more widely accepted, the relationship between the basic science of behavior and the applied science of psychiatry has shifted. In psychoanalytic theory, the two are coterminous: the theoretical principles used to explain normal personality development and adaptation are the same as those used in diagnosis and treatment. In biological psychiatry, basic and applied science are distinct and moving farther apart. The experienced clinician draws increasingly from fields outside of psychiatry in which the clinician may have only limited knowledge. It may no longer be realistic to expect departments of psychiatry to staff preclinical courses in behavior. Without reform, behavioral science courses face reciprocal perils: course content will be progressively limited to topics that are familiar to and well understood by psychiatrists, or faculty will be pushed to teach beyond the level of their expertise.

Proposals for Reform

Accreditation guidelines of the Liaison Committee on Medical Education do not specify separate courses in behavioral science, only that the curriculum include "ethical, behavioral, and socioeconomic subjects pertinent to medicine," along with the caveat, "the curriculum cannot be all-encompassing" (31). Behavioral science originated as a multidisciplinary concept, but it has become increasingly identified with psychiatry (27). One solution to the problems just mentioned is a return to its multidisciplinary roots. Existing behavioral science courses can be eliminated and replaced by a series of multidisciplinary units organized along the following lines:

1. Human Growth and Development, taught by psychiatry, pediatrics, and medicine, presenting an integrated survey of psychological development and physical maturation from infancy through senescence and death.

2. Human Sexuality, taught by psychiatry, obstetrics-gynecology, urology, and endocrinology.

3. Medical Arts, taught by all clinical departments and administered through the office of the dean of medicine in order to avoid identification with a single department. This unit would teach medical interviewing, present such topics as compliance, adaptation to chronic illness, and the doctor-patient relationship, and would foster discussion of contemporary social issues. Teaching these topics in a department of psychiatry course marginalizes them and suggests they are outside the main body of medical concerns.

4. Psychiatrists, geneticists, and neuroscientists can collaborate in teaching the neurobiological basis of behavior in the context of existing genetics, neuroscience, and psychopathology courses. Topics should include, but not be limited to a) neuroanatomy, including cerebral localization; b) neurochemistry and neurophysiology, including neurotransmitter pathways, receptor subtypes, and second messenger systems; c) family pedigree, twin, and adoption studies of genetic factors in behavioral phenotypes; d) techniques of molecular biology in identifying gene loci; e) neuroinvestigative techniques: CAT
scans, PET scans, MRI; f) neurobiology of sleep; and g) neurobiology of memory.

As important as specific factual knowledge is the general principle that environmental experience, whether early childhood experience or psychotherapy, can alter brain biology.

A more thoroughgoing approach to reform is offered by problem-based learning (PBL). In PBL, lecture-based courses are replaced by self-directed learning in small groups. Students study written clinical cases that are designed to arouse curiosity about a range of preclinical topics. They formulate questions raised by the cases, educate themselves through reading and faculty discussions, and report their findings back to the group. (Groups are facilitated but not taught by a faculty mentor.) The questions raised by a given case commonly cross conventional disciplinary boundaries. For example, the case of a man on renal dialysis might prompt discussion of renal physiology and electrolyte balance, medical economics, compliance with treatment, mental changes seen in renal failure, and the effects of dialysis on sexual functioning. The feasibility and effectiveness of PBL is well established in the literature (32–35).

Behavioral science is particularly suited to PBL. Conceptual issues are always grounded in the context of realistic cases. Students have access to the expertise of the entire faculty and are able to seek out the level they find most helpful. Most important, PBL trains students early in their careers to recognize the importance of behavioral issues across the broad spectrum of medical concerns, not as the province of a single department.

**Licensing Examinations**

Licensing examinations have never been intended to define a national curriculum, but rather to establish minimum competence. Topics are often broadly inclusive to represent the heterogeneity of teaching programs. Nevertheless, their effect on curriculum planning is undeniable. When the NBME added a behavioral science subsection, behavioral science courses became widespread. The 1992 reorganization of Part I of the NBME as Step 1 of the United States Medical Licensing Examination (USMLE) embodies the same multidisciplinary perspective as PBL. Topics in the NBME were organized and reported in categories corresponding to conventional preclinical courses: biochemistry, behavioral science, microbiology, etc. The USMLE organizes information into general principles and individual organ systems, each subdivided into normal and abnormal processes (36). "Behavioral Processes" is included in general principles, and in addition, each of the major organ system sections includes "lifestyle" and "psychosocial" factors, with the result that information previously identified as behavioral science is now spread throughout the examination and is no longer reported as a consolidated entity. Questions related to type A personality may now be reported under cardiovascular processes and questions related to alcoholism under gastrointestinal processes.

The effect of the reorganized USMLE remains to be seen. It may encourage the adoption of multidisciplinary reform such as PBL. It offers little encouragement for continued categorical disciplinary teaching.

This study indicates a growing consensus in the content of behavioral science courses. It is a partial consensus that has taken 40 years to achieve. It appears to have been accomplished by embracing the familiar at the expense of the new.

Multidisciplinary curriculum reform offers solutions to many of the problems in behavioral science teaching. It makes realistic the possibility of separating behavioral science from psychiatry while ensuring that medical students will learn the behavioral issues necessary for clinical care.
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New Idea

The Literature and Medicine Seminar for Medical Students

A Potential Recruitment Tool

Adrian Sondheimer, M.D.

Literature and medicine (L-M) seminars have been used occasionally in psychiatric training programs, and their use has been sparingly described in the literature. A similar seminar designed for preclinical medical students, employing short stories focused on medically related themes, was offered as an elective in 1991. By asking enrollees about their future specialty choices, the author found that the L-M seminar predominantly attracted those students who were drawn to the "patient-oriented" specialties. In addition, both psychiatric expertise and sensitivity to student concerns and interests were necessary for the seminar to succeed. It is proposed, therefore, that the L-M seminar provides a novel opportunity for psychiatric educators to attract and encourage patient-oriented students to consider psychiatry as a future specialty choice early in their training. (Academic Psychiatry 1994; 18:38-43)

Literature and medicine (L-M) seminars have been offered to psychiatric residents for several decades (1-3). Descriptions of similar courses designed for medical students have occasionally appeared (4,5). These seminars are designed to enhance psychiatric and undergraduate medical training by conveying and illuminating the various emotional difficulties and complex situations physicians and their patients may encounter in their lives by using reading assignments from popular literature (6-8). In his book, The Call of Stories (9), child psychiatrist Robert Coles elegantly illustrates the usefulness of popular literature as a way of providing insight into human behavior for students in various professional schools.

An L-M seminar designed for first- and second-year medical students will be described. First presented at our institution in 1991, the seminar's content consisted of short stories that focused on the roles, thoughts, behaviors, and interpersonal communications of medical students, physicians, and their patients. The seminar was created with two main goals: first, to fill a significant gap in the student curriculum by offering an otherwise unavailable academic exposure to medically relevant subjects in the humanities, and second, to expose students to the power of literature to convey the experience of medicine as a career. An additional intent, although at the time not a central goal, was to explore the seminar's potential for stimulating student interest in psychiatry as a future specialty option.

Recently, the number of U.S. medical
school graduates recruited into psychiatric residencies has decreased (10). Various explanations have been provided for this apparent decline, and a number of remedies have been proposed (11). One possible explanation for the decrease is the specialty’s current and increased academic concentration on the role of biological factors in disease, either to the exclusion of, or at least by implication a deemphasis, on the role of psychological factors in illnesses. Warnings have been raised about the potential dangers of excessive tilts in emphasizing either component in the curriculum (12). Therefore, the L-M seminar was posited as an opportunity to expose students to the simultaneous manifestation of the behavioral, affective, cognitive, and somatic factors collectively implicit in psychiatric work.

SEMINAR DESCRIPTION

A variety of noontime 1-hour elective seminars are offered to first- and second-year medical students at our medical school. Apart from the L-M seminar, our students can choose among course offerings that include computers in medicine; history of medicine; research skills; and international medicine; or they may take none. Credit for seminar attendance goes on the student’s transcript.

Twenty students attended the seminar’s first meeting; 19 students received credit for attending at least four of the six sessions. Out of 20, 3 were absent from Session 6. Six short stories were read, referenced in order of their seminar assignment (13–18). Three were written by either a medical student (13) or physician (14,15), and all six stories centered either on aspects of medical training (13) or on the difficulties and complexities of physician-patient interactions (14–18). Uncertainties about the choice of medicine as career, unanticipated emotions mutually felt between doctors and their patients, the very wide ranges of physician behaviors and sensitivities that good patient care involves, and the manners in which medical values can become distorted via unethical activities are among the themes these stories provide for consideration.

The approach to the seminar and administrative details were outlined at the first meeting. The students were instructed to read the assigned stories before each class and encouraged to share their emotional responses and thoughts, with the course instructor providing little initial guidance. Each student had different reactions. Each was intrigued and had a unique affinity with the story’s themes and characters. They passionately argued with their peers who had unanticipated perspectives. The instructor’s admonitions to refrain from discussing a story until a majority of the class had arrived were consistently ignored, indicating that the students were enthusiastic to start each class.

After 30 minutes of open discussion, during which the students were subtly guided toward consideration on a particular story’s central themes, the focus was overtly shifted first to having the students explore more closely the physician’s behaviors, thoughts, and interactions with others; and second, to examining those of the other story protagonists.

Seminar discussions commonly focused on 1) the specific nature of the physician’s personality and role; 2) an exploration of the physician’s behavior as a function of character, medical role, or a combination of the two; 3) how the nature of medical training contributed to the physician’s behavior; 4) the physician’s behavior as a static or evolving phenomenon; 5) patient, societal, peer, and personal expectations of the physician; 6) the relations of these expectations to physician responsibilities, duties, and external assessments of competence and expertise; 7) the physician’s handling of instinctive responses toward the patient, including feelings of antipathy, empathy, and sexual attraction; 8) ethical and/or legal concerns raised by the physician’s behavior; and 9) the
forces contributing to the definitions of ethical standards and/or the law.

When these factors were discussed, it was common for students to gain not only an increased awareness of the complex nature of all interpersonal communications, but also a deeper understanding of the intricacies involved as physicians attempt to comfort and care for their patients. As a result, an integrated medical biopsychosocial perspective (19), one applicable to all physicians, could be described and promoted. Furthermore, the psychiatrist could potentially be presented as this model's archetype, as psychiatric training ordinarily encompasses the biopsychosocial perspective. Although some students were skeptical, many welcomed a newly broadened view of the physician's role.

During the last phase of the discussion, the students described personal conflicts engendered by the stories themselves and their peers' different responses. They wondered aloud about their reactions, upon becoming physicians, to some of the circumstances the stories presented. The nature of the discourse often suggested, perhaps surprisingly, that the majority had not previously discussed in-depth, either as undergraduates or in medical school, some of the complex issues and problems they would encounter as physicians.

Comments on a story by William Carlos Williams should help illuminate the nature of the seminar. "The Girl With a Pimply Face" (15) describes a pediatrician's encounter with a working-class immigrant family and with one member in particular (a preadolescent girl) after being summoned to care for the family's sick infant. The themes of health care microeconomics, responses to serious medical illness, privileges of the medical profession, the physician's unconscious inclinations, and the presence of possible substance use emerge as several of the many underlying issues involved in the story.

One student began the discussion by complaining that "the story simply ended without a real ending." The instructor interpreted this reaction to the lack of patient follow-up in the story; in real life this often leaves physicians uncertain as to outcome. The students then discussed what they liked or disliked about the physician and other story characters, as well as the basis for their feelings. The students then speculated about the physician's motivations and gratuitous, continuous involvement with the sick infant's sister, the preadolescent girl. The degree to which the doctor's financial needs, sense of moral obligation, and/or sexual attraction to the girl contributed to his continual contact with her and the family was raised and explored. Similarly, the students questioned the degree to which the physician was aware of or ignored his feelings about various family members. Later in the discussion, the students questioned the degree of influence the physician's interest had on the adolescent girl's later improved behavior and appearance.

Later discussion also centered on the differences between the physician's duties to other family members as narrowly defined by law, and the responsibilities or sensibilities suggested by broader ethical imperatives.

Toward the meeting's end, student comments became more personal and self-reflective. They hesitantly began to express their anxieties and apprehensions about encountering individuals who were "different from" and "less sophisticated" than themselves. The students grudgingly acknowledged that patients might sexually arouse their physicians, expressed their inadequacies and doubts about their individual ability to eventually treat serious medical illness, and discussed the effect their financial indebtedness would have on later specialty choice and approaches to patient care.

Thus, the story helped students to consider diverse didactic "points," such as the potential usefulness of different interpersonal communication styles, the benefits derived from self-knowledge and awareness of
others' behavioral motivations, the ethical principles involved in medical practice, and the pervasive extent of these factors in the practice of all medical specialties. During the 1-hour discussions, the students expressed their anxieties and were given reassurance. In addition, the instructor had opportunities to describe the psychiatrist's knowledge of medical disease, openness to interaction with all family members, provision of extended treatment over time, and comfort with the discussion of those topics that directly affect patient care but are often avoided during medical training and practice.

SEMINAR EVALUATION

At the start of the seminar (Session 1) and at the end (Session 6), the students were asked to rank at least three of their preferred specialty choices. The purpose was to see if their order and specialty choice selections changed between Sessions 1 and 6. The responses of the 16 students who attended both the first and last sessions were reviewed and their specialty choices were arbitrarily grouped into three categories: procedural (i.e., more technically oriented), nonprocedural (i.e., more patient-oriented), and undecided. These groupings represent a simplification of previous extensive efforts to categorize medical specialties along a continuum based on use of technical skills and the type of interpersonal engagement during patient care (20).

Essentially no changes in the specialty choices assigned to the three categories were made between Sessions 1 and 6. The procedural specialties, in decreasing order of preference, include surgery and its subspecialties, obstetrics-gynecology, radiology, and anesthesiology. The nonprocedural specialties, in decreasing order of preference, include internal medicine, family practice, psychiatry, pediatrics, neurology, and physical medicine. A formal research design and statistical analysis were not done because of the study's small size and lack of a control group for comparison. In the absence of a formal evaluation procedure, the results are presented descriptively.

Of the students who attended Session 1 (N = 20), two-thirds of their specialty choices were in the nonprocedural category. Of the students attending both Sessions 1 and 6 (N = 16), three-quarters of their specialty choices were in the nonprocedural category in both sessions. Three students continued to select a procedural specialty as their first choice after attending all six sessions. One student changed his first-choice selection from a procedural to a nonprocedural one by Session 6.

Nine students maintained their initial nonprocedural first choices at the end of the seminar. One student who was initially undecided later selected a nonprocedural first-choice specialty.

Several students who had given nonprocedural specialties lower rankings at the seminar's start gave higher rankings to some by the end of the course (e.g., choice #3 was later ranked #2). Three students listed psychiatry as a possible specialty choice in Sessions 1 and 6. In Session 1, three students were undecided about their specialty choice. By Session 6, however, only one student was undecided.

Apart from the focus on specialty choice, at the seminar's close 12 of 16 students wrote uniformly positive comments about the course and its content (4 students wrote nothing). Sample comments include "the elective gave me the opportunity to stretch my perceptions of medicine and my goals and to test them"; "this is a unique opportunity in the environment of medical school, which is often monochromatic"; "nice to have a place for literature, ideas, and small group discussion in medical school"; "helps to put a different perspective on medicine"; "learned much"; "good emotional release." Six of the 16 students requested that the course be offered again the following semester or academic year with different readings.
One student, damning with faint praise, expressed his dissatisfaction with the class’s large size and lack of adequate discussion time.

DISCUSSION

This L-M seminar attracted a group of medical students, at least two-thirds of whom indicated initially that they were interested in nonprocedural specialties. For those students who attended all six sessions, three-fourths of their future specialty preferences were nonprocedural. These figures are in striking contrast to a recent study that reported that close to 75% of current U.S. medical school graduates prefer nonprimary care specialties (10).

These results suggest that the L-M seminar is a potentially useful vehicle for attracting students with a greater interest in primary care, psychiatry, and other less-procedural, more cognitive-oriented specialties. Although first specialty choice during the preclinical years does not guarantee the same specialty choice at “match” time when students select their residencies through the National Resident Matching Program, evidence exists that there is a correlation between initial stated specialty choice and later specialty selection (21) and that the majority of students will choose specialties that cluster closely with each other along the “less procedural—more procedural” continuum. At the very least, the L-M seminar appears to sustain students’ humanitarian interests and pursuits, and does not appear to dissuade those interested in the more technological fields.

The seminar encourages students to recognize and later as physicians to manage the important psychological, interpersonal, and behavioral factors present in somatic illness. Therefore, over the course of the seminar, the students made progressively fewer remarks about the duties they thought initially were inappropriate for a physician to handle (e.g., “that’s not work for the doctor—that’s what the social worker does”).

Rather, the students became increasingly aware of the many diverse physician roles, and in that context there were brief and sporadic comments about the biopsychosocial emphasis of psychiatry. These few comments did not translate into increased student interest in psychiatry as a future specialty, as measured by the rank-order survey. One could intend that an L-M seminar would promote awareness of psychiatry by including representative stories that present the psychiatric practitioner in an active and positive light [e.g., the novel “Ordinary People” (23)] and by focusing significantly on the specialty’s positive contributions to patient care. It is reasonable to speculate that students who are already inclined to choose the less procedural specialties might thereby find psychiatry an intriguing and attractive specialty.

An L-M seminar, led by a psychiatric educator and offered as a legitimate didactic component of the curriculum, can promote psychiatry’s visibility early in future physicians’ training. This seminar permits preclinical students to view psychiatrists in a manner that differs from, but complements, the formal impression they receive during a first-year course in psychiatry or the behavioral sciences. Like other inspiring academic experiences early in medical training, the timing of this seminar may play a significant role in later specialty choice (24). In addition, having a psychiatrist lead the L-M seminar may increase the likelihood that the instructor will be sensitive to students’ uncertainties concerning future practice and career choices, and may exert an early positive influence on students to consider psychiatry as a future specialty choice.

Suggestions collected from first-year residents in psychiatry have emphasized the beneficial impact of undergraduate instruction in psychiatry that presents the psychological aspects of nonpsychiatric patients, as well as the “perception, intuition, and sensitivity important to psychiatric practice” (25).
By dint of their specialized training, which emphasizes awareness of development, motivation for behaviors, and affective and biological contributions to illness presentation, psychiatrists appear to be particularly well suited to instruct and guide L-M seminars for students.

Clearly, a considerable mix of personal and familial factors, as well as clerkship and mentoring experiences, influences and leads students to ultimately choose psychiatry as a specialty (26–28). The L-M seminar’s mix of a formal but relaxed atmosphere provides an early opportunity to expose students to the field and a forum for serious discussion of the nature of the reading material. This approach can help psychiatric educators sensitize students and increase their awareness of the biopsychosocial issues, the physician’s role in their management, and the specific expertise of the psychiatrist. Because the seminar demands that its instructor have a comprehensive knowledge of both medicine and human behavior, the course setting is one in which the psychiatrist should readily feel comfortable.

The students who eventually choose psychiatry as a specialty are those already inclined to value and stress a humanitarian approach to patient care. The L-M seminar is an underutilized curricular component that could be readily and effectively used to stimulate these students’ interests in, attraction to, and selection of psychiatry as a fulfilling career option.

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Assessing the Effectiveness of Psychiatric Residency Training

SIR: Don Smeltzer, M.A., one of those instrumental in developing and promulgating the Psychiatry Residency In-Service Training Exam (PRITE), has recently informed us that prior to 1988, PRITE was normed solely by postgraduate year (PGY) training-level cohort, not by total cohort. He rightly wondered whether this would affect the results of our recent article titled “A Value-Added Methodology for Assessing the Effectiveness of Psychiatric Residency Training” (1). After 1987, PRITE scores have been normed on the entire cohort of U.S. residents (PGY 1–4 and child psychiatry residents) taking the examination under standardized conditions. We, as well as others familiar with the PRITE, were unaware of this significant change in the standardization procedure.

This communication is for the purpose of correcting our earlier publication. Therefore, we have renormed the pre-1988 data in our paper and recalculated all of our analyses. To more closely replicate how this technique will most often be used, the statistical analyses were recalculated for each PGY class in all three programs. The differences between the original and the recalculated scores are those that might be expected; most residents showed a greater gain between their PGY-2 and PGY-4 global scores than we initially reported. The average gain for residents in Program 1 was 26 points, 25 points for Program 2, and 11 points for Program 3.

Paired t-test analysis on each program revealed significant differences for all classes in Programs 1 and 2, but not for Program 3. This was a similar finding to the one reported in the original article. When differences between PGY-2 and PGY-4 subscale scores were recalculated, the average change for Program 1 was 18 points, 14 points for Program 2, and 9 points for Program 3. Analysis revealed significant differences in Program 1 for Growth and Development, Programs 1 and 2 for Adult Psychopathology, and Programs 2 and 3 for Somatic Treatment. The increased variance resulting from the renorming seems to account for the fewer significant differences on subscales. The reliability of subtest scores from year to year could also be affected because some test items were assigned to more than one scoring category in the pre-1988 PRITE examinations. Although this unexpected methodological change results in some alterations in the details of our findings about these three specific programs, we believe that our conclusion that PRITE, analyzed in this way, provides consistent, useful information that will discriminate among programs—and is thus useful to training directors—still stands.

For the past 3 years, we have used this technique in analyzing PRITE scores in our program, and faculty members have found it very informative. Because we have always used PRITE scores dating later than 1988 in our comparisons, we have not had to recalculate the standardized scores provided by American College Testing. And, the good news is that any other residency training director using this method to compare scores of current residents will also not have to recalculate the standardized scores.

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Reference
Q and A

Frequently Asked Questions About Education in Child and Adolescent Psychiatry

Mina K. Dulcan, M.D.

Q: What resources are available to help a child and adolescent psychiatry training director?

A: Several national organizations offer assistance to faculty about the education and training of child and adolescent psychiatrists. Attendance at their national meetings is invaluable. Workshops offer information about regulations that govern training programs, curriculum content, and organizational strategies. Peer-group support from other faculty in similar positions can make an enormous difference in job satisfaction for the training director. Each organization publishes an informative newsletter. The key groups are the American Association of Directors of Psychiatric Residency Training (AADPRT), which has a Child and Adolescent Psychiatry Caucus, the Committee on Training of the American Academy of Child and Adolescent Psychiatry (AACAP), the Association for Academic Psychiatry (AAP), and the Society of Professors of Child and Adolescent Psychiatry (SPCAP). The members of SPCAP are the chiefs of academic divisions of child and adolescent psychiatry (not necessarily at the academic rank of professor). Some programs have both a training director and a division chief, while in other programs a single faculty member has both roles.

New programs, or those undergoing major change, frequently seek consultation from an expert in psychiatric education. The American Psychiatric Association (APA) Office of Education maintains a roster of potential consultants. Alternatively, you could arrange a consultation directly with a senior child and adolescent psychiatric educator at another program.

Several books are also useful sources for the psychiatric educator:

4. A Resident's Guide to Psychiatric Education, edited by Thompson MGG. New York, Plenum, 1979 (This book was written for residents, but it is still an excellent resource for the training director, despite its age.)

Q: What is the National Uniform Entry Process into child and adolescent psychiatry? Where did it come from, and how does it work? Are all applicants included?

A: Many training directors and applicants to child and adolescent psychiatry programs became concerned about the lack of stan-
standardization in the application, selection, and acceptance policies among programs. Many general psychiatry residents were surprisingly uninformed about these procedures. As a result, residents often applied after a program had stopped accepting applications. Some programs with early deadlines pressured applicants for a decision before other programs in which the resident was interested had even begun interviews. As competition among programs for applicants sharpened, this problem worsened.

Members of the AADPRT Child and Adolescent Psychiatry Caucus and the AACAP Committee on Training were impressed by the success of the AADPRT's efforts to return the general psychiatry recruitment process to the National Resident Matching Program (NRMP). After several years of active discussion and surveys, a national consensus developed that called for a uniform entry process for child and adolescent psychiatry. A proposal was developed jointly by the AADPRT and the AACAP. In June 1992, 85% of all child psychiatry training programs approved the new procedure for a 3-year trial period. These rules apply only to applicants for entry into child psychiatry training who have completed a PGY-1 and who wish to begin child psychiatry training in July following the application. The new regulations do not apply to residents in integrated general and child psychiatry programs, to applicants seeking entry at times other than July, or to applications more than a year in advance. An oversight committee monitors program compliance, addresses reports of noncompliance, and evaluates acceptability to both resident applicants and programs. This committee is chaired by the head of the AADPRT Child and Adolescent Psychiatry Caucus and has representatives from the AADPRT, AACAP, SPCAP, APA, and AAP.

The core of the new procedure requires that programs will not make formal offers to or request commitments from applicants before the specified decision date (e.g., the second Monday in November for 1992). Before that time, programs and applicants may communicate mutual interest according to NRMP guidelines. In the first year, programs and applicants were free to proceed as they wished on the decision date. After reviewing the first year's experience, minor changes were made in the schedule for the decision date and timing of offers and responses for 1993. It is likely that in the next few years there will be discussions about implementing a computer match.

Q: What roles do the American Board of Psychiatry and Neurology (ABPN) and the Residency Review Committee (RRC) have in child and adolescent psychiatry training programs?

A: The ABPN certifies individuals in general psychiatry and in child and adolescent psychiatry. The RRC develops standards—the Special Essentials—and accredits residency training programs, not individual residents. It is the responsibility of the training director of the RRC-approved program in which the trainee completes the eligibility requirements for examination for certification to attest that the individual has met the ABPN's requirements. If the resident begins child psychiatry training as a PGY-4 resident, the child psychiatry training director will be making the statement to the ABPN for both general and child psychiatry. To be eligible for general psychiatry board certification, the resident must have completed 48 months of training comprised of a PGY-1 that included at least 4 months of primary care and 2 months of neurology, and at least 36 months of training in psychiatry in a RRC-approved program or programs.

Eligibility for certification in child and adolescent psychiatry requires completion of 24 months of training in a RRC-approved program. One year of training in general psychiatry may be completed in a child psychiatry program.
Q: What do I do about applicants who want to transfer from general psychiatry training programs into my child and adolescent psychiatry training program?

A: The AADPRT’s policy is that no training director is to consider the transfer of a resident who is currently enrolled in another psychiatry program without direct communication by telephone or letter with the current training director. Before the resident is accepted by the child psychiatry program, there must be a letter from the current training director describing what rotations and experiences the resident has completed, and what required rotations in that program have not been completed. This letter must go to both the resident and the training director of the child psychiatry program. The receiving training director decides if there are any deficiencies remaining for completion of general psychiatry training, and whether and how the child psychiatry program could arrange for the resident to complete them. This is discussed with the resident.

To be eligible to sit for the ABPN board examinations, the resident does not have to have completed exactly the same rotations as requirements in any particular program. It is the training director’s responsibility to determine whether the trainee has completed the necessary training. The RRC requirements for program accreditation do not necessarily apply to each trainee, especially if there has been a transfer between programs.

Q: What about “double credit”?

A: Residents who begin child psychiatry training in the PGY-4 receive credit for this year toward both general and child psychiatry. No credit toward RRC-required specific child psychiatry experiences may be given by either training director for work with adult patients or clinical rotations with children or adolescents that occur during the general psychiatry program. For example, 4 months’ experience on an adolescent inpatient unit during PGY-2 may not be counted toward the minimum requirement of 4 months of inpatient experience during child and adolescent psychiatry training. If the child training program offers a choice between a child unit and an adolescent unit, the resident may wish to fulfill the total minimum requirement on the child unit because the resident already has had experience with adolescent inpatients. If a child program ordinarily requires 4 months on a child unit and 4 months on an adolescent unit, the resident may substitute another rotation for the adolescent unit. This substitution is at the discretion of the child psychiatry training director, according to programmatic needs, available stipends, and the resident’s level of knowledge and skills. Incidentally, experience with child or adolescent inpatients during general psychiatry residency training also does not count toward exceeding the maximum number of 10 months of inpatient rotation during child psychiatry training.

On the other hand, experiences with children and adolescents in, for example, consultation-liaison or community psychiatry rotations, may count toward required experiences for general psychiatry board eligibility. These substitutions are at the discretion of the training director, who must attest that the resident has completed training—usually the child psychiatry training director. The RRC actually has very few requirements that are quantitatively defined, giving the training director great flexibility regarding transferring residents.

Q: Why are trainees in child and adolescent psychiatry now called residents instead of fellows?

A: Technically, they have always been residents. Child and adolescent psychiatry is the only subspecialty of psychiatry that now or in the future will be permitted to have training begin in the PGY-4, before training in general psychiatry has been completed.
The change in usage was due to increased national attention to new subspecialities that will not have this privilege and to federal regulations that permit hospitals to be reimbursed for some of the costs of training residents in core residency programs, but not postresidency fellowships.

Q: Why is “critical mass” so important?

A: Leaders in psychiatric education strongly believe that substantial acquisition of knowledge and skills, as well as emotional support, occurs in the context of a peer group. This belief has led to the RRC requirement for a certain minimum number of trainees in a program. For child and adolescent psychiatry, this number is two trainees in each year of the 2-year program. Small programs often group residents from both years in some seminars and conferences to enhance the peer-group effect and to economize on faculty time.

In general, if a program falls below the critical mass for a single year, especially if this is due to an unexpected event such as an extended maternity or medical leave, it is unlikely that the RRC will take action on the program’s accreditation. On the other hand, if a program is chronically unable to recruit or retain two residents per year, the RRC is likely to view this as a significant problem. It suggests that the trainees lack a peer-group experience and that the quality of the program is not attractive to applicants.

This numerical focus on critical mass of residents is not meant to minimize the importance of resident-faculty educational relationships, or the advantages of interacting with trainees in other disciplines, for example, psychology interns or advanced students in nursing or social work.

A: The solution to this problem requires creativity and the ability of the training director to obtain the assistance of others. In addition to members of the division’s faculty, help may be available from community practitioners in child and adolescent psychiatry, behavioral pediatrics, neurology, psychology, social work, special education, and psychiatric nursing; general psychiatry, neurology, and pediatric faculty in the medical school; faculty from other departments in the university, especially psychology and social work; consortium arrangements with a nearby child psychiatry training program; or even grand rounds speakers or visiting professors.

For programs lacking expertise in certain areas, both the AAP and the AADPRT are developing curriculum modules as resources for didactic and clinical experiences. These have been reviewed in detail by experts in the content areas and in psychiatric education. Completed modules are available from the AADPRT’s executive office for a nominal charge.

For programs that do not have all of the necessary clinical facilities, cooperative arrangements must be established and maintained to provide needed rotations. Affiliations can be especially useful in enriching the available clinical electives.

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The author thanks Martin Drell, M.D., chair of the AADPRT Child and Adolescent Psychiatry Caucus, for sage advice on which questions were of acute interest to training directors in child and adolescent psychiatry.

Q: How can a small child and adolescent psychiatry division meet all of the RRC requirements?
Educational Abstracts

Abstracted by
Dorthea Juul, Ph.D.


The purpose of this study was to garner young (<45 years of age) physicians' opinions about the extent to which their medical education had prepared them for various aspects of medical practice. They were queried about specific dimensions of their practices, which were derived from critiques of contemporary medical education.

In addition to the total group, the responses from the national sample of 4,756 allopathic and osteopathic physicians were compiled for comparison and broken down into two categories: 1) type of medical school attended, and 2) type of graduate medical education (GME). Each group's responses were also compared with a reference group's responses. For medical school type, the reference group included those who had attended public U.S. medical schools; for GME type, the reference group included those who had been trained in general and family practice.

Of the total group, 80% indicated that their formal medical training did an excellent or good job in preparing them to be physicians, with 76% of the psychiatrists (n = 260) responding similarly. However, when it came to rating the quality of the preparation they had received for dealing with selected aspects of medical practice, the respondents' answers provided support for some of the present-day criticisms of medical education.

For example, 60% or less rated their preparation for coordinating patient care with community services and resources, providing preventive care, and providing cost-effective care as excellent or good. Only 3% felt well prepared to manage the business aspects of a medical practice.

Psychiatrists felt less well prepared than the reference group (those who specialized in general/family practice) to provide preventive care, to provide cost-effective medical care, and to manage the business aspects of a practice. However, they did feel as well prepared as the reference group to keep abreast of new developments and to coordinate patient care with community services and resources.

In assessing the quality of the preparation they had received to treat selected patient groups, 62% of the respondents felt well prepared to identify depressed patients. Less than one-half felt well prepared to assist smokers to stop, to assist heavy drinkers to modify their drinking, to manage the care of patients with severe physical disabilities, and to manage care for frail elderly persons.

Compared with the reference group, the psychiatrists felt better prepared to assist heavy drinkers to modify their drinking, to identify depressed patients, and to manage care for patients with severe physical disabilities. The psychiatrists felt less well prepared than the reference group to assist smokers to stop and to manage care for frail elderly persons.

With regard to amount of training time spent in selected settings, more than one-half felt too little time was spent in physician offices, organized managed care settings, and long-term care facilities. Compared with the reference group, more psychiatrists felt too little training time was spent in inpa-
tient units in community general hospitals. Fewer psychiatrists thought too much time was spent in hospital-based outpatient units, and more psychiatrists thought too little time was spent in physician offices, managed care settings, and long-term care facilities.

Despite the high percentage of respondents who described their medical training as good or excellent, the authors conclude that young physicians feel underprepared to manage specific aspects of medical practice and various patient types. They state, “The challenge for medical educators is to craft improvements that help prepare physicians for practice, while maintaining the strengths of the existing medical education system” (p. 1040). They suggest that health care reform will heighten the need to make changes in the professional preparation of future physicians.


The authors review various formal techniques that are available to assist physicians in clinical decision making, discuss reasons for the slow acceptance of these techniques in the clinical arena, and make recommendations for introducing these techniques into practice and education.

They describe three prescriptive models that can be used to provide technical support for decision making: 1) multivariate statistical procedures, 2) Bayes’s theorem, and 3) decision analysis. This is followed by a review of findings from studies that have been done to assess and describe physicians’ actual decision-making processes. Several common errors in intuitive reasoning have been derived and help to explain why actual decisions deviate from decisions suggested by the prescriptive models. For example, it has been found that physicians tend to overweight abnormal findings and underweight normal findings in making a diagnosis.

Christensen et al. then discuss why “despite the rich potential of such models to combine information accurately and produce often ‘personalized’ decisions in a complex domain” (p. 64) physicians resist using them. The main objections include lack of the data necessary to implement the models; complexity of implementation, particularly in the clinical area; perceived lack of external validity, that is, evidence that the models produce better decisions than competent physicians; and psychological discomfort in relying on the models. They suggest that continued research, along with advances in computer support, will significantly alleviate these problems.

The authors argue that all medical students should be trained in using these quantitative decision-support techniques because they “encourage an approach to reasoning that is thorough, systematic, and explicit” (p. 60). The 50 references provided are an excellent overview of the literature on clinical decision making.


The American Board of Family Practice issues 7-year, time-limited certificates to its diplomates, and Leigh and colleagues are the first to report on a mandatory physician recertification program. They present data for two physician groups: 1) three cohorts (N = 711) of practice-qualified physicians certified in 1971, 1972, and 1973 who were successfully recertified on three successive 6-year examination cycles, and 2) three cohorts (N = 1,233) of residency-trained physicians certified in 1977, 1978, and 1979 who were successfully recertified on two succes-
sive 6-year examination cycles.

All examinations were based on the same test blueprint, consisted of multiple-choice questions, and had test reliability coefficients ranging from 0.85 to 0.90. All test scores were standardized to a mean of 500, with a standard deviation (SD) of 100. The residency-trained cohorts had higher mean scores than the practice-qualified cohorts.

Analysis of variance with repeated measures indicated that the scores for each cohort declined with each successive examination. The smallest decline in score performance occurred between initial certification and first recertification, with greater score declines between first and second recertification and between second and third recertification. For the practice-qualified cohorts, the decline in scores from initial certification to third certification was about three-fourths of a SD. For the residency-qualified cohorts, the score decline from certification to second recertification was about one-half of a SD.

Correlations were done between test scores and various demographic variables. There was a significant negative correlation between test scores and age. Gender was only significant for the practice-qualified cohorts, with women having higher test scores than men. Full-time faculty did better than those in solo and partnership practices. Multiple regression analyses indicated that the best predictor of successive examination scores was the score on the preceding examination.

The authors hypothesize that the decline in performance may result from a narrowing in the physician’s practice focus over time. Hence, physicians do less well on an examination that covers the breadth of the specialty. They suggest that other medical specialty boards that start requiring mandatory recertification examinations will need to carefully address the match between examination content and physician practice, standard-setting processes, and recertification examination preparation.
Research in Psychiatry: Issues, Strategies, and Methods
Edited by L. K. George Hsu, M.D., and Michel Hersen, Ph.D.
New York, Plenum, 1992

Reviewed by Charles B. Nemeroff, M.D.

There are many books available about research design, biostatistics, and clinical research in medicine, but relatively few books that specifically deal with issues of research in psychiatry exist. Hsu and Hersen have edited an extraordinarily informative text that, I believe, should be required reading for all psychiatry residents. My reasons for this strong recommendation are simple. First, few residents are exposed to research in psychiatry and, if nothing else, this text would give all residents—including those at non-research-dominated programs—a good taste of what research is. Second, this volume provides a remarkable source of detailed information for residents not interested in research. Here, I briefly discuss each chapter, some in more detail than others. Although one can quibble about individual chapters, this concatenation of presentations renders this a strong and, in many ways, a unique volume.

The first chapter (by Tuma, DeRoy, and Kupfer) is a general one concerned with research in psychiatry as a career. Written by the contributors who are from the Department of Psychiatry at the University of Pittsburgh, which has arguably been the most productive department of psychiatry as regards research in the last decade, is a chapter filled with important information about choosing a research career in psychiatry. The section on research funding is invaluable. I am not sure that everyone needs to develop a project similar to the one described here (with a concept paper, assessment of feasibility, etc.), but it is certainly one successful approach. The same holds true for proposal writing and for the notion of a preproposal.

A discussion of the federal grant form (#PHS398) and its various sections has long been needed to be written. Finally, the list of foundations and federal agency contacts (including telephone numbers) will be a valuable resource for junior investigators.

The second chapter (by Winslade and Douard) concerns ethical issues in psychiatric research. It is thoughtful and deals well with the issue of informed consent, as well as special populations such as prisoners and other institutionalized patients. There could have been more discussion of the placebo arm of clinical research and the problems it entails; perhaps that will be contained in a (hopefully) second edition of this book.

Hersen's chapter on single-case designs is superb. It introduces, finally, a comprehensive discussion of single-case designs as a research tool. It is quite forthcoming concerning the shortcomings of this design, compared to group comparisons, which are discussed in the next chapter by Tsuang and colleagues. This chapter is comprehensive, and the Appendix is particularly informative.

Goldstein describes the correlational approach in the following chapter. He does an excellent job of distinguishing correlation from causality and touches on epidemiological research as well.

In the next chapter, Greenhouse and Junker provide a remarkable and clearly written discussion of basic statistical principles, a topic that has eluded most authors who have attempted to write about it. The data examples the authors provide are unusually helpful.

Reich discusses the structured and semistructured inventories, describes the Schedule for Affective Disorders and Schizophrenia and the Diagnostic Interview Schedule, and discusses the important issues of interrater reliability and methods for interviewing children. What this chapter really needed was a comprehensive discussion of each of the available categorical and dimensional rating scales, including the Brief Psy-
psychiatric Rating Scale, the Hamilton Rating Scale for Depression, the various self-rating scales, and the positive and negative symptom scales for schizophrenia. There are books that contain all of the available rating scales, but certainly some consideration should have been given to such a discussion.

Jacob and colleagues describe physiological and behavioral assessment in the next chapter, including EEG, event-related potentials, eye movements, as well as electromyography, respiration, and electrodermal activity. Considerable discussion is also devoted to cardiovascular measures. Other issues such as ambulatory monitoring, measures of psychomotor activity, and behavioral observations are also discussed. This is certainly not my area of expertise, but the chapter was easy to read and is apparently comprehensive.

Samuelson and Winokur discuss biological markers and, because this is my own particular area of interest, I am perhaps overly critical of this chapter. It is not that I think that what is present is inadequate, it is just that there are a variety of other measures that should have been included. It is also not terribly topical. For example, platelet serotonin uptake and platelet-imipramine binding are discussed in separate sections, yet we now know that these measures are, in fact, both measures of serotonin transporter activity in platelets. There is no discussion of hypothalamic-pituitary-thyroid axis abnormalities in depression, which, next to the hypothalamic-pituitary-adrenal axis, is probably the most reproducible series of findings on this disorder. There is also no mention of functional brain imaging methods other than positron emission tomography (such as magnetic resonance spectroscopy or single proton emission computed tomography). The issue of mitral valve prolapse as a marker of anxiety disorder has long been laid to rest. The burgeoning field of psychoneuroimmunology is not even mentioned.

Thompson pens an interesting chapter on diagnostic issues, beginning with a history of nosology. He nicely defines validity, reliability, and what he terms "boundary issues."

Day writes an overview of epidemiology, which has some overlap with previous chapters, but is quite adequate.

The psychopharmacology chapter by Gratz and Simpson includes a discussion of animal models, pharmacokinetics and pharmacodynamics, and the different phases of clinical trials. The discussion of drug study design is quite interesting and informative, as is the discussion of the future of psychopharmacology.

Barber and Luborsky write an extraordinarily comprehensive and excellent chapter on psychotherapy research, a subject too often neglected in research manuals and monographs.

Goodwin contributes a chapter on the genetics of alcoholism. However, a general chapter on genetics would have been much more helpful, as the genetics of mood disorders and schizophrenia, as well as alcoholism, could have been included. What is in here is good, but general principles of genetics would have certainly served this volume better.

Burnett, Ironson, and Taylor discuss behavioral medicine, and there is some overlap with the psychophysiology chapter described earlier. However, it is an excellent review, particularly relevant to consultation-liaison psychiatry and research.

The book's last section is on special populations and includes a chapter by Cantwell on child and adolescent psychiatry, a chapter by Lowenstein and Eisdorfer on geriatric research, and a chapter by Glynn on persons who have chronic mental illnesses. Each has much to offer.

The epilogue (by Sullivan and Tucker) calls for the need for a new conceptual agenda. In it, the authors remind us of the importance of the scientific underpinnings to clinical research, namely neuroscience and sociobiology.
Overall, this is an excellent volume, one that should be required reading for all junior faculty and residents in psychiatry.

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Counselling and Therapy With Refugees: Psychological Problems of Victims of War, Torture, and Repression
Guus van der Veer with contributions by Victor Vladar Rivero and Mia Groenenbery
West Sussex, England, Wiley, 1992

Reviewed by Suzanne Witterholt, M.D.

This book is a timely one given the forced migrations of millions of people occurring around the globe. For most clinicians, the chances of living in the same community as refugees, particularly in urban areas, is quite high. Unfortunately, attempts to provide the treatment facilities and services to meet the mental health needs of the refugees in those communities are often minimal and sporadic. The lack of treatment is frequently blamed on cultural, language, and economic factors. This book, however, dismantles the myth that clinicians are “unable” to treat refugees and explains to us how to do it.

The author starts by reminding the reader that most refugees have “suffered from the abusive power [of]... totalitarian regimes.” For those of us who treat refugees regularly, we are constantly reminded of this “political” connection to our patients’ suffering. For many, the symptoms that they present are a direct result of these regimes, and this cannot be ignored as the clinician works with refugees who are trying to recover and rebuild a new life. The book’s section on psychotherapeutic techniques is particularly helpful in this regard. The author carefully illustrates the application of well-accepted therapeutic interventions to the treatment of individuals who come from different countries and speak a different language. His liberal use of case examples are highly informative and helpful.

Toward this end, van der Veer conveys a sense of empathy for his patients in a way that reminds us that such understanding crosses cultural divides and is a powerful force in effective treatment. His discussion of “culture shock,” “cultural sensitivity,” and approaches to working with interpreters helps dispel the notion that refugees are untreatable because of language and cultural barriers.

Although the usefulness of this book cannot be disputed, it does have some drawbacks that the reader may find distracting. In particular, the long chapter on “Traumatization and Uprooting: Five Theoretical Approaches” seems overinclusive. He starts each section with a detailed explanation of various schools of therapy (i.e., psychodynamic, family, behavioral, etc.), which seems beyond the scope of the book. Many may find this unnecessary because most readers are probably trained psychotherapists already familiar with these theories. He could have made this chapter more concise by focusing on what he does do at the end of each section, when he connects each approach to understanding refugees and meeting their special needs.

Overall, this book is a useful “how to” manual for those working with a diverse, complex, and highly traumatized population. We live in a world pervaded by political violence and social upheaval. Clinicians can no longer afford to understand only isolated groups of individuals. Counselling and Therapy With Refugees helps to bridge the gap between the clinician’s fear of not being able to understand refugee patients and the reality that they can be understood and treated, regardless of cultural differences.

Dr. Witterholt is staff psychiatrist, International Clinic, St. Paul Ramsey Medical Center, St. Paul, MN, and staff psychiatrist, Center for Victims of Torture, Minneapolis, MN.
Overall, this is an excellent volume, one that should be required reading for all junior faculty and residents in psychiatry.

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Toward this end, van der Veer conveys a sense of empathy for his patients in a way that reminds us that such understanding crosses cultural divides and is a powerful force in effective treatment. His discussion of “culture shock,” “cultural sensitivity,” and approaches to working with interpreters helps dispel the notion that refugees are untreated because of language and cultural barriers.

Although the usefulness of this book cannot be disputed, it does have some drawbacks that the reader may find distracting. In particular, the long chapter on “Traumatization and Uprooting: Five Theoretical Approaches” seems overinclusive. He starts each section with a detailed explanation of various schools of therapy (i.e., psychodynamic, family, behavioral, etc.), which seems beyond the scope of the book. Many may find this unnecessary because most readers are probably trained psychotherapists already familiar with these theories. He could have made this chapter more concise by focusing on what he does at the end of each section, when he connects each approach to understanding refugees and meeting their special needs.

Overall, this book is a useful “how to” manual for those working with a diverse, complex, and highly traumatized population. We live in a world pervaded by political violence and social upheaval. Clinicians can no longer afford to understand only isolated groups of individuals. Counselling and Therapy With Refugees helps to bridge the gap between the clinician’s fear of not being able to understand refugee patients and the reality that they can be understood and treated, regardless of cultural differences.

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Deciphering Motivation in Psychotherapy
David M. Allen, M.D.
New York, Plenum, 1991

Reviewed by John R. Urbach, M.D.

The process of psychotherapy is intimately linked to the structure of human language, while nonverbal communication can provide important information. The detailed study of thoughts, emotions, and even behaviors depends profoundly on linguistic expression. Beyond the gathering of data, the "talking cure"—whether psychodynamic, cognitive, or "systemic" in its approach—uses language-based interventions to focus and advance the therapeutic process.

This book presents Allen's views, as a theorist and clinician, on the linguistic premises that underlie interpersonal communication. The book is part of an ongoing series, Critical Issues in Psychiatry, edited by Sherwyn M. Woods, M.D., Ph.D., and is intended as "An Educational Series for Residents and Clinicians." While this book addresses some of the most fundamental issues in psychological expression, the author presupposes a level of integration and experience that may make this volume more appropriate for the seasoned therapist than for the average resident.

Several premises underlie Allen's work. Most crucial is the concept of ambiguity, which confronts the therapist with discrepant data and multiple meanings from the patient's communications. Therefore, it becomes a core responsibility for the therapist to recognize ambiguous expression, value it as therapeutic material, and use its clarification to move the process forward. Ambiguity is regarded as inherent in the human condition and in our language. According to Allen's "dialectical perspective," human beings, like all entities in nature, can only be understood within a field of relationships.

Allen presents the essential human conflict as rooted in desires for both individuality (separation) and affiliation (relatedness). In evolutionary terms, this conflict is felt to parallel the pull between adaptational change and species survival. When we communicate, "ambiguity is built into the very structure of language, and the reason for this is that human beings continually express the basic contradiction of their nature every time they speak."

Although Allen suggests that his model of intrapsychic conflict should be useful for clinicians of varied theoretical viewpoints, he does focus on the disparities between the individual and the surrounding system, a perspective perhaps most familiar to family and systems therapists. In "unified therapy," Allen's own approach was the subject of an earlier book, and he suggests that active changes in family dynamics can be directed outward from individual psychotherapy. In this book, Allen does not clearly define unified therapy until page 133, although his assumptions are present from the beginning.

The first half of the book leads us through a series of theoretical issues, beginning with the basic cuing and signaling of mutual intentions in childhood, the gradual automation of this process, and the psychological fallout from "mixed signals from parents to their children." The "dialectics of motivation" describe how the separation-individuation process may create inevitable tensions between the "self" and the "system"; the resultant compromises may produce alienation and foster the development of a "false self."

Through linguistic analysis, Allen explains 1) how ambiguity and conflict can exist at progressive levels of organization, and 2) how careful listening for alternative meanings can provide rich dynamic insight. Developmentally, he reminds us, children are routinely presented with discrepancies between what parents do and say, what they communicate to adults vs. to their offspring,
and what their messages and apparent motives imply. From the parents' side, role functioning, an assigned part in the drama of family cooperation, is explored as both a useful adaptation and a source of ambivalence.

Allen offers an interesting discussion of selfishness and altruism in American culture, noting the tensions between our individualistic society, with its suspiciousness of sacrifice, and a family ethos that favors subjugation of individual desires. Through the process of "mortification," natural inclinations (i.e., the id component of the personality) are often subjugated to group norms.

The phenomenon of "distancing" is presented as an unfortunate adaptation to intolerable ambiguities of interpersonal communication and role function. The systemic strains generated by such forces may help explain current trends in family dissolution.

In the book's latter half, Allen's approach is far more clinical and anecdotal. Through a series of vignettes, he seeks the motives for self-defeating behaviors, illustrates their expression through language with "double meanings," and describes how the therapist can present and validate hypotheses about patients' conflicts in the treatment setting.

The longest chapters, and perhaps the most revealing, discuss "The Language of Self-Suppression" and "The Language of Role Function Ambivalence." Detailed analyses of specific statements by patients illustrate their efforts to conceal altruism as selfishness, to acknowledge the "true self" while remaining within a false "persona," and to express confusion about one's social roles and those of family members. Allen's careful review of such statements not only illuminates familiar patient conflicts, but also helps us better understand our position as therapists: "The reason that clients are vague about what they want is that they are not certain how members of collectives other than their own family system are going to react to their role choices. They need to find out how the therapist will react without actually committing themselves to change first! The words function as a sort of ink-blot test for the therapist: will he or she react as the patient's family, indicating an investment in the status quo, or differently?"

This thoughtful volume presents a linguistic analysis of psychological conflict as defined by the terms of systems theory. According to Allen, "the dialectic between altruism, enmeshment, and togetherness vs. selfishness, self-assertion, and self-preservation is built into all facets of human experience." By inviting us to methodically "decipher" our patients' communications, he confronts us with some of the fundamental polarities of modern life.

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