

Articles

Do Premedical Students Know What They Are Getting Into?

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The number of medical school applications continues to rise despite recent reports of decreased physician job satisfaction. To better understand this paradoxical trend, I surveyed 84 premedical students about their expectations of a medical career. Almost all respondents anticipated that as physicians they would be able to cure, heal, and help their patients (98%) and that their work would be intellectually satisfying (95%). Most anticipated that their jobs would be prestigious (83%) and even fun (73%). Far fewer than half the respondents would be discouraged from pursuing a medical career by the fear of being sued (38%), business worries (22%), or administrative duties (20%). Comparison of the student responses with results of a physician job satisfaction survey carried out the same year showed that the students, as a group, were modestly idealistic with respect to the daily work of being a physician and somewhat naive about the problems caused by various business and administrative issues. I conclude that premedical students could be better informed about the current reality of being a physician and that practicing physicians are responsible for providing this education.

(Chuck JM: Do premedical students know what they are getting into? *West J Med* 1996; 164:228-230)

Given the current state of physician job satisfaction, it is somewhat puzzling that applications to United States medical schools numbered an all-time high of 45,365 in 1994 (M. Frase-Blunt, Washington, DC, oral communication, 1995). Physicians seem to be complaining more than ever about their profession. Gallup polls conducted for the American Medical Association in 1989 and 1990 showed that only 60% of physicians interviewed would definitely or probably enter medical school again.¹ Medical journals are filled with physicians writing about how the "fun" has been taken out of medicine and how physicians are no longer considered "special."^{2,3} In forums ranging from *The New York Times* to backyard barbecues, physicians are complaining about increased paperwork and decreased income, regulatory agencies interfering with physician autonomy in decision making, and deterioration in the physician-patient relationship. Further, medical education costs have risen so that the typical medical school graduate now incurs an average debt of at least \$50,000.^{4,5} In addition, the ability to pay back this debt has been hampered by the lengthening of some residency and fellowship programs, decreased salaries for fellows in saturated subspecialties, and decreased salaries for physicians overall, especially those in subspecialty fields, which often require the most years of training.

For a record number of students to apply to medical school under these circumstances raises the question: "Do premedical students know what they are getting into?" Nationwide, only a handful of formal programs specifically provide students with extended, meaningful exposure to medical care and practice.⁶ Most premedical

students are left to formulate a concept of the reality and demands of the medical profession through a patchwork of hospital volunteer work, research experience, talking with whatever physicians they come in contact with—often those in academic settings who are not primarily involved in patient care—and counseling from premedical advisors, few of whom are physicians. To partially answer this question, I surveyed a group of premedical students about their expectations of what a medical career would be like and then compared their responses with a concurrent job satisfaction survey of practicing physicians in the immediate geographic area.

Methods and Study Group

From January through June 1992, 84 premedical students attending premedical society meetings or counseling sessions at two San Francisco Bay Area universities (University of California at Berkeley and California State University at Hayward) were given a questionnaire designed to assess the factors that influenced their decision to pursue or not to pursue a career in medicine and their expectations regarding such a career. The questionnaire items were rated on a scale from 1 ("disagree strongly") to 7 ("agree strongly"), with 4 representing "neutral." The responses from this study group were compared with those from a group of practicing physicians in nearby Solano County.

Results

All 84 students completed the questionnaire. Student respondents were a mean age of 22 years; 48 of them

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TABLE 1.—Respondents Who Agreed With Positive Expectations About Physician Career

Expectations	Students Agreeing, No. (%) n = 84	Practicing Physicians Agreeing, % n = 251
Would be able to cure, heal, help patients	82 (98)	92
Work would be intellectually satisfying	80 (95)	89
Job would be prestigious	70 (83)	63
Work would be fun	61 (73)	63
Earnings would be satisfactory	71 (84)	72
Would have control over hours night, weekend duty	20 (24)	47*
Meaningful personal and family life	53 (63)	83

*Of 251 physicians in practice, 60% were satisfied with their weekend and night duty.

were women (57%), and 36 were men (43%); 73 respondents were single (87%), 8 were married (10%), and 3 were divorced (4%).

Most respondents indicated that their interest in being a physician had been positively influenced by exposure to a role model (60 [71%]), by their parents (56 [67%]), or both. About half of the respondents indicated their interest had been positively influenced by their peers (44 [52%]).

Most students had positive expectations about their lives as physicians (Table 1). Almost all the respondents indicated that they anticipated as physicians that they would be able to cure, heal, and help their patients (82 [98%]) and that their work would be intellectually satisfying (80 [95%]). In addition, most anticipated that their job would be prestigious (70 [83%]), even “fun” (61 [73%]), and that they would be satisfied with their earnings (71 [84%]). Only 20 (24%) expected to have control over their hours and night and weekend duty.

Students rated each of several possible factors that might discourage them from pursuing medical careers (Table 2). About half the respondents indicated that the time commitment of medical school and residency (47 [56%]), the financial cost of the same (44 [52%]), the mental stress of being a physician (43 [51%]), and the fear of making a mistake (39 [46%]) might seriously discourage them from pursuing a career in medicine.

Fewer students indicated that the physical stress of being a physician (36 [43%]), the high cost of malpractice insurance (34 [40%]), and the fear of being sued (32 [38%]) might also discourage them from medical careers. Finally, even fewer respondents indicated that the fear of contracting a serious disease (such as the acquired immunodeficiency syndrome) (23 [27%]), business worries (18 [21%]), and administrative duties (17 [20%]) might discourage them from pursuing medical careers.

Other factors that might discourage the student respondents from medical careers were highlighted by the following verbatim comments: “I find the attitudes of many of my peers [that is, “anything for an A”] fairly

disturbing”; “If I have to change, become a harder, self-centered person to survive, I won’t go”; “I worry about the impact [of my decision to go into medicine] on my personal life and sacrificing my family for my career”; “Western medicine has lost its humanity”; “[I’m concerned about] sexism and ageism in the medical establishment”; “What if the work is not satisfying? Then all the years of education [would have been] wasted.”

Student Expectations Versus Reality

In the same year (1992), 406 practicing physicians in nearby Solano County were sent a job and career satisfaction questionnaire to which 251 responded (62%). Results of that survey were published in an earlier issue of this journal.⁷ When compared with these physicians’ responses, the students’ expectations of their medical careers were modestly idealistic on issues related to the daily work of being a physician and overly pessimistic with respect to lifestyle issues.

As a group, our student respondents underestimated the negative toll that various business and administrative issues have taken on practicing physicians (Table 2).

Discussion

During these times of rapid change in the medical profession, even physicians cannot clearly define and evaluate their own profession because issues related to autonomy, the physician-patient relationship, and reimbursement are in flux. Those outside the profession, including premedical students, are also confused.

During such uncertain times, a decline in interest in medical careers and in the number of applications to medical school would be expected. Yet, the number of applications to medical school continues to increase greatly. The results of my survey suggest that this may partly be due to premedical students being overly idealistic and naive about what their lives as physicians will be like. A more meaningful reason for this increase, however, may be that when numerous careers are

TABLE 2.—Respondents Who Agreed With Listed Factors That Might Discourage Them From Pursuing Medical Careers

Factor	Students Agreeing, No. (%) n = 84	Practicing Physicians Agreeing These Were Problems, % n = 251
Time commitment to medical school and residency	47 (56)	*
Financial cost	44 (52)	†
Mental stress	43 (51)	‡
Physical stress	36 (43)	‡
High cost of malpractice insurance	34 (40)	67
Fear of being sued	32 (38)	§
Fear of contracting a serious disease	23 (27)	45
Business worries	18 (21)	28
Administrative duties	17 (20)	34

*Of the 251 physicians, 65% agreed the time commitment was worthwhile.
†Of the 251 physicians, 61% agreed the financial cost was worthwhile.
‡No similar questions were posed to practicing physicians.
§Of the 251 physicians, 58% agreed the fear of being sued adversely affected the way they practiced medicine.

carefully compared, medicine continues to offer a relatively appealing combination of professional satisfaction and financial security.

What is clear is that regardless of the reasons for the increase in medical school applications, those students considering medical careers and those who actually apply could make more informed career decisions if they better understood the day-to-day realities of medical practice. The responsibility to share this information rests on practicing physicians. Opportunities to educate students about medical careers include individual preceptorship or "shadow" arrangements, volunteering to counsel students through college preprofessional offices, speaking at high school and college premedical clubs, and organizing or participating in extended formal programs. When engaging in such activities, physicians must present an honest portrayal of their work and emphasize both the positive and negative aspects of what they do, especially because this study and others

have explicitly shown that physician role models can positively and negatively influence students' decision to pursue or not to pursue a medical career.

Acknowledgment

Julie Kwan, MA, and Sherilyn Kam, MA, assisted with statistical analysis.

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