

DECISION-MAKING AMONG ELITE AND NON-ELITE PREMEDICAL STUDENTS**Charles S Bourgeois, McGill University, Canada****INTRODUCTION**

Other studies have considered career aspirations and decisions of college students (Feldman, Newcomb 1970 36). Here we compare career ambitions of premedical students at elite and non-elite educational institutions. Does the decision-making process among premedical students enrolled in high prestige colleges parallel that of more advanced trainees in high prestige graduate programs? By assessing the career decision-making process, pathways to different segments in the same profession and some of their socialization effects become discernible well before the students enter professional training.

I am proceeding on the theory that the professions should be viewed:

... as loose amalgamations of segments pursuing different objectives in different manners and more or less delicately held together under a common name at a particular period in history. (Bucher, Strauss 1961 326)

We must distinguish a variety of intra-professional groupings with different missions, work activity, methodology, techniques, socialization experience and public images. On the basis of this formulation, we should look at professional socialization from a somewhat different perspective than that adopted by those who tend to view the formal training program as an orderly series of steps toward assimilation into the professional community (Merton et al. 1957). There are a variety of paths which lead students to identify with one or another segment of a profession. Even in the context of a single professional training school, there are conflicts among socializers themselves and their efforts to recruit new members to their own segments of the profession (Hall 1946, 1948, 1949; Bucher 1962; Strauss et al. 1964). There is also evidence that the type of school attended makes a difference in terms of the professional segment eventually selected, in medical and other professional schools (Carlin 1962; Ladinsky 1963; Berelson 1960). There is also a strong link between the prestige of the undergraduate college and the quality of the graduate school which the student selects

(Spaeth 1968).

What are the characteristics of the decisions made by students enrolled in elite medical training programs? In the case of interns at the Harvard Unit of the Boston City Hospital, a unit which had been a traditional pathway to the medical elite or the incumbents of key institutional positions who decide matters pertaining to recruitment, socialization, research, and administration, students selected the Harvard Unit because of its excellent reputation (Miller 1970 10). Most of these interns tended to postpone any decisions that might narrow down their future careers. They felt that the Harvard Program was particularly suited to them, not only because it permitted them to drift, but because it made possible a wider variety of alternatives.

THE VARIABLES

Decision-Making. The term, *commitment to medicine* implies somewhat more than the mere decision to think of medicine as a possible career. Commitment also implies some intent to pursue a constant line of behavior that will lead the student to enter the medical profession (Becker 1960; Johnson 1973). Student commitment to medicine is determined on the basis of a scale composed of three elements: 1) the decision to become a physician; 2) the view that medicine is the only satisfying career; 3) the intent to reapply to medical schools, should it be impossible to gain admission immediately on graduation from college. The commitment scale ranking is *high* for those affirming Item 1, and *low* for those negative on Item 1. It is *medium* for those responding affirmatively on Item 1, but negatively to Item 2 or 3.

The second dependent variable is *specialty choice*. This decision is different in that it involves a narrowing down of the many possibilities open to someone with a *doctor of medicine* degree. In asking students whether they have decided on a specific type of practice, we can determine how far they have gone in their decision-making.

Earlier work shows that the premedical situation in the United States today is highly demanding (Bourgeois 1965). For a student to

compete successfully for admission to an American medical school, there is considerable pressure to reach an early decision, to plan a program that will include a large number of science courses, and to maintain a very high grade point ratio. This leads to an early decision, and to an ever-deepening commitment to medicine. Since the conditions are imposed not by the colleges, but by the medical schools, it would be surprising if premedical students differed much among themselves in terms of their basic orientation to a medical career.

Miller did not indicate that the Harvard interns were not committed to medicine. His point was that these trainees were postponing any decision which might limit many alternatives that a prestigious educational program would open to them. This issue is of primary concern. While a school's prestige is not expected to effect the student's commitment of medicine, it is expected that it will be inversely associated with selecting a specialty, and thus with the narrowing of options.

The Schools. To look at decision-making among premedical students and its relation to school setting, Ivy College and Central University were selected. Ivy is small, but prestigious ivy league university, with an undergraduate student body of 5000, located in the urban northeast. It placed 65 percent of its graduating premedical seniors in medical school, and 38 percent in the prestigious medical schools in 1973 (Miller 1970 53). Central University is a large state-supported school in a medium size midwestern city, with a student body of 18,000. In 1973 31 percent of the graduating premedical seniors were accepted in medical schools, and not more than 15 percent went to prestigious medical schools.

Control Variables. Caution is required in relating variables, since a relation may be spurious. If specialty choice or the narrowing of one's career options is negatively related to school prestige, it is possible that other factors may explain the association. Research on the decision to study medicine suggests that the following variables might affect the choice: *family income, father's education, size of hometown, relatives who are physicians,*

private or public high school, and grade point average (Merton et al 1957; Davis 1965).

DATA AND METHOD

At the end of the fall semester in 1974 an extensive questionnaire was completed by 150 freshman and 119 senior premedical students in the two universities. Topics included *career decisions, current specialization experiences, plans for the future, and family background.* At Ivy College the Dean of Freshmen and the Dean for Health Careers provided lists of students considering medicine. The questionnaire was mailed to the students, and 61 percent returned the questionnaire. Central University had a listing of seniors who intended to apply to medical school. Of the 77 names provided by the adviser, 84 percent responded. There was no list for freshmen, so the researcher contacted 350 students who would major in biology or chemistry or were members of the premedical club. There were 151 responding freshmen, which by the estimates of the school administrators, represented 70 percent of freshmen premedical students expected in each annual freshman class. The data are cross-sectional. It would be misleading not to present the groups separately.

FINDINGS

Table 1 shows the correlations for all variables, and these statistics support the research hypotheses. School is not associated with the basic decision to enter medicine. The negative coefficients suggest that the students at the more prestigious institution are less apt to be committed to medicine than those at Central University. But among both freshmen and seniors the coefficients for school and commitment are not statistically significant.

The situation is different for specialty choice. There is a strong negative association between school and the likelihood that premedical students are apt to reach a decision about their future, a trend particularly evident among the seniors. School is related to all other variables. Ivy College freshmen were more apt to come from higher income families, and to have more highly educated fathers. All had attended private schools. But there is a negative correlation between prestige of the school and the likelihood of a student having

TABLE 1: CORRELATION: SCHOOL AND SPECIALTY CHOICE WITH BASE VARIABLES

Variable	Freshmen n = 150; r ₀₅ = .159		Seniors n = 119; r ₀₅ = .174	
	School	Specialty	School	Specialty
Specialty	-.157		-.361	
Income	.242	ns	.325	ns
Father educ	.266	-.171	.221	-.189
Hometown	ns	-.160	.369	-.441
MD relative	.223	ns	.266	ns
High school	.207	ns	.222	-.195
GPA			ns	-.218

TABLE 2: SPECIALTY CHOICE AND CONTROL VARIABLES: SENIORS (Partial correlation)

Control variable	Specialty choice n = 119; r ₀₅ = .174
Family income	-.332
Father's education	-.333
Size of hometown	-.237
Relatives in medicine	-.338
Type high school	-.332
Grade point average	-.341

a close relative in the medical profession. Students in the more elite institution more likely come from a high socioeconomic background and have had broader educational experience. Premedical students from Central University were more likely to come from medical families. Type school is not significantly correlated with grades. And there are no significant relations between any of the basic variables and commitment.

According to Table 2, there is a significant negative correlation between each background variable and specialty choice for seniors. There is a clear tendency for premedical students from the more elite background to defer specialty choice, and to keep options open. There were no significant partial correlations either for freshmen or for seniors between background variables and commitment or specialty choice controlling for school.

DISCUSSION

Our predictions were 1) that school would be related to specialty choice with students in the elite institution demonstrating a tendency to postpone specialty choice; 2) the commitment to a career in medicine would remain unaffected by type of school. The data have supported both hypotheses.

School does appear to be related to specialty choice. Ivy College students tend to postpone any further decision concerning their future medical practice, particularly among seniors. The graduate elite program offers many more opportunities. Premedical advisers in these institutions have formed a number of ties with a certain network of medical schools. Since there is a certain degree of standardization in the admissions policies of medical schools, I do not suggest that a premedical adviser's connections or even the reputation of the college in the community can guarantee admission to the more prestigious medical schools. But personal interviews and recommendations are still taken into account in evaluating medical school candidates. There can be little doubt that the college one attends does make a difference. With the real possibility of being admitted to a prestigious medical school awaits both freshmen and seniors, it is not surprising that they postpone decisions on professional specialization. Top medical schools offer their students far more than the possibility of practicing general medicine in a small community. They open doors than can lead to powerful positions in administration and academia. For the premedical student enrolled in and prestige program, the college years are much too early to eliminate future chances.

Specialty choices appear to be affected by other variables. These include grades and hometown, which, along with school, have independent effects. The importance of grades among premedical students is well documented (Anderson et al. 1964, 1965; Davis 1965; Riches 1967; Funkelstein 1961). While medical college admissions test (MCAT) scores, faculty recommendations, and personal interviews are also important determinants of one's chance to be admitted to a medical school, grades rank at least in the eyes of of students as the most important bench mark of their progress and of their chances for eventual success (Bourgeois 1975). Even Central University's brighter students may have the opportunity to enter elite pathways.

Hometown's negative relation to specialty choice among the seniors is difficult to interpret. Individuals from large cities are exposed to a wider range of physicians. The student

may know of several different types of specialists before coming to college. Students from larger cities simply have a better idea of the full range of possibilities open to them when they complete their medical education. Being a physician does not imply being a primary care practitioner. It may mean being a specialist, an administrator, or an academician. This may lead to delaying of decisions on specialization.

It is evident that school is not a good predictor of commitment to a career in medicine. No variable analyzed in this study shows any consistent and highly significant relation to the basic decision to pursue a medical career and to compete for a place in a medical school. A commitment to medicine may be the result of earlier and more basic influences in the premedical student's life.

The problems of getting into an American medical school may be so universal and so overwhelming that whether students are in an elite school or in one of much lower prestige, the pressures force them to all-out effort. Such efforts are expensive in time and money. Once commitment is made, it may be costly to turn to another field.

REFERENCES

- AAMC 1977 Medical School Admission Requirements 1978-1979. Washington DC. Assn of Amer Medic Schools & Colleges
- Anderson D, E Riches, B Levson 1964 The premedical student; his identity. *Canadian Medic Assn J* 91 1011-1018
- Anderson D, E Riches, R Evans 1965 The premedical student: his progress. *Canadian Medic Assn J* 92 717-722
- Astin A 1971 *Predicting Academic Performance in College*. New York. Free Press
- Becker H 1960 Notes on the concept of commitment. *Amer J Sociol* 66 32-40
- Berelson Bernard 1960 *Graduate Education in the United States*. New York. McGraw Hill
- Bourgeois Charles S 1975 Situational perspectives of premedical students and their effect on academic and career goals. Providence RI. Brown Univ doctoral thesis unpubl.
- Bucher Rue 1962 Pathology: a study of social movements within a profession. *Social Problems* 10 40-51
- Bucher Rue, Anselm Strauss 1961 professions in process. *Amer J Sociol* 46 325-334
- Carlin Jerome E 1962 *Lawyers on their Own*. Rutgers U Press
- Davis James A 1965 *Undergraduate Decisions: Correlates of Occupational Choice*. Chicago. Aldine
- Feldman K, T Newcomb 1970 *The Impact of College on Students*. San Francisco. Jossey Bass
- Funkenstein D H 1961 A study of college seniors who abandoned their plans for a medical career. *J Medic Educat* 36 950-959
- Hall Oswald 1946 The informal organization of the medical profession. *Canadian J Econ & Pol Sci* 12 30-44
- _____ 1948 Stages of a medical career. *Amer J Sociol* 53 327-336
- _____ 1949 Types of medical careers. *Amer J Sociol* 54 243-253
- Johnson Michael P 1973 Commitment: a conceptual structure and empirical application. *Sociol Qtrly* 14 395-406
- Ladinsky Jack 1963 Careers of lawyers, law practice and legal institutions. *Amer Sociol Rev* 28 47-54
- Merton R, G Reader, P Kendall 1957 *The Student Physician*. Harvard U Press
- Miller Stephen J 1970 *Prescription for Leadership: Training for the Medical Elite*. Chicago. Aldine
- Riches Eleanor 1967 Changes in the choice of medicine among premedical students at the University of British Columbia. *J Medic Educ* 42 350-358
- Spaeth Joe L 1968 Allocation of college graduates to graduate and professional schools. *Sociol of Educ* 41 342-349
- Strauss Anselm, L Schatzman, R Bucher, D Ehrlich M Sabshin 1964 *The Quantitative Analysis of Social Problems*. Reading Mass. Addison Wesley