COMPARING U.S. STUDENTS IN A U.S. & A MEXICAN MEDICAL SCHOOL

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"Medical wetback" is the term used by Mexico to describe the American students studying medicine in Mexico, such as those at the Universidad Autonoma in Guadalajara, Mexico. Many Americans have sought medical educations abroad. The U.A.G. is the largest medical school for Americans in the world. About half of the newly licensed doctors in the United States and almost one fifth of all doctors practicing in the United States are foreigners, while Americans must go abroad to get medical schooling.

In the postwar years, foreign medical graduates filled a real need for manpower in the health profession and were welcomed, despite dubious qualifications and the inability to speak English. Immigration laws for them were lenient, but the upgrading of medical standards and the establishment of more strict licensing procedures has reduced their entry into the mainstream of health care delivery. And their ability to deliver the high quality of care now required of them is increasingly in question by their American colleagues.

The foreign medical school graduates face increasing problems in the 1980s and 1990s as the Department of Health & Human Services is considering ways to offset an anticipated physician surplus. The Graduate Medical Education National Advisory Committee (GMENAC) recommended recently that all government loans and scholarships to U.S. medical students abroad be terminated, and urged limiting the total Foreign Medical Graduates (FMG) entry number to 1,100 from the present 4,100 of which 1,000 would be foreign spouses of U.S. citizens. (Amer. Med. News 1980). Currently 17,000 U.S. citizens are studying abroad and by 1982 3,000 per year are due to enter the U.S.

Samuel Feinsod, M.D., president to a parents group of U.S. foreign medical students, estimated that 20-25% of these foreign medical students are physicians' children. Most of the remainder are from lower or low middle income families.

The social environment, the community needs, and the glorification of the medical show, coupled with the closing career opportunities in some other areas and the push for "equality" of "minority" group opportunities, have all contributed to increase in applications to medical school. Most were disappointed. In 1975, 43,000 applied for the 14,000 first year medical school places, and 29,000 well qualified students were rejected by all schools.

The Medical School enrollment in the U.S. increased again in 1979-1980 by 2.3% to a 64,195 total, and a record 15,135 doctors graduated in 1980 in the U.S. The number of foreign doctors admitted annually to, licensure in the U.S. has been declining from the peak of almost 12,000. The applications are only twice as high as the number accepted for the 1979-1980 classes. Women foreign medical graduates comprised over 25% of the 1979-1980 women residents (three-fourths were not U.S. citizens). While the entering class of 1976 of 14,700 entrants doubled the 1966 first year medical schools class enrollment in the U.S., the 114 schools rejected 30,000 qualified U.S. students.

While 54,000 students were in U.S. medical schools#1% foreign born), 6,000 U.S. students were in foreign schools of medicine. The largest single group comprised 2,500 in Guadalajara, Mexico (Altman 1975).

The U.S. law, once liberal, has now become restrictive (Chase 1979), with both actions creating a conflict between the supply of physician manpower at home and the training needs of the developing countries around the world. Concern about the large number of foreign medical graduates immigrating to the United States which reached 44.5% of U.S. newly licensed physicians in 1973 led to the passage of P.L. 94-484 in October 1976. Aliens were required to pass Parts I and II of the National Board of Medical Examiners and to demonstrate competence in both oral and written English. Also, under P.L. 94-484, Title V, schools of medicine in the United States were mandated to reserve a number of third-year positions for U.S. citizens then studying in foreign medical schools. Such students would be required to complete two years at a foreign

medical school and then required to pass Part I of the National Board of Medical Examiners examination. However, in December 1977. this segment of the bill was amended so a school would be required to increase its class size by no less than 5% in the third year class by transfer of students. These transfers could be either U.S. foreign medical students or transfer students from another U.S. medical institution other than a four year school (Goldberg 1975).

Schools such as the Universidad Autonoma de Guadalajara, are very concerned and fearful that they might lose their best students and hence when the law was passed to let U.S.F.M.G.'s take Part I of the National Boards to aid those who wished to transfer to a U.S. Medical School third year, the Autonomous University made it against the school rule to take the exam before the fourth medical school year and to assure themselves that no one would try to take the exams, they scheduled exams during the time the Part I section of the Boards was given in the States, and threatened expulsion if a student were caught in breaking this rule (Nordheimer 1975).

On September 1, 1974 the study of the distribution residents and interns shows that the "elite" and most sought after training programs are not readily available to the graduate of a foreign medical school. The hospitals affiliated with Medical Schools are the desired residency programs and competition is keen. In 1974, affiliated hospitals had 42,379 graduates of U.S. and Canadian medical schools join their residency staffs and 15,181 foreign medical school graduates. The non-affiliated hospitals were occupied by foreign medical graduates. With the increased difficulty in coming to the U.S. to study in a post-graduate program, many of these residencies will remain vacant.

Who are these individuals who go abroad for an education that is denied them at home? Why are they braving a different culture, a new language, and an investment of much time and money in a gamble against seemingly insurmountable odds of completing their studies and qualifying to train further in the U.S. and then to practice here? What is the difference between the applicants rejected and those accepted by the U.S. Medical Schools? What are the motivation factors, the social background factors and the concerns of the U.S. Medical student in Mexico as compared to a U.S. Medical student in a state supported University Medical School?

RESEARCH FORMAT AND METHOD

Sample The research questionnaire was administered to the 1978 medical school class of the Universidad Autonoma de Guadalajara in Guadalajara, Mexico in the spring of their second year in Medical School. Of 310 given out, 305 were answered. A second questionnaire was given out to the class of 1978 at the Ohio State University Medical School in the spring of their first year in Medical School. Forty-eight out of 120 were returned. Ohio State is the average U.S. Medical School in size, while the Universidad Autonoma de Guadalajara is the largest school for U.S. Medical students in the world with approximately 2,500 medical students enrolled in the four years of classes.

MEASUREMENT

The questionnaire included five sections: (1) the personal and family backgroud, (2) the educational background, (3) the graduate application, interview and acceptance data and their minority status and perceptions of the "fairness" of the admissions procedures of the various schools they applied to, (4) the motivating forces that affected their career choice in their eyes, and (5) their concerns, worries and value judgements concerning their present life while a medical student and their perceptions of their future opportunities.

The variables of occupations and educational prestige status of each parent, as well as family social class, were construed following Hollingshead's Two Factor Index of Social Position Formulation (Hollingshead 1957). The occupational and educational variable consists of nine categories; and family social class includes lower, upper-lower, lower-middle, upper-middle, and upper class categories.

The sex, age, race, religious preference and marital status were asked, as was the state of residence and the number of siblings and the respondent's birth order in the family.

The question pertaining to the respondent's educational background included the type of high school they attended, whether public, private, parochial and if the school was a day

school or boarding school. The name of the college from which they graduated was then graded by use of *Barron's Guide to Colleges (1975)* into one of six categories ranking competition level from "very high" to "none". Their undergraduate grade point ratios, their Medical Aptitude Test scores and the number and type of academic honors such as Phi Beta Kappa or cum laude were recorded. Their participation in fraternity or sports and jobs that they held while in college were asked; also, any military service they may have had and the number of countries they had visited. Proficiency in any language other than English, was noted.

Questions on how many Medical Schools they had applied to, and a list of those that had granted interviews or accepted them, the cost of their medical education and the source of financing were recorded.

Their perception of the "fairness" of the admission procedures was asked whether they had felt discriminated against by any medical school.

How long they wanted and planned to be a doctor and the presence of any relatives in the medical profession were asked. If the student had ever done scientific research, given a paper, or worked in a hospital prior to medical school application, it was recorded.

Finally, questions concerning the medical students' personal concerns and worries and their value judgements concerning foreign medical graduates treatment by the United States were asked.

FINDINGS

There were 10 percent women students in the Mexican medical school class 11% in the U.S. medical school. The Mexican medical school had 24.5 years median age and the U.S. school was 23.3. The oldest medical student in the class at U.A.G. in Mexico was 42 years old an age. He would not be admitted in the U.S. school. In both schools the percent of Caucasians was 95-96% with the 5% minority races in U.A.G. being Oriental and American Indian, and all the minority 5% in the O.S.U. school being Black. No U.S. Blacks were in the Mexican school.

Jewish students made up 30% of the Mexican class compared to 9% of the U.S. group. Twenty-five percent of the Mexican group included 25 percent Catholic, compared to 16 percent of the U.S. group. Of the Mexican group 9 percent called themselves "Atheist" compared to 16 percent of the U.S. group.

Of the group in Mexico 8 percent had seen one to four years of military service, compared to 16 percent of the U.S. group.

All of the U.S. sample were Ohio residents, while 28% of the U.A.G. class were New York residents, 22% were California residents, 10% were from New Jersey, 5.5% from Texas and 3.4% from Ohio. Thirty-five states in all were

TABLE 1: PARENT'S EDUCATION LEVEL FOR U.S. MEDICAL STUDENTS (PERCENT)

	School Location	
Father's Education	*Mexico*	*Ohio*
Baccalaureate	21	25
Graduate Degree	36	27
No University Degree	43	48
Mother's Education		
Baccalaureate degree	24	25
Graduate Degree	13	5
No University Degree	63	70

TABLE 2: PARENTAL OCCUPATIONAL LEVELS FOR U.S. MEDICAL STUDENTS (PERCENT)

	School Location	
Father's Occupation	*Mexico*	*Ohio*
Medical doctor	21	14
Dental, pharmacy	4	2
Accountant realtor drafting	10	7
Executive, engineer	1	11
Lawyer, banker, insurance	27	9
Teacher, salesperson	13	23
Government pilot military	3	0
Factory & farm labor	8	21
Retired or deceased	14	14
Mother's Occupation		
Registered nurse, pharmacy	7	2
Hospital technician	3	2
Medical doctor	1	0
Secretary, realtor, manager	9	5
Artist, student, volunteer	6	2
Waitress, bookkeeper, sews	12	14
Teacher	10	12
Housewife	47	48
Retired or deceased	6	14

represented in the Mexican Medical School class at U.A.G., and 50 percent came from either New York or California.

Only-childeren comprised 5 percent of the Mexican School's group and 7 percent of the U.S. group. We noted that 50 percent of the class in Mexico were the first born children compared to 32 percent of the U.S. Medical School class. In the Mexican group, twice as many (33 verses 16 percent) came from families with four or more children as in the U.S. Medical School group. Of the siblings of the Mexican group 36 percent sought advanced college degrees compared to 13 percent of the U.S. group. In both groups the sib undergraduate grade point ratio was 3.35.

Parents of the Mexican group were more likely to have advanced college degrees than were the U.S. medical students (Table 1.) but there were some differences in the occupations of the parents (Table II.). Median family incomes were similar at $23,600 for the Mexican school students and $26,500 for the U.S. students.

The medical, dental, and allied professions were heavily represented in Mexico at the U.A.G. The case was more striking in the mothers with 11% of the Mexican medical students having mothers in nursing, doctoring or hospital work with only 4% of the O.S.U. group having a similar backgroud. The Ohio State medical school was also very strongly represented by laborers with 21% of their students coming from farm or labor backgrounds compared to 8% in Mexico. Parents paid for, 50 percent of the U.S. students compared to 46 percent of the Mexican students. The tuition at Ohio State Medical School was $1,300 compared to $6,000 tuition in Mexico at the Autonomous University. The O.S.U. students estimated that their medical education cost them an average of $3,664 per year, while the students in Mexico at the U.A.G. estimated the annual cost at $11,000 per year.

Although many similarities exist with these two medical student groups, one very visible difference is the college grade point average median. The Mexican U.A.G. medical students had a median of 3.08 compared to a 3.6 for the U.S. medical students. However, 27% of the Mexican group had taken some graduate work after their B.A. degrees and they achieved a median grade point average of 3.62 in this graduate work in the U.S. Of the U.S. medical students, 14% had taken graduate work in the U.S. prior to medical school and their median grade point average in graduate work was 3.68. The M.C.A.T. test scores were a median of 561 for the U.A.G. students and 633 median for the O.S.U. students in the United States. Of the Mexican medical students 2% were Phi Beta Kappa in college and 17% of the U.S. students received this honor. Ten percent of the U.A.G. students and 23% of the O.S.U. students were either Summa, Magna, or Cum Laude at time of graduation from college.

When the competitive level of the colleges these medical students attended was taken into consideration, the students from the colleges with the very highest rating in Barrons Guide had a better chance to attend the U.S. medical school than the Mexican school but when the three top levels of competitive schools were taken into account, it appears that a competitive college student has much less chance of attending a U.S. state supported Medical School. While 50% of the U.A.G. medical students had attended one of the three top levels of competitive college status, only 25% of the O.S.U. medical students had attended the more competitive colleges. The two groups both had 65% who had majored in biology or zoology in college. Prior to going to Mexico to Medical school, 81% of the medical students spoke no Spanish and 95% of the Ohio State medical students spoke no Spanish.

The American students in Mexico had planned to be doctors "all of their life" or for at least 8 years in 64% of the cases, while this was true of the Ohio State medical students in 39% of the cases. Of U.A.G. students 47 percent had relatives who are doctors compared to 34 percent of the Ohio State students.

The interviews were felt to be fair by 68% of the U.A.G. and 76% of the O.S.U. students. The approval of the M.C.A.T. tests was only 5 percent of the Mexican group and 24 percent of the U.S. group, with 39 percent of the Mexican and 12 percent of the U.S. group specifically labeling the tests unfair, with the majority of both groups saying they were only "so-so". As to whether they felt they had been discriminated against in the case of admission to a U.S. medical school, 60% of the medical stu-

dents in Mexico and 21% of the medical students at Ohio State said "Yes".

When the medical students in Mexico were questioned about the things that might concern them, 78 percent were concerned about the quality of the medical education that they were receiving. And 79 percent were concerned about their finances for such an expensive education in another country. Another concern expressed by 66 percent of the Mexican educated students was their acceptance or non-acceptance by the U.S. The Medical Board tests were a concern to 65 percent.

The medical students at Ohio State Medical School had some concerns that were different: 50 percent were concerned about malpractice insurance, 45 percent were concerned about the quality of their medical eduation over 43 percent were concerned about the socialized medicine in the future, and 41 percent were concerned about the future Medical Board tests. Only 29 percent expressed concern over finances compared to the 56 percent in Mexico.

While the students in Mexico felt they should be treated like their U.S. counterparts, only 39 percent of the U.S. students felt that way. Students that would consider a residency in some other country were invariably more accepting and lenient toward the foreign educated colleague.

DISCUSSION

The Universidad Autonoma de Guadalajara is a very conservative school founded during a period of oscillating political tides in Mexico, during the 1930's upon the premise that education is of paramount importance. It provides physicians deprived areas of Central and South America, and it provides United State students a place to train for a career in medicine. The basic science curriculum during the first two years is the same as that found in the U.S. though requiring more independent bookwork, and memorization in two languages. The final two clinical years are also structured similar to that in the U.S., rotating students among the various disciplines. This U.A.G. clinical experience has been considered deficient by the U.S. medical educators. The school has been rapidly upgrading its clincal programs, staff and facilities to rectify the problem. The U.A.G. also has a "guarda" program where the medical student, even in the first year, must spend time in a village or city clinica and live in a local home to bring medical care to the people.

It might appear, as many of the students in foreign medical schools allege, that the U.S. medical school classes are chosen purely by the number, by computers with a sprinkling of minorities to satisfy the government rules or school policy.

Certainly the motivation of the medical students who go to Mexico to become doctors is great. Their motivation is obvious to one who has an inkling of the same financial, social, and language difficulties under which they labor to achieve the same goals as their American counterparts. United by the difficulties they share, they form a tight-knit community involving close friendships and cooperation.

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