

THE TURKISH MEDICAL GRADUATE IN AMERICA 1965

A Survey of Selected Characteristics*

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Introduction

The scholar from medievel times has traveled to study in countries where eminent professors and outstanding opportunities for advanced training have existed. In more recent times, it has also become increasingly popular among physicians to seek advanced training abroad. Some of the Turkish medical graduates have chosen the United States for advanced training, and the present study describes some characteristics of graduates of Turkish medical schools residing in the United States in May 1965.

Background

Over the years, the American Medical Association (A. M. A.) has built up a data collecting system which has been used to serve the needs of its members. Currently they have information on more than 286,000 physicians in the United States. The A. M. A. lists include not only American medical graduates, but all foreign medical graduates functioning as interns, residents, fellows, trainees and those who are in hospital, government or private practice in the United States. Physician data is punched onto four IBM cards when an individual is added to the list. Few physicians in medically related activities are overlooked.

The present study is an outgrowth of the Turkish Health Manpower Study being cooperatively undertaken by the Division of In-

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ternational Health of the Johns Hopkins University School of Hygiene and Public Health and the Hıfzıssıhha Okulu, Ankara, Turkey. In the course of the study, a question arose as to the number of Turkish medical graduates who were studying, receiving advanced training, or living abroad. It became evident that it would be of interest to learn more about Turkish medical graduates who were in the United States.

Results

A total of 538 Turkish medical graduates were in residence in the United States in May 1965. Of this group, 90.3 per cent were males and 9.7 per cent were females. Although the percentage of female Turkish medical graduates in the United States is less than that for most European countries, it is slightly higher than that of other Moslem countries.

School of Graduation : The schools from which Turkish graduates received their graduate degrees are shown in Table 1.

TABLE 1
MEDICAL SCHOOL ATTENDED

	No.	%
Tip Fakültesi Ankara Üniversitesi	104	19.3
Tip Fakültesi İstanbul Üniversitesi	432	80.3
No data available	2	0.4
T O T A L	538	100.0

Istanbul graduates are greatest in number. However, considering that the Ankara School of Medicine was founded as recently as 1945, the number from that school who have sought advanced training in the United States is quite substantial. There seems to be little tendency to seek out advanced training until four to six years after graduation from medical school, and inasmuch as the Ege Medical Faculty graduated its first class in 1961, we would not expect their graduates to begin coming to America until 1966.

Year of Graduation : Years of graduation from Turkish medical schools are grouped into five-year periods and are presented in Table 2. It can be readily seen that comparatively few recent graduates come to the United States, but about five years after graduation, their numbers increase sharply.

TABLE 2
YEAR OF GRADUATION FROM TURKISH
MEDICAL SCHOOLS

Years	No.	%
1960—1964	22	4.0
1955—1959	144	26.8
1950—1954	189	35.1
1945—1949	137	25.5
1940—1944	34	6.5
1935—1939	7*	1.3
1920—1934	0*	0.0
1915—1919	4*	.7
1910—1914	1	.2
Total	538	100.0

* No graduates from the classes of 1917-1938 are currently in the U.S.

Training Status : Of the 538 physicians, 165 are in post-graduate training, six are interns, 140 are residents and 19 are fellows. The remaining 373 physicians have completed formal training and are engaged in private practice, hospital service, or salaried activity.

Interns and Residents : The geographic distribution of Turkish interns is limited to three metropolitan areas (New York, Detroit, Chicago) and nearly half of the resident group are also in residencies in metropolitan areas. Without exception, the interns are found in hospitals in large cities.

When residents are analyzed by state in which training was being received, interestingly, it was found that the great bulk of the Turkish medical graduates (110 or 78.6 per cent) were located in the Northeast, Mid-Atlantic and the Midwest. From an economic standpoint this is reasonable when one considers that the distance to the West coast is much greater, and that it costs as much

to travel from New York to Los Angeles as it does from London to New York.

Interns in the United States are allowed to select «rotating» internships in which they spend two to three month periods in internal medicine, surgery, obstetrics and pediatrics, or «straight» internships in which most of their time is spent in one of the hospital services mentioned above. Five of the six Turkish interns were in rotating internships in May of 1965 and one was in a straight surgical internship.

Specialty training of the Turkish graduate resident group is quite varied. Some 22 of the 36 specialty and sub-specialties are represented by Turkish medical graduates. Specialty interests of the 1965 group are detailed in Table 3.

TABLE 3

DISTRIBUTION OF TURKISH MEDICAL GRADUATES IN RESIDENCY TRAINING BY SPECIALTY, MAY 1965

Specialty	Turkish Graduates			All Residents in Training (U.S.) 1964		
	No.	%	Rank	No.	%	Rank
Internal Medicine	25	15.7	1	4883	19.0	1
General Surgery	21	13.3	2	4779	18.3	2
Psychiatry	18	11.3	3	2853	11.1	3
Pediatrics	17	10.7	4	1922	7.5	5
Anesthesiology	14	8.8	5	948	3.7	9
OB/GYN	13	8.2	6	2278	8.9	4
Pathology	11	6.9	7	1569	6.1	6
Radiology	7	4.4	9.5	1244	4.8	7
Medical sub-specialties (*)	(12)	(7.6)	—	332	1.3	—
Surgical sub-specialties (**)	(7)	(4.4)	—	1735	6.7	—
Others	7	4.4	—	1290	4.9	—
Unspecified	7	4.4	—	1944	7.5	—
T O T A L	159	100.0	—	25777	100.0	—

(*) Medical sub-specialties are pulmonary diseases, cardiology and gastroenterology.

(**) Surgical sub-specialties are thoracic, neurologic, plastic and orthopedic surgeries and urology.

Turkish graduates chose specialty fields in the same proportion as did U.S. physicians in general. The proportion of residents in basic specialty training (82.4 per cent) was similar to that for all residents in training in the United States (83.8 per cent) in 1964. There were proportionately more Turkish residents training in pulmonary diseases and anesthesiology and significantly fewer training in orthopedic surgery than was the case for the U.S. resident group as a whole. Anesthesiology is a popular specialty for all foreign medical graduates who are from developing countries. Fewer language skills are required for this residency.

There was a somewhat greater proportion of Turkish graduates in subspecialty training (13.2 per cent) than the total U.S. resident group (8.7 per cent). Amongst basic specialty areas, it was of interest to note that there were no Turkish graduates training in ophthalmology, otolaryngology or dermatology in May 1965.

Among the interns and residents the distribution of types of visas held is given in Table 4.

TABLE 4

VISA STATUS OF RESIDENTS, MAY 1965

	No.	%
Exchange Visitor	87	52.7
Permanent Resident	28	17.0
Naturalized U.S. Citizen	7	4.2
Visitor	2	1.2
Diplomatic Service	1	0.6
No data	40	24.3
T O T A L	165	100.0

The largest proportion of both intern and resident groups is that of the exchange visitor. Upon completion of their training exchange visitors must leave the United States for at least two years before being considered for reentry into the United States. Permanent residents must remain five years to qualify for citizenship. Not all permanent residents choose to become United State citizens; however, many permanent resident visa-holders return home after

completing their training and working a few years in the United States.

Turkish Medical Graduates not in an Education Program : Of the 538 Turkish medical graduates in the United States in 1965, 373 of them were in this category. Most of them were located in the Northeast or Midwest. Nearly 44 per cent (163) of the Turkish graduate physicians in this group were found to be living in the 11 largest cities of the United States.

Although Turkish medical graduates currently in residency training choose major specialties in about the same general proportions as do all residents in training in the U.S., specialty practices of Turkish graduates who are not in training reveal much less concordance with the distribution of all U.S. and Canadian medical specialists in the United States (Table 5).

TABLE 5

PRIMARY SPECIALTIES OF TURKISH GRADUATES EXCLUSIVE
OF THOSE IN TRAINING, MAY 1965

Specialty	Turkish Graduates			(*) U.S. and Canadian Graduates in Specialty Practice (U.S. 1964)		
	No.	%	Rank	No.	%	Rank
Internal Medicine	76	22.7	1	31128	18.2	1
Psychiatry	50	15.0	2	12753	7.4	4
General Surgery	37	11.0	3	22623	13.2	2
Anesthesiology	31	9.3	4	6237	3.6	9
Pediatrics	24	7.2	5.5	12406	7.2	5
OB/GYN	24	7.2	5.5	14425	8.4	3
Pathology	14	4.2	8	5778	3.4	10
Radiology	13	3.9	9	7855	4.6	6
Otolaryngology	6	1.8	10	4782	2.8	11
Medical sub-specialty	(17)	(5.1)	—	(2309)	(1.3)	—
Surg. sub-specialties	(12)	(3.6)	—	(10285)	(6.0)	—
Others	16	4.8	—	22521	13.2	—
Unspecified	14	4.2	—	18295	10.7	—
T O T A L	344	100.0		171397	100.0	

(*) Severinghaus (1965).

As was true for Turkish residents, anesthesiology was chosen more often and obstetrics and gynecology less often as a specialty than among U.S. graduates. The medical sub-specialty of pulmonary diseases ranks seventh among Turks, but 22nd amongst the U.S. graduates in frequency of choice. However, the matter of sub-specialty choice is a complex one and inasmuch as the numbers of Turkish physicians involved are small, it seems prudent to limit the generalizations made from the data presented.

A higher proportion of Turkish graduates remaining in the United States have specialty training than the U.S. medical graduate population. Table 6 shows that 90 per cent of the Turkish graduates, exclusive of trainees, are specialists, and ten per cent general practitioners, whereas the corresponding proportions are 72 per cent and 28 per cent for U.S. graduates.

TABLE 6

EXTENT OF SPECIALIZATION OF TURKISH MEDICAL GRADUATES, MAY 1965

	Turkish Graduates		(*) All U.S. and Canadian Graduates in U.S. (1964)	
	No.	%	No.	%
Physicians in General Pract.	39	10.5	65394	27.6
Physicians in Specialty Pract.	334	89.5	171397	72.4
Total No. Physicians Exclusive of Trainees (Interns and Residents)	373	100.0	236791	100.0

(*) Severinghaus (1965).

While the number of Turkish physicians who indicate specialty practice is 334 (Table 6), it was of interest to note that 113 or 33.8 per cent were members of specialty societies and only 42 or 12.6 per cent were certified specialists (Table 7).

Board certification by an American specialty board presents a number of problems to the physician trained in another country. A license to practice medicine in the United States, an approved internship, an approved residency, post-residency practice, and in seven

TABLE 7

DISTRIBUTION OF AMERICAN SPECIALTY BOARD CERTIFICATIONS
HELD BY TURKISH MEDICAL GRADUATES, MAY 1965

	No.	%
Pediatrics	11	3.3
Surgery	8	2.4
Anesthesiology	7	2.1
Psychiatry	6	1.8
Pathology	4	1.2
Otolaryngology	3	0.9
Internal Medicine	1	0.3
OB/GYN	1	0.3
Urology	1	0.3
T O T A L	42	12.6

out of 19 instances U. S. citizenship, all constitute requirements for eligibility.

It is important to recognize that certification represents a qualification available to voluntary candidates who demonstrate competence in their specialty and who meet the training requirements of the board. The fact that only 12.6 per cent of Turkish medical graduates in specialty practice are board certified demonstrates that board certification is by no means a requirement for specialty practice.

Most Turkish graduates in non-trainee categories (interns, residents, etc.) were involved in clinical work. Very few were involved in non-medical activities (Table 8). As might be expected, those not in general or specialty practice tend to be on hospital staffs and responsible for patient care (Table 8).

A surprisingly small number are not in medical practice at all. There is reason to believe that five of the nine physicians not in practice are those 70 years of age or older.

A breakdown of the source of income of Turkish medical graduates exclusive of those in training shows that the largest proportion (217 or 58 per cent) were found to be on full-time salary. The proportion of those whose incomes were derived primarily from fee-

TABLE 8

TYPE OF PRACTICE OF TURKISH MEDICAL GRADUATES
EXCLUSIVE OF TRAINEES, MAY 1965

	No.	%
Full-time Hospital Staff	167	44.8
Full-time General or Specialty Practice	135	36.2
Full-time Medical School Member	18	4.8
Research	18	4.8
General Practice with some Specialty Practice	12	3.2
Laboratory Medicine : Pathology, etc.	8	2.1
Preventive Medicine	4	1.1
Administrative Medicine	2	.6
Not in Practice	9	2.4
T O T A L	373	100.0

for-service activities was somewhat less (129 or 34.6 per cent) but still substantial.

The rank of assistant professor or above was held by 13 Turkish medical graduates (3.5 per cent) in U. S. medical schools in 1965. The number of Turkish graduates holding junior appointments such as instructor or lecturer is not known. Appointments at the assistant professor level or above are not easily found in the United States. Competition for academic appointments is keen and appointment brings with it a number of clinical, scientific and professional advantages. The fact that 3.5 per cent of Turkish graduates in the United States have faculty rank suggests that they have done rather well in the competition for faculty posts.

In the United States, individual physicians are licensed to practice by state rather than by federal authority. Each state has a Board of Medical Examiners, which has the authority to issue, withhold, or revoke licenses to practice medicine within its borders. It is only for the unrestricted, independent practice of medicine that a state license is required. There are 208 of the 538 Turkish graduates (38.6 per cent) who are fully licensed. Many Turkish physicians who are not in training and who do not have licenses are working in full-time salaried positions in hospitals.

The majority (55.8 percent) of the 208 Turkish graduates presently holding licenses to practice medicine in the United States have

obtained them since 1962 (Table 9). The number of Turkish graduates obtaining their first United States license increased noticeably beginning in 1957. Nearly 95 per cent of all first licenses held by Turkish graduates were obtained subsequent to 1957.

TABLE 9

DISTRIBUTION OF YEAR OF OBTAINING FIRST UNRESTRICTED
MEDICAL LICENSES AMONGST TURKISH MEDICAL
GRADUATES, MAY 1965

Year	No.	%
1949 and before	6	3.0
1950 — 1959	48	23.3
1960	18	8.7
1961	19	9.2
1962	32	15.4
1963	26	12.5
1964	43	20.7
1965	15	7.2
T O T A L	208	100.0

Data for the year 1965 is incomplete inasmuch as the total given represents only those who obtained licenses in the first four months of 1965.

Certification by the Educational Council for Foreign Medical Graduates (ECFMG) was to be regarded as evidence that the recipient of the certificate possessed medical knowledge comparable to that expected of graduates of approved medical schools in the United States.

The ECFMG certificate is presently required for licensure by all but nine licensing boards (JAMA 1965). The ECFMG certificate has been required prior to beginning internship or residency in U. S. hospitals since July 1, 1960.

Data for citizenship and visa status is incomplete, but enough information is available for some indication of trends. Table 10 gives the citizenship status of graduates of Turkish medical schools cur-

rently residing in the United States who are not in advanced training.

TABLE 10
CITIZENSHIP OF TURKISH MEDICAL GRADUATES EXCLUSIVE
OF THOSE IN TRAINING, MAY 1965

Country	No.	%
Turkey	126	33.9
Iraq	2	0.5
England	2	0.5
Iran	1	0.3
Greece	1	0.3
Mexico	1	0.3
Canada	1	0.3
Naturalized U. S. Citizen	111	29.7
No data available	128	34.3
T O T A L	373	100.0

Among the Turkish graduates almost all the naturalized United States citizens were Turkish and only two per cent were of other nationalities. Visa status of Turkish medical graduates exclusive of those in training was as follows: only 30 physicians (8.1 per cent) hold short-term visas (exchange visitor, visitor, diplomatic service) whereas 214 (57.3 per cent) are either naturalized U. S. citizens (29.7 per cent) or hold permanent resident visas (27.6 per cent) which have no time limit. For the remaining 129 physicians (34.6 per cent) no data were available.

While it would be valuable to know more about the group for which information is not available, it can be safely assumed that the proportion holding permanent resident visas, or who are naturalized citizens is about the same as for those on whom information is available. Immigration authorities the world over are vigilant about other nationals remaining in their countries beyond time limits set by the visa. To the extent that our assumption is correct, the probable percentage of those Turkish graduates not in training who currently have U. S. citizenship would increase to 45 per cent and those holding permanent visas would increase to 42

per cent. These projections are admittedly hypothetical; however, they represent an estimate based on a 65 per cent sample of the entire group.

Discussion

Turkish medical graduates came to the United States in very small numbers until about 1945. Of those physicians presently here, about 30 per cent (165) are in some form of training and the remaining 70 per cent (373) are serving in independent professional roles. Slightly over 90 per cent (492) of all Turkish graduates completed their medical studies in Turkey subsequent to the end of the Second World War. Most did not come to the United States until four to six years after graduation.

Turkish interns or residents typically come to the northeastern United States for their training. Upon completion of training a number have obtained immigration visas (131 or 24 per cent), and others have become naturalized U. S. citizens (118 or 22 per cent). Those with exchange visitor visas (113 or 21 per cent) are required to leave the United States upon completion of training for a minimum of two years. Actual return rates are not known.

Choice of specialty training by Turkish graduates seems to be very similar to that of American graduates and likely reflects to some degree the relative availability of residencies in the United States rather than interest alone. Among those who have remained in the United States after their training we find more psychiatrists, anesthesiologists, and specialists in pulmonary diseases than would be expected by chance. Faculty and training staff at hospitals and medical schools in the United States have commented that Turkish residents are regarded as being more successful and effective as compared with others whose native language was not English. They are viewed in general as industrious, conscientious and reliable.

A large number of those not in training (167 or 45 per cent) are full - time members of hospital staffs and are on full - time salary. The urge to become a private practitioner seems less strong among Turkish graduates and there is reason to believe that this is true of Turkish graduates in Turkey (Dirican 1966) as well as for those in the United States.

For those Turkish graduates who have obtained state licensure (208 or 38.6 per cent) there seems little likelihood of their return to

Turkey. Obtaining a license to practice independently in the United States is difficult and often requires citizenship. A number of qualified, American licensed Turkish medical graduates have been given incentives to return to Turkey, and most of these now serve as faculty members of the new Hacettepe Medical Faculty of Ankara University. The opportunity to become a part of the medical education program in Turkey coupled with a salary level which permits full-time work with the medical school acts as a powerful attraction.

Many Turkish physicians have personally reported that they would be interested in returning home if they could practice their specialties and earn a living beyond a subsistence level. Relative to the years of training required, physicians' salaries in Turkey are not attractive and require the doctor to hold two or more jobs to support his family. While the present study indicates that 538 Turkish graduates are presently in the United States, projections made from the Turkish Manpower Study data (1966) suggest there are at least 2200 Turkish medical graduates working abroad and most of them are in West Germany.

The problem of the migration of her physicians is a complex one for Turkey. Very few Turkish medical graduates came to the United States prior to 1945. These physicians ordinarily came from financially independent families of high social position and had more to gain by returning home than by remaining in the United States.

Since World War II, however, Turkish physicians of more modest means have gone to the United States because more training opportunities and scholarships have been offered to medical graduates of other countries. Among these physicians, the incentive to return to Turkey is not great. They know that if they go back, they can expect a low paying government job in a small city or town where their specialty training may be of little use. But, if they remain in the United States, they can make the best use of their education and receive an attractive salary.

A problem more basic than the migration of physicians is whether United States training is appropriate for those who are to become medical practitioners in developing countries. United States medical education teaches that it is possible for physicians to be clinically successful with patients, but it also teaches them to depend on elaborate facilities, an educated patient, and a large complement of paramedical specialists and ancillary personnel. With Ame-

rican training it is inevitable that the physician from a developing country who returns to a small town, a rural area, or even to some urban settings, will soon become frustrated and discouraged, since he is not prepared for, and in most cases is unwilling to serve for long periods in, what to him is a disadvantaged community. He is thus likely to migrate to metropolitan areas (such as Istanbul, Ankara or Izmir in Turkey), re-migrate to a western country, or seek a post which will remove him from the frustrating milieu.

In order to stimulate the repatriation of Turkish physicians, the need for adequate remuneration and professional facilities and proper organization would seem to be essential. Without careful planning, educational exchange can result in the loss of skilled human resources. The strengthening of local and regional programs, larger training stipends, increasing the number of training opportunities, and improving the conditions of government service within the country are all alternatives which in the long run are less costly than the loss of physicians through migration. International exchange of medical faculty members, and the training abroad of specialists who are on leave for such training, seems a more appropriate use of international educational exchange. Fewer physicians will be lost under these conditions, and the benefit of their foreign training will accrue to their country as well as to themselves.

The loss of large numbers of physicians is something developing countries cannot really afford. Each physician represents an 18 to 20 year educational investment by both the individual and the country, but it is only through appropriate incentive that the benefits of this investment can be realized.

In addition to the gathering of data concerning a number of physician migrants, study of return rates and motivation for migration seems necessary. This information could then form the basis for decision and policy-making within a country, and provide a stimulus for the re-examination of the quality, scope and investment in graduate medical training to which the government universities and official agencies have committed themselves. Without concern on the part of the medical profession, the government, and the people, there is reason to believe that even greater numbers of Turkish physicians will seek opportunities abroad in coming years. Turkey cannot afford to ignore this problem. It will not solve itself.

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