An Accepted Method

All of these factors have been carefully considered by the Melbourne School, which has decided to base selection solely on examination results at the end of a common pre-medical year. Though the university is the examining body for matriculation, it was decided not to select at this stage, because of variations in the standard of teaching in the different schools and because not all students take the same subjects.

All intending medical students who have matriculated are accepted into a premedical year, where they attend courses in physics, chemistry, biology, and scientific method. The bias in these courses is to medicine. This results in some overcrowding, but it is considered preferable to give all prospective medical students a chance to compete under essentially the same conditions. Written and practical examinations are conducted at the end of the year, and those passing at the first attempt are arranged in order of merit. The number of available places in the quota fixes a line on the list—those above continue with the medical course, while those below may repeat the year and attempt for a place on the list which will carry them into the quota.

Special consideration has been given to those who fail in the examination. Normally such students may repeat the premedical year once, but priority on the merit list is given to those passing at their first attempt. The quota is such that students who are successful only at their second attempt go to the bottom of the list, and for this reason their chances of being selected are remote. They are therefore ill-advised to gamble on another year. However, there are two categories in the failed group who are given special consideration: (1) The student who misses at the first attempt because of extenuating circumstances—for example, severe and prolonged illness. All the failed students are interviewed in order to isolate this group. If exceptional circumstances can be advanced to account for their failure, they are allowed to repeat the premedical year with all the privileges of one making his first attempt. (2) Students who at the second attempt gain marks equivalent to first- or second-class honours are considered to have rehabilitated themselves and are graded as having sat for the first time. In this way, we feel that justice is done to all and that competition for the available places is scrupulously fair.

Admittedly the position in Melbourne is less complicated than in most other places where the quota system prevails. But, though the problem may be simpler, it is nevertheless one of great concern to the administration. The general feeling is that the sooner limitation can be abandoned the better, but this is a question which must ultimately be decided by governments. We also believe that the examination system, carefully applied, should still provide the fundamental basis for selection.

We fully recognize the value and importance of character, integrity, sincerity, and so on; but these qualities are difficult to assess, and how many have matured in this direction at the age of 17 or 18? Furthermore, success in examinations does test something besides academic competence; it reveals qualities such as application, industry, interest, and perseverance. In the final analysis we have decided in favour of examinations. All other techniques are considered to be too unreliable to be tolerated in our democratic community.

The social structure, traditions, customs, and practices of different countries present such great differences that no single formula can be acceptable to all. Discussions of this nature and an exchange of views at an international level are, however, of the greatest value. It is only by learning of the problems of others and the methods that have been adopted to resolve them that we can more easily discover a possible solution of our own difficulties. We are also prevented from becoming complacent about the greatest problem in medical education to-day—how to obtain the very best material to continue and extend the great traditions of our profession.

SELECTION OF STUDENTS IN INDIA*

BY

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There has been a rapid increase in the number of medical colleges in India in the last six years. At present there are 29 undergraduate medical colleges in post-partition India, as compared with 16 in the undivided India of 1947, and it is planned to add four or five more in the near future. This great increase has become necessary because the number of qualified medical men has been, and is, so small for the total population of the country, which reaches nearly 340 millions. For comparison, one may note that in the United States there are 76 medical colleges for a population of 160 millions, and over 20 medical colleges in Great Britain for a population of 50 millions.

Minimum Qualifications

As the result of a nation-wide inquiry into the selection of medical students in India I find that methods vary throughout the country. The minimum qualifications are intermediate examination (taken two years after matriculation or school-leaving examination), with physics, chemistry, zoology, and botany as compulsory subjects. About 10% of entrants have the B.Sc. degree. The minimum age for admission is 17 years.

At a number of centres—for example, Lucknow—all students must appear at a premedical examination (written), when they have to answer four question papers—one each in chemistry, physics, zoology, and botany. At Lucknow usually 1,100 to 1,200 students of both sexes sit for the examination each year. Of these the top 100 boys and 25 girls are asked to return for interview. The interviewing board consists of a chairman and two members together with the hospital radiologist. The latter examines the applicants under the screen and sends a report to the chairman, who, along with the other members, examines them physically and asks a number of questions of general interest, to get a rough idea of the mental make-up of the candidates. No attempt is made otherwise to assess the aptitude of the student for the profession of medicine.

In the majority of institutions no premedical test is held. Students possessing the necessary qualifications are asked to apply for admission. In their applications they are required to state the marks obtained by them in the various examinations, and selection is made on scholastic merit. After selection the candidate is usually interviewed by a board, when a few general questions are asked, but this interview is regarded as of secondary importance.

A small number of places, usually 5 to 10%, are reserved for the so-called backward classes and for candidates from outside the country—for example, those from Nepal and Indians living in such countries as Africa or Fiji.

The survey also showed that about 2,000 students are admitted every year for a five-year undergraduate course. (To these may also be added another 500 to 600 students who are admitted for a "condensed course" for the M.B., B.S. degree. This is intended for "licentiates" who had previously attended a four-year course and were practising as registered medical practitioners.) Not more than 30 to 40% of these students qualify in the minimum five-year period; another 30 to 40% take five and a half years to graduate; and the remaining 20%, six years or longer.

There are about 50,000 qualified doctors in India, giving a ratio of 1 to 7,000 of the population. Even with the increased number of medical colleges and the consequent increase in admissions, we do not expect to have more than 2,000 newly qualified medical men a year—a totally inadequate

*A paper read in Section A at the First World Conference on Medical Education, London, 1953.

quate number for our population. This contrasts with 6,082 graduations during 1952 in the United States, whose population is half that of ours.

One of India's imperative national needs is for a much larger number of qualified medical men, but owing to financial stringency we cannot afford to increase the number of medical colleges for many years to come. Many more students would like to take up the career of medicine, as is shown by the number who apply for admission. At Lucknow, for 125 vacancies, we have 1,100 to 1,200 applicants, so that less than 10% of applicants can be admitted. More or less the same figures can be quoted for other medical colleges.

Faults in Present Methods

It is the opinion of many of us (and I have discussed this subject with many colleagues at my own college as well as from other institutions all over India, and also with a number of students) that our present method of selection is unsatisfactory. By depending almost entirely on their scholastic achievements, or rather on their capacity to do well in certain written tests, we find that a number of unsuitable students gain admission, thus excluding others who might have been better fitted temperamentally for the arduous duties of a medical man. The very high failure rates in the examinations are another source of anxiety to us. There are many causes for this, but an important one appears to be that by our present method of selection we get many entrants who are temperamentally unfitted to be medical students, even though they have done well in the competitive pre-medical test.

We feel that, in addition to a written test, there should be some sort of psychological screening, including aptitude tests, which would enable us to obtain better material. Various psychological methods are being devised and practised in certain teaching institutions in Britain and America, and it would be of interest to us to know about these methods and whether their use has led to the selection of better student material.

Finally, many of us feel that an age of admission of 17 years is too low, and that this should be raised to 18 or 19. This will enable students to put in at least one year at the university and make them more mature. It is also felt that the present premedical education is too narrow and that greater stress should be laid on students being given a more liberal education.

SELECTION OF STUDENTS IN THE PHILIPPINES*

BY

MANUEL D. PEÑAS

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If we were to state the aims or objectives of undergraduate medical education it would give us a pretty fair picture of the type of student that is best qualified to undertake the study. In simplest terms, undergraduate medical education is designed to establish within the medical student a formidable or solid foundation for his future development. It is not the purpose of undergraduate medical education to present the complete, systematic, detailed body of knowledge in every discipline. What is important is to stress the acquisition of fundamental principals which the student may employ in his approach to every subject or to the entire sum of medical knowledge. It must also promote the development in the student of the capacity for the

logical assessment of facts and problems coupled with the ability to secure critical judgment based upon evidence and experience. He must further be able to apply these basic principles and critical judgment to actual problems he may meet in health and in disease. It is also desirable that during this phase of his professional training the student should be encouraged to develop an appreciation and a desire for continued medical education—realizing that graduation merely brings to a close that phase in which he is taught how to study effectively.

The implementation of these objectives is usually guaranteed by: (1) giving the student, not an encyclopaedic mass of material, but the requisite basis of professional knowledge; (2) helping him develop habits promoting a sound critical attitude, with love for method, thoroughness, and accuracy; (3) helping him develop technical skills in the clinics and laboratory, with the capacity to correlate and integrate the information that he may gather; and (4) helping him develop understanding of his surroundings, professional and ethical principles, and a sympathetic comprehension of the doctor-patient relationship.

The Prospective Student

What type of student, then, shall be admitted to the formal study of medicine? What soil must be selected to nurture these seeds of medical education? During these last few days we have been privileged to hear distinguished colleagues from many countries describe and expound the qualities that should be looked for in a prospective entrant into a medical college.

The consensus of opinion to which we personally subscribe is that:

1. He should have a clear idea of what he is after; he must, in other words, have a clear objective in his mind that will guide him in his days as an undergraduate, a house officer, and finally as a practitioner. Needless to say, his motives must be proper.
2. He must be broadly educated in the humanities, with a better regard and preference for human biology probably than for the biology of lower animal life.
3. He must be cultured, naturally with an appreciation of language and literature, with insight and understanding, with a logical trend of mind, and at the same time fired with enthusiasm to serve the individual, family, and country.
4. At the same time he should be thoroughly drilled in the principles of science as a necessary prerequisite for the comprehension of the medical sciences. In other words, he must have a "hard core" of scientific knowledge for the understanding of the more technical subjects in the medical curriculum. We must caution him, however, and urge him to be more familiar with the place and role of these scientific subjects in his education and to avoid becoming a mere repository of a mass—or mess—of unrelated details.
5. He not only should take pains to develop his personality, but must also be imbued with a high sense of duty, love of work and responsibility. Great emphasis should also be placed upon his emotional stability.

Some of these qualities are measurable, others are not. It is really with sympathy and understanding that we should view the problems and great responsibility of selection boards of screening committees. It is true that the academic records of the student, coupled with aptitude testing and favourable personality quotients obtained at interviews, will fill the greater part of the available places in the medical schools. But the real problem lies, as emphasized by Dr. Weaver, in the "borderline cases." It becomes most taxing to undertake the great responsibility of assessing their capabilities. There is really great danger that a student with real potentialities which are as yet undeveloped may be

*A paper read in Section A at the First World Conference on Medical Education, London, 1953.