far from being a perfect instrument for assessing personality and traits of character. A number of nervous candidates may fail to do themselves justice; and a few who will make bad doctors because of emotional hardness or aggressiveness or a simple inability to play their part in the pupil-teacher relationship may manage to conceal these undesirable traits in the 20 minutes during which they are before the board. To overcome these difficulties Johnson (1952), of University College, London, has suggested adding group discussions to the interview. I have no personal experience of this method, but it appears to be an attractive supplement and not to absorb an impossible amount of time.

The Third Stage.—The third stage of selection is more open to controversy, and yet it seems to me to play a not less important part in the procedure than the rest. This stage of prolonged observation may be said to occupy the whole of the first year and to culminate in the university examination taken at the end of that time in the elementary sciences—chemistry, physics, and biology. In the medical schools of the University of London it therefore involves only those students who have entered at what is called the premedical or First M.B. level. These are nearly always students who have joined direct from school—a group peculiarly apt to be thrown off balance by the easier discipline of a university curriculum and the unaccustomed distractions of living in a great city without supervision except during the hours of work. On joining as students they are informed that, although a failure in any part of the examination at the end of their first year will automatically mean that they cease to be members of the school, freshmen so often have difficulty with the change of academic discipline that the lecturers are ready to give special individual help throughout the year to any who request it. They are also told that preliminary class examinations will be held in the three subjects half-way through the year, to enable progress to be judged, and that these examinations are just as compulsory as the public university examination at the end of the year.

Experience has shown that a student who fails the premedical examination seldom avoids worse trouble with the later preclinical and clinical examinations, whereas those who have obtained exemption from the premedical examination and who enter at preclinical level (anatomy and physiology) usually pass their subsequent examinations without difficulty. If a student has to leave the school on academic grounds, it is proper that this should be done at the first available opportunity—that is, at the end of his first year—and that his place should be taken by one of the many other applicants to-day desiring to receive training as doctors. The objection that in accepting a student the school owes him the duty of getting him through his examinations takes no account of the fact that it is impossible to make more than an informed guess at the academic suitability of any candidate, even with the most painstaking selection procedure. Moreover, an accepted student must to-day be deemed to be aware of the need to show that he is worthy of keeping the place which he has won in the face of great competition. Elimination during the third stage may perhaps account for 15 to 20% of the premedical entry.

REFERENCES

- Aitken, J. T., and Johnson, M. L. (1952). *Lancet*, 2, 409.
Harris, A. D. (1948). *Ibid.*, 2, 317.
Johnson, M. L. (1952). *Ibid.*, 2, 876.

Regular visits to the homes of patients are the basis of a course of social and environmental medicine required of all students at the Vanderbilt University School of Medicine, Nashville, U.S.A. The idea is to impress on the students the importance of social and emotional factors in medicine, and the need to understand people as well as acquire scientific knowledge. The course is described in the August issue of the *Journal of Medical Education* by Dr. JOHN B. YOUNG, the dean, and MARIAN E. RUSSELL, professor of medical social service at the school. The student acts as family health adviser to selected families during his four years' course.

SELECTION OF STUDENTS IN CANADA*

BY

M. M. WEAVER, M.D., M.S., Ph.D.

Dean of the Faculty of Medicine, University of British Columbia

The entrance requirements of the twelve Faculties of Medicine in Canada are quite uniform and are much the same as those in the United States. Applicants for admission must have completed the twelve elementary grades and, in addition, must have obtained credit for at least three years of work in a college or university.† In certain Canadian institutions two of the three "pre-medical" years are completed while the student is registered in the faculty of medicine.

Premedical Requirements

The premedical curriculum at the University of British Columbia was developed before the establishment of a medical school in Vancouver. Since it was designed in such a manner that those who completed it successfully could meet the entrance requirements of any faculty of medicine in Canada its content may be examined with interest. Included in the course of study are two years of English, one year of mathematics, three years of chemistry, two years of physics, and three years of biology and zoology.

It will be noted that about one-half of the basic or minimal premedical course thus outlined is devoted to the natural sciences. The required courses in English and mathematics reduce the student's options somewhat further. It is usually advised that elective premedical courses be selected to conform with the language and other requirements for a bachelor degree; this is in case the student is not accepted by a medical school. When this advice is followed, two years of a language other than English will usually be added to the premedical student's curriculum.

Such a preparation for the study of medicine cannot produce the "variety of educational backgrounds" which might be advantageous when the future of the profession is considered. The medical schools in Canada believe that a broad general education should underlie the medical course, but none feels that this can be provided in the time which a goodly proportion of the premedical students are prepared to devote to this phase of their education. It is to some extent a corrective measure that Canadian medical schools give preference, within the limits of good scholarship, to the applicant who possesses a bachelor's degree. Such candidates for admission will have at least four years of preparation beyond junior matriculation, or three years of college work beyond senior matriculation.

Where a premedical student is judged to have sufficient ability to complete the medical course successfully, and he elects or is required to spend a fourth year in the Faculty of Arts and Sciences, experience has shown that he must be warned emphatically not to anticipate medical-school courses in bacteriology, biochemistry, histology, or physiology. Such counselling carries with it a serious responsibility, because it is not the intention to discourage the students with more outstanding ability from pursuing honours courses in the sciences.

Most of the medical schools in Canada require a premedical average of 65% (second-class honours). Contrary to the situation in the immediate post-war years, there is not at present any observable surplus of applicants with such an average. Increasingly, the screening committees in our medical schools find themselves concerned with the "borderline

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

†Senior matriculation may count as one of these premedical years.

applicant." In making selections from among such marginal candidates the selection committees find their wisdom taxed to the utmost.

Under present conditions from two-thirds to three-fourths of the places in a new class can be awarded on the basis of demonstrated ability as judged by the scholastic record, aptitude tests, personal references, and interviews. In the case of a student of very marked scholastic ability, this tends to outweigh nearly all other factors involved, including residence, financial resources, and outstanding achievements in extracurricular activities. This situation is not unique to Canada, as I feel sure most participants in the Conference will agree. However, most of us must be in agreement, also, that serious risks are involved in following this practice.

The Borderline Applicant

It is not my intention to devote time to the deliberations which are characteristic of a screening committee when it is dealing with applicants of superior, or even definitely acceptable, abilities. It is the borderline applicants who require the most study before selections are made. The situation is related to the restriction upon sizes of entering classes in the medical schools of Canada.

The borderline applicant falls into that category because, in the first place, he is likely to be undistinguished in his

academic record. However, he would not be eligible for consideration at all were it not for some redeeming features about his scholastic record. Screening committees are at all times alert for inconsistencies in student transcripts which are presented to them. It is a danger signal when such a transcript reveals relatively good grades alternating with failures and make-up examinations. It is a responsibility of the selection committee to identify those applicants of real ability who may have made a mediocre start in the university for one reason or another, but who have redeemed their right to consideration by superior performance later on. Favourable consideration is more likely to be given in cases where there has been steady and noteworthy improvement over three or four years than in cases where scholarship has deteriorated after a promising beginning. Obviously the transcripts of individuals with almost completely opposite scholastic traits may be indistinguishable without detailed scrutiny. In Canadian medical schools it is not unusual to have 10% or more of an entering class made up of candidates who have been denied admission on one or more occasions, pending proof through additional university work that they possess the ability and motivation required to pursue the medical course.

Place of birth and legal residence are considered by all Canadian medical schools in their selection of entering

CONFIDENTIAL PERSONAL ASSESSMENT

Confidential

Assessment of:

How TO USE THIS FORM:

By:

1. Select ONE suitable description in each section.
2. Cross over it with an "X."
3. Write additional remarks in the spaces provided.

1. How long, and in what connexion, have you known the applicant?

5. Some people are able to speak engagingly and communicate ideas clearly and readily. At the other extreme are persons whose speech is halting and very ineffectual. In between are varying degrees of ability of expression. Consider the person you are assessing in comparison with others.

Speech defect or irritating manner	Below average	Does as well as most	Better than average	Outstanding	Very poor but normal speech
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REMARKS:

2. Some persons have distinct talents for leadership. They are expected to take the lead in any enterprise that may be started. At the other extreme are persons who are content to be followers and are never asked to head up any sort of project. In between are persons of varying leadership ability. Based on your observations and on hearsay, place an "X" over the appropriate rating for this individual.

Distinctly a follower	Active, but a follower	Average	Very often a leader	Outstanding as a leader	No opportunity to observe
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REMARKS:

6. Some persons arouse the greatest confidence in others and are regarded as trustworthy in any situation. At the other extreme is the unreliable person who is never depended upon. Rate this person from your own experience and from reputation.

Undependable	Often found undependable	As reliable as most	Reputation for dependability	Most highly respected	No opportunity to observe
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REMARKS:

3. Some persons are independent and creative in their thinking. They have "ideas of their own"; they analyse and interpret, invent, write, propose ways of doing things. Others are not original in this fashion, but seek to know how things are done by others. Based on what you have seen or heard, indicate your assessment of this person.

Not original	Tends to depend on others	Original as most people	More original than average	Unusually original in thought	No opportunity to observe
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REMARKS:

7. Some persons are highly co-operative and helpful. They go out of their way to be of service to others. At the other extreme are persons who are self-centred and who never volunteer their help to anyone. In between are those who are helpful under certain circumstances. Consider this person in comparison with others.

Extremely self-centred	Rarely gives aid freely	As helpful as the average	Helpful and co-operative	Generous to a fault	No opportunity to observe
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REMARKS:

4. Some persons are quite generally pleasing to their fellows. This distinctly agreeable personality is welcome in all circles, is invited out, and has a large number of acquaintances. Others make an unfortunate impression on most people. The unpopular personality is frequently neglected, if not positively shunned. Estimate this person.

Impresses many unfavourably	Not as popular as most	Average popularity	Popularity above average	One of the best liked persons	No opportunity to observe
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REMARKS:

8. Please write additional comments below. You may wish to elaborate on your remarks in the above sections. You might like to comment on other personality traits or refer to some significant events in the life of this person. If there is not enough space, please add another sheet. All information that you give us will be dealt with confidentially.

.....
Date

.....
Signature

students. Some of the faculties of medicine restrict admissions to native-born applicants. Privately endowed medical schools are more lenient in this matter than tax-supported institutions. In borderline cases the non-residents are usually eliminated.

Medical schools in Canada take into account the ages of applicants, being reluctant, or refusing completely, to accept into the final four years in medicine any individual who is less than 19 or more than 30 years old. Furthermore, screening committees are prone to postpone admission of bright young students who are immature in other respects than scholarship. This policy is followed in the conviction that an additional year or more of college or university will not only contribute substantially to the applicant's general education, but make him a more competent student when he is admitted to the medical course. Candidates over 30 years of age are usually rejected because, even if graduated in due course, they will have proportionately fewer years to devote to the practice of medicine.

Lack of emotional stability or some other personality disorder may be a determining factor in the rejection of a borderline applicant. Unfortunately the assessment of the personality pattern does not seem at present to enter as prominently as it should into the selection of students with outstanding scholastic records. Perhaps this is because of the lack of a dependable technique for making this sort of judgment. Screening committees are alert, however, to obtain clues which turn up in personal recommendations or are obtained from other sources. An effort is usually made to have a psychiatrist serve as a member of the screening committee.

Final choices from among borderline applicants depend a good deal upon interviews with the selection committee. Here a careful appraisal is made of the conditions under which these applicants have completed their premedical courses. Family background is inquired into, as well as financial resources and obligations. This latter is particularly important in our experience, because in recent years it has been quite apparent that the medical course should be a full-time occupation for any but the exceptional applicant.

Other situational and personal factors which it has been found helpful to discuss with borderline applicants include health and physical adequacy for the medical course, reading habits, the applicants' reasons for wishing to become physicians, and their intentions with regard to their medical careers if accepted into the school and graduated.

Personal Reference

I wish to devote my remaining time to a consideration of the possible value which may be obtained from personal references. As was stated by the Vice-President of this Conference, Dr. Victor Johnson, when he addressed the American Association for the Advancement of Science in 1944 on the "Requirements for Entry into Medical Schools," the broad objectives of any educational programme can be stated if we define the product which we seek to turn out. I endorse Dr. Johnson's elaboration of this statement to the effect that we are seeking to select and train future physicians who will be good citizens, equipped with the knowledge and skills required in the practice of modern scientific medicine. We are seeking individuals with intellectual curiosity who will be lifelong students and who, perchance, may make their individual contributions through original investigations. Finally, we wish to select as medical students young men and women who have, or will develop, a strong social consciousness.

In trying to devise some means for judging the potential or proved attributes of applicants to our medical school in British Columbia we have felt we would like to obtain all possible assistance from persons who know the candidate well. However, it has been our experience and that of others that ordinary requests for letters of recommendation do not bring forth the information desired. In order to explain what is wanted to these well-intentioned people and to be

able to deal quantitatively with the information provided the accompanying questionnaire has been developed. Replies made to the first seven questions are graded as shown. An average numerical grade can then be given for the complete personal assessment. If these questionnaires served no other purpose, they would be amply rewarding in our experience because of the critical comments usually forthcoming under Item 8.

In conclusion, I feel it should be stressed that the medical schools of Canada are deeply concerned to select entering medical students of integrity and intelligence who have mastered to a satisfactory degree the basic concepts in chemistry, physics, mathematics, and biology. These must continue to be the foundation stones upon which the study of medicine rests. Our objective, also, is to select students with the broadest liberal or general education it is possible to achieve in the time available. We, along with many others, are seeking for ways in which the principal educational values of the previous four-year premedical course can be condensed into a three-year programme. We are hopeful, although not entirely optimistic, that this may be accomplished through improvement in the quality of instruction and elimination of non-essentials from the curriculum of premedical students.

SELECTION OF STUDENTS IN AUSTRALIA*

BY

S. SUNDERLAND, M.D., F.R.A.C.P.

Professor of Anatomy, University of Melbourne

The Melbourne Medical School, which I represent, is the sole Australian school limiting entry, and this practice has been in operation only for about ten years. Dr. Severinghaus has with great care outlined the present status of selection in one school in the United States, with particular reference to the value of the confidential report and personal interview. My object is to present another point of view.

In Melbourne there is general and strong opposition to limitation of entry, though we, like so many others, are compelled to practise it because of inadequate accommodation, staff, and facilities. Our opposition is based on the following points:

1. Limitation imposes too early an emphasis on the competitive aspects of academic life. This is undesirable because (a) it restricts the outlook and early training of the student; (b) good material often reacts unfavourably under this type of pressure; (c) it leads to premature and over-specialization during the early educational period.

2. There are no tests of infallible predictable value on which selection can safely be based. Regardless of the selection technique employed, some good students will be excluded and some very poor ones accepted. Injustices of this kind are inevitable and much good material may be lost as a consequence. There is the additional danger that attempts to justify the selection of any group may lead to a deterioration rather than to a strengthening of standards. Thus a high failure-rate among a "carefully" selected group must reflect on either the selection committee or the teaching or both. This is always a source of embarrassment, which, if not honestly and courageously faced, can be resolved only by adopting the attitude that, since both the selection and the teaching are above reproach, all students must pass; and it has even been suggested that under these conditions examinations are no longer necessary.

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