

## SELECTION OF FUTURE DOCTORS

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When the higher school certificate and matriculation examinations results are announced, many of the best and the brightest will opt to do Medicine. In recent years, complaints have not been uncommon whenever there are more academically qualified applicants than places available in the public universities.

The fact that five or more cases of doctors with mental illness are referred monthly to the Malaysian Medical Council has stimulated debate. Some of the responses downplay its significance. Others attribute it to the work conditions of junior doctors. Others draw attention to patient safety problems that have arisen. Whatever the reasons, it must surely be of concern to every potential patient, and that includes everyone in the population, that there are mentally ill doctors practising.

Many factors influence the choice of students to do Medicine. Some have altruistic reasons. Others are influenced by the media and/or their peers. Some others are pressured into doing so by their parents or family.

Are the right students going into Medicine? Do academic qualifications suffice? What about aptitude and what tests are available? What practices are available in the selection of our future doctors? What is done about mentally ill students? These are few pertinent questions that have to be addressed urgently before there is significant impact on patient safety.

### **Role of doctors**

The practice of Medicine has changed much since the end of World War II and continues to change. These changes have resulted from several factors including the growth of consumerism, advances in information technology, challenges to authority, changing nature of illness and changes in the medical profession itself.

Since time immemorial, the traditional role of doctors is that of a healer, which primarily involves diagnosis and treatment. Doctors have to apply their knowledge and skills to integrate information from various sources to arrive at the most probable diagnosis and then, identify, advise and institute the appropriate treatment(s). This is done after taking into consideration the patient's individual circumstances and preferences.

In addition, doctors have to discuss and explain the benefits, risks and uncertainties of the proposed treatment(s) with their patients. To do this effectively, they have to possess communication skills. Doctors also have to provide support to patients in understanding their condition(s) and advise them, when relevant, in decisions about their own care. With the exponential growth of knowledge and consequent specialization, hospital doctors almost invariably have to work in teams.

### **Attributes of doctors**

All future doctors need to develop and possess the values, behaviours and relationships that would enable them to fulfill their responsibilities when they graduate. Although these values have been distilled over time, they are not substantially different from that of ancient times.

The core attributes of doctors include that of care, compassion, commitment, competence, confidentiality, integrity, an inquiring mind, responsibility and advocacy. Some individuals develop

these attributes like ducks take to water. Others take a longer time to develop the attributes but they still make it. Yet there are others who find the development of these attributes difficult and if they do graduate, and some do, they may become the outliers in the profession, with some of them contributing to the headlines in the print and electronic media in many countries in recent times.

### **Having what it takes to be a doctor**

Medicine is challenging, exciting and vibrant. There are numerous discoveries and innovations which are impacting on medical practice, with exponential changes having occurred in the past five decades. The doctors who enter into the profession today and in the future will witness even more dramatic changes. New diagnostic and therapeutic modalities will transition from basic science research e.g. genetics, molecular biology, biochemistry and physics into clinical practice.

In spite of these advances, William Osler's statement that "*Medicine is a science of uncertainty and an art of probability*" is as pertinent today as it was about a century ago for "*Variability is the law of life, and as no two faces are the same, so no two bodies are alike, and no two individuals react alike and behave alike under the abnormal conditions which we know as disease.*"

All doctors have an opportunity to serve mankind in the numerous branches of Medicine which they are able to choose, depending on their personal aptitudes e.g. general practitioners (GPs) and most specialists have direct contact with patients, while some others prefer certain specialties, which involve less patient contact.

The practice of Medicine involves hard work and endurance at all levels, whether as a medical student, junior doctor, general practitioner or specialist. It also involves life-long learning. All successful clinicians will testify that they honed their skills from experiential learning. Hippocrates stated it succinctly two millennia ago "*The life so short, the craft so long to learn.*"

The more enthusiastic a person is, the more one will enjoy the practice of Medicine. When one goes home, one should feel that one has contributed to those in need of help.

All branches of Medicine are stressful and also have their share of monotony, but some are more diverse than others. Some jobs are more glamorous than others, but glamour and status can be capricious. Some doctors cope with stress better than others. However, all must expect to make decisions under pressure and to be able to do that, one has to be calm. To expect no stress in a demanding profession is tantamount to expecting the moon.

It is sad to read the occasional public comments from some doctors and their parents of their financial expectations after spending so much on medical education. The return on investment (ROI) in medical education cannot be measured in monetary terms. If one were to do that, the finance people would state that the ROI is poor. It is advisable for anyone who wants to get rich financially not to do Medicine but to go into business. Some doctors who realized that Medicine was not their vocation have done just that; some successfully and others much less so.

The returns from Medicine are in the joy and gratitude that one sees in patients' faces when they have been treated for their health problems, sometimes successfully but at all times, provided care. Such returns cannot be measured in monetary terms.

William Osler put it aptly when he stated "*The practice of Medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head. Often the best part of your work will have nothing to do with potions and powders, but with the exercise of an*

*influence of the strong upon the weak, of the righteous upon the wicked, of the wise upon the foolish."*

### **Guiding principles for admission of medical students**

At a conference organized by the Council of Heads of Medical Schools, guiding principles were formulated and endorsed by the medical profession and Department of Health of the United Kingdom. These principles, which were published in November 2006, are worth considering as the practice of Medicine is universal. They are:

- Selection for medical school implies selection for the medical profession
- The selection process attempts to identify the core academic and non-academic qualities of a doctor
- A high level of academic attainment will be expected.
- The practice of medicine requires the highest standards of professional and personal conduct.
- The practice of medicine requires the highest standards of professional competence.
- Candidates should demonstrate some understanding of what a career in medicine involves and their suitability for a caring profession.
- Medical schools have agreed that the selection process for medical students must be transparent, involve procedures that respect obligations under relevant diversity and equality legislation.
- The primary duty of care is to patients.
- Failure to declare information that has a material influence on a student's fitness to practise may lead to termination of their medical course.

### **Current selection by public universities**

The admission requirements are determined by the Ministry of Higher Education. They include a pass at SPM or equivalent with credit in Bahasa Malaysia, English, Science and Mathematics, and a pass at STPM or equivalent with at least Grade B in Chemistry and in any two additional subjects or a pass in Matriculation from any local universities or institutions recognized by the government with a minimum CGPA of 3.33 in Chemistry and in any two additional subjects.

Selection is based on STPM or matriculation only, Malaysian Universities English Test (MUET) and student intake numbers. Academic qualifications are the primary basis for entry. There is no assessment of the potential students' attitudes towards the study and practice of Medicine.

### **What others do**

Additional measures are taken by medical schools, both locally and abroad, to assess the aptitudes of potential students. Some require the potential students to pass an interview. Although interviews may be subjective, various steps have been taken to increase its objectivity.

The Medical College Admission Test (MCAT) has been part of the admission process in North America for more than sixty years. All medical schools in the United States and most in Canada require applicants to submit MCAT examination results. It is a standardized examination consisting of three multiple choice sections and a writing assessment. The objective is to test the skills and knowledge identified as prerequisites for success in medical schools and the practice of Medicine. It includes diverse sections like physical sciences, verbal reasoning, writing sample and biological sciences.

The majority of Australian medical schools have graduate entry programs to provide opportunities for a wide range of graduates who have made a mature decision to commit to a demanding profession. Admission is based on a bachelor's degree, a Graduate Australian Medical School Admission Test (GAMSAT) score and an interview. GAMSAT evaluates the mastery and use of basic science as well as general skills like problem solving, critical thinking and writing. There are three sections in the test that assess reasoning in the humanities and social science, written communication, and reasoning in biological and physical sciences.

The United Kingdom Clinical Aptitude Test (UKCAT) was introduced in 2006 because there was dissatisfaction that the A-level results were not an entirely appropriate way to select students for the clinical professions. The A-levels appeared increasingly to test the ability to learn facts rather than an aptitude for critical thinking and problem-solving, skills which every doctor needs. The majority of British universities consider UKCAT scores in the selection of medical students. However, the weightage given to the UKCAT score varies between universities. The test initially comprised four sections i.e. verbal reasoning, quantitative reasoning, abstract reasoning and decision analysis. Another section, introduced in 2007, appraises non-cognitive skills considered important in Medicine and Dentistry i.e. integrity, empathy and resilience.

In short, all the above measures, whatever their imperfections, assess aptitude as well, not just knowledge. Needless to say, the aptitude for a career in Medicine is just as important as knowledge, if not more important.

It is advisable for parents not to pressure their children to take up a course which they do not have an aptitude for. It is also necessary for counselors to consider students aptitudes when advising them for a career in Medicine.

### **Fitness to practise**

All doctors are bound by professionalism which has been well defined by the Royal College of Physicians of London as *"a set of values, behaviours and relationships that underpins the trust the public has in doctors."* In addition, doctors have to possess a certain level of health fitness to carry out their professional responsibilities.

The time in medical school provides opportunities for students to learn professional behaviour in settings that are safe for patients. At the same time, the medical schools have an opportunity to identify students with behaviours that are not considered safe and to take appropriate measures to help them improve. If this is impossible or unsuccessful, medical schools have to ensure that such individuals do not graduate as doctors.

It is well known that stress can precipitate certain mental illnesses which would otherwise remain undetected in less stressful situations.

The Malaysian Medical Council has mechanisms in place to investigate concerns about a doctor's health. These health assessments may form part of a wider investigation into a doctor's fitness to practise.

However, the mechanisms for the assessment of medical students' health in our country, particularly mental health, are less robust and more variable. Students who have difficulty coping in medical school are less likely to be able to cope with the stressful demands of clinical practice. There is a particular need for all medical schools to be more cognizant of students with mental health difficulties, to provide appropriate advice and to redirect those who are considered unlikely to be

able to cope with the stress of medical practice to other courses more suited to their temperament and aptitude.

Medical schools need to give immediate effect to the President's call to strengthen their admission process as well as ensure that their graduates are able to practise safely. It is difficult to justify the current practice of relying solely on academic qualifications for entry into Medicine. It is crucial that the appraisal of students' suitability for a caring profession be an integral component of the admission process. In this respect, aptitude assessment would play an important role.

## **Conclusions**

Potential medical students have to ask themselves whether they have an aptitude for Medicine. Their parents and counselors also need to ask the same question. The taking of one of the aptitude tests mentioned above may assist in decision-making. Students, parents and counselors have to remember that it requires more than academic qualifications to make a doctor.

Hippocrates' statement "*Whenever a doctor cannot do good, he must be kept from doing harm*" is more relevant today than two millennia ago. The phrase "and medical student" needs to be added to Hippocrates' statement. Measures need to be taken with the necessary vigour to ensure that patient safety is not compromised.