

# **EDITORIAL: REORIENTATION OF MEDICAL EDUCATION FOR PRIMARY HEALTH CARE**

## **INTRODUCTION**

There is universal concern on the current inequitable coverage and low quality of health care. The lead roles of medical practitioners in health care and how they are prepared for such roles are being re-examined in many countries. This paper attempts to rationalise the need to reorientate medical education towards primary health care, and to suggest possible emphasis and direction for change.

## **SHORTFALLS IN THE PROVISION OF HEALTH CARE**

In many countries, health programmes continue to be low in level and quality and uneven in coverage though effective medical technologies are readily available. In many parts of the world, health services have not reached the rural or urban poor, or services are grossly inadequate or unreliable. There is imbalance between curative and preventive programmes. Health problems which can be controlled or prevented still persist.

A number of factors may have contributed to the current situation.

### **Lack of resources**

Lack of national resources is an obvious cause for poor health care in many developing countries. Political instability or extensive natural disasters may make the situation worse.

### **Irrational use of resources**

Available resources are sometimes dissipated because of wrong policies, strategies or priorities, or simply because of a lack of political commitment. High cost, high technology curative medicine is often developed for a relatively small

urban-based population at the expense of much needed basic care for a much bigger rural community. There is imbalance between curative and preventive programmes, whilst abundant community resources remain largely untapped.

### **Poor management**

Many health services perform poorly because of weak management or inappropriate organization of programmes. Poor definition of objectives, ambiguous roles and functions, inadequate knowledge and skill among workers, lack of coordination and motivation, inappropriate utilization of resources and ineffective supervision and monitoring can all contribute towards programme shortfalls.

### **Dominance of medical technologies**

Modern medicine has definitely improved the prospect for better diagnosis and treatment, but in the process we have unconsciously made the public over-dependent on medicine to stay healthy. This dominance of medical technologies in health matters has two undesirable effects on the public.

The catch phrase "Partners in Health" appears to have lost its significance and relevance. The medical profession, armed with the latest equipment and drugs, moves in to occupy the centre stage, whilst the bewildered public choose the easy way out and withdraw, and surrender the responsibility for their own health to doctors and nurses.

Secondly, disciplines and sectors which are relevant to health are inadequately involved in or committed to health maintenance and promotion programmes. For example, when there is a malnutrition problem, the medical department

will be busy detecting and treating cases, but there appears to be insufficient action to resolve the basic problem of poverty or availability of foods. Similarly, when there is an outbreak of water-borne diseases, e.g. typhoid or cholera, the urgency to overcome the water problem does not seem to be there.

### **The perception of the medical profession**

What the perception of the medical profession is with regard to its role in health care is critical for a number of reasons.

Firstly, it will decide how individual members of the profession will run his practice. If he uses the "disease-cure" model, his focus will be on "cure" rather than "care". His practice is highly "disease-centred", and his patient becomes a mere object of observation and measurement. He is not interested in what precedes the illness nor in matters beyond the organic pathology of his patient.

Secondly, the medical profession has a strong lobbying potential. This is because of the high standing which the profession enjoys in society as well as the frequent opportunities which the profession has of influencing public opinion and that of high level decision-makers.

Thirdly, high level planners and managers in the health sector are themselves frequently practitioners. Their decisions will determine the type and quality of health programmes.

Fourthly, a substantial proportion of the cost of health care can be attributed to the decisions of doctors. Their ability to choose the right investigations, procedures, equipment or drugs has a direct bearing on health care costs.

Finally, the medical profession, like any other profession, establishes its own value systems which govern practices by its members. The role the profession plays in providing medical care and how it responds to the community's needs and expectations are influenced by such value systems.

From the above, it is quite clear that the medical profession plays a decisive role in determining the pattern, accessibility and quality of medical care. How the medical profession is being prepared for this critical role is being questioned.

### **THE PATIENT-DOCTOR RELATIONSHIP: A SOCIAL CONTRACT**

In considering the appropriateness and effectiveness of health care, it is important to remember that the relationship between a patient and his doctor is a form of contract. But unlike other contracts, it is unwritten and its specifications assumed understood by both parties. In reality, however, it is a one-sided relationship. The doctor, having the advantage of knowledge and skill, lays down practically all its terms and conditions. The patient, not having similar mastery, and overawed by medical jargon that he cannot understand or medical paraphernalia that he is not familiar with, merely becomes a passive and unquestioning recipient. The doctor will quite naturally proceed according to his personal and professional bias. He may cure the disease but fail to treat the patient.

The existence of this unwritten contract is realised only when a doctor, through his action or omission, is sued by his patient for negligence. But negligence is an extreme form of contract non-fulfillment and can be difficult to prove in a court of law. Nor is the court proceeding a pleasant experience to either party. It is in the interest of both the profession and the public that the terms and conditions of the patient-doctor relationship are adequately understood and appreciated.

Notionally, these terms and conditions should include the following: prompt and personal services; minimum cost; minimum investigations, procedures and drugs; a lot of kindness, sympathy and regard for emotions and spirit; use of technologies which are effective, safe and acceptable; quick and full recovery; complete explanation of illness, treatment and of relationship; due consideration to family and community; advice on recurrence or similar occurrence in family members or the community; confidentiality; comprehensive contract as far as possible i.e., minimum sub-contract or referral.

If these are indeed the expectations of patients in general, the current bias towards the disease-cure model in medical education and medical practice is obviously out of place. "Caring" is as important as "curing". Some basic

changes in medical education are necessary to restore the balance between cure and care.

Such words and phrases as "de-humanising", "de-personalising", "disabling", "inadequately humanistic", "disease model basis" and other similar uncomplementary terms are being used both within and outside the profession to describe the current trend in medical care. Clearly there is a case for the profession to answer.

### **"HEALTH FOR ALL" STRATEGY AND THE MEDICAL PROFESSION**

If "Health of All" is the goal, doctors must have the competence to practise primary health care at the community level. They must be able to meet society's expectations, educate the public, promote self-reliance, relate effectively with other professions and sectors, work in underserved areas and for disadvantaged groups, and involve themselves actively with community activities. They should be interested and active not only in curative medicine but also in disease prevention and health promotion. They should be able to meet the health needs of the community and the individual by applying medical knowledge and skill not only scientifically but also with feeling and a high degree of sensitiveness to people's values and emotion.

The inappropriate training of health personnel has been recognised as one of the most important causes of weaknesses of many health services. When doctors find it hard to adapt to the type of work expected of them when they are unwilling to work in rural areas, or when their education creates a wide communication gap between them, other health workers and the public, one cannot help but join the strident chorus of call for a revamping of medical education. When licensed practitioners are unable to deliver the goods or oppose others from doing so on the grounds that medical care is too complex or too dangerous to be relegated to less qualified or differently trained people, a credibility gap exists.

The resurgence of traditional medicine and the frequent call for a more humanistic approach in medical care constitute an oblique criticism of the current system and a tacit expression of disenchantment and disillusion with what it now

stands for. If the medical profession is to continue to play a leading role in medical care, then it must be able to adjust to a new tempo and scenario and perhaps to an expanded cast of other performers.

It would be wrong however to put the entire blame for the current deficiencies on medical education. Other causes would include wrong choices and approaches, inadequate resources, inappropriate organization and structure of health services, and even technical and managerial weaknesses. If the stage is uneven and the music discordant, one cannot expect much even from the most accomplished dancer. The objectives, organization and management of the health care system must therefore be able to facilitate and accommodate the desired practices. These two factors i.e., medical education and health programmes must be compatible and move together in step towards the common goal.

### **A RATIONAL APPROACH TOWARDS MEDICAL EDUCATION**

Rationally speaking, a review of medical education must start with an analysis of roles and functions of doctors and others in the health system. This can be done only if one takes another step backwards and consider factors which determine health problems, programme objectives, strategies, and the organization and structure of health services.

In most developing countries, the major health problems are closely linked to poverty, poor sanitation and public hygiene, inadequate foods or improper food habits, ignorance, and unhealthy customs, beliefs and practices. Preventable or controllable infectious diseases are widely endemic, breaking out now and again into epidemic proportions. Reinfection is common. Most developing countries also have high birth rates. Children and mothers constitute special high-risk groups.

The health problems of developed countries, on the other hand, are more related to an ageing population, man-made pollution, the stresses and strains of modern living, self-chosen habits and practices and various types of excesses. The disease pattern is dominated by geriatric

problems, cancers, metabolic diseases, accidents, conditions related to alcoholism and drug misuse, psychiatric problems and others associated with urban living.

Public expectations also differ. In less developed communities, minor ill-health may not be recognised or may even be tolerated. For example, many diseases of childhood are considered as part of the growing process, and hence treated lightly unless serious complications arise. With their high standard of living and education, more developed communities on the other hand, have a different perception of health and disease. They are more aware of illness and take them more seriously, although they may knowingly take risks. They make greater demands on health services and expect a higher standard of health care.

Although the health problems of developing and developed countries appear to be different, this difference is only in terms of extent. The urban-based populations of developing countries do face health problems similar to those of developed countries, and many developed countries do have peri-urban slums and shanty towns. What is actually seen is a spectrum of health problems which changes in type and intensity, not only over time but also in space as one moves from one area to another. Medical education, however, must recognise the dominant health problems so that the proper emphasis is given in medical education.

Based on its priorities, programme objectives and strategies, and the resources at its disposal, a country would adopt the most appropriate organizational structure for its health services. Certain important features of these objectives, strategies and structure have a bearing on medical education.

Firstly is the relative emphasis between preventive and curative services, and the extent of involvement of non-medical disciplines and sectors in health maintenance and promotion.

Secondly is the extent to which health programmes and activities are integrated. Integration may be essentially organizational, in the sense that services are provided under one roof but by

different staff. On the other hand, a single worker may perform many functions.

Thirdly is the staffing mix, particularly the extent to which paramedical staff are used. Many developing countries use paramedical personnel extensively as doctor substitutes or doctor assistants. The role of the doctor when he works alone is different from his role when he works as a team leader.

Fourthly is the role doctors are expected to play. In addition to their traditional role in the diagnosis and treatment of diseases, it is increasingly realised that doctors must also be managers, teachers, counsellors and leaders in the community. If they are to perform these functions effectively, they must be adequately prepared and appropriately orientated.

Fifthly is institutional versus community-based care. Many programmes now emphasise community-based care, day-care centres, day surgeries and early hospital discharges. This is to minimise hospital admission and long stay in hospitals.

Finally is the pattern of structure of the health services itself. Many developing countries have adopted a hierarchical system of medical and health institutions in which the smallest, most peripheral centre provides basic services whilst the most central and complex are equipped to deliver highly sophisticated services.

The above-mentioned features should be taken into account when planning and implementing medical education because they determine the type of competence that should be acquired by students. It can also be concluded that in medical education, relevance is not enough. Equally important is the appropriateness of medical knowledge and skill to the context of local medical practice. Another unavoidable conclusion is that there cannot be international standards in medical education.

## **PROPOSED CHANGES IN MEDICAL EDUCATION**

Looking at the problem as it now stands, the desired reorientation of medical education can

only be achieved by reviewing its objectives, structure and processes.

## Objectives

In one university, the main objectives of its medical course are stated to be the acquisition by the student of knowledge of the sciences forming the basis of medicine, understanding of the scientific methods, and understanding of man in health and disease, and his physical and social environment. Another university states that the aim of its medical undergraduate course is to ensure that the student is able to use the knowledge of basic and clinical sciences in approaching and solving medical problems. The first institution emphasises the acquisition of knowledge, whereas the second rightly focuses on the development of competence to deal with health problems.

But both are considered too clinical and narrow in concept. The defect in the first is that the focus is on acquisition of knowledge rather than competence, whilst both fail to stress the objective that medical education will also prepare the graduate for effective health practices in the community which he serves. Some may argue that this latter objective of medical education can only be learnt through experience after graduation. But it is the contention of the writer that this latter objective is too important an area to be left to informal, voluntary learning.

A more comprehensive objective, expressed in general behavioural terms, could be that at the end of the course, the medical graduate should be able to: apply effectively appropriate techniques to promote health, prevent disease and cure or rehabilitate patients; deal with the family and community as well as the sick patient; deal with local health problems effectively; work effectively as a member of a health team; optimise the use of available resources; work within the local health practices; have an unbiased understanding of his role in the community, and to play that role effectively; undertake continuing professional improvement.

The difference between this and the two previously quoted objectives is that this new objective focuses not only on the acquisition of competence but also on factors which will make

the medical graduate a more effective and efficient practitioner.

## Structures for medical education

If we look at the structures for medical education, the most obvious features that come to mind are the system of institutions used for teaching, the teachers and students.

Teaching hospitals are generally tertiary institutions with bias towards specialist care. Medical faculties and teaching hospitals are organised by departments, and students are required to sit for departmental examinations. Although some form of coordinating mechanism may exist, to a large extent, they run independently.

Patients seen at these hospitals are biased samples. Learning experiences are restricted to the acute phase of the health-disease continuum within the hospital setting. This tendency is reinforced by the dominance of the disease model for medical care and the role models played by teachers. The discipline of public and preventive medicine is supposed to provide medical students with knowledge and skill in disease prevention and community-based care. But because of the low status often given to this discipline, the lack of its integration into the total educational process and the dominance of clinical teaching, the bias towards hospital-based medicine prevails.

Many have attempted to correct the present weakness by adopting district and other hospitals and even rural health centres as part of their teaching system. But even these sorties into the real world of medical care often fail because teaching continues to be segmented and departmentalized; and there is no total commitment from all concerned.

Some medical faculties have established a department or chair for primary health care. There are even courses in primary health care or so-called family medicine, the argument being that doctors, as they are now trained, are not fully equipped for this type of practice. The writer is yet to be convinced that these are the preferred lines of action or that these are all that are needed. For one thing, the mere establishment of a primary health care department or chair without corres-

pondering basic structural changes to the educational system will not be adequate to correct the present weakness. For another, can we afford the luxury of another few years of postgraduate training in primary health care in addition to the five or six years of undergraduate education before the new graduates can become really fully effective in the community? Or the question can be put in another way: **If they are not trained for primary health care, then for what are they being trained now?**

### **The medical curricula**

One frequent comment is that medical students are made to absorb ever increasing masses of information. The list of subject matters to be learnt keeps on growing as medical knowledge expands and specialization multiplies. There is enough competition for curricula time.

As long as the medical curriculum continues to be a mere listing of subjects to be covered departmentally without reference to specific learning objectives or desired level of competence or without due regard to inter-subject linkages, this age-old debate will go on. Medical students will continue to be over-loaded with masses of factual information, whilst examinations will continue to assess merely the ability of students to recall specific facts rather than their competence to apply basic principles in problem solution.

Clearly there is an urgent need to rationalise the medical curriculum, and to decide on what should be taught to undergraduates and what can be left to later years. The objective is to effect greater balance in medical education so that doctors will not only possess the required competence but will also be able to practise medicine effectively and efficiently. Since medical practice is so much culture and context-bound, such non-medical subjects as sociology, health economics, political science, ecology and management should be adequately taught to undergraduates.

Because a substantial proportion of health care cost can be attributed to the decisions of doctors, the need to instil cost awareness among them has never been greater. When the medical world is flooded with so-called improved technologies, new models, new generations or new drugs, the ability of doctors to discriminate correctly from

among a variety of possible choices is extremely important. It may not be too much to ask medical students to work out the total cost of investigating or treating patients. To be realistic, such costing should include cost of personnel, drugs, investigations and other overhead costs as well as cost incurred by patients in transportation and lost income. If they do this often enough, the message would have been driven home. They may be then less inclined to over-admit, over-investigate, over-treat or over-prescribe.

### **The learning experience**

There is a whole new science regarding the teaching-learning situation. Certain learning experiences are said to be more effective than others. But it is not the intention of the writer to go over these, but rather to focus on a number of issues which ought to be of concern to medical educators.

The first is regarding the use of course time. In a five-year medical education course, three years are normally set aside to the study of clinical medicine. If one considers the one year compulsory internship as a continuation of medical education, the total period for the study of clinical medicine is therefore four years. There is increasing concern among medical educators on how these four long years are spent. Some say too much time is taken up by routine manual tasks or hospital activities at the expense of learning how to deal with problems constructively. Others have questioned the extent of speciality training or speciality electives in relation to the primary objectives of undergraduate medical education.

The second relates to the acquisition of skill. Skills for medical practice can only be learnt through properly-planned practical training in a representative range of health problems encountered in their normal setting. Hospital cases are definitely not representative of health problems because they are usually acute serious cases, long standing illnesses which have not responded to other treatment or illnesses which have recurred. Teaching is heavily weighted towards the care of inpatients.

The reasons are obvious. Firstly, it is easier and more convenient to teach on inpatients. One can take one's own time to investigate, treat and

observe cases. Secondly, the departmentalised method of teaching requires that patients be classified and managed departmentally. Thirdly, teaching and exposure to a particular type of disease condition can be thorough.

What is often forgotten is that there are far more sick people outside than within the hospital. For every one inpatient admitted, there will be about ten others who are regarded by doctors as not serious enough to be brought in. Unfortunately, outpatient work is not of much interest to specialists. Even if students are posted to outpatient departments, the effectiveness of such exposure is doubtful, considering the inherent bias towards ward and departmentalized teaching.

Another important aspect of the learning experience is the role model projected by teachers. The viewpoints of teachers, their perception of medical care, how they handle cases, the relative emphasis they give to various aspects of a given problem, the standards that they insist on and even their style and mannerism will have a lasting impression on students. The need for teachers to play proper role models cannot be over-emphasised. The absence of a proper role model for primary health care practice among teachers is perhaps the biggest defect in the present medical education programme. What is needed is not just the setting up of a department for primary health care. Equally important is reorientation of all specialist departments and their staff towards primary health care.

Learning is said to be most effective through doing, less effective through demonstration or observation, but least effective through lectures in the classroom setting. The need for properly planned practical learning experiences in the normal setting has been emphasised earlier. If medical education is to be reorientated towards primary health care, students must have adequate learning experiences in community-based facilities to learn for real practitioners of primary health care. What is important is to ensure that such a posting is considered no less important than the traditional posting to various sections of the teaching hospital, and that such assignment is no less interesting or rewarding in terms of learning or results.

Most doctors learn to work with others, including those with whom they deal directly, only after finishing the medical course. Although the opportunity for team training and to learn the roles of other staff exists, medical education generally speaking, is highly egocentric. As a result, doctors are trained without fully appreciating the roles and functions of others. The important ability to work with others, and to realize their full potential and limitations can only be obtained through a purposeful, planned and interactive learning relationship. Since quality care, whether hospital or community-based, depends on effective teamwork, this sense of partnership and cooperation must be inculcated during undergraduate days.

## THE PROSPECT FOR CHANGE

Anyone attempting to change the pattern of medical education is likely to face resistance from many quarters. Medical faculty members would consider such an action an encroachment on well-established practices and a potential threat to academic autonomy and existing order. The medical fraternity may argue that it is only responding to market demand for curative services (very often of the high cost, high technology type), forgetting that some of those demands may have been induced directly or indirectly by the profession itself.

A study carried out in a number of developing countries had shown that the majority of medical students would give serving the community as one of the main reasons for choosing medicine as a career. But this idealism appears to evaporate as they progress in the medical course when financial consideration becomes more dominant. They seem to be influenced by what they see, and by the role models of those with whom they deal or come into contact. Reorientation of medical education towards primary health care would require changes in those role models, both among medical teachers and practitioners alike.

Apart from the question of professional norms, personal attitudes and expectations in medical education and later on in medical practice, another factor which will have a bearing on the prospect for change is the system of reward and recognition.

It appears that doctors engaged in health promotion, disease prevention or community-based practice are less rewarded or recognised both within and outside the profession. Their contribution seldom catches the public eye, nor does it appear in the equation for reward and recognition. This ideological bias, born and bred within the profession, has adversely influenced the attitude of the public, medical students and young doctors alike. To reverse this trend, primary health practitioners must demonstrate that primary health care practice is truly rewarding, and that worthwhile results can be attained. It must be shown that primary health care is as scientific in its methods and as stringent in its standards, and as professionally satisfying as secondary or tertiary medical care. To encourage medical faculties to orientate medical curricula to primary health care, perhaps it is necessary to give greater support to community-based research.

Reorientation of current medical education would require a thorough re-appraisal of its objectives, focus, structures and processes. This necessarily must be preceded by a change in attitudes among all concerned. One can enforce the desired change through legislation. Such a move is obviously unacceptable. The other method is through reasoning and rationalization. This is the objective of this paper.

Both the medical profession and medical faculties must come back to basic principles. Health programmes must truly respond to health needs. Medical education must in turn be compatible with health programmes. Divergence in objectives and emphasis will not help achieve the goal of "Health for All".

TAN SRI DATUK (DR) ABDUL KHALID BIN SAHAN  
Director-General of Health Malaysia