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REORIENTATION OF MEDICAL EDUCATION FOR COMMUNITY HEALTH SERVICES

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WHITHER medical education? This is a question exercising the minds of medical administrators and educationists, medical profession and the lay public alike in the country. With the increasing demands of the community for the improvement and extension of health services all over the country, reorientation of medical education has assumed wider significance. In the context of the democratic consciousness of social justice, emphasis on the preventive and promotive aspects of health in the place of the purely curative care, and the need to relate medical education to technological advance and to the conditions of the community have necessitated the reorientation of medical education so as to bring it in line with the needs of our people, the bulk of whom live in rural areas. A stage has been reached when a departure from its conventional pattern and content has become imperative.

COMMUNITY HEALTH: INTEGRATED STRUCTURE

The concept of comprehensive health care has formed the basis of national health programmes. Apart from the programmes for eradicating or controlling specific communicable diseases like malaria and smallpox, the core of it is the programme of establishing a network of primary health centres to cover the entire rural area of the country and supplementing it by hospital and referral specialist services within reasonable reach of the people. Supporting facilities by way of additional medical colleges, post-graduate institutes and advanced training in specific fields in India and abroad have been provided for. Considerable advance has been made on all these fronts. Nevertheless, the implementation of the programmes has led to certain distortions creating in some respects a hiatus between the objectives of the Health Plan and its actual impact on the people. For a fuller understanding of this situation and of the search for remedial measures, to ameliorate it, the problem needs to be stated in a broader perspective. Meanwhile, the rapid rise of population has added a new dimension to the problem of health planning in the country and to the responsibility devolving on the medical profession to play its due part in the national programme of Family Planning.

GROWTH WITH SOCIAL JUSTICE

The overall objective of our planning has been to raise the standard of living of the people, particularly the vast mass of the population living in rural areas. The function of health programmes is to ensure the physical and mental well-being of the people so as to raise their productive efficiency and capacity for enjoyment of a good life. Successive implementation of the Five-Year Plans and the ad hoc plans of three single years has brought about striking advances in many a field. One such achievement is the success of health measures in controlling or near eradication of malaria and smallpox, resulting in a steep fall in mortality. The longevity has gone up from 30 to 53 - the addition of one year to the average expectation of life for millions of our population for each year of Independence. Nevertheless, the distribution of the fruits of development has been unequal. Benefits have accrued relatively much less to those regions and sections of the mass of our population particularly in distant rural areas, who need to be assisted most. The extension of education, health and medical facilities to rural areas is painfully slow, with the result that the gap between the advantages accruing to those who are relatively well placed and to those who have lagged behind tends to widen. There is lately an awakening to reverse this trend. This is reflected in the recent directive of the Government to strive for "growth with social justice".

PRESENT POSITION OF MEDICAL EDUCATION

As observed earlier, medical education is among the programmes which have received much impetus since the commencement of the First Five-Year Plan. The number of medical colleges then stood at 30 with an admission capacity of 2500 students every year. At the commencement of the Fourth Plan the number of colleges rose to 93 with an annual intake of nearly 11,700. The number of qualified doctors has increased by 47,000 in less than two decades. The figure on the registers of the Medical Council of India stood at 1,03,000 in 1969. Even so, this gives a doctor-population ratio of 1 : 5112 against the objective of providing one doctor to a population of 3500 as recommended a decade ago by the Mudaliar Committee. What is disturbing, however, is

the imbalance in their distribution among the population. Eighty per cent of the Indian people live in villages and 20 per cent in urban areas, but the distribution of the doctors is just the reverse of the ratio of the population between these two sectors. Still more disturbing is the reluctance of the doctors to man the minimal of health services for rural areas. At the commencement of the Fourth Plan, as many as 508 Primary Health Centres had to be established so as to ensure at least one such centre for a Block. 352 Blocks had Primary Health Centres but no doctors. At a number of other centres, after the doctors are posted their main preoccupation is to manoeuvre a transfer to an urban assignment. It would be hardly fair to blame the individual doctor, faced as he is with the difficult conditions of living, lack of accommodation and basic facilities of transport, communication and children's education at these places, and conditioned, as he is, by an urban-oriented education designed largely to cater to curative treatment in a hospital setting provided with costly modern equipment and complex laboratory tests. He is apparently neither trained nor prepared adequately for the task he is called upon to perform.

URGE FOR NEED-BASED CHANGE

A good educational system should be sensitive to the social environment of the community which it seeks to serve and constantly adapt itself to its changing requirements. Unfortunately, beyond keeping abreast of advances in scientific knowledge, medical education remains basically what it was four decades ago when it was controlled and supervised by the Medical Council of Great Britain. The end products that come out of medical colleges are understandably lacking in the skills, knowledge and attitudes necessary to give community health care in India. Meanwhile, the rapid rise of population has further widened their responsibility towards family planning in the interest of the mother's health, well-being of the family and the prosperity of the nation. There has been a growing recognition that what is required to meet the needs of the people of India is a complete change in the mould of the doctor so that the model brought out is suited to the conditions of the community.

MEDICAL EDUCATION COMMITTEE

In pursuance of the decision of the Central Council of Health at its 15th Meeting held in October 1968 at Bombay to examine medical education in all its aspects, the Government of India appointed the Medical Education Committee of officials and experts under the chairmanship of Secretary to the Ministry of Health & Family Planning, Government of India, to study all aspects of medical education and training in the light of the national needs and resources; and to consider the development of the undergraduate medical curriculum in relation to national requirements, the need for uniformity of syllabus, apportioning of the time between didactic and practical teaching, selection of entrants to medical colleges, reciprocity between various medical institutions and universities and domiciliary restrictions in the matter of admission to medical colleges.

MEDICAL EDUCATION CONFERENCE

The Report prepared by this Committee was discussed in a Conference held in July 1970 in New Delhi under the chairmanship of the Union Minister of Health, Family Planning, Works, Housing & Urban Development. Having been attended by Ministers, Members of Parliament, Vice-Chancellors, Deans and Principals, Secretariat and Technical Officers of the Health Departments of Central and State Governments and other experts, it was the most representative national gathering that could be assembled for the purpose.

The Conference debated in depth for two full days the several issues thrown up in the Report and some related items which were included in the agenda. The conclusion was to support broadly the analysis of the problem as presented by the Committee and to endorse its recommendations with some modifications in matters of detail together with a couple of recommendations on matters not dealt with specifically by the Committee. The recommendations of the Medical Education Committee as modified or enlarged at the Medical Conference have been accepted by the Executive Committee of the Central Council of Health at its meeting in July 1970 in Aurangabad under the authority vested in it to deal with the matter finally. These recommendations have also been welcomed by and large by the Medical Council of India. It is a matter

of gratification to me personally as the Chairman of the Medical Education Committee that its recommendations have received such wide and ready recognition. The stage is now set for their implementation. I am impelled to write this article in the hope that it will assist the various authorities and the diverse elements concerned in understanding them in their true perspective as well as in implementing them with utmost expedition.

REVIEW OF RECOMMENDATIONS

It is difficult to do justice within the compass of this article to the several recommendations of the Medical Education Committee and of the Medical Conference. I would refer the reader to the Report of the Committee and the proceedings of the Conferences which have been published separately for the benefit of the public. I shall attempt, however, to review briefly the recommendations and comment on a few important features with a view to highlighting their implications for the future and to facilitating their early implementation.

BASIC DOCTOR

The central theme of the Report is to define a basic doctor and then to suggest several measures not only to secure the production by medical colleges of the maximum number of basic doctors, but to commend to the various authorities - both governmental and others - to assure for him an honoured place due to him in the scheme of health administration and medical profession:

> "A Basic Doctor", says the Report, "is one who is well conversant with the day-to-day health problems of the rural and urban communities and who is able to play an effective role in the curative and preventive aspects of the regional and the national health problems. Besides being fully well-up in clinical methods, i.e., history taking, physical examination, diagnosis and treatment of common conditions, he should have the competence to judge which cases are required to be referred to a hospital or a specialist. He should be able to give immediate life-saving aid in all acute emergencies. He should be capable of constant advancement in his knowledge by learning things for

himself by having imbibed the proper spirit and having learned the proper techniques for this purpose during his medical course".

While taking due care of the selection of talent required for research and highly specialised skills, the aim of medical education should be to maximize the production of basic doctors who are professionally competent and emotionally prepared to serve the needs of the community particularly in rural areas.

AMENITIES AND INCENTIVES

Towards the achievement of the above objective, the Central Council of Health has recommended that the arrangements of emoluments, amenities and incentives of doctors should be so devised as to give the balance of advantage to those doctors who have to their credit adequate service in rural areas. Specific measures have been recommended to encourage doctors to go to villages by way of (a) provision of adequate living and working accommodation in rural areas fitted with modern sanitary facilities; (b) supply of vehicles to primary health centres;(c) prescription of minimum service in rural areas before crossing efficiency bar or grant of promotions;(d)special medical allowance for service in difficult areas;(e) opportunities for refresher and advanced training in India and abroad; and(f) professional contacts through visits of specialists to such centres.

NO REVIVAL OF LICENTIATE OR DIPLOMA COURSE

The Committee's recommendation that there is no need of a diploma or licentiate course in medicine has been accepted by the Conference, Health Council and Government. The suggestion of the Medical Education Conference to increase the training facilities in the existing colleges by utilising district and private hospitals with adequate clinical facilities has also been accepted. It is necessary, however, to point out that there is a strong body of opinion among doctors and the public that the licentiate course, being shorter, cheaper and suited to the needs of rural areas, should be re-introduced to bridge the wide gap between the requirements and the availability of graduate doctors. It is their contention that with the cost of producing an additional graduate doctor of the order of Rs.80,000/- to the

community(post-graduate doctor costs much more) and the limitation of the projected growth rate of the economy over the next decade or two, there will be perpetual shortage of graduate doctors. Secondly, in the situation of overall shortage, it would be too much to expect that they will effectively man the rural services. Nevertheless, the majority opinion has pinned its faith in the proposed orientation of medical education as well as the commitment of the profession to meet the needs of the community all over the country on the basis of improving working conditions in rural areas. A heavy responsibility rests on those who have advocated against the introduction of a cheaper course. Time alone can tell how well they will meet the challenge. Should they fail, it is obvious that this question will have to be re-examined de novo.

ENTRANCE QUALIFICATIONS

For entrants to the M.B., B.S. Course, a prior study for 13 years is recommended. This may be:-

(a) 11 years of schooling and 2 years of pre-medical studies;

or

(b) 12 years of schooling and 1 year of pre-medical training;

or

(c) In states, with 10 years of schooling, three more years of preparation for vocational training.

There has been near unanimity of opinion that the pre-medical course should comprise study of Physics, Chemistry, Biology, Basic Mathematics in relation to Physics, Language and Social Sciences, and that for a proper study of so many subjects, the pre-medical course should be spread over two years. There is a divergence of opinion, however, on the recommendation of the Medical Conference that this two years' course should be after High School or Higher Secondary Course as the case may be. The States who have High School Examination after 11 years' course are happy with the recommendation. The States who have Higher Secondary Examination after 12 years' study contended that the study of the prescribed subjects in the final year of the Higher Secondary Examination should be taken into consideration provided that the level of the

course is maintained high enough to satisfy the requirements for entry to the M.B.,B.S. Course.

The bulk of the opinion is in favour of conducting pre-medical courses in Science Colleges affiliated to Universities except perhaps in Residential Universities like the ones at Baroda and Varanasi where teachers of the requisite standard are available in the University Campus, irrespective of the question whether the course is conducted in Science Colleges or Medical Colleges.

HIGH PRIORITY TO HAVENOTS

In the wake of the popular demand to narrow the gap between the haves and the havenots of the health services, it has been the endeavour of Government to identify the real havenots. They are the people in distant and disadvantaged areas. Doctors in these places need to be compensated for the handicaps they have to contend against. Some 400 such P.H.Cs have been located. Government have decided to give a minimum of Rs. 150/- per month as a special medical service allowance to doctors in charge of these units.

The traditional plan to extend hospital services to the people is to provide specialist or research institutes at a few centres in the country, modern hospital complexes at State headquarters, well equipped district hospitals and specialist services in referral hospitals at sub-divisional or taluka places. The underlying assumption is that hospital services will percolate from cities downwards to rural folk. In the vortex of limited resources and powerful pulls of the influential and organised urban elements the claims of the rural folk in distant areas to a minimal of hospital services within their reasonable reach get compromised and postponed to a future date. It is difficult to state for how many Plan periods they will have to wait if the theory of progressive percolation from top to bottom is to be adhered to. The situation has been sized up recently by the Executive Committee of the Central Council of Health. The Committee has come to the conclusion that special priority should be given to the provision of minimum hospital services to areas which have fallen most behind the rest. The view has gained ground that within the limitation of resources that are available, the order of priorities needs to be reversed - first priority being given to those who

are the most disadvantaged. As a result of deliberations on these lines, a concrete proposal has been mooted to identify about 400 P.H.Cs in distant and disadvantaged areas which could be upgraded into miniature hospitals with 25 beds each. The proposal is being processed with a view to its early implementation.

ADMISSION REQUIREMENTS

There is a wide disparity in the basis for admission to medical colleges in different States. In the majority of the institutions, the admissions are made purely on the basis of merit, as revealed by the marks obtained in pre-university/pre-medical examination.

On the other hand, in some colleges, admission is based on an entrance test, irrespective of the performance at the pre-medical examination or in addition to it. Some institutions subject the candidates to an interview and/or psychological test. Consideration is also given to proficiency in extra-curricular activities in sports, N.C.C, mountaineering and for freedom-fighters and their sons and daughters.

In eight medical colleges in India, admission is on the basis of capitation fee without much regard to scholastic achievements. The capitation fee varies from rupees five thousand to ten thousand in these colleges.

Although, at present admission in the majority of medical colleges is based on marks obtained by the candidates at the qualifying Intermediate, Pre-University/Pre-Medical examination, yet recently there has been a tendency to ignore or under-rate a candidate's performance at the qualifying examination by introducing the entrance examination. In other words, the performance at the prescribed university examination is being compromised by an ad hoc limited test, the so-called entrance examination. Such an examination has limited value and has far more disadvantages. Since such a test would be a written one(and sometimes an oral one also) and conducted invariably through the medium of English language, in which the urban elite with better command over language and personal polish would secure an uncalled for advantage. Besides, it may be the most handy device for giving an unfair advantage to candidates who have

access to seats of authority and influence, including the examiners, and perpetuating a distinct disadvantage to candidates hailing from the ordinary run of the society, particularly from the rural areas.

Minor variations in the percentage of marks secured by the candidates from various universities are understandable. These should ordinarily be not so large as to condemn the assessment of the candidates' merits at the university examination and to replace it by ad hoc tests. Even if it is assumed that the variations exceed this limit, we will have to see whether they can be attributed to artificial manipulation by the universities concerned. Variations can be expected in the standard of the old metropolitan universities and the newer mofussil universities. The former have a built-in advantage of the best equipment, talented teachers and long tradition which the latter cannot mobilize. With such unequal basic conditions of imparting training, a certain degree of encouragement to the talent potential coming from the mofussil colleges and universities should not be frowned upon.

It has been felt that under the prevailing circumstances performance at the intermediate science or pre-university examination should continue to be the yard-stick for admission to colleges in the States. Where, however, the facts disclose an obvious manipulation by way of high marking on the part of any university in a State, it should be possible to devise a suitable remedy locally to overcome material disparities in the standards of marking. One such remedy would be to apply a moderating element by way of a cross-check of the performance of the same students at the previous common examination at the Matric level at which all the students coming from the same State had to appear. This would provide the basis as to whether and to what extent the results of the defaulting university should be moderated vis-a-vis candidates of other universities.

The Conference noted in this connection that as a result of the evaluation of 15 years' experience of Hadassah Medical School of the Hebrew University in Israel, of the three selection criteria, namely Matriculation Certificate, entrance examination and personal interview, only the first proved to have a predictive value for success at all three levels of the course - pre-medical, pre-clinical and clinical.

The Medical Education Conference has recommended that Universities in a State should evolve, as far as possible, a common and uniform qualifying examination for entry into medical colleges.

With regard to private medical colleges which charge capitation fees, the Conference recommended that the criterian for admission should be the order of merit. They further favoured the idea of these institutions being taken over by the Government and recommended to the Central and State Governments to examine the financial implications for this purpose.

IMBALANCE BETWEEN SPECIALISTS AND BASIC DOCTORS

The current trend in medical education is towards more and more specialisation. This is because of the policy being followed of giving inducements to persons with post-graduate qualifications not only in terms of employment, placement in better stations, but also of a higher social status in the profession. The ever increasing number of seats for post-graduate training and grant of stipends further act as deterrents to medical graduates to enter general practice after graduation.

While our need is for the "basic doctors", it is observed that almost 50% of about 8,500 doctors turned out every year go in for post-graduate qualifications in the country. Another 1000 or so go abroad for higher studies. This is adjudged to result in a growing imbalance in the proportion of basic doctors to specialists, for it will not be long before the deficiencies of teachers in colleges and of specialists in hospitals will be met from some 5,000 doctors acquiring post-graduate qualifications every year. Even in more advanced countries, there is a feeling that this trend towards specialization is overdone in the wrong direction and a change is indicated in their approach for correcting this imbalance. The Conference, therefore, recommended a further study to suggest a balanced supply of basic doctors and specialists within the limitations of finance to meet our needs. The task is no doubt difficult but it is not beyond the resourcefulness of the medical profession and administration to find a suitable answer to this vexed question.

DURATION AND CURRICULUM OF M.B.,B.S. COURSE

The Conference endorsed the recommendations of the Committee that the duration of the M.B.,B.S. Course should be 4½ years comprising 18 months for pre-clinical and 36 months for para-clinical and clinical instruction to be followed by compulsory internship for one year, part of which should be in the rural surroundings for not less than three months under adequate supervision. To improve the quality of teaching, the Universities and the faculties concerned are requested to use the suggested curriculum, methods of assessment and examination, encouragement of research and teaching methods given in the Report. It also emphasised the teaching of the subject of health promotion such as growth and development, nutrition, immunisation, health education, family planning, school health services, routine check-ups and environmental sanitation. In particular, the teaching of preventive and social medicine should form an integral part of medical studies for M.B.,B.S. course and marks obtained in this discipline should be ranked equal with those of other disciplines for the award of the M.B.,B.S. degree. Some of the general practitioners of experience and standing should be associated with the education and training of the undergraduates to make them familiar with the problems of health in families and community.

EXAMINATIONS

Twenty-five per cent of the total marks allocated for the University examination have been recommended to be earmarked for internal assessment. The Committee has taken great pains in drawing up model courses, their content and syllabi as well as allocation of hours in various subjects. They have been commended to the Universities and faculties concerned for benefiting therefrom as the guidelines. The consensus of the method of teaching is to reduce didactic lectures and to encourage seminars, group discussions and clinico-pathological conferences.

MOBILE TRAINING-CUM-SERVICE HOSPITALS

The scheme of mobile training-cum-service units to be attached to medical colleges as prepared by the then Director-General of Health Services - Dr. P.K. Duraiswami - has been welcomed widely for implementation. The object of these

training units with 50 beds and adequate accommodation in tents for staff members is to impart not only the art of medical care but also broad-based education to tackle problems of environmental sanitation, nutrition, prevention of communicable diseases and family planning. Such a scheme is also required to provide an opportunity to senior members of the teaching faculty to acquaint themselves with the field problems. As the scheme is presently sanctioned for 21 medical colleges, similar service facilities can be provided by senior teachers in their respective rural field practice areas.

MEDIUM OF INSTRUCTION

The medium of education in medical colleges has been recommended to continue for the present to be English.

DOMICILE RESTRICTIONS

The recommendation of the Committee to reserve 5 per cent of seats in medical colleges for candidates from other States to begin with and increasing it progressively to 10 per cent has been accepted with the modification suggested by the Medical Conference that the reservation of seats should be on a reciprocal basis. Accordingly, the details of such reciprocity are being worked out.

RESERVATION OF SEATS

It has been a matter of some satisfaction that the seats reserved for Scheduled Caste/Tribes in the medical colleges are being increasingly utilised and there is a progressive improvement in the performance of these candidates both at the level of qualifying examinations and medical studies. Government have endorsed the recommendation of the committee to continue the present practice of reservation of seats together with the concession in their eligibility to these seats if the candidates from Scheduled Castes/Tribes have up to 5 per cent marks less than that prescribed as the minimum requirement for other candidates. Acting upon the recommendation of the Conference, it has also been decided to advise the authorities concerned to reserve 5 per cent of seats for admission to candidates who undertake to serve in rural areas.

in rural areas? Do they link up their talent with the limited services isolated doctors administer in distant areas? The fate of our efforts at reorienting medical education will depend a great deal on the answers we give to questions such as these?" How very true! Example is better than precept, indeed!

What is then expected of the medical profession? Two things in the main. Firstly, the medical profession of tomorrow will bring trained doctors to rural areas and powerful minds to research. The profession will enlarge its scope of scientific and technical problems. It should enlarge in numbers, talent, training, service and leadership. Its success will be measured, indeed, by how well it responds to the community's demand. Secondly, stock has been taken of the imbalance in the distribution of doctors, hospitals, and specialist services among different parts of the country. A master plan is under preparation so as to extend the minimum of services everywhere. The aim is to ensure during the Fourth Plan that there will hardly be any area, howsoever remote, where health, medical and family planning services - static or mobile - will not reach within easy reach from their habitations. This is a huge task. I would like to take this opportunity to make a special appeal to the public-spirited medical and paramedical men and women to enlist their services for at least a few weeks of their busy time every year in the organisation of this national programme. There are various ways in which they can make their contribution, through mobile hospitals, special camps and many other ways that may appeal to them to suit local conditions.

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