

RATIONALISATION OF MEDICINE IN INDIA*

THE development of medical science in India is a fascinating study. In its long history it has suffered repeated impacts with foreign systems, the latest being the Western allopathic system.

At present, in this vast country, medical relief to the masses is carried out by two agencies—the Indigenous and Western.

Indigenous medicine is being practised by a vast number of practitioners. Unfortunately only a small portion of these have received proper systematic training. It is this class of untrained or improperly trained practitioners, which at the present time attends to the needs of the major portion of the rural population. There is evidence to prove that unauthorised practice is responsible for producing much misery and suffering. There are, however, some important considerations in favour of the indigenous medicine, if properly practised. The first is that the materia medica used is derived entirely from indigenous sources and, therefore, is inexpensive. The second is that these systems are ingrained among the people who have faith in the treatments prescribed and the drugs used. That there is much in the Indigenous Medicine, especially in its materia medica, is beyond doubt. But even with a background of its glorious past, Indigenous Medicine, it is believed, cannot play as effective a part, nor take its proper place in the present-day medical relief in this country. They will first have to put their house in order and become cognisant of the present-day environments and their requirements. The practitioners will have to be properly trained, and unauthorised practice will have to be rigidly eliminated. The true spirit of research and discovery will have to be inculcated and irrationalism excluded from diagnosis and treatment of diseases. The discoveries which have proved effective beyond doubt in the treatment of disease must be accepted and incorporated, and all inherent prejudices discarded to achieve the one sublime object of the alleviation of human suffering.

The second agency of medical relief is through the practitioners of Western medicine. Though it has a scientific basis and is, therefore, much more amenable to rational practice, it unfortunately does not reach much more than 20 per cent. of the population. The reason for this tardiness is not far to seek. The economic condition of masses of people is very low, and there are millions who cannot afford any kind of treatment.

IRRATIONAL PRACTICE OF MODERN MEDICINE

Quite in contrast to the Indigenous Medicine, Western Medicine has made enormous strides, both in connection with the causation of disease and its treatment. But in spite of this there is a regrettable tendency on the part of the practitioners towards mere empiricism. Non-critical and irrational use of therapeutic agents is rather the rule than the exception.

In fact if the state of medical practice in India is examined without prejudice, one is forced to the conclusion that with the exception perhaps of a small number of institutions and of a comparatively small number of practitioners, the practice of Western Medicine is not a shade better than that of Indigenous Medicine. One dare not estimate the harm that has been done through the indiscriminate use of powerful remedies which science has placed in the hands of practitioners. It is a sad commentary on things that though Western medical science has been well established in the whole country for at least half a century, if not more, it has not yet succeeded in making the average educated men more health conscious, to say nothing of the uneducated and ignorant masses. There has been little progress during the last forty years or so, in the rationalisation of the practice of Western Medicine generally in this country. The blame does not lie wholly at the door of the general practitioner.

WHY RATIONAL MEDICINE IS NOT PRACTISED

One of the chief reasons why rational medicine has not been practised is that those responsible for the government in this country in the past have neglected the growth of the nation-building health services. The *per capita* expenditure has in the past been absurdly low compared with what should have been spent. "India should have spent annually Rs. 3-3-0 per head of the population, if her expenditure on health services were to bear the same relation to the national income as the amount spent in Great Britain in 1934-35." But the combined expenditure on medical relief and public health activities in the provinces during 1944-45 ranged between 2·8 annas *per capita* in the C.P. to 10·9 annas in Bombay. It is, therefore, not surprising that medical education and medical research which form the foundation of rational medicine have suffered seriously. The teaching institutions are too few and many of those that exist are poorly equipped and inadequately staffed.

Medical education should be carried out on much broader and sounder lines than heretofore if the present low standard of medicine in India is to be raised. This can only be done by improving the educational institutions, both as regards their teaching staff and equipment. In Great Britain, the proposed National Health Service will bring into being the Health Centre, an institution which it is intended should provide the general practitioner with all modern methods of diagnosis and treatment. If the medical practice in this country is to be rationalised adequate provision will have to be made on similar lines.

MEDICAL RESEARCH

There is no doubt that rational medicine cannot be practised unless there is extensive medical research. The annual grant for medical research by the Government of India, till recent years, was only a paltry sum, and even this was cut down through the recommendation of the Inchcape Commission. The research worker is poorly paid, and the best talent takes up practice because it is more remunerative. With

* Extracts from the General Presidential Address by Sir Ram Nath Chopra, to the Thirty-Fifth Session of the Indian Science Congress, Patna, 1948.

all these disabilities it is not surprising that the standard of medical practice is low, and scientific or rational medicine has not been practised.

The immediate implementation of a progressive plan like the one put forward by the Bhoze Committee will enable us to draw abreast of recent knowledge and to introduce in our country up-to-date teaching and research, and what is best in the health administration of advanced countries.

Trained personnel is the most important single factor for provision of adequate medical relief on rational lines. We need at least ten times the number we have, and it will take 30 to 40 years to train this number. It is imperative, therefore, that we make the most of what we have. The present retiring age in services is 55 years, when most of the incumbents are yet fit to carry on efficiently for many more years. They should be made to work as long as possible and, if necessary, their sphere of work should be changed to suit their physical capacity. When we come to highly specialised workers, such as research workers, of whom we have a still less adequate number, it would be foolish to retire them, as is the usual practice, when they are most valuable for training and directing other workers and organising new institutions.

THE ROLE OF INDIGENOUS MEDICINE

There are many people who consider that while a comprehensive and rational system of public health is being evolved, use should be made of Indigenous Medicine. Indigenous system—good, bad or indifferent—still caters for the needs of the major portion of the population particularly in rural areas. They, therefore, consider that it cannot be excluded altogether from the field, and urge that it be used to the best advantage while the process of evolution of a perfect system of rationalisation of medicine is being worked out. During this transition period, they also hope that Indigenous Medicine will overhaul itself and become an integral part of the permanent system evolved.

For the rationalisation of medical practice in India two important points suggest them-

selves. Firstly, the practice of medicine be so regulated by the exponents of modern and of the indigenous systems that the fullest possible use can be made of the facilities available for diagnosis, treatment and prevention of disease. The second point is that a synthesis of indigenous and modern systems of medicine be attempted so as to promote the utilisation of the knowledge from all available sources for the interpretation of health and disease. Both extension and acceleration are possible through a partial synthesis of the two systems in the elementary stage of our teaching. The present course of study in the indigenous medicine should be suitably curtailed on one side and enlarged on the other. The net effect of this suggestion will be twofold. It will shorten considerably the period of study, and thus will lead to the training of a much larger number of qualified practitioners. And secondly, while giving the students a sufficient background of scientific knowledge with regard to the diagnosis, treatment and prevention of disease, it will make them at the same time conscious of their own limitations and of the necessity to appeal to higher practice in difficult cases. There are about a hundred thousand practitioners of indigenous medicine in India, many of whom could be quickly fitted for this purpose after suitable training. The services of such practitioners will be of particular value in the rural areas, which are now almost beyond the reach of modern medicine. Rural medical relief will be considerably facilitated if some further steps are taken to standardise medical practice by prescribing uniform scales of drugs and medical appliances for institutions, their production in bulk and distribution under the auspices of the State. If all practitioners are properly registered, and practice by non-registered practitioners prohibited, a reasonable standard of competence could be secured.

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TECHNOLOGY OF RICE*

THE number of named varieties of rice is said to exceed two thousand. Hundreds of varieties are cultivated. There exist between these varieties marked differences in quality as revealed by consumers' preferences. Attempts have been made to correlate quality in rice with certain chemical and physico-chemical properties of the cereal, but rarely with success. Extensive investigations were carried out at the Central College, Bangalore, to correlate varietal differences in physical properties with the quality of rice. A study of sorption and desorption of water by rice grains showed that, in general, superior varieties of rice lose water more readily during dehydration, and take up water at a faster rate, during hydration, than varieties of poorer quality.

* Abstract of Presidential Address delivered by Dr. B. Sanjiva Rao to the Chemistry Section of the Indian Science Congress, in January 1948, at Patna.

This showed greater permeability of the grain to moisture in superior varieties. Other physical properties did not exhibit any useful correlation with quality.

The observation on sorption led to an extensive investigation of the swelling of rice grains when cooked. Correlation between absorption of water and cooking quality furnished a convenient method of expressing it in quantitative terms by "Swelling Numbers". This simple method of determining cooking quality has been in use at the Central College for over ten years and has been found to give highly reproducible results.

Important conclusions arrived at from these experiments were: (a) Rice from freshly harvested paddy (which is notorious for its poor cooking quality) gives a very low swelling number, (b) storage or proper heat treatment improves the cooking quality of freshly harvested paddy, (c) overcuring adversely affects