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PREVENTIVE PEDIATRICS IN MEDICAL TEACHING AND PRACTICE

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'Prevention' is a comprehensive term and includes not only the usual traditional primary prevention, but also secondary and tertiary prevention. Seen in this comprehensive context, the important role and scope of the teaching and practice of preventive pediatrics cannot be overemphasized, especially for a country like India, where 40 per cent of the population and 50 per cent of total mortality are accounted for by children. Most of this loss of child life is due to preventable causes. Again there is the problem of a large pediatric morbidity due to various diseases and handicaps with their psychosocial components, which require the provision of specific rehabilitative measures for specific problems, e.g., blindness, deafness, mental subnormality, delinquency and other psychiatric problems of childhood. It is evident that the medical student must get a clear and adequate knowledge of these preventive pediatric problems during the period of his training, before he can be expected to practice community medicine.

1. (a) *Health promotive and specific protective measures.*

The services of the ante-natal and maternal and child health (M.C.H.) centres are very meagre at present and even these are not fully utilized. The state of affairs with well-baby, child welfare and toddler clinics and the school health services is sadly similar. The main responsibility for advice on the physical health of children is carried by the private practitioners. It is necessary, therefore, that general practitioners should have a clear and practical knowledge of nutritional and immunisation needs of children. A concerted application of these two measures can help considerably to bring down the incidence and prevalence of many common pediatric diseases such as malnutrition and various specific infections, e.g., smallpox, tuberculosis, diphtheria, tetanus, pertussis, poliomyelitis and measles.

In a previous publication the practical aspect of teaching this topic in the clinical hospital setting has already been mentioned (Jain 1967). However, there should also be a supplemental teaching of these two topics through didactic lectures in which proper emphasis should be given on the practical aspects of immunisation and nutrition practice in relation to the particular socio-eonomic conditions of India. For immunisation, W.H.O. has recommended two schedules, one for the developed countries

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and the other for developing countries. In India, Dutt (1965) has brought out a brochure giving recommendations for immunisation in rural areas. A sub-committee of the Indian Academy of Pediatrics has recently made its own recommendations.

These schedules, slightly modified, are given below:

Age.	*Vaccination.*
0–4 weeks.	B.C.G. vaccination.
3 months. 4—9 months.	Triple vaccine (diphtheria, tetanus and pertussis), 3 doses at monthly intervals.
	Poliomyelitis, trivalent, oral vaccine (Sabin), three doses at intervals of 6-8 weeks and then 1 dose every 2-3 years until 7 years of age.
5 years.	Diphtheria-tetanus booster (plain or with alum)
	T.A.B. and cholera immunisation—2 doses at an interval of one month.
	Smallpox revaccination.
5—10 years.	T.A.B. and cholera immunisation with one dose every year.
After 10 years.	Smallpox revaccination at 10 years and again every three years. B.C.G. revaccination (in tuberculin negative reactors). Booster dose of tetanus toxoid, and again every 5 years. T.A.B. and cholera every year.

During the teaching of this subject, it should be emphasized that the immunisation programme should be oriented to the epidemiologic needs of the population. The rationale of immunisation for taking up some of the National Eradication or Control Programmes should also be stressed.

The clinico-preventive teaching at the nutrition clinic should be supplemented by didactic lectures on nutrition. These lectures should not only mention the normal nutritional requirements at different periods of growth and development during childhood, but must also emphasize the practical composition of the child's diet from the commonly available local food articles, to meet normal requirements and in deficiency states. The lack of practical orientation in the field of child nutrition is one of the important flaws in the training of the medical student and consequently when he takes up practical work in the community, he may be found wanting in his ability to advise the mothers about the proper feeding of infants and children.

1. (b). *Epidemiologic approach to cases with emphasis on early diagnosis and prompt treatment.*

This is an important level of prevention which aims at arresting the progress of disease and bringing the sick child back to optimum health as soon as possible. Many patients discontinue treatment before it is complete and this leads to relapses, recrudescences and further progress of the disease. It is the duty of the general practitioner to advice his patients about the importance of completing treatment especially in chronic diseases. Moreover, he should also be aware of the epidemiologic implications of the cases he treats. For example, if he treats a child suffering from tuberculosis, then he must try to find out the source of infection at least from among close contacts and also give advice for the protection of other children in the

family. In case of notifiable diseases, he should realize his responsibility of notifying the disease to the local health authority.

1. (c) *Use of surveys and screening tests.*

Surveys about health and morbidity are important for providing data useful both for teaching and planning. Such data in India are very meagre so far as the pediatric age group is concerned. It is important that the community aspects of child health and morbidity be emphasized in the teaching of preventive pediatrics with due stress on the use, specificity and sensitiveness of screenning tests. The possibility of having a hospital-based epidemiologic investigation clinic should also be exploited because it will help in the practical clinically oriented epidemiologic training of the medical student. Many advanced countries have such clinics for screening of population groups for early detection of various diseases.

2. *Psycho-social health including specific problems.*

Most of the psychologic and intellectual development occurs in early childhood, and many of the future social attitudes are determined. Thus the personality pattern of the future citizen is laid in childhood. It is important that during these early formative years of life, a proper check is kept on the psycho-social development of the child and abnormalities are detected early. Although specific problems like subnormality, deliquency and other psychiatric problems of the child require handling by a specialist, the medical student should have an adequate idea of these psycho-social problems of childhood, in order to detect such cases at an early stage and refer them for specialist care.

3. *Rehabilitation.*

Rehabilitation is a part of comprehensive preventive medicine and is particularly important in the practice of child health due to its special problems of physicial, mental and social rehabilitation. As such, adequate time should be devoted to the teaching of this topic. Specific problems such as physical rehabilitation in poliomyelitis and psycho-social rehabilitation in subnormality, delinquency, cerebral palsy and other problems should be brought out. Other specific problems e.g., the education and employment of the blind, or deaf and dumb children should also be dealt with.

This approach will help convey to the students not only what can be done for the handicapped children, but will also emphasize the need for prevention of these handicaps.

4. *Child health administration.*

Efficient administration of health services is an important requisite to the success of health programmes especially those of a preventive nature. Most of the advanced countries have been able to develop efficient systems of health administration, in accordance with their socio-medical and political needs. Child health administration is an integral part of preventive pediatric practice and adequate attention should be given to the teaching of this aspect, so that the medical student may know what legislation is available for the enforcement of child health regulations in the community.

At present, child health legislation in India is mainly in regard to the employment of children and exploitation of child labour. More legislative regulations are needed for providing educational, socio-medical and general welfare measures for children.

References

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