THE CLINICAL MATERIAL OF HEALTH IN PAEDIATRICS

WHERE TO GET IT, AND HOW TO USE IT

BY

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In the reports of the Goodenough Committee on Medical Schools, and of the Paediatric Committee of the Royal College of Physicians of London the teaching and study of paediatrics have been carefully considered. In both reports the subject has been divided into the study of health and of disease; and it is agreed that the study of health as regards clinical teaching has been neglected in the medical schools, and proposals are made for getting access to the clinical material of healthy infants and children. Both reports make definite and generally similar proposals that this clinical material of health, hitherto lacking, should be found in newborn nurseries, in child welfare centres and in school clinics. It is the purpose of this communication to examine the teaching and study of child health as a part of paediatrics and to suggest a change in the proposals made in these two important reports.

There is no difficulty in getting the clinical material of disease in children. This is already provided in convenient and large concentrations of cases of disease in children's hospitals. But under present conditions the clinical material of health lies scattered about and dispersed both in time and space—the first few days of life in maternity hospitals, the succeeding months and years in welfare centres and school clinics: and it is recommended that teachers and students should go out and follow these pockets of clinical material from place to place and from age to age. This no doubt will improve the teaching of child health: but it falls far short of the opportunities opened up by this new field of clinical study.

Principles of study of disease and health

Let us examine the two subjects of study in paediatrics—disease and health. In any disease, we study some part of child life (body or mind) which is at fault; make an intensive examination of the faulty part; and apply the remedy, taking into account also the effect of the disease on the whole life of the child. And we use the same general method in all kinds of diseases.

In the study of health we examine the whole life-state (soma and psyche) and investigate the agents or factors, both physical and metaphysical, that are

necessary to maintain life at the level of health, trying to discover and correct any deficiencies in the standards of health, or in the agents of health. And this double examination must be made again and again throughout the period of childhood, since in the course of growth changes are continually taking place, both in the physical and psychical states of life, and also in the agencies that sustain healthy life. So that for the proper study of health in a child, the physician requires a continuity of observation in the same individual child from birth, and should have this clinical experience repeated in a number of children.

In the study of disease, we study pathology in a great number of separate pathological problems; and the more examples of each kind, the richer is our clinical experience of disease in children.

In the study of child health, we study the whole life, physiology, anatomy and psychology in continuous variation from birth to puberty; and the more cases of such life studies we carry out, the better are we qualified to teach and practice child health. Fig. 1 gives a scheme which may help to illustrate in a single child this rather abstract exposition of the study of child health.

A single central health clinic. If this is a sound argument, the suggested arrangements for the study and teaching of child health in different units fail to provide, either for the teacher or the student, a connected view of the problem of growth and development. But this continuity can be provided by keeping under observation, examination, supervision and record the newborn babies in a teaching maternity hospital, and on discharge in a follow-up clinic attached to the hospital, periodic examinations being conducted on this same group throughout the years of infancy and childhood. Here in a single large child clinic there will be living examples of the health problems at every stage of growth, and in each child a record of his development from birth and also of the incidents of illness that have occurred in his life. If such a single unit of healthy children were created, organized, equipped with facilities for study and teaching, and properly staffed, the medical school would then have the clinical material of disease in the single large unit of a children's

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FIG. 1 illustrates the continuity of study of child life in one individual between birth and puberty: showing five stages or ages, in each of which the sphere of life is divided into the hemispheres of soma and psyche: and the factors or agents, physical and psychical, sustaining health in the progress of life, and those of disease threatening it.

CLINICAL MATERIAL of PAEDIATRICS – HEALTH and DISEASE

FIG. 2 (a) shows the dispersal of the clinical material of health in neonatal (N.N.), child-welfare (C.W.) and school (Sch.) clinics: (b) shows its concentration in one central clinic titled Health. In both (a) and (b) the circle marked D is the department of paediatrics, linked with its teaching units; and the large shaded block, titled Disease, is a children's hospital.

hospital, and the material of health in a single large health clinic, with the paediatric department of the school conveniently placed between them.

This proposal of one central health clinic for children is put forward for the consideration of those who are now planning new departments of child medicine or are reorganizing and extending departments already in existence. It should be examined alongside the different arrangements for the teaching of child health set out in the Goodenough and the Royal College of Physicians Reports. The two diagrams in fig. 2 illustrate in a simple way the two alternatives.

Organization of the child health clinic

STAFF. The composition of the staff of this single central health clinic is important. It should consist of hospital paediatricians, and of experienced child welfare and school medical officers. These members of the local authority medical service ought to be full partners in the work of the clinic, taking an active part in teaching, study and investigation; and they should receive appropriate titles in the medical school. This joint staffing would be a just recognition of the established position of the local authorities' health services for children, and of the unique clinical experience of their medical officers in this field of practice; and it would go a long way to secure that integration of the work of hospital paediatricians and public health doctors which has been recommended in the National Medical Service White Paper and in the Orr Report on Infant Mortality. A place on the staff should also be found for the family doctor who handles the problem of child health at its centre in the home.

The non-medical staff should consist of capable and experienced health visitors and of midwives. It should also include a nurse specially trained in breast-feeding and infant dietetics, a dietitian for the mothers and older children, and an almoner.

TEACHING. Such a clinic would be a training school for all those who are or will be responsible for the care of infants and children. The first are the mothers; and so long as they attend, they will receive authoritative guidance and instruction in the care of their own children. Next are the medical students, who will become family doctors: then pupil health visitors; pupil midwives; and post-graduates in training as specialists in child medicine and social medicine. The clinic would also serve as a training school for the medical and nursing members of the local health services who could attend and take part in the administration and work of the clinic.

RESEARCH. The field of research opened up by such a well-staffed clinic is rich and wide—child physiology, psychology and anatomy; and that part of social medicine that deals with the life and health of the human family. Research and investigation beginning in the clinic would go out of it and into the home; studying the child in the clinic, and the physical and spiritual environment of the child in the home.

An experimental child health clinic.

There is a natural and reasonable distrust of airy schemes of theory without practice. What has been written in this article is largely theory; but a small beginning has been made in putting the theory into practice. In the medical school of the University of Edinburgh, a child health clinic was established in 1929 at the old Maternity Hospital, its clinical material being the newborn babies in the hospital, and later attending the follow-up clinic during the first year of life. In 1939 the old hospital was transferred to the new Maternity Pavilion of the Royal Infirmary; and with larger premises and increased staff, extension of the work of the clinic in teaching and research took place. The difficulties of the war and the withdrawal of members of the staff have prevented full development, and the clinical material is still confined to the first year of life. The staff of the clinic now consists of three hospital paediatricians, and an associate paediatrician in the person of the senior child welfare officer of Edinburgh Corporation. Lately the Nuffield Trust has provided the salary of a Sister-Midwife who is now being trained in breast-feeding and infant dietetics. An almoner regularly attends the sessions of the clinic which are held thrice a week with 6000 annual attendances. In the nurseries there are about 3000 births a year.

TEACHING. In the teaching of medical students, a clinical course of eighteen meetings in each academic term is given, eight being devoted almost entirely to the health problems of the first month (clinical examinations and records, breast-feeding, prematurity and counter-infection), and ten meetings on the health problems of the remainder of the first year. This clinical teaching follows a standardized programme of subjects, dealt with in a regular sequence; and the teachers follow agreed methods of examination and agreed principles and practice of infant dietetics. In this way the practice of child health, limited to the first year of life, is taught to about 200 students a year, this aggregate divided into three separate groups of 70, and each group subdivided into sections, receiving its clinical instruction in these eighteen meetings. This clinical teaching is strictly correlated with systematic lectures on child health given to the whole 'year' of 200 students.

The clinic is also responsible for the paediatric teaching of pupil midwives, and takes a small part in the teaching of pupil health visitors.

RECORDS. Effort has been made by carefully designed record-sheets and by the use of abbreviations and symbols, to keep sufficiently full and accurate and continuous records from birth throughout the first year of life.

RESEARCH. Meantime research has been mainly confined to the neonatal period. A pathologist specially trained in child pathology is an important member of the staff, and statistical and pathological studies on neonatal problems have been and are being carried out. But some attention has also been given to physiological problems of the first month. One of the paediatricians also acts as registrar of clinical and pathological records and

each year makes a careful analysis of hospital vital statistics of the neonatal period.

In these ways there has been a try-out of the theory of a single central health clinic for children in a large medical school, as a complement to the hospital clinic for diseases of children. It is only a beginning. But it begins at the beginning; and from birth, it deals month by month in unbroken continuity with the first year of life. On this foundation the structure of a complete clinic of child health can be built up. I believe it to be a better way of dealing with the problem of research and teaching in child health than that proposed in the reports of the

Goodenough and Royal College of Physicians Committees.

Summary

An outline is given of a plan to concentrate in a single clinic, based on a maternity hospital, the complete clinical material of child health, for the purposes of teaching and research in a medical school.

A short account is given of the experimental trial of such a clinic, of its structure, staffing, and operation in teaching and research.