THE TEACHING OF COMPREHENSIVE MEDICINE 1938 - 1969*

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From its inception up to the year 1938, little attempt was made by our medical school to co-ordinate clinical teaching with concepts of preventive and promotive medicine. In 1938, on the elevation of Prof. A. W. Falconer to the post of Principal and Vice-Chancellor, the University substituted for his chair of medicine two chairs known as the Practice of Medicine and Clinical Medicine. On my appointment to the former chair, I gave considerable thought to the policy reasons which would justify two chairs with those titles. There was little ambiguity about the scope of a Chair of Clinical Medicine. I came to the conclusion that the holder of the Chair of Practice of Medicine should not simply duplicate the duties of the Professor of Clinical Medicine. My conclusions were that, as Professor of the Practice of Medicine, I should lay special stress on (*i*) the provision of laboratory facilities and techniques to facilitate and develop scientific clinical research in the Department of Medicine, and (*ii*) all those aspects of training for medical practice which were not at that time directly taught by the clinical departments of Groote Schuur and related hospitals. At that time, public health was taught by an honorary professor who was the full-time Medical Officer of Health for the city of Cape Town.

In the teaching and training field my personal thinking had been very much influenced by the pioneering spirit of John A. Ryle during my association with him as Regius Professor of Physic at the University of Cambridge in 1936 - 1937. As his principal assistant, I had seen the gradual development of his thinking from that of the bedside clinician and eminent London consulting physician to a wider concern for the prevention of disease and the promotion of health. His emphasis in the wards of Addenbrooks Hospital at Cambridge was on the multiple aetiology of disease. This thinking was later crystallized in his outstanding book, *The Natural History of Disease*[1] and his Croonian Lectures on the visceral neuroses.[2] After World War II, he became the first Professor of Social Medicine at the University of Oxford and his thinking was further crystallized in his book, *Changing Disciplines*.[3] During the war years I had little contact with him, but my own thinking, particularly in relation to the functions of a Chair of the Practice of Medicine, was developed in my con-

*A lecture originally given to the Medical Faculty of the University of Rhodesia during tenure of the first Visiting Lecturership of the Rhodesian Medical Association. Revised early in 1970 as an expression of my personal views. It does not express, directly or indirectly, the views of the UCT Medical Faculty Committee on the Teaching of Community and Family Medicine of which I am a member.

cepts of multiple aetiology of disease.[4-6] This kind of direction towards preventive medicine and promotive health gained currency in South Africa with the publication of Cluver's *Social Medicine*[7] to which I contributed a chapter on psychosomatic disorganization.

At the same time I had developed research in my department into the pathophysiology and pathochemistry of the many varieties of clinical malnutrition which were to be seen in our community. At its inception, our Council of Scientific and Industrial Research gave generous financial support to my research unit which was first called a Research Unit in Social Medicine but later the Clinical Nutrition Research Unit. The justification that I had given to the CSIR for the first title was that, although my main laboratories would be concentrated on the pathophysiology and pathochemistry of nutrient deficiency, this research would be constantly viewed against the wider group of environmental factors which contribute to health and disease and of genetic inter-racial differences. This wider approach to research in preventive medicine and promotive health was enshrined in my diagram of human constitution.[8]

APPOINTMENT OF SENIOR LECTURER IN SOCIAL MEDICINE, 1954

At a later date, when after the resignation of Prof. Frank Forman from the Chair of Clinical Medicine, I became Professor of Medicine, it became obvious that I could no longer devote enough time to the necessary teaching in preventive medicine and promotive health and that direct assistance was needed. After careful consideration, it was decided to appoint a Senior Lecturer in Social Medicine within the Department of Medicine. The first incumbent was Dr Harry Phillips in 1954. At approximately the same time, the title of the chair and Department of Public Health was changed to Public Hygiene,† as indicating the more limited scope of the activities of that department within the wide field of preventive medicine and promotive health. In 1953, with the institution of a Professor of Paediatrics, it was decided to entrench the comprehensive approach by using the wider term Child Health. These events were all symptomatic of a steadily widening interest during the 1950s in these concepts. Such terms as 'public and preventive medicine', 'social and preventive medicine', 'community medicine' and 'family medicine' were being increasingly discussed in Medical Faculty meetings and in changing curricula.

Dr Harry Phillips (1954) and his successor, Dr B. Kaplan (1956) were both given wide terms of reference for their teaching, practice and research and were known as Senior Lecturers in Social Medicine. Both had extensive experience in health centre and dispensary practice but were not registered medical specialists within the meaning of the South African Medical and Dental Council. At the time of Dr Kaplan's resignation, their contributions to the teaching of social medicine were reviewed. It was felt that both had contributed greatly to the experience of our students in dispensary practice and in general understanding of disease prevention and health promotion. However, it was felt that there was still dichotomy; the link between these wide concepts and the teaching of clinical medicine within a large modern hospital was not evident to the students. Progressively as he reached his final year of studies, the student felt that it was necessary, in order to pass the final examination, to have a firm grip of clinical medicine as a discipline and as a body of knowledge. This was attractively and forcefully presented by the majority of the specialist staff of the hospital and constituted the main emphasis in the final examination. Concepts of disease prevention and health promotion, although they might capture the imagination of the 4th-year student, came to represent an idealistic distraction as he approached the atmosphere of the final examination. An examination in the fifth year in public health, later renamed public hygiene, was regarded as an annoying irrelevancy.

†It has since been changed again to Promotive and Public Health.

APPOINTMENT OF SENIOR PHYSICIAN (COMPREHENSIVE), 1961

It was decided therefore that the post of Senior Lecturer on the staff of the University's Department of Medicine should be abolished and that it should be replaced by a post of Senior Physician and Senior Lecturer (Comprehensive) in the Department of Medicine of the Joint Medical Service. The new officer was therefore to be responsible to the hospital authority through the Medical Superintendent and the Head of the Division of Medicine (the Professor of Medicine) instead of responsible to the University directly through the Professor of Medicine. It was recognized that this was an untried innovation but it was felt that it had certain advantages.

In 1961 Dr H. Gordon, who was a registered physician with background training in cardiology and genetics, was appointed to this new post. In one sense he joined the Department of Medicine as a full-time academic physician on the same basis as some 15 other full-time physicians. He differed however in that it was agreed that his teaching duties and his clinical duties outside Groote Schuur Hospital would take considerably more time than in the case of other physicians. For this reason the University's contribution to his joint salary was greater than in the case of other physicians. It was also laid down that he would be *ex officio* physician to the Students' Health and Welfare Organization (Shawco). This excellent organization, while under the wing of the University, has no official relations with any of the departments of the Medical Faculty and it is organized by a committee in which student leadership is prominent. It is linked through a joint Clinics Committee with a number of dispensaries organized in the evenings by the medical student body.

This innovation and trial appointment, which ended in March 1969 with the departure of Dr Gordon to a Chair of Genetics at the Mayo Clinic, USA, should now be judged objectively before the vacant post is filled.

COMPREHENSIVE MEDICINE—AN EDUCATIONAL EXPERIMENT

As far as the Department of Medicine is concerned, Dr Gordon's activities fell under the following headings:

1. He was given charge of 12 beds for non-White patients in the firm of the Professor of Medicine.

2. He had a weekly outpatient follow-up clinic for patients discharged from these beds and it was decided to carry out an experiment in intensive follow-up by social workers at a weekly follow-up clinic.

3. He was responsible in his ward for clinical teaching which was to be 'comprehensive'. Social workers were always in attendance at teaching rounds and at one weekly

round, done jointly with the Professor of Medicine, one or more general practitioners were invited while occupational therapists, dietitians, physiotherapists and other medical auxiliary personnel attended with the social workers as occasion demanded.

4. One afternoon teaching clinic per week was held in the depressed district of Windermere. It was staffed by 3 general practitioners under the leadership of Dr Gordon.

5. One afternoon session a week was devoted to an intensive care area organized by Shawco. Students in rotation took responsibility for a sick patient and eventually for the whole of his family; periodic visits were made to the home and the findings were reported for discussion.

6. Dr Gordon was responsible, in consultation with the Professor of Medicine, for organizing and administering an Introductory Course in Medicine for 3rd-year students. This course included aspects of applied psychology, sociology and social anthropology in preparation for dealing with patients and their families in a multiracial community. In addition an intensive course of clinical demonstration was intended to introduce the student to the hospital work of the fourth year.

7. He was given a well-equipped laboratory in the Medical School in which he developed his interest in genetic studies. At a basic level these studies consisted of the development and application of a variety of genetic markers. At an applied level these were used to establish a 'genetic profile' for each of the main racial groups of the Cape Town area. Idiopathic hypertension was studied as a 'constitutional' disease in which numerous environmental factors played, over long periods of time, on a genetic profile of physical and mental characteristics. The genetic studies were further developed into a number of diseases with strong familial tendencies.

This experiment in 'comprehensive' medical care, teaching and research ended in March 1969 when Dr Gordon left for the USA. Interim arrangements were made for the remainder of 1969 and for 1970 and the value of the experiment is being assessed to see what modifications should be made for 1971.

The following are my general conclusions: As a service to patients the results were magnificent. The patient had excellent treatment and the best possible follow-up and aftercare within the limits of the society in which he lived. From the educational point of view there is no doubt that the experiment was highly valuable. Students learned in practice that investigation and treatment of a patient in a hospital bed, valuable as it is, is only part of a very much larger story. The genesis of his illness had often been determined by his family, occupational, social and cultural environment. Into this environment he had to return as a convalescent patient to be rehabilitated or looked after. A deeply-reaching anomaly in our social services frequently presented itself through the follow-up; namely that our current society demands that a patient should be declared 100% fit or 100% unfit. There is no room for intermediates except in the case of some special diseases, e.g. blindness, where sheltered employment is available. A patient with diabetes mellitus or following a myocardial infarction can get no sheltered employment. It is hoped that among many other matters the generation of doctors at present in training will demand a revision of this anomaly.

It is hoped and believed that the students participating in this experiment have learned many other things about the causes of disease, its treatment, the management of the patient's family and the patient's rehabilitation or chronic aftercare. All these matters may be discussed in clinical lectures and at bedside clinics, but they are discussed in a way which does not involve the student and which therefore leaves him personally untouched. The lessons are therefore never properly learned.

A major disadvantage of this scheme has been the very nominal attendance of 4th-year students which has been possible. It was desired that every student in the fourth year should have some experience of the work of a Comprehensive Care Clinic. In practice this meant that the students attended only 3 times in 3 successive weeks. Other teaching activities in Comprehensive Medicine were attended by only one-quarter of the class because greater continuity of attendance was thought desirable. The present experiment has been limited so far to the firm of the Professor of Medicine. The obvious answer is to extend the experiment to cover all 5 firms among whom the students are divided. This extension is simple in principle but will require very considerable organization and additional staff. It is being considered by a Faculty Committee on Community and Family Medicine.

The experiment undoubtedly had many weaknesses and it is our responsibility to ensure that these are corrected as far as possible. One is the dependence of the whole experiment on the personality of the Senior Lecturer in Comprehensive Medicine. His attitudes and convictions will largely determine the pattern of the educational experiments, and determine the impact which they make upon the mind of the student. Any succeeding experiment in 1971 is likely to be very different and to reflect the character and personality of another individual.

I should like to pay generous tribute to the indefatigable zeal and enthusiasm of Dr Gordon and to all those qualities in him which made his 8 years a success. No experiment of this sort could ever be perfect, but it was a great stimulus to our students and our staff to widen their horizons and see each patient as a person in a comprehensive setting. While remembering his excellent leadership, I must not forget to acknowledge the team of people who supported him so ably and translated his schemes into practice. They included social workers, secretaries, interns, registrars and colleagues drawn from general practice and from the specialist staff of Groote Schuur Hospital. There are so many that it would be invidious to mention any names. I must also mention the foundations upon which he began to build (described earlier in this article).

What is Comprehensive Medicine?

This is a large, intricate and somewhat controversial subject which needs a separate communication. In the meantime it is used in this article to include all those aspects of medical practice and training which are included in other Medical Schools under such terms as 'public and preventive medicine', 'social and preventive medicine', 'community medicine', 'family medicine' and 'general practice'; in other words, all those aspects of medical practice and medical education which are not

directly catered for in the clinical disciplines taught by registered specialists in the wards and outpatient departments of a large, modern general hospital. While Dr Gordon held the post which he recently vacated, he described the scope of Comprehensive Medicine in the following terms:

'It aims at filling these gaps in the conventional teaching approach. It supplements but does not replace the usual methods of clinical instruction. It aims at co-ordinating all the bits and pieces of information which the student receives from diverse sources, and by putting them together, it tries to provide a complete picture of the whole of medical practice—and always in relation to individual patients.

'Comprehensive medicine also aims at correcting the false impression of medical practice which an undergraduate may get in a highly specialized teaching hospital. He sees a "case" admitted to a medical ward: the intern takes the history, the registrar checks some of the physical signs, a technician does a blood count, the cardiologist reads the electrocardiogram and a gynaecologist examines the pelvis; then the chief prescribes a course of treatment, the junior nurse props the patient up comfortably, the senior nurse gives an injection, the sister passes a stomach tube, the dietitian plans the meals, the physiotherapist improves the vital capacity, the social worker arranges for sick pay, and the chaplain comforts the family.

'At some stage, it must be made clear to the student that this "assembly-line" procedure may be right and proper in a big hospital, but in domestic practice the family doctor has to cope with all these things himself.'[9]

An interpretation of the scope of comprehensive medicine is exemplified by the article by Mrs M. Torrington on the experience of the Comprehensive Care Clinic 1966 - 1967.[10]

It should be noted that the Comprehensive Care Clinic was only one of the duties of the Senior Lecturer in Comprehensive Medicine summarized under 7 headings above. With regard to his other activities, the principal deficiency was that the teaching in small groups was, for logistic reasons, confined to only a section of the whole class of students; where the whole class was included in small group teaching, the spread was very thin, i.e. 2 or 3 attendances in the year. With respect to the activity described under paragraph 5, I should like to pay generous tribute to the co-operation and work of Prof. Findlay Ford, Associate Prof. J. D. L. Hansen and the senior staff of the Department of Paediatrics and Child Health; also to Miss A. Moodie, Research Social Worker in the Department of Medicine .

THE FUTURE

It is my personal opinion that the co-ordination of the multifarious activities described in the last section under Comprehensive Medicine should be concentrated into a single department or sub-department. If a full department, then it should be under a professor, probably with the title of Professor of Social and Preventive Medicine or of Community and Family Medicine. If it is to be a sub-department, it should be particularly related to the Department of Medicine and its scope indicated by the term 'comprehensive medicine' or one of the titles suggested for the chair. In either case close co-operation, not only with the Department of Medicine but with the Department of Paediatrics and Child Health, is essential.

I do not favour a chair of general practice. The latter is, in my opinion, to be taught as postgraduate vocational training. Nevertheless the undergraduate student should be given far greater opportunity than at present to see during his undergraduate days the scope and attractiveness of general practice as a service to the community. To arrange this should be a function, through a lecturer in family medicine, of the department or sub-department referred to above.

SUMMARY

A brief review is given of the efforts to emphasize preventive and promotive concepts in the teaching of medicine at our Medical School from 1938 to 1953. These efforts were further developed during the years 1954 - 1960 by the appointment, within the Department of Medicine, of two successive Senior Lecturers in Social Medicine. In 1961, a Senior Physician (Comprehensive) started an experiment in teaching the preventive and promotive aspects of medicine, which lasted until 1969. This experiment is described in some detail. Its strength and weaknesses are appraised with a view to deciding whether this post should be filled by a new incumbent or whether the Medical Faculty should institute a Chair of Social and Preventive or of Community and Family Medicine. The various categories of duties administered by the Senior Physician (Comprehensive) give some idea of the scope of what is needed. It is concluded that at least one person, whether he be a professor or a senior lecturer, is needed to stimulate and co-ordinate the teaching of all those aspects of medical practice and medical education which are not directly catered for in the clinical disciplines taught by registered specialists in the wards and outpatient departments of a large modern general hospital.

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