library budget was about \$25,000—say £10,000. The average number of librarians in attendance was three. Subscriptions to current periodicals varied from 140 to 456. No medical school would dare to fall below these medium figures in any respect.

I think I could do no better here than quote the summary of the paper presented by Frank B. Rogers, the Director of the Armed Forces Medical Library in Washington, at the First World Conference on Medical Education:

"The medical library should be a collection of carefully chosen material organized so as to provide efficient retrieval of the subject content on demand; it represents the collective memory of the profession, and as such it deserves to be well ordered. Trends in medical education change rapidly, and the library's collection and services must be altered accordingly. Textbooks may be chiefly relied upon at one time, and at another case study with collateral reading in journals may be emphasized. Changes in the content of the curriculum must also be reflected in the library's collection if it is to fulfil its mission adequately. Increasing recognition of the interrelationships between medicine and the social sciences and the growing importance to medicine of the physical sciences require enlargement of the collection to include works on these subjects. A good library must also have a good librarian—one who has not only the special training needed to manage it, but also the ability to make it an attractive place in which to study. The library should be an integral part of the school, and the librarian should be regarded as a member of the teaching staff with teaching duties. Students need instruction in the use of bibliographical facilities if they are to make the best possible use of the library, and this instruction can best be given by the librarian and his assistants. Time for such instruction is now provided by many schools in America, in Britain, and on the Continent. The value to the student of an acquaintance with medical literature and the knowledge of how to use it which can be obtained from a good library cannot be overestimated."

Summary

Bedside teaching must remain the chief medium for the instruction of medical students in this country. It should offer all the advantages of the group discussion—close intellectual understanding between teacher and student, observations shared and deductions made in common, with a constant awareness of the human importance of the patient and of the urgency of his medical problem.

The chief defect of hospital teaching, that it does not fit a student for the medical management of patients in their own homes, will be satisfied only by the attachment of students for some part of their time or for some days at least in their clinical years to suitably chosen family doctors.

So long as the flow of medical students continues, lectures must remain as an economical method of introducing the students to the way of thought of their leading teachers.

Out-patient and polyclinic facilities not only in the main teaching hospital but everywhere they are available in the district should be used to the full for the clinical instruction of undergraduates, and some mechanism should be available for students to follow later in the wards and after discharge from hospital those patients to whom they have first been introduced in the out-patient department.

The clinico-pathological conference might be used to greater advantage in this country if it can be developed as a method of integrating the basic sciences of medicine with the management and treatment of the patient as a whole and of instructing the student in the natural history and progression of disease as it may be modified by treatment. The student should learn by it that even when treatment is proceeding the diagnosis must remain

largely provisional and become familiar with the habit of reviewing again all the facts about a patient when a new and apparently contradictory fact emerges. The tendency to make the clinico-pathological conference a detective-story session should be avoided.

It is the general view in England that the undergraduate student should not be active in research but should be provided with some knowledge of statistical method.

Standardization of projection equipment is suggested and the possibility of a central collection of teaching material is discussed.

Textbooks, libraries, and librarians are briefly considered.

THE ROLE OF PSYCHIATRY IN MEDICAL EDUCATION

BY

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The last Educational Number of the *British Medical Journal* published articles by Dr. D. Curran (1955) and Sir David Henderson (1955) and also a leading article on psychiatry in medical education and practice. The major common theme presented was that the place of psychiatry in the undergraduate medical curriculum needs to be reviewed. Although there was no disagreement regarding the need for increased psychiatric teaching and experience, it was clear that no simple formula existed whereby this might be implemented. All three articles agreed upon the desirability of a compulsory examination in psychiatry.

This, therefore, would seem to be a good time for us to examine the status of psychiatric education elsewhere. It seems likely that changes will be introduced in this direction in the British medical schools, and we should certainly benefit from studying the experiences of other countries. I write with the background of psychiatric undergraduate experience under Henderson in Edinburgh, postgraduate training and experience in Scotland, England, and the United States of America, and teaching experience currently at an American school where considerable expansion of psychiatric teaching and experience has already occurred.

The American Approach

American teaching of psychiatry is based upon the recognition that psychiatry has progressed beyond interest in the *abnormal* human only and is now interested also in the *average* man and how he relates to his total environment. One fairly acceptable definition states that psychiatry is the study of interpersonal relationships. This is a broad approach which recognizes the value of study of ordinary people so that we may understand their everyday difficulties and anxieties. However, it should be made clear that modern psychiatry, with its roots in the discovery of unconscious dynamics, does not compete with other approaches such as those of sociology or anthropology, but rather is complementary to them.

Such is the approach to psychiatric teaching now spreading throughout the United States. Integration of medical teaching is the obvious answer, so that the doctor can see

his patient as an integrated being and not as a collection of "systems," as a sick person and not as a "medical case," "surgery case," or "psychiatry case."

Integration of psychiatry with medical teaching did not come without a struggle in the United States, and the process is far from complete even though well in advance of many current British practices. The movement really gained momentum only after the second world war, and it is well described by Lidz (1955). Lidz states: "It is the recognition that the two heritages, the biologic and the cultural, are inextricably interwoven and can only be separated artificially that has brought psychiatry back into the main stream of medicine."

Methods at North Carolina University

Now let us consider an actual example of the integration of psychiatry and medical education based upon the concepts just discussed. I will describe the curriculum with which I am most familiar—that of the University of North Carolina School of Medicine. Here is a typical programme which exemplifies the American approach to the problem. I make no claims that the plan is ideal or cannot be improved. Some of what I report may seem impracticable to British eyes in terms of numbers of personnel and cost. Again, it must be admitted that such a programme is more easily implemented in a newer medical school which has fewer rigid traditions to be overcome.

The problem of finding additional time for additional psychiatric teaching may seem almost insuperable in some medical schools. One partial solution has already been found here, where the obstetrician or the paediatrician invites a psychiatric colleague to participate in the clinical teaching one day a week.

Such curricular changes as I will describe *could* be introduced into the British medical schools, and, I believe, inevitably will be.

The University of North Carolina School of Medicine ceased being a full four-year school early in this century, but continued to operate as a two-year school. After these first two years the student had to complete his education elsewhere. It became a full four-year school again in 1952 following the provision of adequate clinical facilities by the completion of North Carolina Memorial Hospital, which is the teaching hospital. (The reader who is unfamiliar with American medical education might refer to Sinclair (1955). Here it is sufficient to say that students enter medical school following at least three, and usually four, years of college, having completed subjects normally taken in first year by British medical students, and beginning at once with anatomy, physiology, and biochemistry.) At present there are 250 medical students (about 60 in each year) and 107 full-time faculty members who are also responsible for the instruction of 90 interns, residents, fellows, and trainees. There are 400 beds in the Memorial Hospital; also a 99-bed tuberculosis sanatorium and 72 beds in the psychiatry wing. The medical school is one part of the division of health affairs, which also comprises schools of nursing, public health, dentistry, and pharmacy.

The Department of Psychiatry with which we are concerned has grown rapidly under the leadership of Professor George C. Ham. There are now 13 full-time faculty members in the department plus six part-time psychiatrists. Several are psycho-analysts, others have had personal analyses, and all can be said to be "analytically orientated." Others involved in teaching duties include general physicians, psychologists, psychiatric social workers, and social scientists. There are 20 residents taking a three-year training course in psychiatry (equivalent to British registrars), during which each spends six months gaining experience in the State mental hospitals. In addition to the in-patient department there is an out-patient department which dealt with 5,101 appointments from October, 1954, to October, 1955. Full-time faculty members are encouraged to remain clinicians and

researchers, in that only about half of their time is expected to be spent in teaching undergraduate students or residents.

First Year

In addition to the usual subjects (anatomy, physiology, biochemistry), experiments are being conducted with a course in human ecology. During a five-year experimental period the course is being financed by the United States Public Health Service. The aims are to present the student with a multidisciplinary approach to the study of patients and to inculcate in him a constructive attitude towards human behaviour. Two hours were assigned to this weekly for 36 weeks. In 1954-5 the 12 teachers involved were all physicians, including two psychiatrists. During the first hour of a two-hour session the whole class attended a history-taking interview with a patient. A general discussion followed, then on the following week each teacher met a group of six students, who appointed one of their number to report the small group discussion to the whole class. This report was given during the third weekly session, at which time follow-up reports were also given on patients previously seen. Such an approach made apparent the many points of view from which the patient could be seen. For example, different groups discussing a patient with pulmonary tuberculosis presented their discussions, which covered such aspects as lung pathology, therapy, psychological reactions to illness, economic consequences, etc.

In the year 1955-6 the same course has been conducted differently. The 12 teachers now include four psychiatrists, two social scientists, one social worker, one psychologist, one cultural anthropologist, one pathologist, and two physicians specializing in preventive medicine. During the first term the small group meetings spent an hour each week discussing the previous lecture, which was given by either a psychiatrist or the cultural anthropologist. The topic discussed was the cultural and biological development of man, and included talks about and demonstrations with a new-born child. The second term was spent on the specific methods of study available to the doctor, and covered such topics as the physical examination, history-taking, interviewing, psychological tests, social work, and laboratory studies. Patients selected to demonstrate the various methods of study were presented before the whole group. The third term followed the programme used throughout the previous year, patients being presented and the results of all points of view being correlated. Students were invited to go on field trips to study suitable patients in their home environment and to bring back reports, pictures, and films. Over half the class volunteered to devote their spare time to this—an index of their interest and enthusiasm.

Such different methods of presenting this course in human ecology will be used for at least five years, and it may be that one or other method will prove to be best suited for routine use in the future. All classes of students are tested concerning their attitudes towards human behaviour (Saslow and Mensch, 1953) before and after the course, and this should prove useful in comparing the various techniques. Already, however, it is clear that these students enter their second year with a far broader viewpoint of man in sickness and in health and well acquainted with "seeing the patient as a whole."

Another group of three psychiatrists is involved in a teaching experiment aimed at making the basic sciences seem less abstract and separate from clinical medicine. In particular, the subjects of biochemistry, physiology (first year), and pharmacology (second year) are receiving attention. Examples include responses to the stress of venepuncture and gastric intubation, reactions to special diets, influences of anxiety on hypertension and water retention, physiological and psychological responses to drugs, and experiments on perception. This work will be reported in detail by Hawkins. Here I will refer only briefly to one such experiment. When the first-year students were called

upon to perform venepuncture upon each other as part of a biochemistry experiment, the opportunity was taken to use the same setting for a psycho-physiological study. Students worked in groups of three, the subject being the one whose blood was drawn, the experimenter the one who performed the venepuncture, and the analyst the one who observed and recorded the behaviour of the other two. Records were kept concerning all students, involving a group of physiological measurements, urinary frequency, diarrhoea, tremors, tension feelings, etc., both before and after the venepuncture as well as on a control day. In addition, some of the subjects had short psychiatric interviews before and after. This experiment led to a five-page mimeographed summary and conclusion, which all students received (Hawkins, personal communication, 1955). This useful document cannot be summarized here, but a few typical findings are mentioned.

"This was a stressful situation to which 67 out of 70 people involved reacted with some psychological change. There was variation as to the amount of subjective and objective response, also as to the types of physiological changes shown. Of the physiological modalities measured, a pulse rate change of greater than 10 was the most common, there being 56 recorded changes. In some cases it was clear that the analyst tended to identify with the subject and in some cases with the experimenter. For the subjects the stress was clearly concern about injury to themselves. . . . There seemed to be two major problems for the experimenters to deal with. One of these was concern about hurting or injuring the subject and guilt if this indeed happened. The second problem for the experimenters was that of concern about performance. . . . The thing which singly seemed to cause the most upset in the subjects was loss of confidence in the experimenter. The implications of this are far-reaching, and are very important for the whole concept of the doctor-patient relationship. . . . In summary then, in the doctor-patient relationship the patient derives much security from what he perceives, whether rightly or wrongly, to be the doctor's confidence and security. . . . It was observed that an important technique for dealing with this tension was to joke and laugh and also to make the anticipated stress sound worse than it really was. . . . Some individuals left out very important areas of description as judged from the reports of other individuals in their groups. It was clear in many instances that these omissions had emotional significance for the person making the omission. This is evidence of the beginning technique of repression, or forgetting things which it is not desirable to remember."

Second Year

Second-year students attend a course on psychiatry which, although based on a theoretical and academic approach, involves application of learned material to clinical situations. Students are expected to read assigned sections of a standard textbook, and ancillary reading is prescribed in special areas. This reading runs parallel to the weekly lectures (for 36 weeks), which are sometimes clinical presentations. Each week students in groups of six also meet psychiatrists for free discussion on the subjects under study. These follow no set plan, and may include clarification of students' ideas, amplification of textbook material, meeting an actual patient whose problems are more or less relevant, etc. During the year students observe at least three psychiatric interviews through a one-way screen.

The whole programme provides the student with the necessary background material for application of psychiatric principles to patients seen in a clinical setting.

Third Year

Students in groups of about 10 spend seven weeks on the in-patient psychiatric wards. Each student is assigned to a resident with whom he sees patients; he also attends psychotherapy and supervisory sessions with a senior psychiatrist. The student is required to record his findings and daily reports on the patients' charts and has to present about three cases at conferences during his assignment to psychiatry, as well as attend other seminars. During the clinical teaching of psychiatry in both third and fourth years there is liberal

use of the one-way screen for demonstration of interviews, psychotherapy in progress, and play therapy.

The average patient stays on the in-patient service for about three weeks, so that in many cases the student can follow patients from admission to discharge. When he has been instructed in psychotherapy for some time he is often allowed to conduct this treatment, under close supervision, in selected patients. Of course, such treatment is of the type that involves the support and clarification that the competent general practitioner should be able to undertake, rather than a delving into unconscious material. For one week the student stays at a State mental hospital, so that he gets a first-hand view of the type of problems involved, and can observe chronic patients and the large-scale use of the physical therapies.

Fourth Year

Students are assigned for seven weeks to the out-patient clinic of the department of psychiatry. Here they evaluate new patients seen at intake interviews, present their findings at conferences, and begin the psychotherapeutic programme which is planned. A goal-limited type of therapy is instituted whenever possible, involving from 10 to 12 interviews taking not more than seven weeks. At a previous stage of organization an attempt was made to pass patients on from one student therapist to another, but this is now avoided whenever possible. Patients who cannot be offered some help by the goal-limited plan are mostly seen by residents or senior psychiatrists. The newer plan has produced some remarkably good therapeutic results, and students are enabled to see that they can often adopt a psychotherapeutic role, no matter in what field of medicine they are to practise. Supervision of the psychotherapy is continued regularly by psychiatrists.

During all his clinical training the student is kept psychologically aware. As mentioned already, psychiatrists visit and participate in clinical teaching on the other services. When the student writes up his findings on any patient he is expected to have taken a full developmental history and to have considered emotional factors. The general attitude of the physicians teaching internal medicine is one which helps the student to keep the psychiatric viewpoint in mind. Again, when the student examines a ("non-psychiatric") patient in the general out-patient clinic and prepares to present his findings, he may discover that his faculty supervisor is a psychiatrist. Members of the psychiatry department attend all combined staff conferences to propound the psychiatric viewpoint when necessary, even though the patient under consideration is not suffering from a psychiatric condition. A particularly close liaison exists between the department of paediatrics and the child psychiatrists, and regular conferences and discussions centred in the patients are held.

Comment on the Curriculum

This, then, is a brief description of how the subject of psychiatry is being integrated into one medical school curriculum. The plan is not revolutionary, but is the inevitable consequence of the coming of age of psychiatry, and none of us who are involved in this particular programme would claim that it has yet gone as far as it should. Certainly it is impossible yet to say what will be regarded in the future as the ideal medical undergraduate curriculum. However, in the United States the prevailing opinion is that there is a need to break down interdepartmental barriers and to present a correlated teaching approach. Devices to achieve such a goal have been discussed by Cameron (1954), and Harper (1955) has also described a typical curriculum.

Already we can begin to see results not only in that students evince desire to know more about psychiatry but that the general practitioners of to-morrow are able to feel competent to make a psychiatric diagnosis and to feel less helpless when confronted by everyday psychoneurotic and psychosomatic problems. In many instances they can

conduct the superficial psychotherapy which is often all that is required. Of course, the old-style family doctor did this (although often with less awareness of just what he was doing), but undoubtedly the birth of a more truly scientific medicine tended to make doctors sceptical of everything that could not be expressed in terms of physical and laboratory studies. The integration of psychiatry into the medical curriculum is putting an end to the narrow viewpoint.

In addition to being able to handle simple psychiatric problems himself, the new doctor is able to understand the viewpoint of the specialist psychiatrist, and often the latter may be able to see a patient in consultation and then advise the local physician how to handle the problem. The doctor who understands the significance of the child-parent relationship is bound to be in a better position to advise the families under his care, and can thus contribute to preventive psychiatry. There are other long-term advantages to be expected from the programme, but any one of the above points would justify its adoption in the medical undergraduate curriculum.

Examinations

Comprehensive and integrated examinations were introduced at the University of North Carolina School of Medicine in 1955. Students in the clinical years had 1,000 multiple-choice questions to answer. These were based on the types described in the booklet of the National Board of Medical Examiners (1954) and fully described and discussed by Sinclair (1953). All areas of clinical practice were covered by a series of small committees which drew up the questions, and a psychiatrist participated in each committee, as did representatives of all the general and special fields. The result was that, although there was no specific examination from any one viewpoint such as that of surgery or medicine, the total examination more thoroughly searched the student's knowledge than dozens of essay-style examinations could have done. In considering any type of clinical problem the questions involved a real multidisciplinary approach, and the psychiatric viewpoint fell naturally into place. This perhaps was the culmination of the integration of psychiatry.

Students are not examined in psychiatry separately, but are evaluated and graded by the teachers of the small groups in the theoretical and clinical psychiatric courses.

Summary

It seems to be agreed by many that more time is required for the teaching of psychiatry in the undergraduate medical curriculum.

A plea is made for the integration of psychiatry into the general stream of medicine.

The curriculum of an American medical school is described, and the means whereby such an integration is being achieved. The goal is to produce physicians who have a broad scientific awareness, plus understanding and skill in observing their patients with regard to the psychical aspects of aetiology, reaction, and treatment.

It is hoped that such experiences may prove helpful in future planning of the British medical schools.

REFERENCES

- British Medical Journal*, 1955, 2, 538.
Cameron, D. E. (1954). *Proceedings of the First World Conference on Medical Education*, edited by H. Clegg, p. 302. Oxford Univ. Press.
Curran, D. (1955). *British Medical Journal*, 2, 515.
Harper, E. O. (1955). *Amer. J. Psychiat.*, 111, 686.
Henderson, Sir David (1955). *British Medical Journal*, 2, 519.
Lidz, T. (1955). *J. med. Educ.*, 30, 689.
National Board of Medical Examiners (1954). *National Board Examinations*. Philadelphia.
Saslow, G., and Mensch, I. N. (1953). *J. med. Educ.*, 28, 37.
Sinclair, D. C. (1953). *Lancet*, 2, 947.
— (1955). *Medical Students and Medical Sciences*. Oxford Univ. Press.

TEACHING IN THE GYNAECOLOGICAL OUT-PATIENT DEPARTMENT

BY

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Sir James Spence believed and taught that the out-patient department was the most valuable of the instruments of teaching available to the clinician and that it could best be used to teach the student, by example, the art of consultation. Spence (1949) considered consultation to be the essential unit of medical practice. In his own words, "The real work of a doctor is not an affair of health centres or public clinics or operating theatres or hospital beds. Techniques have their place in medicine but they are not medicine. The essential unit of medical practice is the occasion when, in the intimacy of the consulting-room or sick-room, a person who is ill or believes himself to be ill, seeks the advice of a doctor whom he trusts. This is a consultation, and all else in the practice of medicine derives from it."

Its Form and Purpose

This concept of out-patient teaching stresses the professional relationship and is especially applicable to gynaecology, for great care and tact are required in dealing with patients whose complaints are so often of a personal and intimate nature. With these principles in mind the gynaecological staff of the Royal Victoria Infirmary two years ago reviewed the form and purpose of undergraduate teaching in the out-patient department. Two morning sessions are held a week and up to 30 patients are seen by appointment on each occasion. At these clinics three experienced gynaecologists are in attendance; each takes from two to four students. The patient's history is taken by the gynaecologist with the students seated discreetly in the background acting as observers. The patient is then prepared for examination by a nurse, and one student accompanies the gynaecologist into the examination cubicle. Again the student is largely an observer, but, at the discretion of the member of staff, certain findings may be demonstrated and he may be allowed to palpate the abdomen or make a pelvic examination. In the privacy of the consulting-room, out of the patient's hearing, the case history, findings, and disposal are discussed with the small group of students. During the student's last week in the clinic he is given the opportunity of conducting a few consultations, with the gynaecologist acting as observer. His technique is afterwards discussed freely.

As each new group of students is attached to the gynaecological unit the clinical teaching programme is explained to them. At this preliminary meeting the form of teaching in wards, out-patient clinics, theatres, and tutorial is described, and every effort is made to present an integrated pattern of teaching. Lest the students should consider that this form of out-patient teaching may mean less practical experience for them, it is pointed out that there will be ample opportunity for 'case-history' taking in the course of their work in the gynaecological wards and in the wards of the maternity hospital. Similarly they are reassured that their main experience of pelvic examinations will be obtained in the operating theatre; such examinations as they are allowed to make in the out-patient clinics are essentially to emphasize the need for gentleness.

Discussion

The idealism with which many students begin their medical course is apt to be lost in the hard and constant assimilation of facts in the years of training, and it is surely one of the