that the somewhat analogous social distribution of coronary thrombosis is related to the physical activity of occupation.

We are unaware of any comparable figures in the literature of multiple sclerosis, but the Registrar-General (1958) presents a social analysis of patients dying of this disease which is based on social status at the time of death. No correlation was found between multiple sclerosis and social class among men aged 20–64, but in married women of all ages and in men over 65 there was a steep mortality gradient with a relative predilection for the two highest classes. Our figures relating to social status at the onset of the disease reveal no such sex differentiation, and it has seemed to us that part of the discrepancy between the two groups of figures might be related to the social decline which is often the fate of the family when the husband is affected by the illness and may have to abandon his original occupation. If, on the other hand, it is the wife who develops multiple sclerosis there is no change in her husband's occupation and no consequent decline in her social status. A further factor may be concerned in the social gradient evident in both sexes over the age of 65; prolonged survival is almost certainly favoured by the extra care commonly associated with improved economic circumstances.

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TEACHING OF PSYCHIATRY AT NATIONAL TAIWAN UNIVERSITY

BY

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The introduction of modern psychiatry to Taiwan—a society with traditional Chinese culture and social institutions on the one hand and the transitional uneasiness arising out of rapid industrialization and modernization on the other—called for special consideration and careful planning. Psychiatry had held almost no position in medicine and public health in the 50 years since the introduction of modern medicine; this was regretted, but was regarded as not entirely a disadvantage at the inception of a mental health programme, because there would be no need to revise or abolish obsolete or undesirable practices and regulations, or to retrain the personnel.

As a first step, census surveys of a sample population in three communities—rural, small town, and urban—were carried out from 1946 to 1948; they yielded a clear picture of the prevalence of mental disorder and its relationship to social factors (Lin, 1953). This became the basis of the mental health programme.

Given the lack of trained psychiatric personnel of any category, the magnitude of mental health problems revealed by the surveys constituted a special challenge when it came to formulating and implementing a long-term programme. To this end an intensification of the undergraduate teaching of psychiatry was designed and became the central focus of the activities of the Department of Neurology and Psychiatry of the National Taiwan University Medical College in the first ten years of its establishment.

The reasons for this decision were: (a) The training of specialized personnel alone never catches up with the needs of the community. Properly trained general physicians should be able to handle mild psychiatric problems. (b) Since the surveys revealed that over 95% of patients lived at home, one questions the wisdom of erecting gigantic mental hospitals as the major policy of the mental health programme. Home care and rehabilitation programmes should be the main emphasis, and therefore local practitioners should be trained in this respect. (c) The public health services which were originally developed for combating organic, especially communicable, diseases should be regarded as prospective resources for community mental health programmes. (d) For the sound development of psychiatry as a specialty in medicine, the attraction of young, intelligent, and properly motivated graduates is essential.

In summary, instead of concentrating on training specialists to meet the psychiatric problems, emphasis was to be laid upon the integration of psychiatry into the medical curriculum for training medical students in understanding and forwarding the mental health programme.

The character of the medical curriculum is difficult to change, particularly so when it has to do with psychiatry. It was due to a combination of the following circumstances that it was possible to remodel the teaching of psychiatry at the National Taiwan University Medical College. In 1953 and 1954 the medical curriculum of the university underwent drastic revision; to increase efficiency the "block system" of teaching was adopted, and teaching hours were redistributed in accordance with modern medical trends. The recommendations regarding psychiatry of the two advisers on medical education* came as a surprise, both to the non-psychiatric faculty and to the psychiatry department, because in the place of 64 hours of lectures on psychiatry for the whole medical curriculum 16 hours were to be given as a course in medical psychology and 14 hours for neuro-psychiatric diagnostics in preclinical years; each student was to have clerkship training for nine full weeks—a total of 300 hours in clinical psychiatry—and, moreover, half of the students were to spend six to seven weeks as interns in the final year. This intensification of psychiatric teaching was naturally regarded by the other departments as an invasion, and certainly presented a formidable task to the understaffed Department of Neurology and Psychiatry.

The timely publication of the report of the Ithaca Conference (American Psychiatric Association, 1952) made this seemingly impossible teaching load both a challenge to take its share of responsibility in medical education and an opportunity to forward the advance of psychiatry.

*Dr. H. Brown, Dean of the School of Public Health, Columbia University, and Dr. W. C. Davison, Dean of Duke University Medical School, were I.C.A. medical education consultants in Taiwan in 1953 and 1954.

Aims and Principles of the Teaching Programme

Psychiatry was taught: (a) as a specialty of medicine in treating mentally sick people; (b) as the introduction of psychosomatic medicine and the psychology of the physically ill; (c) as a part of the basic philosophy of medical education in presenting the concepts of the whole man and of sound doctor-patient relationships; and (d) from the point of view of its part in community health programmes through its presentation of the individual as a member of a family, society, and culture.

It was aimed to develop in the student:

1. The ability to conduct a good medical interview and to make pertinent observations concerning biological, psychological, and social aspects of behaviour in patients.
2. The ability to assess correctly the condition of patients who are emotionally disturbed and who may be expressing their distress in physical, psychological, or social symptoms. This implies a reasonable understanding of the zones of healthy and sick behaviour in a society, and, more particularly, the ability to differentiate between normal, neurotic, psychopathic, psychotic, and intellectually defective behaviour.
3. The understanding of what the physician who is not a psychiatrist can do and should do: (a) in the management and treatment of emotionally healthy people who have become sick, (b) in the management and treatment of emotionally sick people who may or may not have physical symptoms, and (c) in the management of disturbed patients, particularly those who may come to the general physician.
4. The understanding of the roles of other health workers and ability to work with other members of the therapeutic team.

The encouragement of self-education and critical thinking on the part of the students was regarded as essential. The following methods were used in addition to lectures which were confined to the preclinical years: (a) Seminars in groups of 16 to 18 students. (b) Case-work with out-patients as the main clinical teaching, with a view to presenting common psychiatric problems to the students. (c) Case conferences for instruction in intensive case-study. (d) Tutorial system—both for case-work and for seminars. (e) Research—students were encouraged to participate in on-going research projects.

The department consists of one professor, four lecturers (including one neurologist), one senior psychiatrist, one child psychiatrist, six residents, one consultant in psychiatric social work, and two psychologists. Either the professor or one of the lecturers takes charge of each group of clerk students for the entire nine weeks, assisted by the others as tutors. The class of 70 students was divided into four groups.

Outline of the Programme

Course in Medical Psychology.—The aim of this course is to prepare the student to acquire a broader concept of human biology and an understanding of the growth and development of human personality as a bio-psycho-social being. The following topics are discussed in the course: the meaning, scope, and applications of medical psychology and psychiatry: the conscious and the unconscious; the functions of the cerebral cortex; the function of the autonomic nervous system; the physiology of the hypothalamus in relation to emotion; the development of the child in relation to its environment; the concept of adaptation mechanisms; the structure and types of personality; social aspects of personality development; personality growth in relation to the Chinese family and culture.

Course on Neuro-psychiatric Diagnostics.—The aims of this course are to prepare the student for a better understanding of the psychology of the ill and of the importance of the doctor-patient relationship in a general medical setting, and to enable the student to observe and record the signs of subtle and gross abnormal behaviour.

Teaching Programme for Clerkship Students

This teaching is carried out at the Department of Neurology and Psychiatry of the Taiwan University Hospital and the attached Taipei Children's Mental Health Centre. The characteristic features of this clerkship-training programme consist, in the first place, of the students' active participation in clinical work with ambulatory patients. Two students form a team to deal with an unselected case every morning, one acting as the doctor and the other as a social worker. They complete the history of the patient, assess the nature and severity of the problem, and formulate plans for treatment. This is followed by the interview and examination of the patient by an instructor, who is a senior psychiatrist, who will discuss the case and comment on the case-work done by the students. This arrangement in the mornings enables each student to do case-studies under supervision on about 30 psychiatric patients, 15 neurological patients, and five children in the whole period.

The students are also present at the daily case conferences, which are attended by the staff of the Department of Neurology and Psychiatry and occasionally of other departments, doctors, nurses, social workers, psychologists, and occupational therapists. Two psychiatric cases, one a psychosomatic case and/or neurological case, and one child case are presented each week. These case conferences acquaint the student with the multi-disciplinary approach of the psychiatric team.

The daily student seminars provide the academic instruction, not only to impart knowledge of psychiatry and its relation to other medical disciplines, but also to help students to independent and critical thinking. In three weeks of nine seminar sessions the major topics in the textbook of psychiatry are covered. The next six weeks, 18 seminar sessions in all, are used for discussion of individual papers presented by each student. The topics are chosen from a prepared list which includes about 60 subjects, classified into six areas:

The Biological Basis of Mind.—This includes cortical function; cortico-subcortical relationship and consciousness; the physiological basis of emotion; electroencephalography.

Personality Development and Child Psychiatry.—The concept of mature personality; enuresis; hypochondriasis; effects of parental deprivation on mental health; effects of parental overprotection on mental health; juvenile delinquency; psychological testing.

Clinical Psychiatry and Psychiatric Treatment.—Heredity of psychoses; physiology of mental disorder; shock-therapy; psychotherapy; group therapy; occupational therapy.

Psychiatry and Medicine; Psychosomatic Medicine.—Theory; the concept of psychosocial medicine; headache; backache; peptic ulcer; hypertension.

Mental Hospital.—Psychiatric hospital as a centre for preventive work in mental health; an integrated mental health service; the advance from custodial to therapeutic patient care in mental hospitals.

Mental Health; Psychiatry, Community, and Law.—Epidemiology of mental disorder; interrelations between the

social environment and psychiatric disorders; cultural influences in personality development; the effect of urbanization on mental health; psychiatry and law.

For the presentation each student is assigned one instructor to help him to prepare the paper by reading articles and books, and, if necessary, carrying out some laboratory or practical experiment. Each presentation is followed by discussion among the students and with the instructors, with a final summing-up by the senior instructor. Through these seminars the student should obtain a general picture of the current problems and trends of psychiatry, and also the position and role of psychiatry in relation to medicine, public health, and society.

The students spend one week on a ward to acquaint themselves with the life of the patients, the therapeutic atmosphere, and the actual team-work in the therapeutic situation. Personal experience of the improvement in a patient's behaviour will usually correct some of the student's misconceptions about psychiatry and change his attitude to mental illness.

Neurology is taught with psychiatry as an integral part of the curriculum; seven seminars, nine case conferences, and two weeks of work in the outpatient department are allocated to it. This is designed to help the student to understand the integrative function of the central nervous system in relation to outside stresses and also to the internal organs.

For seven weeks before graduation one-half of the students take up psychiatry as part of their rotating internship training. The limit placed on the number of students is due to the restricted facilities available. The aims of the intern training are to develop the students' understanding and skill in psychological medicine, in order that they may deal with mild psychiatric problems with greater confidence. Three types of instruction are given. First, psychotherapy of two patients under supervision; secondly, actual experience in dealing with psychiatric problems in the emergency clinic; and, thirdly, further experience in a ward with treatment procedures both in physical and in occupational and rehabilitational treatment.

For graduation the student is required to present a thesis on one subject in the medical curriculum. Work on the thesis usually starts towards the second half of the clinical years. Since the implementation of this new teaching programme about one-fifth of the students choose a subject in psychiatry. These research activities have certainly been regarded as a most fruitful experience both by the students and by the staff.

Evaluation and Discussion

The results of the teaching programme remain to be seen and should be carefully weighed. No one can assume that the effects of a teaching programme run parallel with the thoughts and efforts put into it. The following observations, however, may justify my view that this programme should continue in Taiwan.

The morale of the staff of the Department of Neurology and Psychiatry has risen substantially since the inception of the new programme. Their enthusiasm in carrying out the programme has been remarkable; all the senior staff spend at least 18 hours a week with the students in clinical or seminar sessions and the person in charge of each block of clerkship teaching up to 24 hours. Their keen interest has also been reflected

in the constructive comments on the students' responses, which have helped to improve the programme.

The response of students to the programme has been most encouraging. At the beginning of the clerkship programme the prevailing air, on the part of the student, of anxiety and prejudice against the scientific grounding of the psychological sciences gradually gave way to that of interest, active participation, and animated teacher-student relationship; however, usually one to three students in each group of 16 to 18 remained indifferent or even hostile. A measure of the genuine interest in psychiatry is given by the voluntary participation in the research projects and the large number of graduation theses written on this subject.

Another important feature is the appreciation expressed by students for the teaching method, which is strongly biased towards self-education. At the final session of each clerkship training period, when free discussion takes place, it has been a common experience for one or two students to volunteer statements, such as the following, with which many others agree: "I have learned, among other things, to think independently." "I resented at the beginning of the course the fact that we were not being taught as in the other departments; instead of being given the knowledge and theories in one, two, three order, we had to work hard in order to discuss the subjects intelligently in the seminars, but now I am glad that we have been taught in this way." "I feel more confident now of being able to organize and express my thoughts quickly."

The increase of more intelligent consultations on psychiatric problems from other departments may be the result of the intensive psychiatric instruction. The effects on the other departments, however, need more time for careful assessment. The ill-feeling among the staff of other departments caused by the increase of psychiatric instruction is still present, and may unfortunately continue until an objective evaluation of the contribution of psychiatry to medical education can be made and accepted.

There is still room for further improvement in this teaching programme. First, the teaching of medical psychology and psychiatric diagnostics in the preclinical years is not satisfactory for the instruction of the broader concept of human biology. Secondly, the need for more co-ordinated teaching with other clinical disciplines and public health is keenly felt. Thirdly, both students and staff recognize the desirability of following up patients and participating in the domiciliary services. Finally, some clinical experience in a mental hospital is desirable. This has to wait until an adequate therapeutic atmosphere prevails and competent psychiatric personnel are available for teaching in the hospital.

This teaching programme may, and will, change in accordance with the scientific evolution and the needs and resources of the time. The clear recognition of its dual responsibility—in taking a proper share in medical education and in preparing the ground for the growth of psychiatry and the mental health programme in Taiwan—should guide the future development of the programme.

Summary

The teaching programme in psychiatry at the National Taiwan University was devised to meet local needs and local conditions; surveys yielded a clear picture of the prevalence of mental disorders in the community, in

which the great majority of patients were cared for at home. Given the lack of trained personnel, it was felt expedient not to concentrate upon training an inevitably small number of specialists, but to guide the future physicians in understanding and forwarding the mental health programme and to instruct them to treat mild psychiatric problems competently.

To this end the teaching of psychiatry in the Medical School was intensified; a total of 330 hours, of which 300 consist of clinical clerkship training both in out- and in-patient departments, with direct contact with patients, case-conferences, seminars, etc., was devoted to it for all students, with, moreover, half the students spending six to seven weeks as interns in the final year. Psychiatry was taught: (a) as a specialty of medicine in treating mentally sick persons; (b) as an introduction to psychosomatic medicine and the psychology of the physically ill; (c) as a part of the basic philosophy of medical education in presenting the concepts of man as a bio-psycho-social unit and of sound doctor-patient relationships; and (d) from the point of view of its part in community health programmes.

Possible criteria for evaluating the success of this teaching programme are discussed.

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PRETIBIAL MYXOEDEMA

BY

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Pretibial myxoedema is a condition in which there is local thickening of the skin by a mucin-like deposit; it is nearly always associated with exophthalmos and with past or present hyperthyroidism. Pretibial myxoedema is not rare, but most papers and textbooks dealing with the subject do not convey this, probably because only extreme examples are usually recognized. In a recent comprehensive review Graciansky, Leclercq, and Youénou (1957) collected 151 case reports, many of which were of single severe cases; some descriptions were purely dermatological, and exophthalmos and the endocrine state were unrecorded.

Present Investigation

Between April, 1956, and September, 1958, 280 patients with thyrotoxicosis were admitted to the medical wards of St. Thomas's Hospital; 12 of these (Table, Cases 1-12) had pretibial myxoedema or developed it later, an incidence of 4.3%. Transient lesions may well have been overlooked, and the true incidence was probably over 5%. Some findings in 23 patients (4 men, 19 women) with pretibial myxoedema are described, the lesions having been observed for more than a year in every case. The condition produced severe swelling of the feet and legs, causing some disablement in four patients; these four and two others also had thyroid acropachy (Gimlette, 1960) (see Table). The changes

FIG. 1.—Case 2V. Early lesion (actual size 4 cm. across) showing thickening of skin and coarse hair, and involvement of minute scar at upper left edge of lesion.

in the other patients were milder and in some cases rather insignificant. The age at onset of pretibial myxoedema ranged from 31 to 64 years.

The earliest stage of pretibial myxoedema was a shiny red plaque a few millimetres in diameter, usually on the anterolateral side of the lower half of the leg. Several separate lesions often appeared simultaneously, sometimes first on one leg, sometimes quite symmetrically; they might progress no further, or regress, or the plaques might enlarge and grow together. The condition was seen unilaterally only in the early stage. The area of the lesion was usually quite bright red, particularly when warm, or it might appear cyanotic; when bloodless the lesions were yellowish. Often notably coarse hair grows, and excessive sweating occurs, in the area of the lesions (Fig. 1).

About half the patients complained of irritation, and the lesions occasionally became modified by lichenification and scaling. In the four most severe cases the lesion spread to involve most of the skin of the legs up to the knees; the ankles and feet were also involved, and in these latter parts there was hyperkeratosis; deep folds appeared in the thickened skin, and the appearance of the feet resembled that of elephantiasis (Fig. 2). In one such patient (Case 4) lymphangiography (Professor J. B. Kinmonth) showed normal lymphatics at the early stage, when there was pitting oedema of the feet; this later changed to hard

FIG. 2.—Case 4. Two years after onset of pretibial myxoedema. Changes in skin of foot resembling elephantiasis; earlier there had been pitting oedema. Biopsy scar on outer side of leg.