TWENTY-FIVE YEARS IN MEDICINE

A RETROSPECT

BY

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"Dear Fellow-Student,—Nearly 25 years or more have passed since we graduated in the years 1923, 1924, 1925, and 1926. In the intervening period we have become dispersed all over the globe and into every branch of the profession. Some, no doubt, have been more fortunate than others; not a few have died long ere their prime. The experience of the goodly company must form a most interesting and not insignificant chapter in medical annals."

These were the opening lines of a letter which a group of doctors* addressed in 1950 to their companions of undergraduate days.

Origin of the Inquiry

In June, 1951, the University of Glasgow was due to celebrate the quincentenary of its foundation. Many graduates, it was anticipated, would make the pilgrimage to join in the ceremonies and to pay tribute to their Alma Mater. A small group of medical graduates foresaw in this occasion a unique opportunity for a reunion with their fellow students, in which it might be possible to discover something of the collective story of the years between.

The men involved were the graduates in medicine in the four years 1923-6, which means that by 1951 each had achieved at least 25 years of practice. In the course of their lifetime they had endured two world wars and the economic slump of the early 'thirties; they had lived in a golden age of advance in medicine and had been involved in the inception of the National Health Service on July 5, 1948. As undergraduates they had studied under such renowned teachers as Macewen, Muir, Cathcart, and Carl Browning, and from these teachers they had shared in the continuing glory and inspiration of Lister, Hector Cameron, and Gairdner. As medical men, over a quarter of a century as rich and varied as any in the medical and social history of Great Britain, they had experience of three generations of practice and teaching, as exemplified by their teachers, their contemporaries, and their assistants, who in some instances were their own sons and daughters.

Method of Inquiry

The only means of contacting each individual was by a questionnaire distributed by post. All the names were available in the graduation lists. Information enabling us to trace those still alive was available in the current *Medical Register*. In the case of those deceased the Registrar of the University was able to provide certain particulars.

The committee was fully aware of the defects of this type of survey, and that the response might not exceed 30%. The purpose of the inquiry was explained in a covering letter, of which the opening lines have been quoted, and it is worthy of record that not only did 48% complete the form but many expressed their gratitude for this link with the past. There were 25 questions, occupying four foolscap pages, and these required much time and thought. The questions were divisible into two main groups: (a) facts and (b) opinions. The nature of these appears from what follows.

Population at Issue

The graduates numbered 899, and at June 30, 1951—a minimum interval of 25 years since graduation—800 were alive and 99 dead (Table I). Of the 800 survivors, 385 (48.1%) completed and returned the questionnaire.

The Registrar of the Medical Council has provided the details, shown in Table II, of new medical registrations

for the same years. Scotland therefore provided 40.8% of the total new medical registrations in Great Britain, while the present group represented no less than 11.9%.

In the relative number of replies and in the analysis of the data which follows there emerged a remarkable identity in the individual years. While this is not proof that the respondents constitute a fair sample of the total population, it is at least suggestive that the findings may be representative of the whole group.

TABLE I.—Follow-up of Graduates, 1923-6, as at June 30, 1951 (899 Graduates)

Year of Graduation	No. of Graduates	Replies		Deceased	
		No.	%	No.	%
1923	263	109	41.4	31	11.8
1924	290	130	44.8	29	10.0
1925	195	80	41.0	22	11.3
1926	151	66	43.7	17	11.3
1923-6	899	385	42.8	99	11.0

TABLE II.—Medical Registrations (Male and Female) 1923-6

Year	Great Britain	Scotland
1923	1,853	878
1924	2,125	935
1925	1,982	736
1926	1,586	527
1923-6	7,546	3,076

Present Practice

Dr. Johnson's dictum that the fairest prospect for a Scot is the broad highway to England (single ticket) is not altogether supported by the present location of these 800 doctors: 52% are in England and Wales, 40% in Scotland, mainly in the south-west, and 8% abroad. Rather more than half held house appointments, and they are now distributed as follows: general practice, 59%; consultant practice, 18%; appointments, 21%; others, 2%. Many of the consultants of this period graduated through general practice, and almost unanimously they commend the benefit of this experience. Indeed, it is generally urged that all doctors should spend some time in general practice. The period need not be long; many thought it should be one year.

Marriage (385 Replies)

Only three were already married before graduation, but by the date of the inquiry 91% had married. The marriage state in relation to graduation year of the 385 graduates was as follows:

Married at end of	5 years	..	..	42.7%
"	10	"	..	75.5%
"	15	"	..	86.7%
"	20	"	..	89.3%
"	25	"	..	90.9%
Unmarried		..	..	9.1%

General practitioners married early; consultants and others were more tardy: immunity seems to increase with the years, but it is doubtful if it ever becomes complete. Remarriages were rare.

The occupation of the spouse is of some interest; thus 7% of the 385 graduates married doctors, 19% nurses, and the remainder "other occupations." If this pattern of marriage selection is general to the profession, then, having regard to the relative proportion of male to female graduates, an interesting deduction follows—namely, that between 30 and 40% of women graduates marry doctors.

The 350 marriages resulted in 295 (84%) families, numbering 703 children, of whom all but 32 (4.6%) survive. The number of children in family ranged from 1 to 10, with an average of 2.4. According to "Census 1951, Great Britain, One Per Cent. Sample Tables" (H.M.S.O., 1952) at April, 1951, the average size of families in Scotland was 2.03, compared with 1.69 in England and Wales and 1.72 over the whole of Great Britain. The most appropri-

*J. Black, A. M. Campbell, A. S. Henderson, J. A. Imrie, A. G. Mearns, and A. Meiklejohn.

ate comparative figure, however, may be that for Scots-women aged 45-49 years and married for 15-19 years, whose average size of family (including children who have since died) is 1.87. In the professional classes the figure was 1.41 (18% below the figure for all classes combined).

Analysis according to the occupation of the spouse revealed no difference between the groups—doctor, nurse, and “other occupations.”

Social Pattern of Marriage and Family

The preceding facts raise certain serious considerations for the profession under present-day circumstances. It seems reasonable to assert that this social pattern of marriage and the family is unlikely to change radically in the near future, if indeed ever.

Medical studies now begin at the age of 18 years and extend over a minimum period of six years. Thereafter one year must be spent in hospital appointments and a further two years in National Service. This means that the young doctor will have attained the minimum age of 27 years before he is free to begin his career. During the next 10 years the prospect is marriage and a family of two or three children. Other considerations apart, this represents a heavy financial load for a further 20 years—indeed, until the parents are approaching ages between 50 and 55 years. This involves serious implications concerning the remuneration and social status of all future doctors and their families. Distant prospects and rewards of hard practice thus assume relatively less importance than the assurance of an adequate income in the early and middle years. The satisfaction of vocation, no matter how complete, will not suffice; indeed, it is not likely to be attained unless supported by a reasonable freedom from economic pressure. These are not insignificant matters, because from them must derive the whole quality of the National Health Service.

In recent controversies it has often been asserted that in future medical men will not enter their children for medicine. This would seem to ignore the well-founded observation of a family trend in certain occupations, and it is not altogether supported by recent applications to the medical schools. From the present group 136 (20%) among 671 children have already graduated or are studying for a medical degree. Moreover, these 136 children derived from 295 families, signifying that approximately one family in every two maintains continuity in the profession. Many of the girls have entered nursing and associated professions in hospitals. Furthermore, many are still at school and too young to have chosen their future career.

As a supplement to the foregoing, inquiry has been made into the broad occupational groups which provide new entrants to the study of medicine (Table III). This is of interest in so far that educational grants for study at a university are now more generally available than heretofore. There are many factors which could influence this pattern, and it is not possible from the figures to make any precise deduction. This notwithstanding, it does not seem that as yet in the West of Scotland there is any alteration in the number of students from the artisan and labouring groups. Scholarships and grants, however, may be of real assistance to all classes where the father is deceased.

TABLE III.—*Pattern of Applicants (Male Students) to Faculty of Medicine According to Occupation of Father (University of Glasgow)*

Category	1918-22		1950-3	
	No.	%	No.	%
Medical practitioners ..	65	7.2	136	14.2
Other professions ..	221	24.7	213	22.2
Business ..	378	42.2	303	31.6
Artisans and others ..	203	22.7	201	21.0
Not stated or Deceased }	29	3.2	29	3.0
	—	—	76	8.0
Total ..	896	100.0	958	100.0

Health and Sickness

A specific question was asked about major illnesses since graduation, with special reference to dates, duration, and residual disability. No less than one-half of the total, all now aged about 50 years, stated with gratitude that they had not suffered any serious sickness.

An analysis of the illnesses recorded revealed the predominance of gastro-intestinal affections, appendicitis, cholecystitis, peptic ulcer, and dysentery. In relation to these the interesting fact emerged that almost invariably these conditions were treated surgically, and that cholecystectomy was usually supplemented by appendicectomy. Respiratory diseases, pneumonia, and tuberculosis were next in order of frequency. Altogether nine cases of coronary thrombosis were recorded. The acute infectious diseases usually associated with childhood were not infrequent, and there were several cases of acute poliomyelitis.

A matter of vital concern to the profession arises from these answers—one which, so far, has received all too little emphasis. It concerns those doctors who, through chronic disabling sickness or accident, become handicapped for their work, particularly general practice in industrial areas. Hitherto such persons could seek alternative work in appointments in the public health service, in laboratory work, in some specialty, or in transfer to a less arduous general practice. Nowadays, under the National Health Service, there is neither freedom of entry nor of transfer in the various branches of the profession. Medical boards would appear to be their only refuge, and a place on these is not easy of attainment. Meanwhile the profession is continually being enjoined to increase its concern with the rehabilitation and resettlement of disabled and aged workmen. This is right, but at the same time there is urgent need to ensure adequate arrangements for disabled and aged members of our own profession.

It may also not be without relevance to remark that this observation has an important bearing on the health of students. Each year a number of students with a history of tuberculous disease, at the time regarded as closed or quiescent, and other disabling conditions are admitted—and rightly so—to medical schools. For these there is a need for regular medical supervision and vocational guidance. Such interest should not be opposed or be regarded as an infringement of individual freedom.

Deaths

Of the original 899 graduates, 99 died during the intervening period, and the detailed certified cause of death was obtained in 90 cases; this information was not available in the others, who died abroad.

The incidence of deaths in individual years varied between one and eight, and no fewer than four deaths occurred within one year of graduation. The principal causes of death are shown in Table IV.

TABLE IV.—*Causes of Death*

Cause	No.	Remarks
Unnatural (violence, 12; drowning, 5; poisoning, 8)	25	5, war
Pulmonary tuberculosis ..	10	
Pneumonia ..	10	
Bronchiectasis ..	2	
Cancer ..	9	5, lung
Coronary thrombosis ..	9	
Other heart disease ..	3	
Nephritis ..	4	
Furuncle of nose ..	4	
Miscellaneous ..	14	Of each 1 case
All causes ..	90	

Mortality in Glasgow Medical Graduates

By courtesy of Dr. W. P. D. Logan, of the General Register Office, Mr. B. Benjamin examined these causes of death. Assuming—quite reasonably—that the graduates were all aged 20-24 and uniformly distributed over that

age group, he found it was possible to apply life-table factors to calculate the expected deaths in successive periods of time. Thereby he was enabled to compare the expected number of deaths with those actually experienced and to determine whether or not the mortality among the graduates was greater or less than that of the body of lives from which the table was derived. For this comparison the Scottish Life Table, 1931, was most appropriate.

It emerged that the mortality experienced by the graduates was a good deal lighter than the mortality of the Scottish population as a whole (urban and rural mixed).

When the distribution of causes of death was compared with that expected it was found that deaths from tuberculosis were much fewer than would be expected on a general-population basis. Deaths from heart disease in total were not significantly greater than expected, but the number certified as from coronary thrombosis was excessive.

The four deaths from "furuncle of the nose," which at first sight seemed unusual, were found to conform to previous experience of mortality of doctors from septicaemia, carbuncles, and boils.

The only significant excess of deaths was from violence. Excluding the five war injuries, 20 graduate deaths resulted from violence. On the basis of statistics for England and Wales the expected number from drowning should have been one, and from poisoning two—the actual figures were five and eight respectively, greatly in excess of expectation. Mr. Benjamin summed up: "The general impression (and the data do not justify more than an impression) is that the mortality of these Glasgow graduates differed from that of the general population in so far as there was (a) an excessive incidence of violent deaths (drowning and poisoning), and (b) an excess mortality at ages 30–34 followed by lighter than average mortality. Whether (a) and (b) are the same depends on the provision of data of age and cause together. It looks as though, but for excessive violent deaths, the graduates' mortality might have been below average." (Note the ages at death by drowning were 24, 25, 32, 42, and 45; and by poisoning 36, 37, 39, 39, 42, 45, 48, and 61.)

Activities and Outlook

The remaining questions were directed to discovering something of the general activities and outlook, and the impressions formed in 25 years of practice. Higher qualifications obtained by examination were very common, but the M.D. degree, which at Glasgow University requires the presentation of a written thesis based on original work, had been conferred on only 14% of the group (800). A few had engaged in local government, but activities outside professional work were almost entirely confined to meetings of medical organizations and societies.

Almost all had found medicine a satisfying way of life, but there was much condemnation of conditions of practice following the introduction of the Health Service. In this matter, however, it was rather disappointing to note that the criticisms were expressed in the trite phrases of the medical press—frustration, loss of status, excessive demands of the public, too much work and too little time, book-keeping and form-filling, and the wife the unpaid drudge of the Health Service.

Medical Education

There was a very consistent demand for a general course comparable to the old *studium generale*, as an introduction and background to the subjects of professional study. While it was recognized that new discoveries and developments in all branches of medicine had greatly increased the amount of knowledge to be acquired, the need for the extension of the period of undergraduate study to six years was not generally acknowledged. On the contrary, many submitted that a five-year period was adequate if teachers made more effectual use of the time. Thus there was ample scope for the diminution in the number and length of systematic lectures, particularly of those which were largely a recapitulation of textbook material. Similar criticisms were directed against ward rounds and demonstrations of patients suffering from advanced and rare diseases. More of the avail-

able time, it was urged, should be devoted to clinics, with the focus on everyday ailments and the beginnings of disease.

As to individual class subjects, a demand appeared for the co-ordination of the primary scientific studies in a course on biology. While many condemned the emphasis on the minute details of anatomical dissection, they recommended a more continuous and thorough teaching of anatomy and physiology as part of clinical instruction. Materia medica and therapeutics attracted adverse comment, in which there was a demand for more intensive instruction in the proper use of medicaments, particularly those which had established their worth.

As to what they recognized as recent advances in medicine, individual opinions were obviously influenced by the sphere of practice. It was, however, abundantly clear that the general practitioners attached chief importance to those measures which assisted in the management of chronic disease—for example, insulin and liver therapy. Diphtheria immunization was generally acclaimed.

Finally, what present as the challenges of our age? The answer is, the care of the aged and infirm and the chronic sick, the control and management of tuberculosis, and the need to link general and hospital practice more effectively towards the fulfilment of the Health Service.

This story, and it pretends to be nothing more, was made possible only by the co-operation and encouragement of our fellow-students, and to them the members of the team wish to convey their sincere gratitude and greetings for the future. They also wish to record their thanks to Dr. W. P. D. Logan and Mr. B. Benjamin, of the General Register Office; to Mr. C. Weston, Registrar of the General Medical Council; to Mr. T. H. Graham, of the Branch Medical Council Office for Scotland; to Dr. R. T. Hutcheson, Registrar of Glasgow University; to Dr. R. A. Robb; and to Miss Meikle, who undertook the secretarial work. We are also indebted to the University Court, who defrayed the cost of the inquiry.

THE PROBLEMS OF CONVALESCENCE

A two-day conference in London, attended chiefly by almoners, matrons, and superintendents of convalescent homes, was held, under the auspices of King Edward's Hospital Fund, on April 10 and 11. The questions of quicker turnover of hospital beds, the needs of the early convalescent, and the psychology of recovery were discussed. Professor Alan Moncrieff said that one unfortunate circumstance, elicited by a King's Fund survey not long ago, was that over a quarter of the patients recommended for convalescent homes had to wait in hospital an average of eight days before transfer—a sheer waste of hospital bed-time. One reason for delay was that the placing of convalescent homes had no strict relation to the regional organization of the National Health Service or even to the situation of the hospital. Convalescent homes had also various restrictions and regulations which tended to prevent early transfer. It would not be a great exaggeration to say that some of them took patients only when the patients had so far recovered that they could go home. Some of them, for example, would not take a child who had had chorea until all choreic movements had ceased; they feared that other children might catch the movements by imitation. Professor Moncrieff thought that convalescent homes should be prepared to undertake simple nursing duties, such as the giving of enemas, syringing of cavities, application of strappings and dressings and the like, and they should make provision for physiotherapy and occupational therapy.

The point of view of the convalescent home was put forward by Dr. J. O. Reid, of Princess Mary's Hospital (Rehabilitation), Margate. He envisaged a convalescent hospital in every region which should take and treat all kinds of patients. Every convalescent home, he said, should have a doctor of wide clinical experience and a "restoration minded" nursing staff. Treatment, especially simple physiotherapy, must come first, but as much freedom should be allowed as possible, for freedom restored the sense of self-reliance and responsibility. The patient must,