SOME THOUGHTS ON MEDICAL TRAINING FROM A MORBIDITY SURVEY IN GENERAL PRACTICE IN UPINGTON*

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The general practitioner shortage, especially on our platteland, and the general apathy on the part of medical graduates towards general practice, have urged me to pen some thoughts on medical training for general practice.

I am in a single-handed general practice in Upington, capital of the Gordonia district. The practice caters for all social strata of our three major race groups. The town itself at a population census taken during June 1968 was shown to have a total population of 27 000, comprising 7 500 Whites, 14 500 Coloureds and 5 000 Bantu. The rural district, which is also partly attended to by practitioners in the town, has a population of 18 481 Whites, 50 995 Coloureds and 5 462 Bantu.

At the time of preparing this paper there are 8 general practitioners in the town, who also staff the Gordonia Hospital of 150 beds, which is the main hospital serving this area. We have no specialist services and administer anaesthetics and undertake surgery within our capabilities. Patients requiring specialist attention are mainly referred to Cape Town.

MORBIDITY SURVEY

During the period 1 July 1968 to 19 August 1968 in the heart of our winter, which can be mild or fairly severe, I conducted a morbidity survey in my practice using the 1963 classification of disease—amended version—of the College of General Practitioners.[1]

During these 50 days I was consulted by 2 432 patients of whom 665 (27·3%) were White, 1 276 (52·5%) Coloured and 491 (20·2%) Bantu—a fairly representative cross-section of the town's population. The following interesting facts were noted in the patients seen:

Age Incidence

The patients most commonly seen were aged 2 years and under, or over 16 years. It is of note that in the 0 - 2-year age-group the percentage of Whites seen was half that of the Coloured and Bantu (Table I).

TABLE I. AGE INCIDENCE OF PATIENTS SEEN

Age	*White* (%)	*Coloured* (%)	*Bantu* (%)
0 - 2	10·4	21·5	22·2
2 - 6	6·3	6·8	7·5
6 - 16	12·0	8·0	8·3
Adults	71·3	63·7	62·0

Sex Incidence

An examination of Table II shows that in the 6 - 16-year age-group more males than females were seen among Whites and Bantu, while among the adults there was a noticeable preponderance of Coloured females, otherwise the sex incidence was fairly evenly distributed.

TABLE II. SEX INCIDENCE OF PATIENTS SEEN

	White		*Coloured*		*Bantu*	
Age	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
0 - 2	35	34	109	125	59	50
2 - 6	19	23	45	42	21	16
6 - 16	51	29	45	57	27	14
Adults	242	232	358	455	158	146

Disease Incidence

Table III provides a detailed picture of the incidence of the different diseases seen. In all age-groups the common respiratory tract and gastro-intestinal ailments formed the bulk of diseases seen. Among the Whites they constituted 217 (30·6%) of cases, among the Coloureds 424 (33·2%)

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TABLE III. DISEASE INCIDENCE

Age:	0 - 2			2 - 6			6 - 16			Adult		
Race:	W	C	B	W	C	B	W	C	B	W	C	B
Diseases												
Communicable:												
Venereal		3							1	5	33	28
Gastro-intestinal	13	65	39	2	11	6		8	1	7	14	7
Others	9	19	6	7	11	4	11	15	5	5	27	9
Neoplasms									2	3	5	
Allergic, endocrine, metabolic, nutritional		3					4	3		24	13	7
Blood diseases		1							2	1	5	1
Mental psychoneurotic, personality disorders		1					1	4	1	78	50	18
Nervous system and sense organs:												
CNS		2			4	2	7	3	3	4	21	2
Peripheral nerves								1		4	2	2
Eyes		1		2		1	2	3	1	7	20	3
Ears	6	3	3		4	2	2	2	3	16	11	3
Circulatory system:												
Heart								2		35	18	9
Hypertensive										7	12	
Respiratory system	30	144	52	17	38	15	40	34	9	97	110	51
Digestive system	2	5	4		3	1	3	3	2	26	32	10
Genito-urinary system	1					1		4	2	44	125	41
Pregnancy and complications									1	22	144	49
Skin and cellular tissue	2	12	5	5	7	2	1	3	4	29	30	11
Bones and movement					2		5	2		35	74	30
Congenital malformation	1	4	1									
Early infancy		5										
Ill defined	1				1					4	3	
Accidents, poisoning, violence		6		4	8	5	4	15	4	20	61	23
Prophylactic	4			1						1	3	

W = White; C = Coloured; B = Bantu.

and among the Bantu 180 (36·6%). Pregnancy examinations and the common urinary tract ailments, namely pelvic infections and pyelocystitis, formed 67 (10·1%) of Whites, 274 (21·4%) of Coloureds and 94 (19%) of Bantu cases seen. Mental, psychoneurotic and personality disorders formed 16·4% of Whites, 6·1% of Coloureds and 6% of Bantu cases seen, these being almost entirely in the adult age-group. Venereal disease formed 1% of White, 4% of Coloureds and 9% of Bantu cases seen—almost all being adults. Cardiovascular disease was responsible for 6·3% of Whites, 2·5% of Coloured and 1·9% of Bantu cases seen. Neoplastic disease, so heavily emphasized in one's undergraduate training, formed a mere 0·4% of White cases seen, 0·4% of Coloured and 0·8% of Bantu. This is in keeping with a Canadian and Scottish practice survey done by Noble.[2] In Van Biljon's Pretoria practice survey,[3] malignant neoplasms constituted only 1·46% of cases seen. Accident cases accounted for 28 (4·2%) Whites, 90 (7%) Coloureds and 32 (6·5%) Bantu seen. Among the last two race groups many were due to deliberate violence. Accidents are becoming a major epidemic.

Surgical Cases

Patients requiring surgery of any sort formed only 1% of Whites, 2·2% of Coloureds and 1·2% of Bantu seen. This too concurs with Noble's findings of 1·8% and 1·5% of patients seen. The incidence in Van Biljon's series was 7·33%.

Patients Requiring Hospitalization

This was necessary among 1·6% of Whites, 9·5% of Coloureds and 11·4% of Bantu. In the Coloured and Bantu many of the admissions were as a result of neglect for pneumonias, severe gastro-enteritis, pelvic infection and complications of pregnancy.

Home Visits

Pressure of work has forced me to cut these down to a minimum, yet among the Whites they formed 16% of consultations, whereas among the Coloureds they were a mere 2% and among the Bantu 0·2%. The majority of White patients who were visited could just as well have been seen at the consulting rooms.

Patients Requiring Specialist Attention

I felt that if there were specialist facilities available I would have referred 21 (3·3%) of Whites, 47 (3·7%) of Coloureds and 14 (3%) of Bantu for specialist attention. In actual fact I had to manage with less.

COMMENT

There is an equal demand for medical attention from all three major race groups. The non-White has fully awakened to the benefits of modern medicine. Excluding hospital work and practice administration ± 50 patients were being seen daily at a time of the year which is not as busy as during our summer months. With the increasing tempo of growth of the non-White community the work-load must increase.

It is interesting that the age-group 0 - 2 years constituted an important percentage of patients seen, stressing the necessity of a thorough grounding in paediatrics.

Surgical cases and the rarities of hospital practice form only a small percentage of patients seen. Diseases in all branches of medicine are seen, emphasizing the broad medical knowledge required by the general practitioner. Only 3 - 4% of patients seen required specialist attention. This is in keeping with the observation overseas that over 80% of ailments can be dealt with by the general practitioner.[4]

Although I did not include a survey of the percentage of patients who could have been seen by lesser-qualified medical personnel such as nurses, social workers, midwives and technicians, it is my opinion that a substantial percentage need not have seen a doctor. Fry has suggested that one-third of the general practitioner's work can be performed by a lesser-trained person. Krass[5] has found that 25% of the general practitioner's time is concerned with minor duties.

There is very little time for home-visiting which in my experience plays a minor role in the evaluation of disease. Most patients can be seen at one's rooms. Unfortunately in the battle against the work-load one is too busy to provide a high standard of social medicine so necessary for the health of the community.

All these observations point to the necessity for more general practitioners and auxiliary medical services.

Medical Training for General Practice

The incentive to enter general practice can only be stimulated by correctly orientating undergraduate education, providing vocational training for general practice and encouraging continuing education in order to keep abreast of advances in medical knowledge. It is therefore essential that a Department of General Practice be set up in all our medical schools.

In regard to undergraduate training, Scott[6] has said, 'historically all specialities originated in general practice, differentiating as skills increased—no one can specialize until he has had a general medical training and for this reason student training should be designed for general practice', or at least the basic training should have a general practice bias. The era when a doctor was expected to know all and deal correctly with all medical eventualities has passed, therefore it is high time that the current 6-year undergraduate medical course be modernized. The general practitioner should be integrated into the curriculum from the basic sciences upward. In the first year the medical student must be given a true perspective of what a career in medicine entails in terms of dedication, integrity and compassion and be reminded that the glamour of the large hospital forms but a small part of the whole. There must be no false ideas of what to expect in medical practice so that the right students enter the course.

The first-year subjects must be presented in a meaningful way. Basic principle rather than detail should be taught in anatomy, physiology and pathology. The significance and retention of the details only comes after one can apply them in practice. The first 3 years could be condensed into 2 or 2½ so that the student is brought sooner into contact with the patient. This time gained could be better spent in teaching the student what is normal in the living. Only after one has examined innumerable normal hearts, chests, nervous systems, etc., can one later appreciate what is abnormal. The further teaching of clinical subjects done by specialists in each field should be moderated by the general practitioner who must put the epidemiology of each section into its correct perspective. My first case in clinical medicine was one of haemochromatosis and the second a case of Addison's disease—I have been searching in vain for the past 10 years for these conditions in my practice! The same applies to the rarities of teaching hospital surgery and gynaecology. The correct attention must be devoted to minor medicine and surgery. The student must be shown that one of the most important functions of the general practitioner is to distinguish between disorders requiring extensive investigation and treatment and those not, and that every patient presents three features for consideration: his physical complaint, social environment and emotional state.[7] If holidays were shortened and modern teaching methods employed, e.g. audio-visual aids, and the teachers were enthusiastic and competent, the undergraduate course could well be shortened by a year. Better use could be made of the internship year by eliminating the drudgery of holding retractors for hours on end as a second assistant at operations, searching for X-rays and running about with test-tubes of blood.

Many suggestions have been made as to postgraduate training[8] for general practice involving rotating internships and practice apprenticeships covering periods from 2 to 5 years. Five years may be in order in the United Kingdom but not in Southern Africa with its rapidly increasing population and shortage of doctors. Thought must be given to making this vocational postgraduate training as short as possible.

It is unnecessary to state that medical education does not cease with completion of vocational training.[9] Medicine is a lifelong study requiring continuing education in all its disciplines. For the general practitioner this should be the duty of the College of General Practitioners. The concept of continuing education must be indoctrinated in the undergraduate years, as good general practice is as much an intellectual challenge, or more so, than any specialty. It behoves us to attract the best brains if medicine and health are to advance along all fronts.

SUMMARY

The decrease in the number of medical graduates entering general practice is cause for concern. A morbidity survey in general practice in Upington in all three racial groups shows that over 96% of ailments can be dealt with by the general practitioner and that morbidity in practice is totally different from that in the teaching hospital. It is essential therefore that Departments of General Practice be established in all our medical schools, to stimulate the undergraduate's interest in general practice and assist with his training. If general practice is to continue in the future to fulfil its role as one of the keystones of medical care, it is necessary to institute postgraduate vocational training and continuing education for the prospective practitioner.

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