HEALTH SERVICES IN UNIVERSITIES

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Student health services are no innovation. Nearly a century ago a student health service was established at Amherst College in the United States; but only in recent decades have other American and British universities established similar services. Although the poor health of recruits to the armed forces of Britain in the South African War and World War I stimulated interest in preventive medicine, the first student health service was established in Britain only in 1930.

Since that date a number of other British universities have established schemes for the provision of various types of health services for their students.[1] For historical reasons, those institutions which established student health services after World War II tended to provide preventive services only, whilst those of an earlier vintage were inclined to be more comprehensive in their scope. Parnell [2] was able to report that in 1950 only 4 out of 17 British universities still had no whole-time student health officer, and that outside of Britain and America there were known to be 58 university health services in 25 different countries. In South Africa, at least 3 of our universities and colleges have recently established services aimed at safeguarding student health.

THE UNIVERSITY PRACTICE

The community which constitutes the practice of a student health service presents some special features.

For the most part students are young adults of a relatively healthy age-period, who constitute a shifting population and spend only 9 or 10 months of the year at the university. Many are still growing physically, which necessitates a high intake of energy-producing and body-building foods; and although students in general constitute the most intelligent section of the population, they do not necessarily pay proper attention to their diets. The example may be quoted of the young South African medical graduate who developed a nutritional oedema whilst studying for a specialist degree overseas; the fact that he passed the examination at the first attempt suggests that he was not mentally subnormal. In other cases, subnutrition is due to social factors such as absence from home or economic stress. Although South African students are on the whole better off than students in many other countries, some of our students are affected in health by the stress of financial problems.

Late adolescence is associated with problems of social and sexual development. The difficulties of satisfying the needs of this period of life are often aggravated by absence from home, usually for the first time.

South African universities draw students from a wide area. At the University of Cape Town in 1954, 22% of the men students and 37% of the women students lived in official residences. As many others live in

'digs', a large proportion of students must live away from their families; and at a transitional and formative stage in the lives of these young people, the absence of family support and advice is a distinct handicap.

On the other hand the family background is often a cause of difficulty for the young student. This may be due to parental ambition in excess of the student's capabilities, or to instability of the home. The young student may respond to this insecurity by obsessional overwork or by excessive interest in extra-curricular activities, or he may sink into a state of anxiety, irrationally blaming irrelevant factors for his failure to cope with his problems.

Despite economic, physical and intellectual advantages it is evident from the surveys carried out at British universities that students carry a considerable load of ill-health. At Edinburgh University, Verney and Robertson [3] reported that of 1,140 new students who presented themselves for routine health examination, 27% were found to have minor physical defects, 2% major physical defects, and 7% psychological difficulties. Parnell [4] found that among 6,142 students followed up for 3 years at Oxford there were 35 deaths (17 accidents, 9 suicides, 2 from poliomyelitis, 1 from tuberculosis and 6 from other causes). In the same period there were 145 cases of prolonged illness necessitating absence from study for at least one term. Of these cases, 33 were due to tuberculosis and 76 to mental and nervous conditions. According to Malleson [5] 10% of students at University College, London, were emotionally distressed.

As yet there are no comparable statistics with which to measure student health at South African universities. To judge from the forms completed after the medical examination of volunteer students at the University of Cape Town, one is forced to the conclusion that there is a considerable amount of illhealth among South African students as well.

SCOPE AND METHODS OF STUDENT HEALTH SERVICES

While organized health services for students exist in the majority of British and American universities, the scope and the administration of these services shows great variation.

The American health services tend to be the most comprehensive. The University of Minnesota scheme, initiated in 1918 and now serving 18,000 students and staff, has a full-time staff of 8 physicians, 4 psychiatrists, 15 dentists, 23 nurses and 32 clerks, as well as 50 part-time specialists and a hospital of 60 beds.[6] Its objects include the education of students in relation to health, the improvement of their physical and mental health, and the prevention of disease. The most effective way of achieving these ends was believed to be the provision of a health programme which was thorough, complete and efficient in every aspect.[1]

In Britain the lead was taken by Edinburgh University, where a Department of Physical Education was formed in 1930,[3] including a scheme for a medical service. The authors of this scheme had 6 principal objects in mind, *viz.:*

'1. To obtain by medical examination at the beginning of the first academic year an accurate estimate of the physical state of each student entering the university.

'2. To advise and treat students found at the routine examination to be not wholly fit.

'3. To encourage students to undergo routine medical examination in each of their undergraduate years.

'4. To create an efficient consultative and domiciliary medical service to advise and treat students requiring medical attention.

'5. To interest the students in the importance of physical education and recreation as an essential part of their university curriculum.

'6. To obtain data concerning the health of the students and to assess the effects of the various strains and stresses (mental, environmental, nutritional, etc.) to which they are subjected.'

A few years later a similar comprehensive student health service was established at the University of Aberdeen, where compulsory health examinations for students were favoured.

The 1944 Goodenough Report stated:[7] 'We hold the view that universities have responsibilities in respect of the health of their students and that for the fulfilment of these responsibilities each should provide a properly organized students' health service. The need for such provision will exist even after the proposed national health service has been developed .... We believe that university authorities are .... in need of advice from medical officers whose duty it is to keep under close observation all matters likely to affect the health of the students, collectively and individually'. The Committee considered that the objects of the students' health service would be the prevention of disease and the promotion of health. Health examinations would be carried out with a view to the early detection of disorders, and medical officers would give advice on both physical and psychological problems; but medical treatment would be outside the province of the service. The service would be one of the means of inspiring the community to a sensible interest in the promotion of health. For medical students the service would be of especial benefit because of their exposure to greater risk of contracting disease, and also as providing a practical demonstration of doctors in the role of health advisers. For medical students health examinations should be compulsory.

Student health services were established at a number of British universities after the end of World War II. Most of these newer services followed the pattern suggested by the Goodenough Report and provided only preventive and promotive health services. It is noteworthy that students do not contribute directly to the costs of health services at British universities. The only exception is that at University College, London, which was sponsored by the students themselves and where each student contributes 5s. a year.[6]

In Australia a number of universities have services for the detection of tuberculosis among students.[8] At the University of Adelaide a fuller service, including general examination, X-ray of chest and advice and action on other matters concerning health has been

provided since 1937. In 1951 medical examination was made compulsory for all students.

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benefit scheme was in operation at the University of the Witwatersrand in 1921, but the first minutes of the existing society are dated March, 1936. Shortly after this a health service for medical students was organized by the Department of Medicine. In 1942 the benefit scheme and the health service were combined and all students included to form the existing 'Students Health Insurance Society', the objects of which were to provide an annual medical examination for students and, secondly, to assist them in meeting the costs of medical care. Six part-time specialist physicians drawn from the Medical School provide the clinical services and are paid per attendance. Part-time medical officers are attached to residences of the University and are paid an annual honorarium plus a travelling allowance. The income of the society is derived from university fees, £1 of the Students' Council fees of full-time students being automatically credited to the society, with the exception of medical students, who pay only 10s. and benefit only from the use of the clinic.

In case of illness, students choose their own doctor, pay their accounts and are entitled to claim a reimbursement from the society for a proportion of the expenses. The main object of the clinic is preventive, and although the original intention was that every first-year student should undergo compulsory medical examination, this has not been achieved, owing to objection to compulsory examination by the university authorities, as well as to lack of funds and the absence of enthusiasm and co-operation on the part of the students. At present the bulk of the work done at the clinic consists in investigation of physical complaints and only 13% of the student body have had routine health examinations over the last 3 years.

At Fort Hare University College, where most of the students live in hostels, a medical officer examines all new students and treats sick students, if necessary, in the hostel sickrooms.

At the University of Cape Town a similar type of student health service was initiated in 1948, and put on a firm basis in 1952. For the same small annual payment it offers a routine health examination to all students and pays refunds on medical expenses incurred by them. The staffing and financing of the service are very similar to that of the University of the Witwatersrand and examination is entirely voluntary. Mass miniature X-ray of the chest is arranged with the Cape Town City Health Department for those students who wish to use this facility. A questionnaire to elicit relevant facts relating to the student's past history, family history, living and recreational habits, etc., has been in use since the inception of the scheme.

It is interesting to observe the use which students at Cape Town made of the service offered them (Table I). Whilst the number of claims for medical care has remained steady, the number of students who come for routine health examinations has dropped steadily during the first 3 years of the service's existence. This can be partly explained by the fact that, since the average stay of students at university is about 3 years, there has been a rising proportion of students who have already undergone routine examination, and since repeat examinations are less frequently sought than initial ones, a drop in attendance was to be expected. Other factors which probably played a part in this fall are the lack of enthusiasm of students generally for routine examination; the new policy in 1954, which placed the onus of making appointments for examination completely on the student; and the fact that there was no full-time medical officer to the scheme, whose sole or main interest was student health.

TABLE I. UTILIZATION OF STUDENT HEALTH SERVICE, UNIVERSITY OF CAPE TOWN

	1952		1953		1954	
	No.	%	*No.*	%	*No.*	%
Membership of Student Health Service	3,870	100	3,552	100	3,722	100
Students examined ..	1,949	50	1,331	37	943	25
Students who underwent chest X-ray ..	405	10	1,200	33	795	21
Students who made medical claims during the year ..	217	5·5	216	5·9	173*	4·6*

* Approximately 8 months only.

DISCUSSION

A rapidly growing number of universities are establishing services to safeguard the health of students (a notable exception is Oxford University, where none exists despite the results of a pilot survey [4, 9]). A number of these services have been established on the initiative of the university authorities, but some have resulted from demands on the part of the students.

The great majority of student health services are reported as being run by one or more full-time medical officers, usually assisted by ancillary staff as well as part-time specialists.

Most of these student health services provide facilities for combined preventive and curative services. However, the curative services are often provided by medical practitioners unconnected with the university, e.g. the family doctor if the student is living at home, or any other doctor the student may choose to consult. In Britain, the establishment of the National Health Service has facilitated the combination of preventive and curative care in one medical officer's hands by allowing the university medical officer to act as general practitioner to students.[10]

The case for the combination of preventive and curative services in a comprehensive student health service is strongly put by Macklin [11] of Aberdeen, who places high value on the doctor-patient relationship in student health services. Doctor and student get to know each other better if they meet during routine health examinations as well as at times of sickness.

The work of the doctor becomes more interesting, and his advice is more pointed and more often heeded if he acts in this dual capacity.

At Edinburgh [3] the high proportion of first-year students (74%) who voluntarily accepted routine health examination is probably due in no small part to the appreciation of the comprehensiveness of the service offered by full-time medical staff whose interests are centred in problems of student health.

Against this are the advantages to be gained from freedom of choice of doctor for either health care or medical care or both.

Whether routine health examination should be voluntary or not is the subject of much argument. The British Medical Students' Association, the Inter-Departmental Committee on Medical Education,[7] the Universities of Aberdeen,[11] Birmingham,[10] Leeds [6] and Belfast,[6] and 70% of American colleges [13] are in favour of compulsory health examinations, e.g. for freshmen or medical students. Student health services at Manchester,[6] Cambridge,[6] Edinburgh,[3] Witwatersrand and Cape Town do not require compulsory examinations of any groups of students.

Screening methods are used by a number of student health services to lessen the labour of routine health examinations. At Manchester University [6] a 4-page questionnaire containing some 200 items is given to about 1,500 freshmen annually. The secretary and nursing sister of the service refer about 500 doubtful students to the Medical Officer on the basis of the answers. The Medical Officer finds it necessary to examine or take some other action in about 350 of these cases.

In Birmingham [10] all freshmen are rapidly examined by means of an 'assembly line' technique in the first week of the new year. A team of about 16 helpers (mainly medical students) assist the two medical officers and dentist to apply a battery of tests, completing the examination of 700 students in 30 working hours. A similar system is used in some of the American universities.

Medical certificates from the student's general practitioner are used by 25% of American university health services. At the University of Wales [12] general practitioners are not asked to examine prospective university entrants but to give an opinion based on previous knowledge about their general health, and to state whether there was a history of illness or disability likely to be a handicap to a university career or which would make continued supervision or treatment necessary. In this way continuity with the medical care given by the general practitioner is maintained.

The ratio of doctors to students naturally varies greatly in different services. Farnsworth,[13] reviewing American university health services, states that the ratio in the United States is slightly more than one full-time physician, and slightly more than 2 nurses, per 1,000 students. Macklin [11] estimates that one full-time physician can find time to carry out 1,000 40-minute health examinations a year as well as look after the sickness needs of 1,800 students.

Two health hazards are given prominence in most university health services, viz. tuberculosis and mental health.

Routine annual X-ray examination of the chest to detect cases of tuberculosis is provided by most services and in some it is compulsory. Durfee [14] reported that 12 times as many cases of tuberculosis were found in American colleges with a tuberculosis case-finding programme than with those without such a programme. In some universities BCG vaccination is given to negative tuberculin reactors.

The need for facilities for preventive and curative services to cope with the psychological problems of students is stressed by practically every author. In most services full-time or part-time psychiatrists are available.

Apart from the value of the student health service as a method of caring for the health of individual students, various other functions have been mentioned which are worthy of consideration:

1. The student health service and its staff can provide preventive services on a community level, e.g. health education of staff and students, supervision of kitchens and refectories to reduce the frequency of outbreaks of gastro-enteritis in universities, co-operation with those in charge of athletics and physical education, etc. University health services can and do advise the authorities on matters of individual and group health.[7, 15, 16]

2. Research into the state of health of the student body can best be done through a student health service. Very little is known of the health needs of students, the effects of university life and social background upon their health, and the medical aspects of student selection, to mention only a few fields requiring investigation.

3. The value of a well-run student health service in providing a practical demonstration to medical students of medical practitioners in the role of health advisers.[7]

CONCLUSION

University authorities in many countries are now accepting responsibility for the health of students, a most important occupational group. Where the authorities do not, or cannot, accept this responsibility the students themselves are in several instances taking the necessary steps to establish student health services. Among the services provided have been facilities for health examination, consultative services, treatment services, supervision of the physical environment of students, medical benefit schemes, and the development of physical and health-education programmes.

Although university students form only a small proportion of the total population, their influence is likely to be out of all proportion to their numbers, because they are the future legislators, teachers, architects, engineers, doctors and scientists of the country. It is therefore of paramount importance that these young people should develop scientific attitudes, knowledge and habits of health which they will spread among their communities. A well-run student health service

in their university constitutes a valuable educative force.

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