Aspects of Student Health

Physical diseases in university students

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British Medical Journal, 1976, 2, 1312-1314

Students are healthy people. Their arrival in the university indicates that they possess the stamina to withstand academic stress and the ability to take a degree. Despite this, studies on the 1968 and 1969 entrants to Nottingham University showed that, of 2923 undergraduates, 471 (16%) failed to graduate on time and 340 (12%) failed to graduate at all. Men failed almost twice as often as women. Of those who failed, 22% had severe, or moderately severe, mental health problems compared with about 7% of all students. Physical ill health was the main cause of failure in less than 3% of students and was of minor importance.

During the academic year 1975-6 there were 5945 full-time registered students at Nottingham University, and 6704 individuals, both students and staff, saw the doctors or nursing sisters on 26 440 occasions. Table I shows the pattern of student morbidity. It was culled from the health service reports of various universities and was not specific to Nottingham University. The pattern repeats itself year after year, and variations between universities probably owe more to the diagnostic habits of doctors than to real differences in morbidity patterns.

TABLE I—Morbidity pattern of student consultations during academic year 1975-6

Approximate International Classification of Diseases No	Presenting reason for consultation	Approximate percentage of total consultations
VIII	Diseases of the respiratory system	16
XI	Counselling on sexual and other problems, pregnancy, childbirth	16
XII	Diseases of the skin and subcutaneous tissue	12
X	Diseases of the genitourinary system	10.5
V	Severe or moderately severe mental health disorders	7
VI	Diseases of the nervous system and sense organs	7
I	Infective and parasitic diseases	6.5
XVII	Accidents, poisonings, and violence	6.5
IX	Diseases of the digestive system	6
XIII	Diseases of the musculoskeletal system and connective tissue	4
III	Endocrine, nutritional, allergic, and metabolic diseases	3.5
	Routine health examinations	3
VII	Diseases of the circulatory system	1
XVI	Symptoms and ill-defined conditions	1
II	Neoplasms	0.2
IV	Diseases of blood and blood-forming organs	0.1
		100.0

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It is concern with the person in the environment, rather than physical or mental health as such, that attracts doctors to work in university health services. There are two points to emphasise. Firstly, emotional disturbances are often presented as comparatively trivial physical symptoms; this applies to all students, especially those from overseas. Secondly, in dealing with so many healthy people clinical acumen is essential to avoid unnecessary laboratory and other investigations and not miss the occasional serious organic illness. These points are illustrated in the following case histories.

Case 1—A girl came in saying she had a pain in her left side, mainly over the lower ribs. There was nothing special about the pain, just a dull ache. Clinical examination showed nothing abnormal. She was a pleasant, ordinary girl from a strict background and was sexually involved for the first time, with a coloured student. Her parents were objecting strongly and her work was suffering. The pain was caused by this emotional stress. She came back the next week. Her personal problems were the same, and the pain was worse. Examination again showed nothing wrong. A week later she looked ill. Examination suggested fluid at the base of her lung. Investigations showed Hodgkin's disease, and she went into hospital. She and her parents wrote several times expressing gratitude for all the kindness. She died in six months. Wordsworth was no doctor when he wrote, "Alas! the gratitude of men hath oftener left me mourning."

Case 2—He came to the university from an African country with many racial problems. He was a reject from his university there. His tongue was swollen, he could not breathe, he had violent abdominal symptoms, and he was weak. Clinical examination and investigations showed nothing abnormal. The investigations had a therapeutic, as well as a diagnostic, importance. Despite this he still believed that his symptoms were caused by some evil inside him. A witch doctor was better for him. He did not accept that the real stress he was under could cause such alarming physical symptoms. "Tell me, Doctor," he said, "how am I to know when I get these symptoms that they are not due to some serious illness without coming to you for advice." How indeed!

Acne

Most of the problems of acne are expressed in the following case history.

Case 3—The girl was seen by an experienced doctor; her problems were emotional tension and difficulty in social contacts. She sat with her head down, and her conversation was monosyllabic. He found no clinical abnormality. Her face was heavily made up. He thought she was seriously depressed, even suicidal, and her examinations were approaching. He admitted her to one of the health centre beds for observation. The nursing sister discovered that the girl was so distressed by acne that she plastered her face with make-up in case her boyfriend saw her spots, and she was frightened to look anyone in the face. Her social life was disrupted. She was treated with tetracycline (Mysteclin) capsules and benzoylperoxide (Panoxyl Gel). She was gradually persuaded to leave off the make-up and her spots began to clear. She passed her examinations. At the end of term she came in—a bright, attractive girl full of the joys of life. The acne spot is indeed more than skin deep.

Infectious mononucleosis

In 1969 a total of 1473 undergraduate students entered Nottingham University; 817 volunteered for testing for antibodies to the Epstein-Barr virus. Of those tested, 441 were positive; most had no history of glandular fever. During the three years of their course 105 of the 376 negative reactors converted to positive; most developed no symptoms. The academic performance of those who developed the clinical illness (38 with a positive Paul-Bunnell test out of a total entry of 1473) was not affected. Their emotional stability after the illness was no different from that of other students. Infectious mononucleosis has a reputation for a prolonged and debilitating aftermath, caused, perhaps, by the doctors' and patients' attitudes rather than the Epstein-Barr virus.

Contraception

In 1968 and 1969 a total of 1019 women entered Nottingham University to read for a first degree. Almost half, 485, requested contraceptive advice during the three years of their undergraduate courses. Some 320 were having sexual intercourse before consultation, 24 for one year or more. At the time of consultation, eight were married, 77 engaged, and 388 had "steady" boyfriends. Many girls had three or more sexual relationships during their university course; unusually these were thought to be stable at that time. Casual relations were rare. Oral contraceptives were prescribed for 425 girls; 29 desired other methods, and 24 needed only advice. During the three years of their course 234 students on oral contraceptives showed no appreciable weight changes, 64 gained up to 7 kg (15 lb) and 51 lost up to 7 kg; the weight records were inadequate for the remainder. Some 34 had symptoms such as loss of sexual desire, headaches, breast tenderness, nausea, and instability, perhaps caused by the pharmacological effects of the oral contraceptive pill but quite possibly owing to stressful sexual conditions. No serious complications arose among girls taking the oral contraceptive pill while they were in the university. Altogether 123 girls stopped taking oral contraceptives during their university courses: 46 stopped for medical reasons but 77 stopped for personal reasons, such as the relationship breaking or going abroad.

Oddly enough, the women students who requested contraceptive advice did slightly better academically than other women students. They obtained more first, second, and third class degrees (77 v 71.2%) and had fewer failures (8.4 v 12.9%) ($P < 0.02$).

Pregnancies in unmarried students

In the two years 1968 and 1969 988 women students who entered the university were unmarried. Twenty-seven became pregnant during their undergraduate courses. One girl had two pregnancies. The 28 pregnancies resulted in five normal births (three babies kept, two adopted), 21 terminations, one spontaneous abortion, and one of unknown outcome. There was no evidence of increased emotional instability after the terminations or of troublesome physical effects from the terminations. It is more stressful for an unmarried girl to have and keep her child or to have it adopted than it is for her to have the pregnancy terminated. The unmarried pregnancy rate is less than 1% a year.

Although the number of unmarried pregnancies is small, it is, for the individual girl, a time of great anxiety and one which requires much sympathy and understanding. Perhaps a conscious or unconscious desire for pregnancy exists in some girls. Some are reluctant to take oral contraceptives and find mechanical methods difficult. Over 66% of women students were having sexual relations before seeking contraceptive advice, despite the ready and confidential availability of such advice. These factors, plus misfortune and carelessness and the lack of strong moral imperatives, with the decline of religious and family influences, explain the continuing small number of girls who become pregnant during their university course. Because of these human factors, the unmarried pregnancy rate for undergraduate students is unlikely to fall much below this level.

Chronic illness and disabled students

During the academic session 1975-6 there were 5945 full-time students registered in the university. The numbers with chronic physical defects, including the severely disabled, are shown in table II. In addition, about 2% of students had severe and about 5%

TABLE II—Students with chronic illness and severe physical defects and their needs during the academic year 1975-6

Defects	No of students	Special help needed with		No special provisions required other than those already available
		Accommodation	Transport, toilet or other problems	
Epilepsy	18			18
Diabetes	10*			10
Severe physical defects	18*	7	7	11
Hearing defects	6			6
Visual defects	12			12
Other defects	30			30
Total	93	7	7	

*One student had two defects.

moderately severe mental health problems, although the artificiality of the division between mental and physical health cannot be too often, or strongly, emphasised. The "other defects" category includes such diagnoses as rheumatic and congenital heart lesions, a student with ureteric transplants to the abdominal wall, Crohn's disease, ulcerative colitis, and dyslexia. Tuberculosis, the serious disease of the past, is no longer a problem among university students.

The illnesses of the seven students who were so severely handicapped as to be confined to wheelchairs and to need special provision for accommodation, dressing, and transport were: cerebral palsy (4), Werdnig-Hoffman's disease (1), multiple sclerosis and diabetes (1), and muscular dystrophy (1). Some were so severely handicapped as to need 24-hour cover. This was provided by volunteers; these were usually students between school and university, who received pocket money from the social service authority local to the handicapped student's home and help with food, accommodation, and travelling. They were also subsidised by the university and the parents of the disabled students.

These severely handicapped students were distributed among different residential halls, to which necessary modifications were made with help from the surveyor's department. The students lived a normal life in hall, and commanded the affection of other students and staff. There is some compensating mechanism here, for a mental illness is a rarity in a physically handicapped student. Of the seven severely handicapped students in the university during 1975-6, the three in their final year graduated: two obtained 2.2 degrees, and one third class honours.

Inpatient treatment

The Nottingham University Health Service is housed in the Cripps Health Centre, donated to the university by the Cripps Foundation. Twenty-one inpatient beds potentially available but, owing to different allocation, 15 are in use. There are, on average, 7500 registered National Health Service patients—both staff and students—with a turnover of over 2000 each year and, in addition, about 3000 non-registered people who may call on the health service for emergencies. The average daily inpatient bed occupancy is between seven and eight, with an average length of stay of four to five days. Many of the patient have minor disabilities which, in a different environment, are treated at home. During 1975-6, however, in co-operation with the university department of surgery, surgical cases were admitted to the Cripps Health Centre on Wednesday evenings, seen by the surgeon, transferred by ambulance to Highbury Hospital (6.4 km) or the General Hospital (3.2 km) for surgery the next day, and returned to the health centre the same day. In addition to this elective scheme, surgical emergencies were dealt with in a similar way. Elective dental

TABLE III—Serious illness needing hospital admission unless treated in health centre during the academic year 1975-6

	No of patients	No of days in health centre
Surgical	36	154
Medical	15	103
Obstetrics	2	6
Injury	5	22
Dental surgery	25	31
Total	83	316

surgery was also carried out in the health centre by the senior dental surgeon with the help of a visiting anaesthetist. Table III shows the categories of serious cases that would have needed hospital treatment if they had not been admitted to the health centre.

During the academic year 1975-6 316 hospital bed days were saved by the facilities in the Cripps Health Centre and the liaison with the university department of surgery. A full report on this aspect of the university health service is being prepared in co-operation with the department of surgery. The advantages to the patient were enormous as they were in their own environment in contact with friends and tutors; and those who required prolonged treatment could keep term and do any necessary examinations in the health centre.

Conclusion

A health service that provides comprehensive medical cover for registered patients and their families throughout the year, is tailored to the needs of the environment, meets the occupational medical and industrial health needs of the environment has visiting consultants and a full dental unit, and has provision for inpatient care is perhaps an ideal form of general medical practice. No university quite meets this ideal, as the funding of health services is expensive, and much of the money has to come from non-university—that is, National Health Service and other—sources. Nevertheless, many universities now approach this ideal, and their health services could serve as models for such developments in industrial complexes. This would surely enhance the stability of industrial relations.

It is the task of a doctor working in a university health service

to know the students and the staff and the problems and pressures arising in the environment. A doctor helps his patients to understand themselves and to cope, preferably without drugs, by maximising the constructive and minimising the destructive elements in the personality, and by dealing with all health problems as expeditiously as possible. The knowledge of the environment and of the personalities of staff and students and the illnesses to which they are prone is of great advantage in the university. Certainly, it presents a challenge which does not diminish with the years.

The information in this paper is extracted from a series of papers published in the annual reports of the Nottingham University Health Service to the University Senate and Council during the past five years. A limited number of the different papers containing full details from which the information has been extracted, are available to those interested on application to me.

I am grateful to Dr T Pollock and his colleagues of the Epidemiological Research Laboratories, Colindale, for the investigations on infectious mononucleosis; and to the following from Nottingham University: Professor J Hardcastle and his colleagues of the department of surgery for dealing with the surgical cases in the way described; Professor E M Symonds and his colleagues of the department of obstetrics and gynaecology for help over unmarried pregnancies, contraception, and sexual problems; Mr A Plumb and his colleagues in the registrar's department for their co-operation over the studies on the students' academic performance; Professor A J Willcocks and his colleagues of the department of social administration for help over the statistical analyses; and to the staff of the Nottingham University Health Service for making the studies possible.

Today's Treatment

Diseases of the alimentary system

Treatment of intestinal worms

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British Medical Journal, 1976, 2, 1314-1316

Most of the intestinal worms that affect man live unobtrusively in the gut and do little to impair the health of their host. Symptoms and signs usually appear only with heavy infections. Rapid air travel and the greater immigration into Europe from the tropics in recent years has resulted in helminthic infections, some of them long-standing and serious in their pathological effects, being increasingly encountered in Britain.

While infections with particular types of worms are sometimes patchy in distribution and vary greatly in intensity in different localities, in rural areas of the tropics many of the inhabitants harbour one or more intestinal worms. In non-endemic areas it is justifiable to treat all infections however light, while in areas where reinfection is likely to occur only heavy or moderate infections are worth treating unless simultaneous attempts are

also made to improve environment hygiene. In endemic areas, therefore, the main aim of anthelmintic treatment should be to reduce the load of infection below the level of clinical significance. Complete parasitological cure is unnecessary. Nevertheless, in patients who are severely ill from other causes such as protein-calorie malnutrition, marasmus, tuberculosis, or sickle-cell anaemia worm infections, however light, should be treated even though reinfection is certain to occur.

In the past, laxatives before and after treatment were routinely given; they are now usually considered unnecessary except in the presence of constipation. Davis¹ has written an excellent monograph on drug treatment in intestinal helminthiasis.

Ascariasis

At least four drugs are available for treating ascariasis; starvation before treatment is unnecessary.

Levamisole

Many regard levamisole as the drug of choice in ascariasis. It is given by mouth as a single dose of 2.5 mg/kg of body weight. Adverse

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