that the nature rather than the act of relocation determines the outcome. Both the degree of environmental change and the amount of preparation seem to influence mortality after transfer. This is illustrated in the study by Zweig & Csank (1975) and Haddad (1981). Zweig & Csank reported a significant decrease in mortality in the year following relocation compared with the mortality in the same population in each of the three previous years. Their study involved chronically ill geriatric patients who were intensively prepared for a move to more modern facilities on the same site. Some types of relocation can be carried out safely without any preparation. Haddad (1981) failed to show a significant increase in mortality for psychogeriatric patients who underwent mass involuntary intrahospital relocation. Patients were not specifically prepared, but they were looked after by an increased number of staff in facilities more suited to their needs. The present study shows that mass interhospital transfer of long-stay psychiatric patients can occur without any increase in mortality. The patients were not intensively prepared for a move and did not visit their own homes before transfer. They mostly moved in small groups with the same staff and patients to similar or improved facilities. An alternative explanation for our findings is that the Grassington patients may constitute a selected group. These patients had undergone interhospital and intrahospital relocation before. Those patients who were particularly susceptible to the effects of relocation might have already perished. Further research is required to examine how patient characteristics and the nature of environmental change influence the outcome of relocating long-stay patients.

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Parasuicide and Appendicectomy

A retrospective case-note study of young women admitted for appendicectomy showed that in those patients who had a normal appendix removed, there was a significantly higher rate of admission for parasuicide, before and after the index admission; 27/184 (~15%) compared with 17/368 (~5%) for patients who had an inflamed appendix removed.

Appendicectomy is the commonest abdominal operation carried out in the UK. The management of cases of suspected appendicitis results in the removal of some normal appendices and this is more likely to happen in young women (Lee, 1961). It has been known for some time that patients who have

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a normal appendix removed at appendicectomy, and in whom no other cause is found to account for the pain, have more emotional problems compared with those patients who have had an inflamed appendix removed (Ingram *et al*, 1965). Creed (1981) has shown that patients who have had a normal appendix removed had experienced significantly greater numbers of severe life-events in comparison with a community control group.

Other studies have followed up 'normal-appendix' patients. Rang *et al* (1970), in Oxford, analysed 427 discharged hospital patients for whom the final diagnosis was unexplained abdominal pain; this included a group of 60 patients who had undergone appendicectomy during the first admission. They found that in the 6 months before the index admission, or during the subsequent 2 years, there was a significantly above-average level of admissions for psychiatric reasons in this group. Re-admission in six cases was for a depressive reaction or parasuicide (the number of cases of parasuicide is not given). Joyce *et al* (1981) looked at the case-notes of a group of 153 patients who had undergone appendicectomy 10 years previously, and found that patients who had a normal appendix removed were significantly more likely to be re-admitted for further inadequately explained abdominal pain and parasuicide (the numbers for parasuicide alone fail to reach significance) compared with patients who had an inflamed appendix removed.

It is known that patients admitted for parasuicide experience high levels of life-events (Paykel *et al*, 1975) and have high levels of psychiatric symptoms (Newson-Smith & Hirsch, 1980). Additionally, young women are the group most likely to be admitted for parasuicide (Kreitman, 1983).

A high proportion of parasuicide patients are of low social class (Kreitman, 1983). Creed (1981) found no difference in social class between patients who had normal and inflamed appendices removed, although other studies have offered conflicting evidence (Meyer *et al*, 1964; Rang *et al*, 1970).

The object of this study was to test the hypothesis that the numbers of patients admitted for episodes of parasuicide would be significantly greater in a group who have had a normal appendix removed compared with those who had an inflamed appendix removed. This relationship is likely to be strongest among young women. At the same time, an opportunity was provided to see if 'normal appendix' patients were similar in social class to a group of parasuicide patients (whom they resembled in many other ways) and of lower social class than the inflamed-appendix group.

Methods

Since 1963, all patients admitted for parasuicide in the City of Edinburgh, East Lothian, and Mid Lothian have been admitted to the Regional Poisoning Treatment Centre (RPTC) in the Royal Infirmary of Edinburgh, where they are assessed by a member of the psychiatric team before being discharged. A note of any admission to RPTC will therefore be recorded in the Royal Infirmary case-notes. Information on all admissions is also recorded separately for use by the MRC Unit for the Epidemiology of Psychiatry.

The Lothian Psychiatric Case Register (LPCR) has recorded data on all admissions to the Royal Edinburgh Hospital which has as its catchment area the whole of the City of Edinburgh, since 1970, and on all psychiatric contacts (as out-patient, domiciliary visit or general-hospital ward referral) since 1 January 1978. Since 1982, data on all admissions and discharges from Mid Lothian has also been recorded on the register.

Using the record kept of all operations carried out at the Royal Infirmary of Edinburgh, a search was made for the case-notes of these women who had an appendicectomy between 1975 and 1980, who were aged 15–35 years and who were resident in Edinburgh, Mid Lothian, or East Lothian. The reports on the removed appendices were examined and the histology recorded. The case-notes were examined to determine if another cause was found, either during admission or during the subsequent 6 months, to account for the pain leading to admission. If another cause was found, the notes were not used in the study. Any admissions of the patient to the Regional Poisoning Centre were also noted. The dates of birth of the subjects in the study were fed into the LPCR, which provided a list of patients with the same dates of birth. Matches were made according to surname or Christian name, as the women in this age group might well have changed surname, and the matches confirmed by referring to the psychiatric case-notes. Insufficient information was recorded in the medical case-notes to establish social class. An ecological analysis was therefore carried out. Social-class data from the 1981 Census was used to find the proportion of men in social classes 4 and 5 of the Registrar General's classification in each of the 30 regional electoral divisions (REDs) in the City of Edinburgh. Four groupings, A, B, C, and D were derived in rank order, group A containing the REDs with the lowest number of males in classes 4 and 5, group D those with the highest.

Results

The case-notes of 628 women who had undergone appendicectomy were obtained. In 75 cases, a diagnosis other than appendicitis was made that accounted for the symptoms, the commonest being ovarian cyst in 23 cases. Of the 553 remaining patients, the histology reports revealed that 368 of the appendices removed showed evidence of inflammation, and in 184 cases, normal histology was found. Among those in whom a normal appendix had been removed, the number of subjects admitted for parasuicide either before or after operation was three times

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TABLE I

	State of appendix	
	Normal	*Inflamed*
n	184	368
Mean age in years (s.d.)	21.06 (5)	21.73 (5.3)
Admissions for parasuicide $\chi^2 = 16.90$, d.f. = 1, $P < 0.001$	27 (~15%)	17 (~5%)
Psychiatric contact $\chi^2 = 4.21$, d.f. = 1, $P < 0.05$	16 (~9%)	16 (~4%)
In-patient contact	9	6
Out-patient contact only	7	10
Total number of patients with any form of psychiatric contact $\chi^2 = 13.63$, d.f. = 1, $P < 0.001$	34 (~19%)	29 (~8%)

TABLE II

Area of residence	*Normal appendix*		*Inflamed appendix*		*Parasuicide*	
A	45	(~32%)	88	(~34%)	94	(~22%)
B	44	(~30%)	81	(~31%)	117	(~28%)
C	30	(21%)	64	(~24%)	124	(~29%)
D	24	(~16%)	30	(~11%)	91	(~21%)
	n = 143		*n* = 263		*n* = 426	

Inflamed appendix group and parasuicide, $\chi^2 = 19.15$, d.f. = 3, $P < 0.001$; normal appendix group and parasuicide, $\chi^2 = 8.01$, d.f. = 3, $P < 0.05$; inflamed appendix group and normal appendix group, $\chi^2 = 2.58$, d.f. = 3, $P < 0.5$; NS.

greater (14.7% compared with 4.6%) than in patients from whom an inflamed appendix had been removed ($P < 0.001$, Table I). Similarly, inclusion on the LPCR was twice as common in the normal appendix group.

Table II shows the distribution of area of residence of appendicectomy patients arranged in rank order of areas containing different proportions of males in social classes 4 or 5. Given for comparison, in Table II, are details of women aged 15–35 admitted to the RPTC during the years 1979 and 1980. Both appendicectomy groups have significantly more patients in areas with comparatively low proportions of men in social classes 4 and 5 (A and B) and significantly less in the areas containing high proportions (C and D), when compared with the patients admitted for parasuicide.

Discussion

This study has shown a remarkably high number of admissions for parasuicide in a population of young women who have had a normal appendix removed. Rates of other psychiatric contact are also

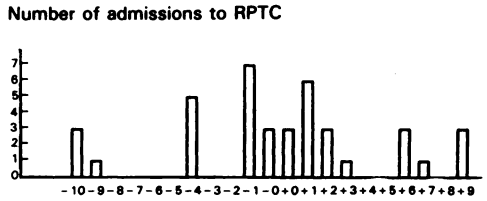


FIG. 1 Time period of admissions to the Regional Poisoning Treatment Centre (RPTC) for women who have had appendicectomy of a normal appendix. Numbers refer to events, not patient numbers.

significantly higher, and are almost certainly underestimated because the Lothian Psychiatric Case Register does not contain details of all psychiatric contacts. However, relative rates should not be affected.

The ecological analysis according to social class shows that the overrepresentation of parasuicide patients in areas of low social class does not occur in normal appendicectomy patients. This contradicts previous findings that patients who somatise their problems tend to be of low social class (Hollingshead & Redlich, 1958).

Figure 1 shows a clustering of admissions for parasuicide around the time of the index admission. This may simply be because the subjects are less likely to be living in the catchment area of the Royal Infirmary the further in time one gets from the date of the index admission. On the other hand, Hinkle & Wolff (1961) have claimed that episodes of illness tend to cluster together, and this would fit the pattern of the above results.

Young women who have a normal appendix removed have been shown to deny their problems more, and have a stronger somatic orientation, than a matched group of depressed patients (Canton *et al*, 1984). The overlap between these patients and 'normal appendix' patients suggests that this predilection for the medicalisation of emotional problems remains after parasuicide and appendicectomy.

Recent research by Miller *et al* (1977) has suggested that stressors preceding onset of differing psychiatric symptoms may usefully be differentiated and it should be possible to compare parasuicide patients and normal appendicectomy patients in this manner. Surgery will not solve the problems of people with emotional distress, and both surgeons and, particularly, general practitioners should be aware of this.

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Subacute Sclerosing Panencephalitis (SSPE) Presenting at the Age of 21 as a Schizophrenia-like State with Bizarre Dysmorphophobic Features

A case is described of a 21-year-old man who, after extensive investigations by the general physicians and neurologists, was transferred to a psychiatric hospital with a diagnosis of functional illness. The clinical picture at that stage simulated schizophrenia with prominent dysmorphophobic features. A diagnosis of subacute sclerosing panencephalitis was then made 9 months after the onset.

Mental abnormalities are common throughout the course of subacute sclerosing panencephalitis. Many patients have been treated for the psychiatric disturbance in mental hospitals (Brain *et al*, 1943; Corsellis, 1951).

Case report

A 21-year-old single male, who had been able and well adjusted, with no previous psychiatric history, was transferred for psychiatric assessment from a neurological department, where he had been fully investigated, with no abnormality found. Eight months previously he had been fit and well. Shortly after returning from holiday abroad, he slowly became withdrawn, apathetic, and preoccupied with the shape of various parts of his body. His behaviour was described by his parents, as totally out of character. He was unable to work and had difficulty relating to his fiancée. He became clumsy, dribbling drinks down his clothes, and was reported to be anxious, restless, and absent-minded at times. He kept falling and injuring himself, and there were frequently occurring jerky movements in the face, limbs, and trunk. He was seen

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