INDIVIDUAL STUDY

# Parasuicide in an urban general practice, 1970-1979

R. M. TURNER, MB, FRCGP
General Practitioner, London

SUMMARY. In the 10 years from 1970 to 1979 there were 224 known episodes of parasuicide involving 158 patients (71 per cent women) registered with doctors in a group practice in a health centre in South East London. Nearly 40 per cent of patients were known to have repeated parasuicide at least once. Self-poisoning by drugs was the commonest method. Nearly three quarters of the drugs used had been prescribed by doctors and just under 60 per cent of the study patients had consulted their doctor within the 28 days preceding parasuicide. Personality disorder was the most frequent psychiatric diagnosis and was often associated with depression. There was no past or present evidence of psychiatric abnormality in 22 per cent. The most frequent precipitating cause of parasuicide was a breakdown in personal relationships. The annual total of episodes fell in the last two years of the study, but it is not yet clear whether this marks a significant development. Six of the patients died from suicide during the study period.

## Introduction

PARASUICIDE has been defined as a non-fatal act in which an individual deliberately causes self-injury or ingests a substance in excess of any prescribed or generally recognized therapeutic dosage (Kreitman *et al*, 1969). Despite some criticism, the term has gained wide acceptance as an alternative to 'attempted suicide', since it is now realized that most people who harm themselves deliberately do not wish to die (Kessel, 1965).

The value of a study based on general practice should be that it provides an accurate measure of the total parasuicide rate in a community; that general practitioner records contain much information about relevant factors and events leading to parasuicide; and that the outcome in patients managed by general practitioners can be assessed.



The present study was undertaken in a group practice in the Lakeside Health Centre in Thamesmead, a new community in South East London whose first residents moved there in 1969. The practice list increased from 1,000 to 10,000 between 1970 and 1979. All but 10 per cent of those living within the area of Thamesmead served by the health centre were registered with the study practice. Most residents formerly lived in central London boroughs; young married couples and children predominate. One third of the population are aged under 15 years. Less than 10 per cent are over 65 years old. Families are chiefly from social classes III, IV and V. Only 10 per cent of dwellings are privately owned.

## Method

Using Kreitman's definition of parasuicide, all episodes involving practice patients were recorded in detail on a register kept from 1977 onwards. At the same time, a retrospective search of the records of past and current patients since 1970 was undertaken. It was possible to trace all patients since even when they leave the practice their records are kept in A4-size family folders and a precis or photocopy of their notes is forwarded to their new doctor.

For every episode of parasuicide, details of the patient's age, sex, marital status and physical and mental health were recorded. The composition of the household was noted, together with other medical, social or family problems.

Parasuicide as defined specifically excludes accidental poisoning and alcoholic excess. It is possible that some episodes may have been missed through inaccurate or incomplete recording, but the number of such omissions must be very small.

## Results

### *Episodes*

A total of 224 episodes of parasuicide involving 158 patients (71 per cent of them women) was recorded between 1970 and 1979 (Table 1). Ninety-seven patients

**Table 1.** Summary of parasuicide at Thamesmead.

| | Number of patients | | | Number of episodes | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| Non-repeaters | 31 | 66 | 97 | 31 | 66 | 97 |
| Repeaters | | | | | | |
| Without previous history | 6 | 23 | 29 | 11 | 50 | 61 |
| With previous history | 9 | 23 | 32 | 15 | 51 | 66 |
| Total | 46 | 112 | 158 | 57 | 167 | 224 |

**Table 2.** Annual age-specific parasuicide episode rates per 10,000 at risk. (Rates based on five or fewer cases are shown in brackets.)

| | All parasuicides* | | Patient rates** | | First-ever parasuicides | |
|---|---|---|---|---|---|---|
| Age (years) | Male | Female | Male | Female | Male | Female |
| 15–24 | 31 | 86 | 26 | 66 | 26 | 64 |
| 25–34 | 36 | 81 | 26 | 64 | 18 | 42 |
| 35–44 | 28 | 80 | 28 | 72 | 21 | 37 |
| 45–54 | (15) | 68 | (15) | 51 | (12) | (21) |
| 55+ | (10) | 27 | (10) | 16 | — | (11) |
| Total adult rate | 26 | 73 | 21 | 59 | 17 | 39 |

*Based on all 224 adult parasuicides at Thamesmead.
**Omitting repeat episodes occurring within 12 months.

(68 per cent women) were involved in one episode only; 61 (75 per cent women) repeated parasuicide at least once. As far as could be discovered from previous records, which were not always complete, 32 of the 61 repeaters had a history of parasuicide before moving to Thamesmead. The other 29 committed their first and subsequent acts after moving and they, plus the 97 'non-repeaters', made a total of 126 patients who had no history of parasuicide before their first Thamesmead episode.

The greatest number of episodes took place in September (13 per cent of the total) and the smallest number was in June (5 per cent). As far as can be seen from the small numbers, the pattern was much the same for men as for women. The day of the week was recorded in 191 (85 per cent) of episodes. There were fewer episodes at weekends: only 24 per cent of male and 35 per cent of female parasuicides took place on Fridays, Saturdays and Sundays combined.

Generally speaking, the number of episodes increased in step with the growth of the practice.

The population at risk in each age–sex group was calculated by averaging the mid-year list sizes from 1970 to 1979, and from this the age-specific rates per 10,000 population were measured. Over the 10 years there was an average of 3.2 episodes per thousand practice patients (of all ages) per year. For both sexes the total episode rates declined with age (Table 2). Female rates were always at least two or three times higher than the corresponding male rates, and at ages 45–54 the ratio, admittedly based on only a small number of cases, was as high as 4.5:1. The gap between male and female 'first-ever' rates was narrower than that between their total rates, particularly over the age of 35. This reflects the higher rate of repeat parasuicide by older women.

### *Marital and family status*

It was not always easy to determine precise marital status, but to judge from available information 29 (64 per cent) of the male and 74 (70 per cent) of the female adult patients appeared to be married or living as married. The 17 per cent of patients recorded as single and the 15 per cent who were widowed, divorced or separated probably included some who were not living alone. Among the 96 couples living together at the time of parasuicide were 22 in which one partner (in 12 cases both partners) had been married previously. No comparative figures are available for the practice as a whole, but, bearing in mind the age groups at risk, it seems likely that the non-married (32 per cent) were over-represented among the study patients.

Among 126 adults who had ever been married were 27 men and 70 women (96 families) with at least one child under 15 at the time of their first parasuicide in Thamesmead. Thirty of the mothers had three or more children; 14 (47 per cent) repeated parasuicide, compared to only six (15 per cent) of the 40 women with one or two children. Again there are no exactly comparable figures

**Table 3.** Psychiatric disorders (per cent).

| Diagnosis | Male | Female |
|---|---|---|
| Personality disorder | 42 | 53 |
| Depression or bereavement | 27 | 38 |
| Alcohol abuse | 33 | 12 |
| Other* | 11 | 5 |
| No psychiatric disorder | 13 | 25 |

*Ten cases: schizophrenia five (three female), subnormality one (male), drug abuse three (one female), phobic anxiety one (female).

relating to the whole practice, but there seems little doubt that there is an association between parasuicide and family size. Seven of the female parasuicide patients were among 46 families in the practice who were under the supervision of a social services department because of actual or threatened child abuse.

Loss of one or both parents while under 15 years of age was reported by 35 (22 per cent) of patients, while 15 (9 per cent) of the others gave accounts of a conspicuously unhappy or deprived childhood.

Current marital disharmony was recorded in 50 per cent of patients of both sexes, and a further 10 per cent had recently separated. Altogether 75 per cent of patients had had an upset with someone close to them.

### Employment status

Ten male patients (22 per cent) were unemployed; five others, and one woman, were facing criminal charges at the time of parasuicide. The local unemployment rate for males reached 3.2 per cent during 1979.

### State of health

Personality disorder was the most common psychiatric diagnosis (Table 3). These patients had a history of chronic problems besetting their personal relationships, marriage, work and indeed all areas of their lives and activities. Depression and alcohol abuse were often associated. One third of patients were depressed or had recently been bereaved. There was no evidence of any psychiatric disorder in 22 per cent of patients, but 33 patients (21 per cent), nine of them male and 24 female, were recorded as having received psychiatric treatment in the past. Only 10 per cent of patients were under outpatient psychiatric care at the time of the parasuicide.

Physical illness of sufficient severity to restrict activity or to require constant medication was rare, affecting only 10 per cent of patients of both sexes. Three (two men) were epileptic and two (both men) suffered from ulcerative colitis. Marital and social problems affected all those with organic illness and appeared to be a more important factor in their parasuicide. One woman was pregnant, two had been pregnant recently, and one was convalescent after hysterectomy.

### Multiple problems

Women in the two age groups from 35 to 54 frequently had multiple problems. Half were depressed, 60 per cent had a past history of parasuicide, 75 per cent had a personality disorder and 30 per cent had a drinking problem. One fifth were known to have been divorced. The series includes eight families in which two people were involved in parasuicide (mother and daughter (five), mother and son (one), father and son (one), husband and wife (one)) and one family in which three members were parasuicides (father, son and daughter, although the daughter was not a practice patient at the time and was not included). There were also three women in the study with a history of parasuicide in a near relative (one mother, two daughters) and one household in which two female friends each took an overdose of drugs.

Alcohol was taken at the time of parasuicide (on at least one occasion in the case of repeaters) by 41 per cent of males but by only 13 per cent of females. The full part played by alcohol was probably greater, as other patients were known to have drinking problems and it is likely that some of these had also consumed alcohol at the time of the attempt without this being recorded.

### Repeaters

The 61 patients who repeated parasuicide had a high incidence of multiple problems. There were 15 male repeaters (33 per cent of the male patients); of these, six were unemployed, 12 had drinking problems and all 15 had personality disorders. Twelve were married and all were in serious marital difficulty. There were 46 female repeaters (40 per cent), of whom 42 (92 per cent) were diagnosed as having a personality disorder, 16 (35 per cent) were depressed and 32 (70 per cent) had marital problems.

More than half the repeat episodes occurred within six months of an earlier one. The longest gaps recorded between episodes were 17 years in one woman and 11 years in one man. The largest number of episodes at Thamesmead was seven by a female patient.

### Methods used

Self-poisoning by drugs was the method used by more than 90 per cent of patients of both sexes. Psychotropic, hypnotic and analgesic drugs were most often used. Twenty-six per cent of patients took more than one preparation. Over 70 per cent of the drugs had been prescribed by doctors, not always for the individual who took them. Of the 40 per cent who consulted within a week of parasuicide, the majority were recognized as being depressed or in domestic difficulty and more than half had been given the psychotropic drugs which they subsequently used.

### Contact with general practitioners and hospital

The mean annual number of contacts between study patients and general practitioners was calculated from

the date of registration with the practice to the date of the first episode at Thamesmead. Attendances at antenatal, family planning and other special clinics were excluded. Rates were compared with a random sample of 300 adult patients aged between 20 and 50 years (Table 4). Up to the time of the episode, study patients consulted more frequently than the average, the discrepancy being greatest for the 15 male repeaters. In the seven days preceding the episode 40 per cent of patients had consulted, and 58 per cent had done so within 28 days.

Following almost exactly half of the episodes, the patient was taken to hospital direct without the intervention of his or her family doctor (Table 5). Just over one third (36 per cent) were seen by their doctor at the time of the episode and a further 15 per cent after an initial period of concealment. Of the episodes in which general practitioners were involved, 39 (18 per cent) were followed neither by admission nor referral, although it should be noted that in 24 of them nothing was known of the incident until the immediate crisis was past. These 39 episodes involved 35 individuals: 23 episodes were first-evers (19 women and four men) and 16 were repeats (12 women and four men). Three of these women subsequently repeated parasuicide, one of them twice, and one man committed suicide three years after his first-ever act.

Of the total 224 incidents, hospital attendance followed in 161 (72 per cent) and psychiatric referral in 160 (72 per cent).

**Table 4.** Mean annual number of contacts with general practitioners.

| | Annual rate | | Number of patients | |
|---|---|---|---|---|
| Patients | Male | Female | Male | Female |
| All parasuicide patients | 8.2 | 13.1 | 46 | 112 |
| Non-repeaters | 5.1 | 12.5 | 31 | 66 |
| Repeaters | 14.1 | 14.3 | 15 | 46 |
| Sample of practice population | 3.5 | 4.8 | 150 | 150 |

### *Subsequent suicides*

Six study patients (4 per cent) are known to have committed suicide. There may possibly have been others as 48 patients had left the area by the end of the 10 years, a mobility rate well above the average for the practice. Those who died by suicide were older than most of the study patients (three men, aged 31, 36 and 62, and three women, aged 36, 45 and 52); five of them had a history of repeated parasuicide.

Practice patients who committed suicide at Thamesmead during the study period but without parasuicide while living there are not included in the previous analysis, but it should be noted that there were three of them. Two (men aged 40 and 52) had a history of multiple parasuicide while living elsewhere, the third (a woman of 27) had none. Thus, of nine patients committing suicide in 10 years, eight had a history of parasuicide and seven of them were repeaters.

## Discussion

Parasuicide poses a major problem for the hospital service. It accounts for at least 10 per cent of all acute admissions (Pallis and Pierce, 1979), is the commonest reason for emergency medical admissions in women and the second most common for men. The annual total of cases in Britain is thought to be about 100,000 (Harrison and Gibson, 1976).

Evidence of the frequency of parasuicide in general practice is scant. The Thamesmead figure of 3.2 episodes per thousand patients of all ages per year compares with rates from other practices of between 1.4 and 2.0 episodes per thousand annually (Steel, 1974; Hodgkin, 1978; Fry, 1979; Harris, 1980).

Most research into parasuicide has been based on hospital studies, only two of which have incorporated information supplied by general practitioners. A psychiatric survey of parasuicide in Edinburgh in 1970 (Kennedy and Kreitman, 1973), and a similar study in Oxford from April 1972 to April 1973 (Hawton and Blackstock, 1976), included data from more than 90 per cent of family doctors invited to provide details of all parasuicides known to them, whether followed by hospital attendance or not.

**Table 5.** Hospital attendance and psychiatric referral (total episodes: 224).

| | Admitted | | Not admitted | | Admitted and referred to psychiatrist | | Not admitted but referred to psychiatrist | |
|---|---|---|---|---|---|---|---|---|
| Management | Number | Per cent | Number | Per cent | Number | Per cent | Number | Per cent |
| Self-referral to hospital | 97 | *43* | 13 | *6* | 87 | *39* | 2 | *1* |
| Presented to GP at time of episode | 51 | *23* | 30 | *13* | 47 | *21* | 15 | *7* |
| Presented to GP after initial concealment | 0 | *0* | 33 | *15* | 0 | *0* | 9 | *4* |

Comparison of the Thamesmead findings with hospital studies is difficult. The present study covers a decade, those from hospital a period of only one or two years during the 1970s. Work in Edinburgh (Kreitman, 1977) and in Bristol (Morgan *et al.,* 1975) has shown that figures for whole cities conceal wide variations between different districts, whereas Thamesmead's 10,000 residents are mostly from similar backgrounds and live in the same environment.

Thamesmead's adult rates were generally similar to hospital studies for males, but the female rates were higher. Patient rates in the present study were 21 (for men) and 59 (for women) per 10,000 population per year; comparable figures for Edinburgh in 1974 (Kreitman, 1977) were 22 and 36, for Bristol in 1972 and 1973 combined (Morgan *et al.,* 1975) 16 and 31, and for Oxford from mid-1972 to mid-1973 (Bancroft *et al,* 1975) 25 and 47. The Oxford study was the only one of these to include data from general practice about patients who did not attend hospital.

Further comparison of rates for Thamesmead women with the detailed Edinburgh study from 1974 shows that the total episode rate in Thamesmead was higher (73 per 10,000 population per year against 43 in Edinburgh). For the youngest age group, rates in Edinburgh were higher, but for women aged 35 to 54 both total and patient rates in Thamesmead exceeded those in Edinburgh by 50 per cent, and first-ever rates were higher by 25 per cent.

Although more than half the episodes concerned patients under 30, there was a high incidence of parasuicide in older Thamesmead women, the causes of which must be speculative. Their medical records show that many were seriously disturbed. It may be that the move to a new environment proved disappointing and the realization that personal problems were fundamentally unchanged led them to a sense of increasing frustration and despair. Three of them died from suicide.

Thirty-eight per cent of study patients repeated parasuicide, a figure close to those of other studies (Morgan *et al.,* 1976; Bancroft and Marsack, 1977). Characteristic features of repeaters include a high incidence of personality disorder, alcohol or drug abuse, previous psychiatric treatment and, in men, unemployment, violence and criminal convictions (Buglass and Horton, 1974; Morgan, 1979). In the present study repeaters showed these features in greater degree than non-repeaters and five later died from suicide, compared with only one non-repeater.

As found elsewhere (Hawton and Blackstock, 1977), 90 per cent of study patients took overdoses of drugs, nearly three quarters of which had been prescribed by doctors. The number of patients using other methods of harming themselves was too small to find out whether they had characteristics which differed to any extent from the majority.

Patients' contact rates with their doctors were higher than the practice average; their recent pattern of attendance again compared very closely with other published reports (Smith and Davidson, 1971; Hawton and Blackstock, 1976; Jones, 1977).

Personality disorder was diagnosed in half the study patients. Psychiatrists, working chiefly with hospital inpatients, have written in detail about the personalities of parasuicidal patients. They have been described as showing high levels of hostility and rigidity (Vinoda, 1966), and much of their psychiatric symptomatology has been attributed to character disorders which affected judgement and reactions, leading to impulsive behaviour and to unstable interpersonal relationships (Kreitman, 1977). Although these are common findings in parasuicide, Philip (1970) has warned that they are neither invariable nor exclusive.

The most common relationship problem was marital strife, which had sometimes reached the point of separation.

The significance of parental loss in childhood is uncertain. Linked specifically with adult depression (Brown and Harris, 1978) and with parasuicide (Birtchnell, 1970), most studies have confirmed a relationship (Lloyd, 1980), but findings are inconsistent and there may be little significance in early parental loss (Tennant *et al.,* 1980). It is not known how far the experience of the study patients differed from that of the practice population as a whole; they attended their doctors frequently, often because of psychosocial problems, and may have revealed more information about their past lives and unhappiness than others.

Most episodes were followed by hospital admission and, as hospitals were readily accessible, the decision to take patients straight there without calling out a doctor was often made by family or friends. Patients who were thought to be seriously ill were more likely to be taken direct to hospital, as were those who took action at night or weekends, when there might have been uncertainty about their own doctor's availability. General practitioners were more often called if the diagnosis was not obvious, the act thought to be trivial, or it occurred at the climax of difficulties already discussed with the doctor, so that the help offered was seen as relevant and constructive.

Concern over the problem of parasuicide led the Hill Committee (Ministry of Health, 1968) to recommend that a psychiatric assessment should be obtained in all cases. The practical difficulties of implementing this advice were great, and various alternative methods of management using non-psychiatric medical and other staff have been tried (for example, Lawson and Mitchell, 1972; Blake and Bramble, 1979; Newson-Smith and Hirsch, 1979).

It has been suggested that general practitioners should be competent to manage selected patients without referral (Tonks, 1980). This has, of course, always happened. The estimated proportion of those not attending hospital varies from 30 per cent in Edinburgh (Kreitman, 1977) to 20 per cent in Sheffield (Parkin and

Stengel, 1965) and in Shropshire (Hershon, 1968), and 6 per cent in the county and 3.3 per cent in the city of Oxford (Bancroft *et al.*, 1975).

In the present study 72 per cent of episodes resulted in the patient's attending hospital (66 per cent were admitted), 72 per cent in psychiatric referral and 18 per cent in neither. A purely hospital-based survey of parasuicide in Thamesmead would therefore have fallen considerably short of the number of episodes known to family doctors. It must be borne in mind that episodes were managed by general practitioners only when they were obviously not life-threatening and that more than half of these had been concealed at first. Among the 35 patients treated in this way were a man who appeared to recover from his initial depression, but who committed suicide three years later without having consulted a doctor for more than a year at the time of his death, and three female patients who repeated parasuicide.

The aim of managing cases at home is to try and bring benefit to patients and families by providing support from people familiar to them, ensuring continuity of care and perhaps persuading them against similar action in the future. As it is, about 1 per cent of patients with a history of parasuicide die each year from suicide and about 10 per cent eventually kill themselves (Tuckman and Youngman, 1963; Morgan *et al.*, 1976). The known suicide rate among study patients was 4 per cent over the 10 years.

There is some evidence that the rate of parasuicide in Thamesmead may be falling from the peak reached in 1977. Reports from Southampton (Gibbons *et al.*, 1979) and from Edinburgh (Holding *et al.*, 1979) also show decreasing rates but are inconsistent in detail. Further longitudinal studies will be needed to determine whether any local or national trends emerge.

## References


Bancroft, J. & Marsack, P. (1977). The repetitiveness of self-poisoning and self-injury. *British Journal of Psychiatry*, **131**, 394-399.

Bancroft, J., Skrimshire, A. M., Reynolds, F. *et al.* (1975). Self-poisoning and self-injury in the Oxford area. Epidemiological aspects, 1969-73. *British Journal of Preventive and Social Medicine*, **29**, 170-177.

Birtchnell, J. (1970). The relationship between attempted suicide, depression and parent death. *British Journal of Psychiatry*, **116**, 307-313.

Blake, D. R. & Bramble, M. G. (1979). Self-poisoning: psychiatric assessment by junior medical staff. *British Medical Journal*, **1**, 1763-1765.

Brown G. W. & Harris, T. (1978). *Social Origins of Depression. A Study of Psychiatric Disorders in Women.* London: Tavistock Publications.

Buglass, D. & Horton, J. (1974). The repetition of parasuicide: a comparison of three cohorts. *British Journal of Psychiatry*, **125**, 168-174.

Fry, J. (1979). *Common Diseases, Their Nature, Incidence and Care.* 2nd edn. Lancaster: MTP Press.

Gibbons, T. S., Elliot, J., Urwin, P. *et al.* (1979). The urban environment and deliberate self-poisoning: trends in Southampton, 1972-77. *Social Psychiatry*, **13**, 159-163.

Harris, C. M. (1980). *Lecture Notes on Medicine in General Practice.* Oxford: Blackwell.

Harrison, G. A. & Gibson, J. B. (1976). *Man in an Urban Environment.* London: Oxford University Press.

Hawton, K. & Blackstock, E. (1976). General practice aspects of self-poisoning and self-injury. *Psychological Medicine*, **6**, 571-575.

Hawton, K. & Blackstock, E. (1977). Deliberate self-poisoning: implications for psychotropic drug prescribing in general practice. *Journal of the Royal College of General Practitioners*, **17**, 560-563.

Hershon, H. I. (1968). Attempted suicide in a largely rural area during an eight-year period. *British Journal of Psychiatry*, **114**, 279-284.

Hodgkin, K. (1978). *Towards Earlier Diagnosis in Primary Care.* 4th edn. Edinburgh: Churchill Livingstone.

Holding, T. A., Buglass, D., Duffy, J. C. *et al.* (1977). Parasuicide in Edinburgh—a seven-year review, 1968-74. *British Journal of Psychiatry*, **130**, 534-543.

Jones, D. R. (1977). A follow-up of self-poisoned patients. *Journal of the Royal College of General Practitioners*, **27**, 717-719.

Kennedy, P. & Kreitman, N. (1973). An epidemiological survey of parasuicide (attempted suicide) in general practice. *British Journal of Psychiatry*, **123**, 23-24.

Kessel, N. (1965). Self-poisoning. Part 2. *British Medical Journal*, **2**, 1336-1340.

Kreitman, N. (Ed.). (1977). *Parasuicide.* London: John Wiley.

Kreitman, N., Philip, A. E., Greer, S. *et al.* (1969). Parasuicide. *British Journal of Psychiatry*, **115**, 746-747.

Lawson, A. A. H. & Mitchell, I. (1972). Patients with acute poisoning in a general medical unit (1969-71). *British Medical Journal*, **4**, 153-156.

Lloyd, C. (1980). Life events and depressive disorder reviewed. *Archives of General Psychiatry*, **37**, 529-548.

Ministry of Health (1968). *Hospital Treatment of Acute Poisoning.* Report of Sub-Committee of Standing Medical Advisory Committee of the Central Health Services Council (Hill Report). London: HMSO.

Morgan, H. G., (1979). *Death Wishes? The Understanding and Management of Deliberate Self-harm.* London: John Wiley.

Morgan, H. G., Barton, J., Pottle, S. *et al.* (1976). Deliberate self-harm: a follow-up study of 279 patients. *British Journal of Psychiatry*, **128**, 361-368.

Morgan, H. G., Pocock, H. & Pottle, S. (1975). The urban distribution of non-fatal deliberate self-harm. *British Journal of Psychiatry*, **126**, 319-328.

Newson-Smith, J. G. B. & Hirsch, S. R. A comparison of social workers and psychiatrists in evaluating parasuicide. *British Journal of Psychiatry*, **134**, 277-282.

Pallis, D. J. & Pierce, D. W. (1979). Recognising the suicidal overdose. *Journal of the Royal Society of Medicine*, **2**, 565-571.

Parkin, D. & Stengel, E. (1965). Incidence of suicidal attempts in an urban community. *British Medical Journal*, **2**, 133-138.

Philip, A. E. (1970). Traits, attitudes and symptoms in a group of attempted suicides. *British Journal of Psychiatry*, **116**, 475-482.

Smith, J. S. & Davidson, K. (1971). Changes in the patterns of admission for attempted suicide in Newcastle-upon-Tyne during the 1960s. *British Medical Journal*, **4**, 412-415.

Steel, R. (1974). Suicide, attempted suicide and depression. *Update*, **9**, 343-351.

Tennant, C., Bebbington, P. & Hurry, J. (1980). Parental death in childhood and risk of adult depressive disorders: a review. *Psychological Medicine*, **10**, 289-299.

Tonks, C. M. (1980). Managing the attempted suicide without psychiatric referral. *Modern Medicine*, **10**, 289-299.

Tuckman, J. & Youngman, W. F. (1963). Identifying suicide risk groups among attempted suicides. *Public Health Report*, **78**, 763-766.

Vinoda, K. S. (1966). Personality characteristics in a group of attempted suicides. *British Journal of Psychiatry*, **112**, 1143-1150.



**Acknowledgements**

I am grateful to Professor P. M. Higgins for much constructive criticism; to Mr M. P. Curwen for suggestions and advice on statistical presentation; to Mrs E. Turner for much preliminary work; and to Miss D. Woodfine for patiently typing successive drafts.



**Address for reprints**

Dr R. M. Turner, 49 Wansunt Road, Bexley, Kent.