

Rural versus urban parasuicide — referral and management

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SUMMARY. The referral and management of parasuicide patients from urban and rural areas were compared in a retrospective study of hospital and general practice records. Whereas most urban patients were physically and psychiatrically managed in general hospitals, the majority of rural patients were managed at home or in cottage hospitals by general practitioners. The overall parasuicide rate of the rural population was found to be similar to that of the city. Although there were no clinical differences between the two groups of patients, relatively more middle-aged rural patients were admitted to hospital. The results suggest that parasuicide is now as commonly seen in rural situations, but that the problem is managed outside district general hospitals by general practitioners.

Introduction

THE epidemiological and clinical characteristics of parasuicide have been comprehensively reported. The majority of studies have primarily been concerned with parasuicide in urban communities. Such studies have demonstrated that deliberate self-harm is associated with inner-city areas of high psychosocial morbidity. The relatively few studies of parasuicide in predominantly rural areas have shown that the parasuicide rate is considerably lower than that of urban areas.¹⁻³ The demographic and clinical characteristics, however, were found to be similar. Further studies of the management of parasuicide patients in general practice indicate that substantial numbers, amounting to as much as 30 per cent of the total, are managed outside hospital by general practitioners.⁴

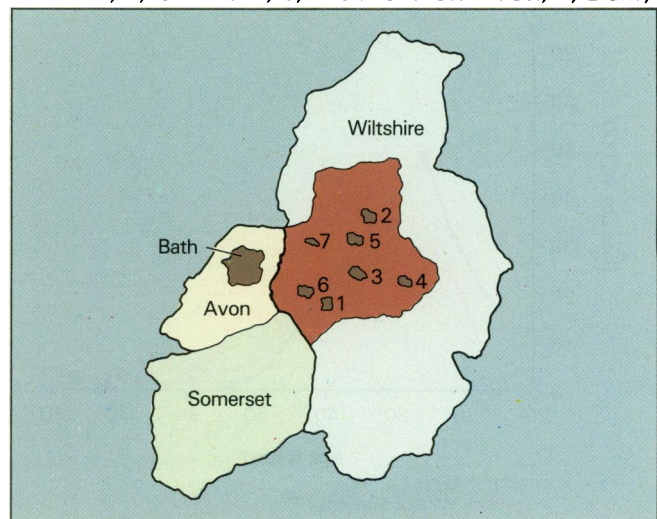
This study is concerned with parasuicide by drug overdose occurring within the Bath Health District during the period August 1976 to July 1977, and in particular with a comparison of patterns of referral and management of patients from urban and rural situations. The Bath Health District serves a total population

of approximately 380,000. It comprises the City of Bath (c. 84,500 people), a number of market towns, and the surrounding countryside in portions of the three counties of Avon, Somerset and Wiltshire. The City of Bath, despite its popular image as a tourist centre, is an active commercial city.⁵ The nature and extent of its parasuicide problem has been found to be similar to that of other cities—for example, Bristol.⁶ The rural area chosen for the study (west Wiltshire) contains six market towns where the main occupation is light manufacturing industry (Figure 1). The remainder of the population reside in the surrounding area where the single largest occupation is agriculture. The area is served by district general hospitals at Bath, and by a number of cottage hospitals with minor casualty facilities situated in the market towns and managed by general practitioners. Both urban and rural general practitioners provide their own overnight and weekend cover for emergencies.

Method

The method used was generally similar to that employed in the previous studies of parasuicide in rural areas.¹⁻³ The rural area chosen for the study was based on Local Authority town and

Figure 1. Bath Health District showing Bath, the west Wiltshire study area and market towns. (Key: 1, Trowbridge; 2, Chippenham; 3, Melksham; 4, Devizes; 5, Corsham; 6, Bradford on Avon; 7, Box.)



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Table 1. Crude parasuicide rates for the City of Bath (population: 84,670) and west Wiltshire (town population: 92,275, rural population: 16,395).

Distribution of admissions and cases seen	Number of events	Rate per 10 ³ popln	
		All ages	Age 15+ years
<i>City of Bath</i>			
DGH	177	2.1	2.6
GP only*	20		
All admissions and cases	197	2.3	2.9
Estimated GP total*	20 + 3		
Overall total	200	2.35	3.0
<i>West Wiltshire</i>			
Town DGH	110	1.2	1.4
Rural DGH	21	1.3	1.6
All DGH	131	1.2	1.5
Town CH	34		
Rural CH	7		
All CH	41		
Total town DGH and town CH		1.6	1.9
Total rural DGH and rural CH		1.7	2.2
Total DGH and CH	172	1.6	2.0
GP only	81		
All admissions and cases	253	2.3	3.0
Estimated GP total*	81 + 19		
Overall total	272	2.5	3.2

* ±10 per cent.

DGH = District General Hospitals; CH = Cottage Hospitals.

parish boundaries, and was designed where possible to be coterminous with general practitioner practices.

Information for the survey was obtained from two sources:

1. *Hospital records.* Using casualty ledgers and ward admission books, a retrospective study was made of all cases of

intentional self-poisoning by drugs seen at, or admitted to, district general and cottage hospitals in the study area. Further clinical information was obtained from inpatient case notes and casualty record cards.

2. *General practice.* A questionnaire was sent to all general practitioners practising within the City of Bath and in west Wiltshire, enquiring as to how many cases of intentional self-poisoning by drug overdose had been seen or managed outside hospital during the 12-month period.

Self-poisoning was defined as the ingestion of more than the accepted therapeutic dose of a drug with clear or implied self-harmful effect.

Demographic data was based on the 1971 National Census and updated Local Authority figures.

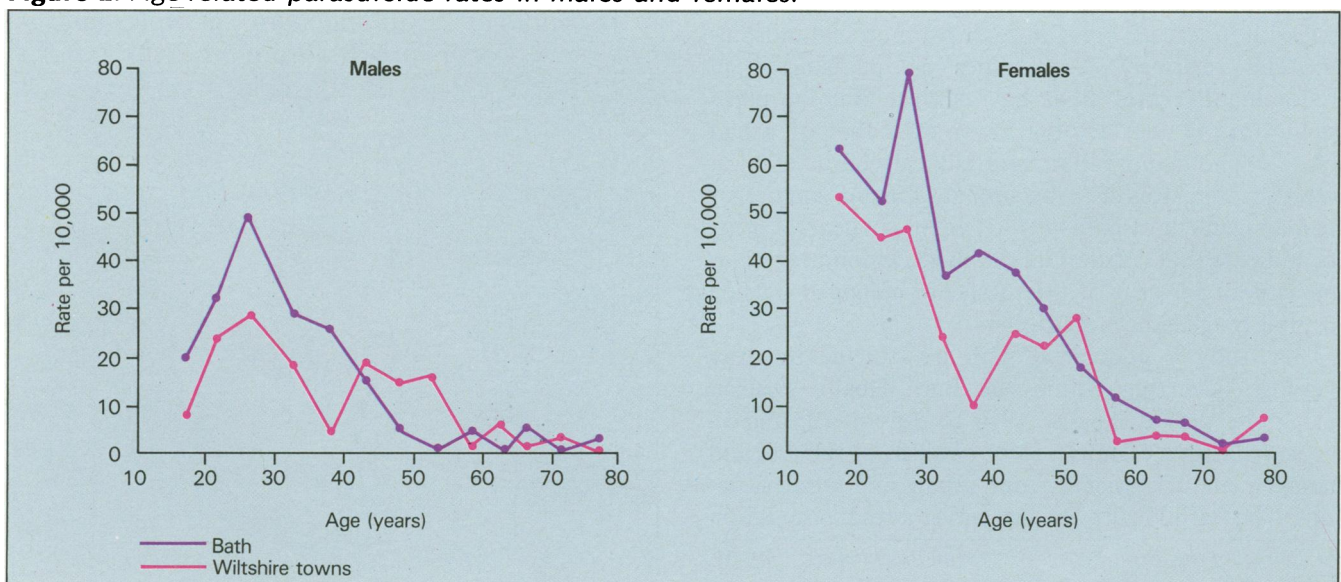
Results

Epidemiological characteristics

Completed questionnaires were returned by 40 of the 46 Bath general practitioners (87 per cent response) and by 46 of the 57 west Wiltshire general practitioners (81 per cent response). Referrals to the district general hospitals in Bath as a result of a deliberate overdose of drugs involved 156 patients from the city, 101 patients from the market towns and 21 patients from the rural area. A further 21 acts (11.8 per cent of the total 177 events) from the city cohort were repeated during the 12-month study period compared with nine acts (8.2 per cent of the total 110 events) from the market towns. There were no recorded repeats from the rural area cohort during the same period. Table 1 shows actual and estimated total parasuicide rates for the three populations based on management in district general hospitals, cottage hospitals, and at home. The estimated total assumes a 100 per cent response by general practitioners to the questionnaire.

Figure 2 shows the age- and sex-related rates for the city and Wiltshire town patients admitted to general and

Figure 2. Age-related parasuicide rates in males and females.



cottage hospitals. Patients from rural areas are not included because of the relatively small number.

Clinical characteristics

Statistical comparisons of the drug taken, the psychiatric diagnosis (based on the study by Shepherd and colleagues),⁷ and subsequent psychiatric management revealed no significant differences (χ^2 test, $P > 0.2$) between city and Wiltshire patients. In view of the apparent secondary peaks in the Wiltshire town patients of both sexes in the 40–60 years age group, a comparison with the city patients of the same age range was undertaken. No statistical differences were found with respect to the drug taken, psychiatric diagnosis, management or the severity of the attempt (χ^2 test, $P > 0.2$).

Referral and management

The majority of patients from both urban and rural locations were 'self-referrals', having presented at casualty departments or having been admitted to hospital via 999-calls without directly involving their general practitioner. Where the general practitioner had been involved, some 20 events in the city (10 per cent of the recorded total) had been managed outside hospital compared with 81 events (32 per cent of the recorded total) in west Wiltshire. All Bath patients admitted to hospital were managed in general medical beds in the district general hospitals. In west Wiltshire 41 events (24 per cent of all rural admissions) were managed in cottage hospitals by general practitioners, while the remainder were admitted to the district general hospitals in Bath. Of the total number of patients admitted to the general hospital, over 85 per cent from both rural and urban situations were seen and assessed by a psychiatrist prior to discharge. In the City of Bath, therefore, over 76 per cent of all known cases of parasuicide were psychiatrically assessed in the period immediately following the act. In comparison only 44 per cent of all known cases in west Wiltshire were similarly assessed.

Discussion

Parasuicide continues to make major demands on NHS resources and facilities, not least on the amount of time allocated to such patients by psychiatrists and allied workers. Despite the wealth of research undertaken to devise and evaluate preventive strategies, the evidence to date suggests that the effects of both primary and secondary prevention has been limited.⁸

The results of this survey suggest that parasuicide by drug overdose—up till now associated with urban, and particularly with inner-city areas—is now just as prevalent in rural situations. While the age- and sex-related rates for patients admitted to hospital from within the City of Bath are similar to those reported for other cities, the corresponding rates for patients from west Wiltshire towns are less uniformly associated with age, and secondary peaks are evident in the 40–60 years age

group for both sexes. Such peaks may merely represent a statistical anomaly, or alternatively may reflect selective self-referral and/or selective admission of older patients by the general practitioner. Although there were no obvious clinical differences between town and city patients to account for the secondary peaks, there was a distinct clinical impression on reading the case notes that alcohol, or alcoholism, was more frequently associated with middle-aged overdose patients in Wiltshire compared with their counterparts in Bath.

Despite the similarity in the parasuicide rates, the overall management of non-urban patients differs markedly from the more conventional approach, the majority of Wiltshire patients being physically and psychiatrically managed at home or in cottage hospitals by general practitioners. Although a few patients admitted to cottage hospitals were transferred to Bath for more specialized medical care, the vast majority were discharged home, and subsequently selectively referred by their own general practitioners for psychiatric opinion at outpatient clinics, etc. There was no evidence that such patients were disadvantaged by treatment outside district general hospitals or by the lack of an immediate psychiatric opinion. The management of parasuicide patients in non-urban situations raises interesting questions regarding the physical and psychiatric management of parasuicide patients in general.

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