

## Management of the Demented Elderly Patient in the Community

By K. BERGMANN, E. M. FOSTER, A. W. JUSTICE and V. MATTHEWS

**SUMMARY** Eighty-three consecutive patients with organic mental disorder were studied on their first admission to a psychiatric day hospital assessment unit in a general hospital. They were evaluated medically, psychiatrically and by social work, re-evaluated after 3 months, and again after 12 months or at death. The types of care, and the number of days in each setting, were recorded. Nearly three-quarters were dead or in institutions by 12 months: those initially living with spouses did worst, and those with their children did best, while those on their own became long-stay residents in institutions. Family support seemed the most important factor determining continued life in the community, and increased help to families from social services appeared to be needed. The value of earlier psychiatric diagnosis and earlier treatment of physical illness is also discussed.

### Introduction

Now that elderly patients with dementia make such heavy demands on various types of institutional care, it might seem an unnecessary luxury to raise the question of early ascertainment and treatment for this group. Nevertheless, it has been demonstrated that to take an institutional view of dementia ignores the far greater burden currently carried by the community (Kay *et al.*, 1964) and falling on the backs of the family and close friends (Grad and Sainsbury, 1968).

In 1970, less than 4 per cent of persons 65 years of age and over were in psychiatric or geriatric hospitals or local authority residential care, and of course not all of these were suffering from dementia; yet the estimated number of demented persons residing in the community (about 6 per cent) exceeds the total number of persons in institutional care by nearly 200,000 (DHSS, 1972).

The elderly suffering from dementia in the community are gravely disadvantaged, for they show a higher mortality, more physical ill-health and a greater need for long term institutional care. These significant differences from other elderly persons in the community have been prospectively demonstrated in the follow-up

studies of randomly selected elderly respondents (Kay *et al.*, 1966, Kay and Bergmann, 1966 and Kay *et al.*, 1970).

One of the most important questions to be asked is how demented patients, likely to survive in the community can be identified and differentiated from those other demented patients whose viability in this setting is doubtful? Another question requiring examination is what threatens the viability of the elderly demented community resident? Among unfavourable factors that may have, at least, a hypothetical significance are lack of family support, inadequate social support from community resources, and unfavourable medical and psychiatric conditions.

An in-patient population cannot yield satisfactory information on these questions, as social networks have already been broken and the opportunity for, intervention on all fronts to prevent admission and to support families is no longer there. An acute assessment unit in the day hospital of a psychogeriatric unit in a general hospital setting provided an opportunity to examine patients with organic mental disorder. The majority of these were still living at home and were thus available for a wide range of interventions.

### Materials and Methods

Eighty-three consecutive first admissions suffering from organic psychiatric disorders were selected. They were subjected to a full multi-disciplinary assessment procedure. This included for all patients a full clinical psychiatric assessment, medical examination, and social work assessment, including evaluation of the support in the preceding year and recommendations of social support required for the future. It was possible to give a full range of medical treatments and initiate referrals to appropriate specialists if necessary. Three months after assessment each patient's medical and psychiatric state was re-evaluated and the level of social support ascertained.

All patients were followed up 12 months after their initial conference assessment or up to the time of death. The period spent in institutional care was recorded as well as the situation at 12 months or time of death.

### Results

The basic data concerning the population is given in Table I. Nearly 64 per cent of all patients were 75 years or over, and nearly 80 per cent were living in the community either in their own or relatives households. Females predominated (71 per cent). The sample contained a majority of 58 per cent widowed; of the rest 28 per cent were married, 13 per cent single and 1 per cent separated or divorced.

#### *Diagnostic Categories*

In general the descriptions employed by the

Glossary of Mental Disorders (1968) were followed. In the first instance all patients were assigned diagnoses within the I.C.D. categories 290.0 to 294.9. However, the diagnostic categories 294.0 to 294.9 included those conditions which are more commonly diagnosed as acute or subacute delirious states or confusional states. The latter diagnosis was used in preference to the I.C.D. categories. Senile dementia was more commonly diagnosed than arteriosclerotic dementia (51 per cent against 34 per cent respectively). Though mixed states did exist diagnostic categories given here refer to the predominant clinical picture. Other categories included 10 per cent of patients with presenile dementia and 6 per cent with confusional states.

#### *Domestic Situation and Outcome*

The outcome of community residents at follow-up (either at 12 months or up to the time of death) was examined with regard to types of institutional care and mortality (Table II). It was evident that those elderly patients with dementia who lived with their families were more likely to survive in the community (46 per cent). On the other hand those living alone were more likely to have entered residential or hospital care. Those living with their spouses showed an intermediate position between these two groups. These differences cannot be solely accounted for by age, as there was no significant difference in age between those living with children or other relatives and those living alone. However those living with their spouse only were significantly younger than the other two groups when they presented for day hospital assessment.

TABLE I  
*Nature of the population*

Distribution by age (N = 83)		Place of residence on referral (N = 83)	
65	5%	Living alone	34%
65-69	12	Living with spouse	23
70-74	21	Living with relatives	29
75-79	28	In acute hospital	—
80-84	22	In psychiatric hospital	—
85+	13	In residential care	14
Total	100	Total	100

TABLE II  
Fate of community residents by 12 months

		Initial domestic situation			
		Living alone	With spouse	With children	Total
Outcome at 12 months follow-up	Resident in the community	5 (19)	5 (29)	11 (46)	21 (30)
	In residential care	8 (30)	0 (0)	3 (13)	11 (16)
	In hospital	5 (18)	5 (28)	4 (17)	14 (20)
	Dead	9 (33)	8 (44)	6 (25)	23 (33)
Total		27 (100)	18 (100)	24 (100)	69 (100)

N.B. Percentages in brackets.  
12 patients originally in institutions.  
2 patients not traced.  
 $\chi^2 = 11.32, 6 \text{ df}; .05 > P < .1.$

Mean ages	Years	SD	T-tests
1. Living alone	78.6	$\pm 6.78$	1 vs 3; $t = 0.54$ ; NS
2. With spouse	71.6	$\pm 5.21$	1 vs 2; $t = 3.76$ ; $P < .01$
3. With children (other relatives)	77.5	$\pm 7.60$	2 vs 3; $t = 2.87$ ; $P < .01$

#### Local Authority Support

Before their initial referral to day hospital, significantly fewer patients living with relatives than patients on their own received local authority support. (Table III). Following full assessment, however, those living with relatives were recommended for increased social work

support in the future (21 per cent) and for further day care in local authority day centres (21 per cent). Of those living with relatives 25 per cent were thought to require residential care. At three months few of these recommendations had been implemented, and 54 per cent of patients living with relatives still received hospital-based

TABLE III  
Percentage of patients receiving local authority services at initial assessment

	Living alone	With spouse	With relatives	Total
Receiving services	75	53	37	56
Not receiving services	25	47	63	44
Total	100 (28)	100 (19)	100 (24)	100 (71)

All values percentages; absolute numbers in brackets.

$\chi^2 = 7.46; 2 \text{ df}; P < .02.$

Living alone vs Rest  $\chi^2 = 4.55; 1 \text{ df}; P < .05.$

Living with spouse vs Rest  $\chi^2 = 0.14; 1 \text{ df}; \text{NS}.$

Living with relatives vs Rest  $\chi^2 = 5.26; 1 \text{ df}; P < .01.$

day care. Among those patients living alone 75 per cent had been receiving services or supervision before referral to the day hospital: 43 per cent received local authority social work supervision, 21 per cent home help, 21 per cent were on the waiting list for residential care and 18 per cent were supervised by a health visitor. After assessment further domiciliary services often did not seem sufficient and 61 per cent were recommended for residential care. At three months 43 per cent of this group were in institutions (18 per cent in residential care and 25 per cent in hospital).

Elderly patients who lived only with their spouses had a fair amount of support before referral to day hospital: 20 per cent had home help and about 26 per cent were under supervision either by a social worker from the local authority or by a health visitor. At day hospital assessment 31 per cent of the group were judged to need local authority social work supervision, and 24 per cent would have benefited from a day centre.

The actual help which had been provided at three months was not very much higher than that received before referral. It was of interest that elderly patients who lived with their spouses were significantly younger than those in the other groups, but had a higher death rate of 44 per cent as compared to a 33 per cent overall death rate. This would suggest physical ill-health as an important factor in precipitating the need for assessment and further care, and this is further supported by the fact that all institutional care provided for this group was in hospital.

#### *Medical Treatment and Further Assessment*

Elderly patients with dementia did not attend the general hospital assessment unit solely for the purpose of control or supervision. A large number received treatments of various kinds (Fig 1). Although the use of tranquillisers in 65 per cent of patients was concerned with the control of behaviour as well as the relief of anxiety symptoms, it is of interest that 42 per cent of patients required anti-depressants for symptomatic depressive illnesses. Physical ill-health included cardiac disease as especially important (32 per cent), and vitamins and nutritional

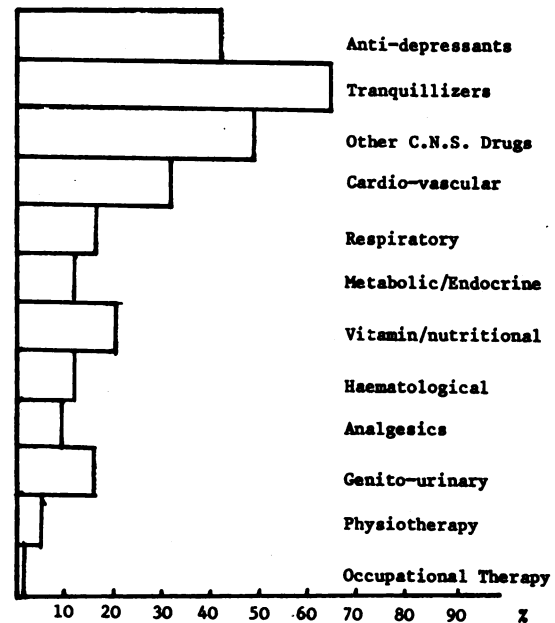


FIG 1.—Proportion of patients receiving treatments and drugs (N=76)

supplements were required for 20 per cent of all patients. Both respiratory and genito-urinary disorders required treatment in about 15 per cent of the sample.

The most important specialist referrals were those to a geriatric physician (20 per cent), though only 6 per cent of this sample were admitted to geriatric care over the 12 month follow-up period. Such referrals were therefore for active advice and help rather than for disposal. Visual defects were also of some importance and 10 per cent of the sample were referred to an ophthalmologist.

#### **Viability of the elderly demented patient in the community**

The approach to the problem of viability in this study was to examine the difference between those demented patients who spent least time in institutional care and those who spent most. The percentage of time spent over the follow-up period or up to the time of death by all patients

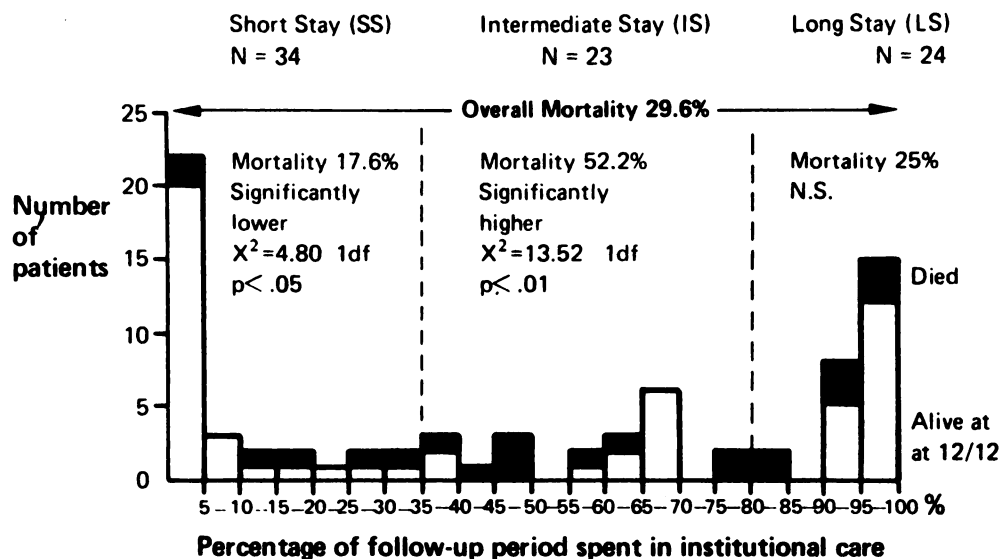


FIG 2.—Proportion of time spent by day patients with dementia in institutional care (over 1 yr follow-up—or until death)

in institutional care was calculated for all those who could be traced (81 out of 83). This was plotted graphically (Fig 2) and three peaks were identified on this histogram. The probability that the central peak was part of a homogenous population with either of the extreme peaks is very low ( $\chi^2=18.38$  and  $15.63$ , 1 d.f.,  $P<.001$ ). The patients were therefore divided into three groups; a short-stay group, and intermediate-stay group and a long-stay group. These groups were then compared for various factors that might differentiate them.

#### Mortality

The short-stay group patients had the lowest mortality (18 per cent) and the intermediate-stay group the highest (52 per cent). These proportions differed significantly from the overall mortality of 30 per cent. The long-stay group did not differ significantly from the overall mortality.

#### Global Ratings of Health

Global ratings of health were made by the psychiatrists (KB and AWJ). These ratings were based on the records of the symptomatic inquiry, full physical examinations and routine investigations carried out before the assessment

conference. The initial health ratings were significantly better for the short-stay group, 44 per cent having mild or minimal ill-health as against 32 per cent of the population as a whole.

#### Multiple Pathology

Multiple pathology was indicated by the number of independent physical diagnoses made for each patient (range 0–3). The mean score of the intermediate group was highest of all ( $2.20 \pm .76$ ), though this group only differed significantly from the more favourable short-stay group ( $t=3.06$  df. 52  $P<.01$ ).

#### Severity of Psychiatric Disorder

Global ratings of the severity of psychiatric disorder were based on a semi-structured clinical history and psychiatric examination, test of memory and information, ratings of behaviour from relatives or other informants and nursing staff and ratings of parietal lobe function. No significant differences were found between the various groups on this rating.

#### Sex Differences

In this sample there was no significant difference between patient groups, but this result

may be spurious in that elderly females tended to look after their disabled spouses for longer than men looked after their demented wives.

#### *Types of Physical Ill-Health*

The most common types of illness diagnosed were: heart disease (49 per cent), musculo-skeletal disorders (18 per cent), cerebrovascular and other central nervous system disorders (16 per cent) and respiratory disorders (15 per cent). Only the cerebrovascular and central nervous system disorders approached significance in their distribution between the groups. Of the short-stay group only 4 per cent were suffering from cerebrovascular or central nervous system disorders as against 23 per cent overall ( $\chi^2=4.89$ , 2 d.f.,  $P>.05<.1$ ).

#### *Age Differences*

The most favourable short-stay group was not the youngest group (mean age, 76.4 years $\pm$ 6.8); it was the intermediate-stay group that was the youngest mean age 75.0 years $\pm$ 6.8), but it was only significantly younger ( $t=2.16$ , d.f. 48,  $P<.05$ ), than the long-stay group (mean age 79.0 years $\pm$ 6.1).

#### *Treatments Given*

A list of treatments given after assessment and diagnosis has already been shown (Fig 1). These treatments represent a substantial amount of medical care, and the relationship of various

types of treatment to viability within the community could only be demonstrated for vitamins and nutritional supplements (32 per cent of the short-stay group received these as against 19 per cent overall,  $\chi^2=5.92$  d.f.2,  $P>.06$ ).

#### *The Initial Domestic Situation*

Patients who lived with relatives, in the main with children, formed the highest proportion of the short-stay group (54 per cent), those living alone were very highly represented in the long-stay group (65 per cent) and those living with a spouse assumed an intermediate position, being evenly distributed between all three patient groups (Table IV).

#### *Social Support*

The receipt of social services and supervision in the 12 months before referral did not significantly relate to what happened in the next 12 months. In fact the reverse was true, and nearly 85 per cent of the long stay patient group were known to social services before referral, as opposed to 62 per cent of the whole study population. At 3 months, however, only 6 per cent of the long-stay group were receiving social work supervision, as opposed to about 30 per cent of the study population as a whole. This, however, could be accounted for by selective removal of the long-stay population to hospital and residential care as well as by the higher mortality.

TABLE IV  
*Patient groups and initial domestic situation*

	Short stay	Intermediate stay	Long stay	Total
Living alone	5 (18)	8 (33)	11 (65)	24 (35)
Living with spouse	8 (29)	8 (33)	2 (12)	18 (26)
Living with relatives	15 (54)	8 (33)	4 (24)	27 (39)
Total	28 (100)	24 (100)	17 (100)	69 (100)

Percentages in brackets.

$\chi^2 = 13.32$ ; 4 df;  $P < .01$ .

N.B. 12 in institutional care initially.

2 not traced at follow-up.



### *Presenting Picture*

When elderly patients were first seen an assessment was made from the doctors' letter or the social work referral (whichever was the more detailed) as to the presenting problem. Broadly two forms of presentation emerged. One was a psychiatric picture, affective disturbance, behavioural disorders, or psychotic episodes predominating, the other a social presentation with evidence of inability to cope or of a recent social crisis. There was no significant relationship between these different modes of presentation and viability in the community over the next 12 months.

### *A Summary of Differences Between Patient Groups*

(1) *Short-Stay Group.* This group was physically fitter, though the proportion of patients with major physical illnesses such as chronic heart disease, musculo-skeletal disorders and respiratory disease was not significantly lower. The patients in this group tended to live with other relatives, especially their children, and to be less well known or supported by the social services.

(2) *Intermediate-Stay Group.* This group of patients presented for psychiatric assessment at an earlier age than the long-stay group, they had more evidence of severe and multiple ill health and did not receive as much social recognition as the long-stay group. They more frequently required acute medical or surgical admission (28 per cent) as opposed to an overall rate of 14 per cent.

(3) *Long-Stay Group.* The long-stay group of patients were most frequently to be found living alone. They were usually well-known to the local authority and though somewhat older than the patients living with children or other relatives the difference was not significant. In general they received a high level of recognition and support from the social services.

### **Discussion**

Day patients with dementia were a vulnerable group. About 70 per cent were dead or in institutional care before the end of the 12 month follow-up period. Undoubtedly the most important factor which affected the patient's viability in the community was that of family

support. Nearly 46 per cent of those living with children remained resident in the community at the end of 12 months. Patients living with just an elderly spouse were more vulnerable, while those who lived alone were most vulnerable of all. Family situation was again of great importance in determining membership of the group that required only a short stay in institutional care over the follow-up period. Those living with relatives made least demand on residential and hospital care, and those living alone made the most. It could be argued that social support was mobilized by concerned families and therefore also contributed to viability, but the converse proved to be the case in this sample. The local authority social services had supported those living alone, the most vulnerable and least viable patients, with a substantial number of resources and with supervision. After day hospital assessment, however, it became apparent that this group were, to a large extent, not viable in the community and that most of them required at least residential care. In many cases such care could not be provided, and those patients who did not die gravitated towards hospital. It is possible that for some of these patients at least, hospital admission could have been avoided if residential care had been available earlier.

Our findings also show that families looking after very elderly relatives required help and advice from social workers and relief from their stress, especially by the use of day centres. Unfortunately this help was not readily forthcoming.

Townsend (1957) showed that among old people, it was the unmarried, the childless married, and those whose children were living too far away who were most likely to enter institutions. The present study confirms this finding, even for patients with established organic psychiatric disorder. When elderly community residents suffer from psychiatric disorder the families who support them pay a price (Grad and Sainsbury, 1968). Before referral to a psychiatrist three-quarters of these families faced problems; 33 per cent of patients required constant nursing care and 44 per cent made excessive demands on the family's attention and companionship. More than half of the families ascribed emotional upset to worry about their

parents' behaviour, and half the families were restricted in their social and leisure activities. Physical health was affected in a third and 19 per cent had income reduced by at least one tenth.

Macmillan (1960) noted the effects of increasing strain on the families, and observed that when this went beyond a certain level irreversible rejection occurred and further help was of no avail.

There seems to be a strong case for focusing social work support, day centre care and other resources on those elderly demented patients who are cared for by their families. At present the elderly patient with dementia living alone presents a very poor short term prospect for survival. It is yet to be tested whether such people would do better if they were assessed, investigated, treated and supported at an earlier stage. Certainly the provision of resources by social services to this sample did not appear to have any protective effect. As a first step, the primary care team and the local authority social services ought, at least, to have at their disposal an instrument for identifying which of their elderly patients or clients have dementia (Bergmann *et al.*, 1975).

The patients requiring the least institutional care were those who were found on assessment to be suffering from fewer independent physical disorders.

For elderly patients living with spouses there were strong indications that a physical breakdown of health might have been one of the main precipitating factors in the need for institutional care. All patients in this group were admitted to hospital rather than residential care, and they presented for day hospital assessment at a significantly earlier age than the other groups. This suggests the possibility, at least, of the influence of intercurrent ill-health. Perhaps health care is the most difficult burden that an elderly spouse faces in looking after a demented partner. It is surely not unreasonable to suppose that better health care might have an important preventative effect. Social work supervision has an important part to play in bringing health care to elderly persons. Goldberg (1970) noted that more highly trained social workers did not tend to confound social need with ill-health and were more active in initiating admission to hospital.

Better social work supervision, as already suggested, might also yield dividends in obtaining earlier health care for those who require it.

This study again underlines the necessity for a multifactorial approach to the disabilities of elderly demented patients. The importance and value of various forms of treatment and intervention can only be judged in the light of their relationship and interaction with each other. It is important that these patients should be assessed at an earlier stage of their dementing illness. They would require a problem-orientated assessment of their psychiatric, medical and social disabilities, a record of the measures employed to cope with these problems and a full follow-up. In view of the extreme vulnerability of elderly community residents with organic mental disorder, relatively brief follow-up periods could be expected to yield valuable results. A preventative approach to the dementias in these patients does not have to await further fundamental aetiological research. Currently available medical treatments, psychotropic medication, counselling of families and deployment of supportive resources in the communities may be expected to yield a promising result providing the factors favouring survival in the community become better understood.

#### Acknowledgements

Miss E. M. Foster and Dr A. W. Justice were supported by a grant from the DHSS. We would also like to thank Mrs M. Davison and Mrs R. Bainbridge for their help in the preparation of the manuscript. Finally, we would like to thank Dr T. A. Kerr and Dr R. Garside for their help and advice.

#### References

- BERGMANN, K., GABER, L. B. & FOSTER, Eleanor M., (1975). The development of an instrument for early ascertainment of psychiatric disorder in Elderly Community Residents: a Pilot Study. *Gerontopsychiatrie 4, Janssen Symposien*, (Ed. Degkwitz, R., Radebold, H. and Schulte, P. W.) 84–119, Düsseldorf.
- DEPARTMENT OF HEALTH AND SOCIAL SECURITY (1972). *Health and Personal Social Services Statistics (for England and Wales with Summary Tables for Great Britain)* London: HMSO.
- GOLDBERG, E. M. (1970) *Helping the Aged: a Field Experiment in Social Work*. London: Allen and Unwin.



- GRAD, J. & SAINSBURY, P. (1968) The effects patients have on their families in a community care and a control psychiatric service: a two-year follow-up. *British Journal of Psychiatry*, **114**, 265–8.
- KAY, D. W. K., BEAMISH, P. & ROTH, M. (1964) Old age mental disorders in Newcastle-upon-Tyne. Part I: a study of prevalence. *British Journal of Psychiatry*, **110**, 146–8.
- & BERGMANN, K. (1966) Physical disability and mental health in old age. *Journal of Psychosomatic Research*, **10**, 3–12.
- — FOSTER, Eleanor M. & GARSIDE, R. G. (1966) A four-year follow-up of a random sample of old people originally seen in their own homes: a physical, Social and Psychiatric Enquiry. *Proceedings of IVth World Congress of Psychiatry*, 1668–1670, Madrid.
- — — — — McKECHNIE, A. A. & ROTH, M. (1970) Mental illness and hospital usage in the elderly: a random sample followed up. *Comprehensive Psychiatry*, **11**, 26–35.
- MACMILLAN, D. (1960) Preventive geriatrics: opportunities of a community mental health service. *The Lancet*, 1439–1441.
- TOWNSEND, P. (1957) *The Family Life of Old People*. London: Routledge.

Klaus Bergmann, M.D., Ch.B., F.R.C.Psych.

Eleanor M. Foster, D.P.A., A.I.M.S.W.

† A. W. Justice, M.B., Ch.B., M.R.C.Psych.

\* Valerie Matthews, B.A., Dip.A.S.S.

*Department of Psychological Medicine, University of Newcastle-upon-Tyne.*

*Brighton Clinic, Newcastle General Hospital, Newcastle-upon-Tyne NE4 6BE.*

† *Now Consultant Psychiatrist, Gateshead Area Health Authority.*

\* *Now Senior Social Worker, Newcastle Department of Social Services.*

*(Received 12 July; revised 13 October 1977)*