

Community care for patients with schizophrenia one year after hospital discharge

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Abstract

Objectives—To document the circumstances and care of patients with schizophrenia who had recently been discharged from local psychiatric inpatient services, and to establish the extent to which misgivings about community care might be justified.

Design—Cross sectional surveys with review of case notes. Follow up interviews with questionnaires administered one year after discharge.

Setting—Two inner London districts (West Lambeth and Lewisham) with high levels of social deprivation and at different stages of developing community services.

Patients—90 and 50 patients in the two services respectively, aged 18 to 65, who satisfied the Research Diagnostic Criteria for schizophrenia and who were discharged from inpatient services.

Main outcome measures—Diagnosis elicited by present state examination, global social disability rating, use of services during the three months before interview.

Results—89 of the 140 patients (64%) had been ill for five or more years, yet few were former long stay inpatients. 55% (50/91; 95% confidence interval 45% to 65%) of those interviewed had current psychotic mental states and 22% (27/124; 16% to 31%) were functioning socially at very poor or severely mal-adjusted levels. 86% (107/124) were unemployed. The majority of patients had seen a mental health or social service professional, yet only 16% (20/124) were in specialised accommodation (excluding hospitals) and only 23% (17/73) of those eligible had used day care. Small numbers of people had experienced homelessness (two) or imprisonment (four over six months).

Conclusions—Many schizophrenic patients leaving local psychiatric inpatient care have active symptomatology and profound social disabilities. Community care was characterised by high rates of contact with service professionals but little supported accommodation or day activity. This group of clients may require dedicated provision, which would actively encourage them to use services protected from the demands of those with less severe illness.

Introduction

Policies of closing large mental hospitals and re-providing for patients in the community were adopted in Britain over three decades ago, yet few data have emerged on the workings of replacement services.¹ Recent studies of resettlement projects for long stay hospital patients have reported some success,²⁻⁵ yet much evidence points to mentally ill people, especially people with schizophrenia,⁶ being homeless,^{7,8} in poverty, or imprisoned.⁹ Consequently, misgivings about the everyday effectiveness of services in caring for both long stay and shorter stay patients are continuing to grow both in Britain and the United States.¹⁰⁻¹²

We documented and quantified the circumstances and care of former inpatients with schizophrenia who had recently been discharged from local psychiatric services in order to establish the extent to which these

misgivings about community provision might be justified.

We studied two psychiatric services in inner London. One (service A), which covers West Lambeth Health District, was planning to close its large psychiatric hospital and develop alternative services. Concerns existed in this service over poor organisation and loss of contact with patients frequently readmitted to hospital.¹³ The other service (service B), covering most of Lewisham, is served by a well established community mental health advice centre, providing a highly integrated health service to discharged and community based patients.¹⁴ Together, data from these services provided a clear picture of clinical states, social disabilities, social circumstances, and receipt of services in local psychiatric services in inner London.

Patients and methods

STUDY AREAS

West Lambeth Health District (population 165 000) ranks as the seventh most socially deprived district in Britain according to Jarman underprivileged area scores.¹⁵ Lewisham (service population 84 000) ranks 16th. Both districts have significant ethnic minority and homeless populations.¹³ Long stay hospital residents were being moved into the community in both districts at the time of the study and facilities for new patients requiring long term hospital inpatient care or equivalent care in the community were very limited. Little low cost rented accommodation was available, with the shortage being more acute in Lambeth, where emergency rehousing in parts of north London was often inaccessible to service A.

STUDY GROUP

All psychiatric inpatients discharged during specified six month periods (1 November 1987 to 30 April 1988 in service A; 1 November 1988 to 30 April 1989 in service B), aged 18 to 65 years, and resident in one of the two districts or of no fixed abode, were included in an initial diagnostic screening of case notes. Screening employed Research Diagnostic Criteria,¹⁶ which identified cases of probable or definite schizophrenia and excluded patients with coexisting drug or alcohol misuse. In addition, the crisis intervention team in service B (service A had no equivalent) discharged nine patients who had schizophrenia during the study period, who were identified in the same way as described above. Patients with homes elsewhere who were in the districts transiently were excluded from the study. Where possible information was obtained directly from patients, but failing this the formal or informal carer with most contact with the patient was interviewed. Interviews were carried out, whenever possible, in the patient's own home about one year after their discharge.

The study was approved by the West Lambeth and the Lewisham and North Southwark ethics committees.

INFORMATION COLLECTED

Demographic data and details of previous contacts with psychiatric services were obtained from case

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notes. Follow up interviews included the present state examination,¹⁷ a standardised psychiatric examination of directly interviewed patients. The World Health Organisation's disability assessment schedule¹⁸ rated each patient's global social functioning, based on assessments of behaviour (including self care, under-activity, slowness, and social withdrawal); social performance (including household activities and marital, occupational, and other roles); behaviour in hospital (if applicable); and any modifying social advantages or disadvantages.

A questionnaire derived from the treatment outcome study questionnaire developed by the Colorado state treatment outcome assessment programme was also used.¹⁹ This covered personal details, living situation, occupation, home activities, helpers, legal problems, medication, family history, and interpersonal relations. A personal social services research unit (University of Kent) questionnaire covered receipt of services and their costs.²⁰

Information on social circumstances and receipt of services related to the three month period before interview except where otherwise stated, whereas clinical state and disability ratings were based on the month before interview.

All present state examination and disability assessment schedule interviews were carried out by one author (SM) and all the remaining interviews were administered by another (GH).

ANALYSIS

Present state examination data were initially processed using the Catego program¹⁷ and all data were analysed using the statistical package for the social sciences PC+.²¹ Odds ratios were computed by using Epi-info.²² All significance tests were based on 95% confidence intervals. Where data were pooled there were no significant differences between the two individual services, unless otherwise stated.

Results

STUDY GROUP AND RESPONSE

Of the 427 inpatients screened, 131 were identified as having schizophrenia. These, together with the nine "crisis intervention" patients, constituted six month discharge rates for schizophrenia of 0.55 per 1000 local population in service A and 0.60 per 1000 in service B.

At follow up in service A four of 90 eligible patients had died, eight refused cooperation, and one was untraceable. Of the 77 responders (90% of 86 survivors), 59 were interviewed directly; principal carers provided information on the remaining 18. In service B 50 patients were identified, with three refusals. Of the 47 responders (94% of survivors), 32 were interviewed directly.

PSYCHIATRIC HISTORIES

Table I gives baseline data for all patients eligible for the study. There were more men than women, and the majority were under 40 years old. Durations of illness varied widely, with almost two thirds having been ill for five or more years. Only 11% of those followed up, however, had had a single stay in a mental hospital of more than one year (table II).

CLINICAL STATES AND DISABILITIES

Table III gives details of patients' clinical states and disabilities one year after discharge. Of those directly examined, more than half displayed current psychotic states (elicited by present state examination). In all, 59% (54/91) had one symptom or more of delusions or hallucinations; 31% (28/91) had five or more of these symptoms.

In terms of overall social functioning 22% (27/124;

TABLE III—Numbers (percentage) of patients by mental state or global social adjustment one year after discharge

	Total No (%)	95% Confidence interval
<i>Current mental state*</i>		
Psychotic	50 (55)	(45 to 65)
Neurotic	8 (9)	(3 to 15)
Other	25 (28)	(18 to 37)
None	8 (9)	(3 to 15)
Total	91 (100)	
<i>Global social adjustment†</i>		
Excellent	7 (6)	(2 to 10)
Good	28 (23)	(15 to 30)
Fair	29 (23)	(16 to 31)
Poor	33 (27)	(19 to 34)
Very poor	17 (14)	(8 to 20)
Severe maladjustment	10 (8)	(3 to 13)
Total	124 (100)	

*Present state examination diagnostic class (by Catego program).

†WHO disability assessment schedule global disability rating.

95% confidence interval 15% to 29%) of patients showed very poor social adjustment or severe maladjustment according to the global rating (table III). On individual ratings friction in outside social contacts (typically inappropriate argumentativeness or shows of anger) was evident in obvious to maximum degree in 23% (29/124; 16% to 31%), and 21% (26/124; 14% to 25%) showed these levels of dysfunction in coping with minor emergencies, typically sickness or accidents in the family or breakdown of household equipment. The relation between clinical symptomatology and social disability is complex and will be reported elsewhere.

ACCOMMODATION

At follow up only 1% (1/77) of the service A patients but 15% (7/47) of the service B patients were in psychiatric hospitals (odds ratio 11.5; 95% confidence interval 1.4 to 223.4). Sixteen per cent (20/124) of the total number of patients were in other specialised accommodation, including one in prison and six in unstaffed hostels. The bulk (77%, 96/124) of the remainder were living independently, including four in bed and breakfast accommodation. Two people (2%) said that they had slept on the streets at some time during the preceding three months. Overall, 67% (83/124) were living alone.

INFORMAL CARE

All of the patients had close relatives and 73% (90/124) had met with family members during the previous week. Only 8% (10/124) had not done so for over six months.

EMPLOYMENT

Fourteen per cent (17/124) of the patients were working (many part time) at follow up and all of these were in unskilled jobs. Only one person was in sheltered employment.

LEGAL DIFFICULTIES

Nine per cent (11/124) of patients had been arrested in the six months before interview, with two spending one night in police cells and three others spending periods longer than a month in prison on remand.

CONTACT WITH SERVICES

Community care services other than supported accommodation are divided here into professional contacts (providing opportunities for clinical monitoring, treatment, or social work interventions) and services offering occupation or daily activity and support.

Table IV shows the numbers of patients who made

TABLE I—Numbers (percentages) of patients eligible for study (n=140) by demographic variables and history of illness

Characteristic	No (%)
Age at discharge (years):	
18-19	5 (4)
20-29	47 (34)
30-39	36 (26)
40-49	32 (23)
50-59	15 (11)
60-65	5 (4)
Sex:	
Male	82 (59)
Female	58 (41)
Ethnicity:	
Afro-Caribbean	55 (39)
Asian	13 (9)
White	70 (50)
Other	2 (1)
Admission category:	
Informal	84 (60)
Formal	56 (40)
Duration of illness (years)*:	
<2	21 (15)
2-4	29 (21)
5-9	38 (27)
10-19	31 (22)
20-29	15 (11)
≥30	5 (4)
Unknown	1 (1)

*From first psychiatric admission to index discharge.

TABLE II—Number (percentage) of patients followed up (n=124) by longest ever stay in mental hospital*

Longest ever stay	No (%)
0-6 months	72 (74)
-1 year	14 (14)
-2 years	7 (7)
-5 years	2 (2)
>5 years	2 (2)

*Information was not available for 27 patients.

contact with selected medical and social work professionals or services on at least one occasion during the three months before interview. Most individual services were used by a minority of patients, but the majority had been in contact with one or other "health" service. Drugs had been prescribed for all patients, although 25% (31/124; 17% to 33%) said that they were not taking the drugs or were reported not to be taking them at follow up.

In contrast with the high levels of contact with professionals, only 23% (17/73) of community based unemployed patients (table V) had used day care on at least one occasion during the previous three months. Of these, half had attended less than an average of three times per week.

TABLE IV—Number (percentage) of patients who had used specified professional services on at least one occasion during three months before interview, by service or professional contacted

Service or professional	Service A (n=77)	Service B (n=47)	Combined group (n=124)
Inpatient admission	12 (16)*	20 (43)*	32 (26)
Day hospital attendance	6 (8)	4 (9)	10 (8)
Outpatient attendance	37 (48)	28 (60)	65 (52)
Community psychiatric nurse	16 (21)	11 (23)	27 (22)
Injected medication	36 (47)	26 (55)	62 (50)
General practitioner	48 (62)	23 (49)	71 (57)
Any of the above services	71 (92)	46 (98)	117 (94)
Social worker	26 (34)	11 (23)	37 (30)

* $\chi^2=9.72$, $p<0.01$.

TABLE V—Number (percentage) of community based* patients using occupational or day care services during the three months before interview

Service	Service A	Service B	Combined group
<i>Occupation</i>			
(No eligible)	61	25	86
Open employment	7 (11)	5 (20)	12 (14)
Sheltered employment	1 (2)	0	1 (1)
Industrial therapy	2 (3)	0	2 (3)
<i>Day care</i>			
(No eligible)†	53	20	73
Health authority	6 (11)	1 (5)	8 (11)
Social services	6 (11)	2 (10)	8 (11)
Voluntary	4 (8)	0	4 (5)
Private	4 (8)	0	4 (5)
Any day care	14 (26)	3 (15)	17 (23)

*Those not using inpatient or day hospital services during the three months before interview.

†Excluding those in open or sheltered employment.

SERVICE TARGETING

Those patients showing very poor social adjustment or severe maladjustment were more likely to live alone ($p<0.03$), yet there was no statistical evidence of increased receipt of any community services by these patients. Of the 13 patients falling into the disability categories described above who also had psychotic mental states, none were in supported accommodation.

Discussion

This study has quantified key aspects of the circumstances of and services received by people with schizophrenia who have recently been discharged from local psychiatric inpatient or crisis intervention care. About half of the patients studied had psychotic mental states one year after discharge and a similar proportion had some degree of impaired social functioning. In the past many of these people would almost certainly have become long stay inpatients in mental hospitals,²³ but instead they were experiencing "revolving door" patterns of short but frequent hospital admission. Relatively small numbers had lost contact with professionals, were imprisoned, or found themselves in

temporary accommodation or homeless. The majority were living alone in unsupported accommodation and were unemployed, and, of those eligible, most were not using day care or occupational services.

Certain limitations of the study, however, need to be noted. Samples of discharged patients underrepresent patients having longer or fewer hospital stays and, probably, homeless people, who may find it more difficult to gain admission to hospitals.²⁴ Also, while actual receipt of service has been quantified, reasons for non-use of each service remain unknown. Non-use was said by staff to arise either from lack of facilities (especially supported accommodation) or from patients refusing to use services. Patients, however, frequently reported thinking that one or other service was of such poor quality that it was valueless to them. Establishing a single explanation for non-use in each case is probably not possible.

The deaths of four patients during the follow up year in service A (three apparently from suicide) is worrying, but the numbers are too small to support general conclusions. Levels of active clinical pathology at follow up were high but are consistent with the findings of previous studies of community based schizophrenic patients in the United Kingdom.^{11 25-27} This, together with the existence of very poor social adjustment in over a fifth of the patients studied, poses grave challenges for the care system. The specific disabilities included negative aspects of schizophrenia (such as social withdrawal and underactivity), but also tendencies toward conflict, perhaps arising from difficulties in assessing the emotional state of others.^{28 29} Care managers, envisaged in community care legislation as the coordinators or purchasers of care,³⁰ will clearly have to take detailed account of the clinical state of patients formerly in inpatient care.

The placement of over 75% of the patients in independent (unsupported) accommodation contrasts strongly with housing patterns of former long stay patients.^{31 32} For example, of 216 people resettled from Friern and Claybury hospitals, only 8.3% were reported as being in independent accommodation. The small numbers in temporary accommodation, hostels, and those who had lived on the streets in our study indicate an important, although not large, element of homelessness within one year of discharge. As access to a full range of supported housing is a cornerstone of successful community care³³ these findings are not reassuring and further study of the detailed requirements for supported housing is urgently needed.

Contact rates with either doctors or community psychiatric nurses were high in our study, suggesting that opportunities existed for clinical review for the majority (but not all) of the group. Clearly, further work is needed to establish to what use these opportunities are put. In terms of day to day social support the picture is much less favourable. Levels of unemployment were very high, and only one person was in sheltered employment despite half the patients displaying no social disabilities. Day care was used by a minority of those eligible, mostly to a modest extent.

While there were considerable similarities between the two services, some differences did exist. For example, service B, the more community oriented service, had significantly higher numbers of patients in hospital, at follow up. As both services were subject to shortages of rehabilitation and social support resources this pattern may simply mirror differences in ease of access to beds for admissions precipitated by social and economic needs outside service control.

The high contact rates with professionals combined with the relative lack of social support suggest deeper problems than those addressed by the new regulations for discharge planning³⁴ or care management. They imply not only a need for individual planning but also

that sufficient resources (including suitable accommodation) are made available, that services are made attractive to patients, and that active steps are taken to recruit long term mentally ill people into them.

Community services offering open access (as both services did) commonly attract substantial numbers of clients with less serious symptoms or no symptoms at all.³⁵ Provision dedicated to the needs of the long term mentally ill may need to be established to prevent this unintended redirection of resources to clients who would not previously have been recruited into the psychiatric system. Dedicated provision may also encourage the more proactive or assertive approach to recruiting the long term mentally ill into services, which has met with some success.³⁶

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Intravenous acetylcysteine in paracetamol induced fulminant hepatic failure: a prospective controlled trial

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Abstract

Objective—To see whether intravenous acetylcysteine would improve outcome in patients with fulminant hepatic failure after paracetamol overdose.

Design—A prospective randomised controlled study.

Setting—The Institute of Liver Studies, King's College Hospital, London.

Patients—50 consecutive patients (21 male) aged 16-60 with fulminant hepatic failure after paracetamol overdose who had not previously received acetylcysteine.

Interventions—Conventional intensive liver care plus either acetylcysteine (25 patients) in the same dose regimen as used early after a paracetamol overdose, except that the infusion was continued until recovery from encephalopathy or death, or an equivalent volume of 5% dextrose (25 patients).

Main outcome measures—Survival; incidence of cerebral oedema, renal failure, and hypotension requiring inotropic support; liver function as assessed by prolongation of the prothrombin time; and degree of encephalopathy.

Results—The rate of survival was significantly higher in the acetylcysteine treated group than in the controls (48% (12/25 patients) v 20% (5/25); $p=0.037$, 95% confidence interval for difference in proportions surviving 3% to 53%). Acetylcysteine treated patients had a lower incidence of cerebral oedema (40% (10/25) v 68% (17/25); $p=0.047$, 95% confidence interval for difference in incidence 2% to 54%), and fewer developed hypotension requiring inotropic support (48% (12/25) v 80% (20/25); $p=0.018$, 95% confidence interval 7% to 57%). Rates of deterioration and recovery of liver function, however, were similar in the two groups. No adverse reactions to acetylcysteine were seen.

Conclusions—Acetylcysteine is safe and effective in fulminant hepatic failure after paracetamol overdose.

Introduction

Acetylcysteine, by repleting glutathione stores,¹ is highly effective in preventing massive hepatic necrosis if given within 10 hours of a paracetamol overdose, and it reduces the severity of liver damage if given up to 15

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