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The Camden Schizophrenia Surveys
I. The Psychiatric, Behavioural and Social Characteristics of the Severely Mentally Ill in an Inner London Health District

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Background. The development of appropriate community care requires knowledge of the characteristics of the severely mentally ill.

Method. All patients with a broad diagnosis of schizophrenia (n=528) were identified via key informants within an inner London health district; Feighner and DSM–III–R criteria for schizophrenia were applied. Clinical and social status, psychopathology (Manchester Scale) and problem behaviours (Social Behaviour Schedule) were assessed in a 4:5 representative sample.

Results. Fifty-seven per cent had experienced at least one compulsory admission. Forty-five per cent (excluding long-stay in-patients) had marked positive psychotic symptoms; social isolation and lack of daytime activity was more common than among comparable populations elsewhere. One hundred and eleven (25%) of the non-hospitalised patients were not in contact with specialist services.

Conclusions. Difficulties in establishing and maintaining a therapeutic alliance between patients and professionals present a challenge to services in inner London. Many social and occupational needs were not being met by existing community provision.

The knowledge of psychiatric, behavioural and social characteristics of the severely mentally ill (SMI) living in the community is important for the development of appropriate community care in the context of psychiatric hospital closures. Psychiatric morbidity in urban settings is high: at any time one-third to one-half of patients with schizophrenia experience active psychotic symptoms (Cheadle *et al*, 1978; Gibbons *et al*, 1984; Johnstone *et al*, 1984). In contrast, negative symptoms were prominent and positive symptoms uncommon in a survey of schizophrenia in a rural Scottish county (McCreadie, 1982). Relatives of patients living in urban settings reported that behavioural difficulties were present in up to two-thirds of people with schizophrenia (Gibbons *et al*, 1984). The commonest behavioural difficulties reported were those associated with social withdrawal (Creer & Wing, 1974). Few surveys report on the social functioning of individuals with schizophrenia in epidemiologically representative samples. Relatively good social functioning has been described (Hoenig, 1974), but social isolation and lack of purposeful activity (including employment) may be common (McCreadie, 1982).

People with schizophrenia were chosen as the focus for the present study since they are the major recipients of community care and also form the largest group affected by hospital closures. The aims were to investigate the demography, psychopathology, social behaviour, history of illness and service usage of patients with schizophrenia ascertained by community agencies within two neighbouring health districts in north London. Both districts provided alternative community-based services for a proportion of long-stay in-patients, whose discharge from hospital is under evaluation by the TAPS study (Leff, 1993). The present paper is complementary to that study, providing an overview of the characteristics of the SMI living in one of these health districts (Hampstead). This is the first in a series of papers reporting the results of the Camden surveys. In Part II, the geographical distribution of schizophrenia in both health districts is examined.

Method

Study area and psychiatric services

The North Camden (Hampstead) Schizophrenia Survey took place in the northern half of Camden, a predominantly residential inner London borough with light industry, business and services. At the time of the survey, North Camden was coterminous

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with Hampstead Health District, ranked the 18th most deprived English Health District according to Jarman scores (Jarman, 1983, 1984).

In-patient services for acute admissions were provided by a teaching hospital and a large mental hospital (Friern Hospital) with a day hospital on each site. Rehabilitation and other specialist in-patient services were located at Friern and out-patient services at the teaching hospital. The community psychiatric nursing (CPN) service was based in two community health clinics and ran a weekly clinic for patients receiving depot medication at the teaching hospital.

Local authority provision for Camden included three day centres, a sheltered workshop and a residential unit for long-term mentally ill people. Financial support for the adult mentally ill was also provided in 'foster care schemes' (with families and landladies), in non-statutory hostels mostly located outside the borough, and in group homes within the borough. Another day centre was managed by the voluntary organisation Camden Association for Mental Health.

The majority of the homeless person hostels were located in South Camden while most Part III homes (statutory accommodation for the elderly provided by the local authority) were located in North Camden (Hampstead).

Patient identification

A point prevalence survey was conducted in North Camden on 28 July 1986, a year later than the TAPS census date (Leff, 1993) and therefore early in the relocation of long-stay in-patients from Friern Hospital. All adults aged 18 or over, with a diagnosis of schizophrenia or related diagnoses (schizophreniform psychosis, schizoaffective psychosis, paranoid psychosis, chronic psychosis and query schizophrenia) were identified, including all patients receiving depot neuroleptic medication. Broad diagnostic inclusion criteria were adopted to ensure that initial identification of cases was as complete as possible with a subsequent diagnostic refinement in two stages (see Assessment).

A key informant methodology similar to that employed in the Nithsdale Survey (McCreadie, 1982) was used. Patients were identified through providers of mental health services throughout North Camden including psychiatrists, CPNs, psychiatric social workers, nurses in day hospital and in-patient facilities. Workers in local authority and non-statutory sector mental health amenities (e.g. day centres and hostels) in Camden identified patients from a North Camden address to whom services were provided. Patients residing in a mental health aftercare amenity funded by the borough of Camden and admitted from North Camden addresses or psychiatric services were identified via the appropriate department. Non-mental health services were also approached (Part III homes and day centres for the elderly, homeless person hostels, social and probation services, and all GPs in North Camden).

An introductory letter detailing the project aims, methodology and diagnostic inclusion criteria was sent to all the agencies. The researcher compiled a list of patients fulfilling the inclusion criteria in consultation with the appropriate professional by post, telephone or visit. Where necessary, this initial approach was followed by further contacts to assist identification and to clarify the diagnostic criteria for inclusion of patients for staff lacking mental health training. For some services, notably 'foster care schemes' and several general practices, a detailed preliminary screening of records was necessary in order to achieve any identification. On completion of the census, the final list of patients was checked by each professional and amended if necessary. Problems relating to the identification of patients in such a community survey have been addressed elsewhere (Pantelis *et al*, 1988).

Assessment

An unexpectedly large number of individuals were identified by the census. Therefore, stratified random sampling was employed to create five equivalent subgroups of patients within the survey population. Due to the large numbers identified, it was only possible for the sole researcher to interview and assess four of the five subgroups in detail. A minimum dataset of demographic and clinical data was collected for the remaining patients in order to complete a diagnostic review relevant to further reports (Harvey *et al*, accompanying paper). Interviews were carried out for each of the four subgroups in turn in order to minimise bias due to differing lengths of time between census and assessment. Stratification was based on whether patients were in or out of contact with specialist services and whether they lived in Hampstead Health District or elsewhere at the census point.

Where possible, for those patients with a keyworker, permission was sought by the keyworker for the investigator to interview each patient. Patients without a keyworker (or those with no planned contact with a health professional in the

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near future) were sent a standard letter suggesting an interview time and offering an opportunity to decline by sending a return slip in a pre-paid envelope. When an interview was not declined, the interviewer visited on up to three occasions to locate and interview the patient.

Patients were interviewed using the Manchester Scale for psychopathology (Krawiecka *et al*, 1977) which assesses depression, anxiety, delusions, hallucinations, incoherence of speech, poverty of speech, flattening of affect, incongruity of affect and psychomotor retardation on a five-point scale (0 = absent to 4 = severe). A rating of 2 (= moderate) is just sufficient to be rated as pathological. The interviewer trained in the use of the instrument using taped interviews supplied by the authors.

The MRC Social Behaviour Schedule (SBS) which assesses problem behaviours displayed by the patient (Wykes & Sturt, 1986) was completed by the investigator at interview with the best available informant. The patient's permission to interview the informant was sought. Where appropriate the informant was a relative or friend, while for patients with limited or no social contacts a keyworker was interviewed.

A detailed questionnaire was developed (Campbell *et al*, 1990). Details of demography, social and family contacts, daytime activity and service usage were obtained at interview with the patient and data were supplemented by relatives, professionals or by consulting the case history where necessary. Details of the history of illness, diagnosis and treatment were compiled from hospital and GP case-notes. Information was sought from other hospitals regarding admissions in other health districts. Dosages of antipsychotic medication were converted to mg chlorpromazine equivalents (Baldessarini & Davis, 1980).

Diagnostic criteria of Feighner (Feighner *et al*, 1972) and DSM–III–R (American Psychiatric Association, 1987) were applied by collecting information in a standard format from all available sources including patients and informants. Schizophrenia was defined as Feighner probable or definite according to whether 2 or 3 of 5 criteria were met in section C (Feighner *et al*, 1972). The diagnoses of the following patients identified for the survey by informants were re-examined: those who did not have a current case-note diagnosis corresponding to the study criteria, and those who failed to meet DSM–III–R diagnostic criteria for schizophrenia. This review made use of all data collected for the survey to ensure that the final survey population fulfilled the entry criteria.

Differences between groups for categorical variables were compared using the χ^2 statistic with the Yates' correction where appropriate. The Mann–Whitney rank sum test for ranking on unpaired samples was also used. A probability level of $P<0.05$ was used to indicate significant differences between groups.

Results

Accuracy of consensus identification and diagnostic criteria

Five hundred and seventy-nine patients were identified by key informants as fulfilling the broad entry criteria of schizophrenia, schizophreniform psychosis, schizoaffective psychosis, paranoid psychosis, chronic psychosis or query schizophrenia. Fifty-one patients were excluded from further consideration on re-examination of diagnoses using data from case-notes, interviews and informants. This paper describes the revised study population of 528 individuals with a broad diagnosis of schizophrenia. Table 1 describes the allocation of Feighner and DSM–III–R diagnostic criteria for schizophrenia within this broad group using all information. Three hundred and thirty-five individuals (64%) fulfilled at least one of the two narrower diagnostic criteria. Of the remaining 193 not fulfilling either set of criteria, 74 (14%) had a current case-note diagnosis of schizophrenia, while 91 (17%) had a current diagnosis consistent with 'spectrum conditions' (schizophreniform psychosis, schizoaffective psychosis, paranoid psychosis, or query schizophrenia). Twenty-eight individuals (5%) were retained in the survey having met the broad diagnostic inclusion criteria according to the key informants, although there was insufficient case-note data and interview data (missing in 89%) for the diagnostic criteria to be applied.

Two hundred and twenty-three individuals (42%) met the criteria for Feighner positive schizophrenia and a further 66 (13%) met those for probable

Table 1
Feighner and DSM–III–R diagnoses for the revised survey population of 528 individuals with 'broad' schizophrenia

	DSM–III–R positive	DSM–III–R negative	DSM–III–R not known	Total
Feighner definite	156	21	46	223
Feighner probable	37	15	14	66
Feighner negative	33	98	28	159
Feighner not known	13	15	52	80
Total	239	149	140	528

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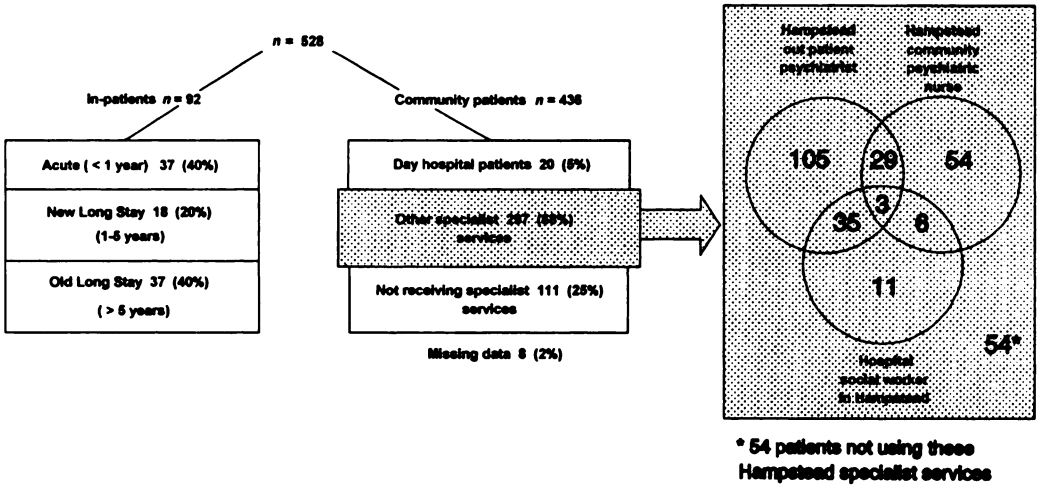


Fig. 1 Use of services by patients with a broad diagnosis of schizophrenia in Hampstead.

schizophrenia; 239 (45%) fulfilled the criteria for DSM–III–R schizophrenia. It was not possible to allocate a Feighner and DSM–III–R diagnosis in 80 (15%) and 140 (27%) of the 528 patients, respectively. Taking these missing observations into account gave a rate of 52% Feighner positive and 15% Feighner probable schizophrenia, and a rate of 62% DSM–III–R positive schizophrenia. The concordance between DSM–III–R and Feighner definitions was moderate ($\kappa = 0.60$), falling just short of good agreement (0.61–0.80).

Staff in Part III accommodation were significantly more likely to identify patients for the census who were subsequently excluded as described above (Odds ratio (OR) = 2.84, 95% CI 1.06–7.32, χ^2 (Yates) = 4.42, d.f. = 1, $P < 0.05$). Otherwise, no other group of professionals was more or less successful than others in identifying patients meeting the survey criteria.

Service usage

Four hundred and thirty-six (83%) of the study population of 528 individuals with broadly defined schizophrenia were living in the community at the time of the census and 92 (17%) were in-patients. Seventy-eight per cent of all the study patients had been seen by a psychiatrist within the year preceding the census (74% of community patients). A further breakdown of the main service contacts of the community patients within Hampstead Health District is shown in Fig. 1. The 111 community patients (25%) who were not receiving specialist mental health services either in Hampstead Health District or elsewhere included those living in general hostels, Part III accommodation and 'foster care schemes', as well as clients of generic social workers, probation officers and staff without psychiatric training in generic day centres. One hundred and seventy-two (39%) of all community patients were seeing a Hampstead psychiatrist, 92 (21%) were seeing a Hampstead CPN, and 55 (13%) were seeing a Camden social worker specialising in mental health. These categories of service usage were not mutually exclusive (Fig. 1).

There were no significant differences between the four-fifths ($n = 420$) of the population with whom an interview was attempted and the remaining one-fifth ($n = 108$) with regard to gender, age, marital status, country of birth, links with Camden, contact with Hampstead services, primary case-note diagnosis, Feighner or DSM–III–R status, age of onset of illness, total number of in-patient admissions or prescribed medication at census (in mg chlorpromazine equivalents). However, the median length of illness of the 420 was 15 years compared to a median of 12 years of the remaining 108 (Mann–Whitney $Z = -2.06$, $P < 0.05$). Except where minimum data were available for the total study population, the findings below relate to the four-fifths ($n = 420$) of the population with whom an interview was attempted or a relevant subgroup thereof. Therefore n varies with the variable under consideration and with the number of patients in the sample for whom data were available.

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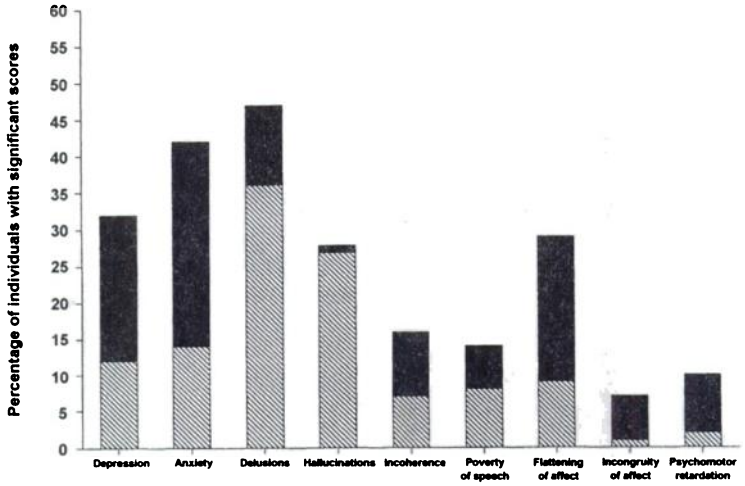


Fig. 2 Mental state findings for representative subsample ($n = 302$) of patients with a broad diagnosis of schizophrenia in Hampstead: scores of $\geqslant 3$, ▨; scores of 2, ■; on the Krawiecka scale.

Demographic and social findings

The demographic characteristics of the 528 patients with broadly defined schizophrenia for whom data were available were: 296 (56%) were female; their mean age was 47 years (median 43; range 18–92 years); 315 (63%) were never married, 70 (14%) married or cohabiting and 116 (23%) separated, divorced or widowed. The country of birth was the UK for 326 (67%), Eire for 36 (7%), Europe (excluding the British Isles) for 42 (9%), the West Indies for 28 (6%), the Indian subcontinent for 17 (4%) and the rest of the world for 36 (7%). Patients developed their links with Camden as follows: 123 (26%) early in life, 294 (63%) in adult life, 45 (9%) via use of mental aftercare services and eight individuals (2%) had no real links with Camden.

The social findings relating to acute in-patients and community patients only were as follows: the majority of patients (292 of 433: 67%) were living in independent accommodation (185 in independent local authority and 107 in owner occupied or privately rented); 97 (22%) were living in accommodation where people other than family (not necessarily mental health specialists) provided some support (including 24 in 'foster care schemes' and 26 in Part III homes); 30 individuals (7%) were living rough or in temporary circumstances. Social opportunities at home were as follows: 107 of 354 (30%) were living alone and 124 (35%) were living with relatives (of whom 51 (41%) were living with a spouse and 45 (36%) were living with at least one parent).

Contacts with family outside the home were as follows: 74 of 314 patients (24%) were not in contact with family; 145 (46%) in less than weekly contact; 89 (28%) in at least weekly contact and six patients (2%) had no family elsewhere. Corresponding figures for contact with friends outside the home were: 105 (35%) not in contact; 60 (20%) in less than weekly contact and 136 (45%) in at least weekly contact.

Half the population (177 of 353) had no daytime occupation whatsoever (45% (136 of 300) of those less than 65 years old) with 19% (57) in open employment. Of the remaining individuals: 83 of 353 (24%) were using a day facility (day centre or hospital, community centre, etc.); nine (2%) were working in sheltered employment or industrial therapy units; seven (2%) were working occasionally and 20 (6%) were involved in other activities including studying or child care.

Clinical findings

The mean length of illness in this study population was 17 years (median 15, range 0–67 years) with a mean of five in-patient admissions (median 4, range 0–33); 57% of patients (211 of 368) had experienced at least one compulsory admission while 8% (37 of 492) had never been admitted. Sixty-nine people with schizophrenia in this health district (15%) were not prescribed antipsychotic medication. Almost half (175 of 381: 46%) were prescribed depot antipsychotics. The mean dose of antipsychotic medication in chlorpromazine equivalents was

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479 mg (median 286 mg, maximum 6814 mg). According to case-notes, 37% of all the patients surveyed (124 of 336) refused to take medication during the preceding year, 23% (76) experiencing some worsening of symptoms as a result.

Mental state

Seventy-two per cent (302 of 420) of the representative sample of patients with schizophrenia were interviewed to assess their mental state (Fig. 2). Those patients interviewed did not differ from those not interviewed except patients registered with a psychiatrist in the out-patient department were significantly more likely to be interviewed (OR = 2.19, 95% CI 1.38–3.48, $\chi^2 = 12.50$, d.f. = 1, $P < 0.0005$). There was no abnormality of mental state in 21% (61 of 285). Half of those interviewed (147) had at least moderate levels of neurotic symptomatology (score of 2 or more for either depression or anxiety).

Seventy per cent (264 of 380) of community and acute in-patients approached were successfully interviewed and 45% (117) had a marked abnormality (score of 3 or more) of at least one of three symptoms (delusions, hallucinations and incoherent speech).

Behaviour

An assessment of problem behaviours was made in 80% (336 of 420) of the representative sample of patients with schizophrenia (Table 2). Those patients who had a behavioural assessment by informant interview did not differ from those who did not, except that patients registered with a psychiatrist in the out-patient department were significantly more likely to be assessed (OR = 2.75, 95% CI 1.60–4.74, $\chi^2 = 15.82$, d.f. = 1, $P = 0.0001$). Those patients who were married or cohabiting were less likely to have a behavioural assessment (OR = 2.36, 95% CI 1.18–4.66, χ^2 (Yates) = 6.26, d.f. = 1, $P < 0.05$) than the remainder. There was no behavioural abnormality in 17% (51 of 303) of patients. The mean number of moderate and severe behavioural abnormalities (scores of 2 or more) per individual was 3.0 (median 2.0, maximum 15.0) and of severe behavioural abnormalities (scores of 3 or more) per individual was 1.6 (median 1.0, maximum 11.0).

Table 2
Behaviour of people with a broad diagnosis of schizophrenia in Hampstead: prevalence of abnormalities

Behaviour	No. of patients showing abnormality (%)
Leisure: ability to occupy self	123 (38%)
Personal appearance and hygiene	95 (28%)
Conversation: oddity/inappropriateness	89 (27%)
Underactivity	87 (26%)
Panic attacks and phobias	87 (26%)
Overactivity and restlessness	83 (25%)
Unrealistic aims	77 (25%)
Depression	80 (24%)
Communication: taking the initiative	56 (17%)
Making appropriate social contacts	54 (16%)
Hostile social contacts	52 (16%)
Posturing and mannerisms	50 (15%)
Laughing and talking to self	48 (14%)
Conversation: incoherence	46 (14%)
Slowness	46 (14%)
Attention-seeking behaviour	45 (14%)
Concentration	41 (13%)
Socially unacceptable habits or manners	43 (13%)
Acting out bizarre ideas	21 (6%)
Suicidal ideas and behaviour	20 (6%)
Destructive behaviour	12 (4%)
Inappropriate sexual behaviour	8 (2%)

Percentages are calculated for those patients in the sample (n=420) for whom data were available. Criterion for abnormality is a score of 2 or more on each item.

Discussion

Methodological issues

This key informant methodology was effective in identifying a district population of people with broadly defined schizophrenia. Fewer than 10% of patients originally identified by informants were subsequently excluded on diagnostic review indicating an acceptable level of false positives. Also, there were no differences in patient identification between professional groups. However, staff in Part III accommodation who often lacked mental health training were less successful. Careful evaluation by a skilled clinician of cases identified by staff without mental health training would improve the accuracy of the initial identification.

Difficulties in applying research diagnostic criteria in a large community cohort were illustrated by the failure satisfactorily to allocate a Feighner and DSM–III–R schizophrenia diagnosis in 15% and 27% of individuals, respectively. Contributing factors included limited availability of information, especially for more transient patients, those patients with few or short admissions or admissions outside of the Health District, and for the one-fifth subset of patients who were not fully assessed in this survey. The latter limited application of the DSM–III–R criteria. The degree of overlap between the two diagnostic systems in this study was just short

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of good. Helzer *et al* (1981) reported a very good concordance between the DSM–III and Feighner definitions ($\kappa = 0.84$), the highest agreement between the diagnostic systems examined (range 0.24 to 0.71 for the remainder). These authors commented that the Feighner and DSM–III definitions are very narrow and identify only a small proportion of cases as schizophrenic. Since the DSM–III–R diagnostic criteria for schizophrenia differ from those of DSM–III in several important respects, we would not expect such a high concordance between the two diagnostic systems in this study, especially given the limitations imposed by the factors outlined above. However, taking the missing observations into account gave rates of Feighner and DSM–III–R positive schizophrenia in the expected range. Only one-third of patients within this study did not fulfil either set of criteria and less than one-fifth had case-note diagnoses indicative of spectrum conditions. The inclusion of this latter group would tend to bias the findings towards those with a less chronic course.

Clinical issues

Positive psychotic symptoms were common and negative symptoms uncommon in this catchment area population of patients with broadly defined schizophrenia, in direct contrast to the findings of McCreadie (1982). This is consistent with other studies in urban schizophrenic populations which found high levels of active symptomatology (Gibbons *et al*, 1984; Johnstone *et al*, 1984). This could be due to a relatively more overstimulating city environment precipitating florid or positive psychotic symptoms (Birley & Brown, 1970). Alternatively, migration of patients from rural areas into cities may be particularly likely in those individuals with a positive symptom profile. Another possibility is that follow-up and treatment of patients in urban areas is less effective. However, depot use in Nithsdale (McCreadie, 1982) was identical to that in North Camden (46%). This might suggest that the difference between these patient populations is their symptom profile and/or their willingness to accept available services. The latter is supported by the frequent resistance to taking medication among the North Camden patients together with the large number of patients who had experienced compulsory admission, also reported by Szmukler *et al* (1981).

Moderate levels of anxiety and depression were as common among the North Camden patients as in similar urban patient populations (Johnstone, 1991). Anxiety rated by the MS in the North Camden patients (42%) was not as prevalent as the Present State Examination syndrome 'worrying', present in 57% of the Salford sample (Cheadle *et al*, 1978) but had important implications since neurotic symptoms were associated with the social handicaps of isolation and unemployment in the Salford patients.

Uniquely, this study incorporated a comprehensive assessment of behavioural difficulties of schizophrenic patients living alone in the community as well as those living with supporters (Creer & Wing, 1974; McCreadie, 1982; Gibbons *et al*, 1984). Similar proportions of the patients in Hampstead and Nithsdale had some abnormality of behaviour (83% and 79%, respectively) although very few of those managed by GPs in Nithsdale were assessed. Reported difficulties in the present study were broadly consistent with the mental state findings, in that behaviours more likely to be associated with positive psychotic symptomatology were at least as common as those associated with social withdrawal. Hostile social contacts during the previous month were twice as likely in comparison to the patients in Nithsdale (McCreadie, 1982), again indicating a potential barrier to establishing a therapeutic alliance between patients and professionals. However, serious antisocial behaviour (physical hostility, destructive behaviour and inappropriate sexual behaviour) was rare.

This study demonstrates that, even towards the beginning of the reprovision of Friern services, the vast majority (83%) of patients meeting broad criteria for schizophrenia were living in the community. Other studies in both rural and urban locations indicated that at least one-quarter of people with schizophrenia were in-patients (McCreadie, 1982; Freeman & Alpert, 1986*a*; Bamrah *et al*, 1991; Youssef *et al*, 1991). A smaller percentage of this survey population had never experienced admission (8%) compared to previous reports of around 20% (Watts, 1973). The bias introduced by under-identification of people with schizophrenia in primary care and of those patients out of contact with all services (Harvey *et al*, accompanying paper) is likely to have differentially affected those without admissions and may account for this lower figure. Similarly, the key informant methodology was likely to underestimate the number of homeless people with schizophrenia of whom five living rough and 25 living in temporary accommodation were identified in this study.

A significant minority (25%) of patients living in the community were not in contact with specialist

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services in the district or elsewhere, in agreement with Watts (1973) and McCreadie (1982). The higher percentage out of contact in comparison to a recent study where 19% were not receiving specialist supervision (Johnstone, 1991), is likely to be due in part to the latter sample consisting of patients followed up after discharge rather than ascertained within primary care.

Social issues

Similar proportions of patients with schizophrenia lived alone in Nithsdale (McCreadie, 1982) and Hampstead. However, fewer patients lived with relatives in the present study than elsewhere (Hoenig, 1974; McCreadie, 1982; Gibbons *et al*, 1984; Johnstone, 1991). More than half of this study population had no friends or minimal social contact with friends. An interaction between this substantial social isolation and the high frequency of positive symptoms is likely. Those patients overwhelmed by intense positive symptoms may seek to cope by withdrawing from social contact (Carpenter *et al*, 1985). Conversely, since family and friends might encourage the patient to seek or maintain appropriate treatment, this social isolation could predispose to the high level of positive psychotic symptomatology.

High unemployment rates among those with a diagnosis of schizophrenia have been reported, although this population had an even higher rate (81%) than others elsewhere (Cheadle *et al*, 1978; McCreadie, 1982; Gibbons *et al*, 1984; Johnstone, 1991). Nearly half of the patients of working age had no daytime activity even though a sizeable number of patients were using day facilities and sheltered employment. In agreement with this finding, informants reported that nearly 40% of patients had difficulty in occupying their leisure time.

Service implications

One-quarter of this community population of patients with broadly defined schizophrenia were not in contact with specialist services and a similar number had not been assessed by a psychiatrist during the preceding year. This emphasises the potential burden on general medical and social services in the inner cities. Difficulties in establishing and maintaining a therapeutic alliance between patients and professionals were highlighted by the frequent occurrence of resistance to taking medication and compulsory admission under the Mental Health Act. There is a need for assertive outreach and follow-up by mental health services with this and similar urban populations of people with schizophrenia as well as effective collaboration between community psychiatric teams and community agencies including primary care. Large numbers of people with schizophrenia in this district led a restricted lifestyle with unemployment being commonplace. The social and occupational needs of many of these people with persistent disabilities are not being met and will require imaginative solutions to enable them to participate more fully in life in the community.

Clinical implications

- The difficulty in establishing and maintaining a therapeutic alliance with patients with schizophrenia necessitates assertive outreach and follow-up.
- Service provision failed to meet the social and occupational needs of many people with schizophrenia.
- A sizeable minority of these patients were out of contact with specialist services, constituting a potential burden on general medical and social services in the inner cities.

Limitations

- Accuracy of initial identification of cases was limited by the knowledge of those key informants without mental health training.
- Application of research diagnostic criteria for schizophrenia in a large community cohort was hindered by lack of information on mobile patients.
- The fifth subset of patients was not fully assessed, limiting the extent to which diagnostic criteria could be applied.

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References and correspondence details are given at the end of Paper II.

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