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Community mental health team case-loads and diagnostic case-mix

AIMS AND METHOD

Information concerning team staffing, keyworker case-loads, and keyworker diagnostic case-mix was collected from six community mental health teams caring for 1651 patients to establish the clinical burden across teams and professions.

RESULTS

Team case-loads varied from 427 to 121, an average of 275 patients.

Over half the patients were female, and psychotic disorders constituted 44% of the sample. The most common diagnoses were schizophrenia (28.6%) and depression (23.6%). Keyworker case-loads varied across both teams and professions, averaging 30 patients per full-time equivalent. Psychiatrists' case-loads were the largest. Diagnostic case-mix varied with profession. Community psychiatric nurses had the largest

proportion of patients with psychosis (73.8%).

CLINICAL IMPLICATIONS

Multi-disciplinary community mental health teams have a shared view of appropriate work distribution. Consultant psychiatrists may underestimate the resources required by patients with non-psychotic disorders even in inner city areas.

Case-load mix and size are important factors in working effectively with the mentally ill, but little information is available regarding community mental health team (CMHT) make-up or keyworker case-loads. Indeed, within mental health there is no consensus on how to measure case-mix. Well validated instruments, such as the Disability Assessment Schedule (World Health Organization, 1979), are not in common use and have no proven association with treatment burden (Holmes *et al*, 1992). Diagnosis and more non-specific terms such as 'severe mental illness' have generally been used in classifications. Huxley (further details available from author upon request), in a local study in north-west England, found CMHTs had a mean team size of 9.6 full-time equivalents (ftes) and the majority of teams were composed of community psychiatric nurses (CPNs), psychiatrists, social workers, clinical psychologists and occupational therapists. In 69% of these CMHTs, more than two-thirds of patients were suffering from severe, long-term mental illness. White (1990) reported mean case-loads of 34.3 for CPNs in England. However, no centrally reported data were found regarding the range and average case-load sizes for other CMHT members or total CMHT case-loads.

Various team professionals might be expected to have differing case-mixes and correspondingly different case-load sizes. For example, CPNs might frequently manage patients with psychosis requiring neuroleptic injections, while psychologists might provide in-depth therapy to fewer patients. Lucas (1997) found that the

severely mentally ill case-load was spread between the professions, although the CPNs spent most time, and social workers least time, with these patients. The purpose of this study was to explore whether professional training and attitudes influence the distribution of case-loads within a generic CMHT. There are currently no clear national policy or guidelines on this important issue, which must have serious implications for workforce planning to meet the needs of a modern mental health service.

The CMHTs studied here were all in south-west London with a range of socio-demographic characteristics which might be expected to influence patient mix and possibly also team constitution. Trust policy has been to encourage a broad multi-disciplinary composition for all teams with some minor variation to accommodate part-time workers. Social deprivation of populations does not vary greatly across the trust and catchment area sizes are adjusted between the two boroughs to allow for it. All teams have the consultant psychiatrist designated as the clinical team leader. They are fully staffed with a low turnover.

One of the six teams was primary care-based, with a reduced catchment area, and patients were seen by a member of the CMHT at the general practitioners' surgeries. It was effectively a 'half team'. Keyworkers are identified as a necessary requirement of the Care Programme Approach (Department of Health, 1990). Where there was any doubt, the staff member with the

highest frequency of contact with the patient was chosen.

The study

Multi-disciplinary case notes from six CMHTs were studied. Team secretaries provided names of registered patients and their designated keyworkers. Information was collected for the 1651 patients registered with these teams. Team secretaries also provided lists of team members, their professions and sessions worked.

Patient diagnoses and gender came from several sources including care plans, discharge summaries, assessments, correspondence and case notes. Diagnoses were initially recorded as free text and later categorised according to 11 broad categories and one 'other' category (see Table 2).

Findings

Team size and composition

Team sizes varied from less than five fte members (Team D) to more than 10 with an average close to nine ftes. Teams had similar compositions. All teams had at least one psychiatrist, CPN, social worker and psychologist, although these did not always work full-time. Only two teams did not currently have an occupational therapist. In terms of ftes, CPNs dominated followed by social workers and psychiatrists.

Patient characteristics

A total of 1651 patients were identified and with the exception of Team D, there was considerable similarity in patient characteristics across teams. Overall, 53% were female and patients with psychotic disorders made up 44% of the case-loads. The most common diagnoses were schizophrenia (28.6%) and depression (23.6%). The only other diagnostic category accounting for more than 10% of patients was anxiety disorders.

Compared with the other teams, Team D had about half the proportion of patients with psychosis (22.3%), but more than double the proportion of patients suffering from depression (52.9%). It also had noticeably more female patients.

Case-loads

Team case-loads were variable and ranged from 427 (Team F) to 121 patients on Team D. Overall average case-loads per fte also varied widely across teams. Team F had the highest ($n=46$) and C and D the lowest ($n=19$).

Keyworker case-loads per fte varied across the professions and across teams. Psychiatrists had the largest case-loads. This was most obvious for Team F, Team A and Team E, where they averaged 99.5, 60 and 46.7 patients, respectively. However, psychiatrists' case-loads were also the most variable. CPNs had the least variable case-loads, with most in the region of 30 patients. The exception was again Team D, whose CPN was keyworker to 18 patients. Case-loads for clinical psychologists appeared high (average 38.8 patients). Social worker case-loads were generally lower and mostly less than 20 patients (average 13.1). There were only 3.5 fte occupational therapists and their case-loads were variable (ranging from nine to 33 patients) with an average of 21 patients per fte.

Keyworker discipline and patient characteristics

For psychiatrists, CPNs and social workers the numbers of male and female patients were approximately in proportion with the whole sample, whereas both occupational therapists and psychologists had more female patients.

Patients with psychotic illnesses made up almost three-quarters of the CPN case-load (55.1% with schizophrenia) far exceeding the proportions for other disciplines. Social workers had the next highest proportion of these patients (43.5%). In contrast, only 5.9% of the psychologists' case-loads suffered from psychoses. Psychologists also had more patients with no diagnosis recorded.

Comment

Possibly the most striking finding was the overall similarity of these teams. With the exception of Team D, they were similar in size and professional composition to those described by Huxley (further details available from author upon request) in north-west England. However, although the south-west London teams tended to have a similar



original papers

Table 1. Keyworker numbers and disciplines (full-time equivalent, fte)

	Team A		Team B		Team C		Team D		Team E		Team F		Total	
	<i>n</i>	fte	<i>n</i>	fte	<i>n</i>	fte	<i>n</i>	fte	<i>n</i>	fte	<i>n</i>	fte	<i>n</i>	fte
Keyworker discipline														
Community psychiatric nurse	3	3	3	3	3	3	1	1	4	4	4	4	18	18
Psychiatrist	4	2.5	3	2.5	3	2.6	3	1.8	3	2.1	2	1.9	18	13.4
Social worker	3	3	4	3.1	4	3.8	1	1	2	2	2	0.8	16	13.7
Occupational therapist	1	1	2	0.9	—	—	1	0.6	—	—	1	1	5	3.5
Psychologist	1	1	2	1.1	1	0.9	1	0.1	1	0.6	2	1.5	8	5.2
Overall	12	10.5	14	10.6	11	10.3	7	4.5	10	8.7	11	9.2	65	53.8

Other non-keyworker staff included three mental workers/support workers, two trainee clinical psychologists, an assistant psychologist and a social work assistant.

Table 2. Patient characteristics

	Team A		Team B		Team C		Team D		Team E		Team F		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Male	176	(48.9)	127	(47.7)	103	(48.6)	43	(35.5)	116	(43.8)	206	(48.2)	771	(46.7)
Female	184	(51.1)	139	(52.3)	109	(51.4)	78	(64.5)	149	(56.2)	221	(51.8)	880	(53.3)
Diagnosis														
Schizophrenia	113	(31.4)	74	(27.8)	74	(34.9)	11	(9.1)	82	(30.9)	118	(27.6)	472	(28.6)
Schizoaffective	11	(3.1)	10	(3.8)	3	(1.4)	2	(1.7)	11	(4.2)	11	(2.6)	48	(2.9)
Bipolar/hypomania	15	(4.2)	27	(10.2)	21	(9.9)	13	(10.7)	26	(9.8)	34	(8.0)	136	(8.2)
Other psychoses	11	(3.1)	18	(6.8)	7	(3.3)	1	(0.8)	14	(5.3)	20	(4.7)	71	(4.3)
Total psychoses	150	(41.7)	129	(48.5)	105	(49.5)	27	(22.3)	133	(50.2)	183	(42.9)	727	(44.0)
Depression	87	(24.2)	46	(17.3)	44	(20.8)	64	(52.9)	66	(24.9)	83	(19.4)	390	(23.6)
Anxiety disorders	23	(6.4)	27	(10.2)	19	(9.0)	12	(9.9)	30	(11.3)	72	(16.9)	183	(11.1)
Stress reaction	6	(1.7)	3	(1.1)	5	(2.4)	2	(1.7)	2	(0.8)	11	(2.6)	29	(1.8)
Somatoform	0	(0)	0	(0)	1	(0.5)	3	(2.5)	3	(1.1)	1	(0.2)	8	(0.5)
Eating disorders	2	(0.6)	4	(1.5)	4	(1.9)	3	(2.5)	0	(0)	4	(0.9)	17	(1.0)
Alcohol misuse	9	(2.5)	6	(2.3)	5	(2.4)	2	(1.7)	3	(1.1)	4	(0.9)	29	(1.8)
Personality disorder	16	(4.4)	8	(3.0)	11	(5.2)	3	(2.5)	5	(1.9)	8	(1.9)	51	(3.1)
Other ¹	5	(1.4)	1	(0.4)	1	(0.5)	1	(0.8)	0	(0)	2	(0.5)	10	(0.6)
Total non-psychoses	148	(41.1)	95	(35.7)	90	(42.5)	90	(74.4)	109	(41.1)	185	(43.3)	717	(43.4)
No diagnosis/missing	62	(17.2)	42	(15.8)	17	(8.0)	4	(3.3)	23	(8.7)	59	(13.8)	207	(12.5)
Total team case-load	360		266		212		121		265		427		1651	

1. Includes organic disorders.

overall composition, they did not always have the same proportions of these professionals. Team D had the greatest proportion of psychiatrists, while Teams E and F were noticeable because of their high proportion of CPNs. Teams C and E had no occupational therapists but were actively recruiting during data collection.

Keyworker case-loads per fte were variable, particularly across the professions, possibly reflecting their different roles. On average, psychiatrists had the biggest case-loads. This can be explained, at least partially, by the fact that some consultants ran large out-patient clinics with high numbers of low dependency patients but their practice and case-loads were very variable and this study was not designed to explore this observation. A consequence of this observation has been a trust decision to move to restricting consultant case-loads. CPN case-loads averaged 30 patients close to the national figure (34.3) (White, 1990) in England and conforming with the

trust's agreed standard. It is difficult to comment meaningfully here on occupational therapist case-loads. Clinical psychologists' high case-loads may partially reflect trainee clinical psychologists and psychology assistants who saw patients under supervision from the psychologists. The psychologist on Team D who was keyworker to six patients but only worked one session per week yielding a misleading caseload of 60 patients per fte.

CPNs' case-loads had by far the highest proportion of patients suffering from psychoses, possibly because of their established role in administering depot medication. Social workers' smaller case-loads probably reflect their other responsibilities (e.g. approved social workers duty rotas). The few patients with psychosis (5.9%) on psychologists' case-loads reflect their emphasis on therapy for those suffering from neuroses and may also explain the over-representation of females.

Table 3. Mean number of patients per full-time equivalent by discipline and team

	Team A	Team B	Team C	Team D	Team E	Team F	Total
Keyworker discipline							
Community psychiatric nurse	33.3	30.7	26.7	18.0 ¹	29.5	34.3	30.3
Psychiatrist	60.0	26.8	22.7	31.7	46.7	99.5	43.1
Social worker	18.6	14.5	12.9	26.0	9.5	16.3	13.1
Occupational therapist	33.0	15.9	N/A	21.7	N/A	9.0	21.1
Psychologist	21.0	39.1	26.7	60.0 ³	50.0	52.0	38.8
Overall	34.3	25.1	20.6	18.9 ¹	30.5	46.4 ²	30.7

1. A community psychiatric nurse was keyworker to one patient and therefore excluded.

2. A social worker who worked two sessions and was only keyworker to one patient was also excluded.

3. This psychologist had six patients but only worked one session per week for Team D.



Table 4. Patient gender and diagnosis across disciplines

	Community psychiatric nurse		Psychiatrist		Social worker		Occupational therapist		Psychologist		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Male	260	(47.6)	299	(48.2)	105	(50.2)	27	(36.5)	80	(39.6)	771	(46.7)
Female	286	(52.4)	321	(51.8)	104	(49.8)	47	(63.5)	122	(60.4)	880	(53.3)
Diagnosis												
Schizophrenia	301	(55.1)	96	(15.5)	58	(27.8)	12	(16.2)	5	(2.5)	472	(28.6)
Schizoaffective	25	(4.6)	13	(2.1)	8	(3.8)	2	(2.7)	0	(0)	48	(2.9)
Bipolar/hypomania	52	(9.5)	57	(9.2)	16	(7.6)	7	(9.4)	4	(2.0)	136	(8.2)
Other psychoses	25	(4.6)	32	(5.2)	9	(4.3)	2	(2.7)	3	(1.5)	71	(4.3)
Total psychoses	403	(73.8)	198	(31.9)	91	(43.5)	23	(31.1)	12	(5.9)	727	(44.0)
Depression	69	(12.6)	208	(33.5)	42	(20.1)	25	(33.8)	46	(22.7)	390	(23.6)
Anxiety disorders	27	(4.9)	72	(11.6)	8	(3.8)	8	(10.8)	68	(33.7)	183	(11.1)
Stress reaction	2	(0.4)	12	(1.9)	4	(1.9)	0	(0)	11	(5.4)	29	(1.8)
Somatiform	1	(0.2)	4	(0.6)	0	(0)	0	(0)	3	(1.5)	8	(0.5)
Eating disorders	0	(0)	7	(1.1)	2	(1.0)	1	(1.4)	7	(3.5)	17	(1.0)
Alcohol misuse	5	(0.9)	14	(2.3)	5	(2.4)	3	(4.1)	2	(1.0)	29	(1.8)
Personality disorder	8	(1.5)	17	(2.7)	17	(8.1)	4	(5.4)	5	(2.5)	51	(3.1)
Other ¹	1	(0.2)	4	(0.7)	3	(1.4)	1	(1.4)	1	(0.5)	10	(0.6)
Total non-psychoses	113	(20.7)	338	(54.5)	81	(38.8)	42	(56.8)	143	(70.8)	717	(43.4)
No diagnosis/missing	30	(5.5)	84	(13.5)	37	(17.7)	9	(12.2)	47	(23.3)	207	(12.5)
Total case-load	546	(33.1)	620	(37.6)	209	(12.7)	74	(4.5)	202	(12.2)	1651	(100)

1. Includes organic disorders

The proportion of patients suffering from long-term mental illness is smaller than in Huxley's (further details available from author upon request) study. The teams studied here had half their patients or less suffering from psychoses. Team D had less than a quarter. This is an important finding as inner city mental health teams generally believe that 'most' of their patients suffer from psychoses. Our team members were surprised by the high level of patients with non-psychotic illnesses. In contrast to Lucas' study, patients with psychotic illnesses were distributed in a consistent pattern across the teams with CPNs, psychiatrists and social workers most involved. It would appear that multi-disciplinary CMHTs do have a shared view of appropriate work distribution.

References

- DEPARTMENT OF HEALTH (1990) *The Care Programme Approach for People with a Mental Illness. Referred to the Special Psychiatric Services*. London: Department of Health.
- HOLMES, N., SHAH, A. & WING, L. (1992) The disability assessment schedule (DAS). *Psychological Medicine*, **12**, 879–890.
- LUCAS, B. (1997) Members of a community mental health team. *Psychiatric Bulletin*, **21**, 547–549.
- WHITE, E. (1990) *Community Psychiatric Nursing. The National Survey*. Bristol: CPNA Publications.
- WORLD HEALTH ORGANIZATION (1979) *Schizophrenia: An Initial Follow-Up*. Chichester: Wiley.
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