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A national survey of psychiatric day hospitals

AIMS AND METHOD

We conducted a postal questionnaire survey of all psychiatric day hospitals in England to identify the range of aims, organisational structure and content of service provision.

RESULTS

Of 102 identified day hospitals, 77% responded to the questionnaire. The findings confirmed that there is great heterogeneity in English day hospital service provision. The function or aim with the highest mean rating was 'providing an alternative to in-patient care', with 66% of day hospitals giving this a rating of great or greatest importance. However, the majority of respondents prioritised multiple roles, with many day hospitals aiming to provide acute and chronic care concurrently.

CLINICAL IMPLICATIONS

The label 'day hospital' covers a considerable range of community psychiatric services. The heterogeneity of service provision in existing day hospitals could lead to difficulties in generalising research findings on day hospital efficacy.

Although day hospitals have a long history, it remains unclear what services are grouped into this single category. There is empirical evidence to support the efficacy of specific day hospital models, but a lack of research into what English day hospitals do in practice.

Within the context of the deinstitutionalisation of mental health services over the past 40 years, there has been a growth in the use of psychiatric day hospitals in England. There is great diversity in the uses and aims of day hospitals, with some functioning as an alternative to acute in-patient care, and others for the rehabilitation and support of the chronically ill or for the treatment of neurotic and personality disorders. In the literature, various terms are employed to distinguish between different day hospital models, but there is no clear and consistent use of terminology. For example, in a systematic review of day care effectiveness, Marshall *et al* (2001) distinguish between acute day hospitals (an alternative to admission), transitional day hospitals (to shorten admission), day care centres (for rehabilitation or maintenance) and day treatment programmes (to enhance out-patient treatment). However, there is a lack of research into how mutually exclusive these day hospital 'types' are in practice. A survey of day care services in Lambeth reported that two 'day hospitals' and two 'day centres' in the locality treated patients who presented with similar symptoms (impairment in functioning and behaviour problems; Holloway, 1991), suggesting that the terms 'day hospital' and 'day centre' might be used interchangeably. The heterogeneity of day hospitals, even within a specific geographical area, is highlighted in the survey of Mbaya *et al* (1998) of 10 day hospitals in north-east England, of which five facilities aimed to concentrate on chronic illness, three on acute illness and two on both acute and chronic illness.

These findings provide a glimpse of the roles and functions of day hospitals within two regions of England, but it is not known how nationally representative these models are. To our knowledge, there is no published nationwide survey of the function and structure of day hospitals across England. There is renewed interest in, and strong evidence for, the use of acute day hospitals as a more cost-effective alternative to conventional in-patient care (Creed *et al*, 1990, 1997; Horwitz-Lennon *et al*, 2001; Marshall 2001), in line with the increasing focus on community care. However, the evidence relating to non-acute day hospitals is more sparse and less consistent (Marshall, 2001). The generalisability of day hospital research, and thus the opportunity for evidence-based practice, is restricted as it remains unclear what services are included in the umbrella term 'day hospital'.

The aim of this survey was to ascertain the aims, organisational structure and content of service provision in psychiatric day hospitals across England. In particular, the study aimed to examine whether there are significant differences between day hospitals that prioritise the provision of an alternative to in-patient care versus those that do not.

Method

Measures

A 15-item postal questionnaire was designed specifically for this survey (available from authors on request). Respondents were asked: to rate the relative importance

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of eight service aims or functions on a five-point Likert scale (1=no importance, 5=most important); to record which of a list of 12 possible exclusion criteria were applied in their day hospital and to describe their patients (in terms of diagnostic categories), their staff and details about the treatment programme. The survey included questions about the location of the day hospital and expectations of patients' attendance.

Data collection

Every National Health Service (NHS) Trust providing mental health services in England was contacted by telephone and asked to provide contact details for all psychiatric day hospitals within their Trust. A total of 102 functioning day hospitals were identified and a contact person (usually the manager) was identified at each day hospital. The researcher briefly detailed the aims of the survey and invited them to complete a short postal questionnaire. The questionnaire was distributed between October 2001 and February 2002.

Assertive action was taken to improve the response rate. First, unreturned questionnaires were chased-up by telephone at regular intervals and duplicate copies of the questionnaire were sent by e-mail, fax and/or post. The contact person was given the opportunity to complete the questionnaire over the telephone if preferred. Whenever possible, missing data from returned questionnaires was also collected over the telephone.

Data analysis

Spearman's rho was used to examine the relationship between different aims and functions of the day hospitals. Respondents' ratings of the aims and functions of their day hospital were also submitted to hierarchical cluster analysis.

Results

A total of 79 questionnaires were completed, giving a response rate of 77.5%. All of the findings reported are based exclusively on the information provided by these respondents.

Sample characteristics

The catchment areas served by the day hospitals that responded were as follows: 24% urban; 20% suburban; and 42% served a combination of urban, suburban and rural areas.

Aims and functions of the day hospital

Mean ratings for aims and functions of the day hospitals are shown in Table 1. The aim with the highest mean rating was 'providing an alternative to in-patient care' (mean=3.92, s.d.=1.09), with 66% of respondents rating this function as of great or greatest importance.

The rating of importance of providing an alternative to in-patient care was significantly positively correlated with shortening in-patient treatment (r_s=0.369, $P<0.01$), providing crisis intervention (r_s=0.388, P=0.001) and admission after failure of out-patient treatment (r_s=0.262, P=0.027). There were significant inter-correlation coefficients for the aims to provide rehabilitation for chronic disorders, psychotherapy and social rehabilitation. Providing rehabilitation for chronic disorders was correlated positively with psychotherapy (r_s=0.334, P=0.004) and social rehabilitation (r_s=0.704, $P<0.001$). Psychotherapy and social rehabilitation were also positively correlated (r_s=0.234, P=0.045). There were no other statistically significant correlations between the ratings of functions and aims.

The cluster analysis identified three groups of day hospitals and the grouping was confirmed by discriminant analysis (see Tables 2 and 3). The first group (25 day hospitals) gave significantly lower ratings to providing rehabilitation for chronic disorders and social rehabilitation and support than day hospitals in the other two groups. The second group (13 day hospitals) gave significantly lower ratings to providing an addition to out-patient treatment and crisis intervention. The third group gave significantly higher ratings to providing crisis intervention, psychotherapy, rehabilitation for chronic disorders, and social rehabilitation and support. This third group reported the greatest heterogeneity in prioritised aims and functions: each aim/function was given a relatively high mean rating (range=3.11–4.26). The three clusters could not be differentiated according to their scores on providing an alternative to in-patient care, shortening in-patient treatment and providing a service for admission after failure of out-patient treatment.

Patient exclusion criteria

The most frequent reasons for exclusion of patients from day hospital treatment were learning disabilities (50%), drug addiction/misuse (50%) and organic disorders (46%). Other reasons for exclusion were no motivation (17%), acute psychosis (18%), acute suicidal ideations (26%), homelessness (16%), insufficient knowledge of national language (12%) and burden on family too great (10%). Chi-squared tests showed that there were no significant differences in exclusion criteria between the groups that prioritised providing an alternative to in-patient care (rated as of great or greatest importance) and those hospitals where that aim is a low priority (rated as of no to moderate importance).

Organisation and structure

About a quarter (27%) of day hospitals reported that they had a fixed number of places available, with a mean of 33.1 (s.d.=22.1) places. In 15% of day hospitals, clients were expected to attend every day from Monday to Friday, and 12% expected their clients to attend at the weekend if necessary. A total of 91% reported that day hospital attendance depended on the needs of the patients. None of the day hospitals reported obligatory

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Table 1. Aims and functions of the day hospital

	n	Mean (s.d.)	Rated as great/greatest importance
Service to shorten in-patient treatment	73	3.62 (1.27)	60%
Alternative to inpatient care	73	3.92 (1.09)	66%
Service for admission after failure of outpatient treatment	70	2.96 (1.08)	31%
Addition to out-patient treatment	72	3.26 (1.33)	51%
Crisis intervention	73	3.55 (1.42)	64%
Psychotherapy	73	2.55 (1.34)	28%
Rehabilitation for chronic disorders	71	2.79 (1.41)	37%
Social rehabilitation or support	74	3.46 (1.27)	60%

weekend attendance. Just under a third (30%) of the day hospitals reported that there was a daily minimum attendance time (mean=3.9 h, s.d. 1.8). Chi-squared analysis showed no significant differences on these organisational characteristics between the groups that did/did not prioritise providing an alternative to in-patient care. The mean number of annual admissions for the day hospitals that responded was 147, with a mean length of stay of 128 days.

Characteristics of patients

The majority of day hospitals admitted clients with diagnoses of schizophrenia (82%), affective disorder (89%), anxiety (92%), schizoaffective disorder (75%) or personality disorder (75%) over the preceding 12 months. Less than half of day hospitals admitted patients with diagnoses of organic, addictive, somatoform or eating disorders.

Staff

The total level of staffing in the different day hospitals was fairly consistent across day hospitals. Nearly all of the respondents (97.4%) employed at least one nurse, with a mean of 4.4 full-time equivalent nurses in each day hospital. There was a mean of 9.34 (s.d.=4.98) full-time equivalent staff per day hospital, with no significant difference in staff numbers in day hospitals that did/did not prioritise providing an alternative to in-patient care.

Treatment activities

Of the day hospitals that responded, 90% provided occupational therapy; 77% provided social skills training; 78% training for everyday living; 71% outreach activities; 68% physiotherapy; 65% sporting activities; 38% music therapy; and 9% provided dance therapy. Chi-squared analysis showed that there was a greater frequency of music therapy (χ^2=4.974, d.f. 1, P=0.026) in the day hospitals that did not prioritise providing an alternative to in-patient care. There were no significant differences between the two groups for any other treatment activity.

Discussion

The response rate for this survey was relatively high (77%), so it is hoped that the results portray a valid picture of day hospital service provision. The validity of some aspects of the data collected could be questioned. Most notably, the number and length of admissions appear unusually high and researchers found that very few day hospitals systematically recorded, or could access, data on admission numbers or diagnoses, and so the depth and reliability of these data is restricted. Additionally, the ratings of the aims and functions might reflect the respondents' personal perception rather than the reality of their service's role.

In recent years, there has been a particular policy focus on the use of psychiatric day hospitals as an alternative to conventional in-patient care. A cluster analysis did not reveal strikingly different day hospital profiles

Table 2. Means (s.d.), *F*-values and significance levels of aims and functional ratings for the three day hospital clusters

	Cluster 1	Cluster 2	Cluster 3	*F*	Range
Service to shorten in-patient treatment	3.60 (1.155)	3.62 (1.502)	3.66 (1.305)	0.015	0.985
Alternative to in-patient	4.04 (0.889)	3.54 (1.266)	3.97 (1.150)	0.987	0.378
Service for admission after failure of out-patient treatment	2.80 (1.190)	2.85 (1.214)	3.17 (0.954)	0.983	0.379
Addition to out-patient treatment	3.60 (1.258)	2.31 (1.377)	3.40 (1.241)	4.748	0.012*
Crisis intervention	3.72 (1.137)	1.31 (0.630)	4.31 (0.832)	50.999	<0.001**
Psychotherapy	2.24 (1.300)	1.46 (0.967)	3.11 (1.231)	9.784	<0.001**
Rehabilitation for chronic disorders	1.52 (0.653)	2.31 (1.251)	3.83 (0.985)	45.774	<0.001**
Social rehabilitation or support	2.28 (1.100)	3.46 (1.266)	4.26 (0.657)	31.698	<0.001**

*P<0.05.

**P<0.001.

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Table 3. Actual and predicted cluster membership and percentage of correct predictions

Actual cluster membership	Number of cases	Predicted cluster membership *n* (%)		
		1	2	3
Cluster 1	25	23 (92)	2 (8)	0 (0)
Cluster 2	13	0 (0)	13 (100)	0 (0)
Cluster 3	35	3 (8.6)	0 (0)	32 (91.4)

Percentage of grouped cases correctly classified=93.2%.

with respect to their aims and functions. Although three groups were identified in this analysis, i.e. the first with less of an emphasis on chronic and social rehabilitation, the second with less of an emphasis on crisis intervention and addition to out-patient treatment, and the third being apparently multi-functional, there was no evidence of day hospitals solely providing an alternative to in-patient care. However, this policy focus appears to be reflected in the survey results as providing an alternative to in-patient care and was the most consistently highly rated aim across all three groups. Most day hospitals rated multiple aims and functions as of great or greatest importance, suggesting that these roles are not mutually exclusive.

It has been suggested (Priebe, 2002) that day hospitals focusing on acute treatment should have a defined number of places, where patients are expected to attend from morning to evening daily from Monday to Friday, and if necessary at the weekend. Of the day hospitals that prioritised providing an alternative to in-patient care, only 29% reported having a fixed number of places, 15% expected patients to attend for a minimum daily length of time, 19% expected patients to attend every day from Monday to Friday and 15% offered optional weekend attendance.

The term 'day hospital' encapsulates a heterogeneous group of mental health service structures, reflecting the multitude of aims and functions even within a single institution. This could be seen as positive evidence for the flexibility of day hospital models to adjust to different local need. Yet, one might also conclude that day hospitals have not found a clearly defined role within the spectrum of distinct services that modern community mental health care provides. In any case, this raises questions about the generalisability of existing research, which supports the efficacy of day hospitals specifically providing either acute or rehabilitative care. There is a need for outcome research to specify the context of the service (Pawson & Tilley, 1997), i.e. by providing a detailed description of the service that is being evaluated. These findings emphasise the need for research to examine the effectiveness of day hospitals that provide both chronic and acute care concurrently that might more accurately reflect current practice.

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Declaration of interest

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