

Controlled Comparison of Day-patient and Out-patient Treatment for Persistent Anxiety and Depression

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The effectiveness of day care versus out-patient care in the treatment of persistent severe anxiety and depression was compared in a controlled clinical trial. Of 96 consecutively referred patients meeting the entry criteria, 92 were followed up for six months. Patients were randomised to day care or out-patient care, and assessed at entry and at six months using the Standardised Psychiatric Interview and in terms of their time structuring and socialisation. Marked improvement in all three measures was seen for most of the day patients, but for few of the out-patients: this difference was highly significant for each measure. Day patients also rated themselves as coping more effectively and as more satisfied with their treatment. These differences could not be explained by differences in use of medication. Day treatment should remain an option for patients with persistent anxiety and depression resistant to out-patient treatment.

Given the current shift of emphasis from in-patient to community management in psychiatry, day hospitals are assuming an increasingly important role in service delivery. Their specific contribution, however, needs to be more clearly defined (Wilkinson, 1984; Vaughan, 1985). The literature comparing out-patient with day-patient treatment is less extensive than that comparing day-patient with in-patient treatment. In a randomised controlled British study, Tyrer & Remington (1979) compared out-patient with day-patient treatment for patients with diagnoses of anxiety, phobic or depressive neurosis. They found no important differences in clinical or social outcome and concluded that, "because out-patient care is more economic of time and personnel, it should be preferred to psychiatric day care for many neurotic disorders".

The current study also compares out-patient with day-patient treatment for anxiety and depression, but for a group not previously studied – patients referred for assessment for day treatment rather than routine out-patient referrals. We were interested to see whether it would be possible to demonstrate any benefit from attendance in this group with persistent symptoms resistant to out-patient treatment.

Method

All referrals to Dundee's only acute day hospital in the three years from mid-1984 to mid-1987 who met the following criteria were included in the study:

- (a) predominant anxiety and/or depression in the absence of schizophrenia, mania, depression with delusions, organic brain disease, or alcohol or drug dependence

- (b) symptoms of moderate severity, lasting continuously for a minimum of six months – patients were excluded from randomisation if they were assessed by the day-hospital consultant as being too well (requiring only out-patient support) or too ill (requiring more than out-patient support) or as having a specific requirement for day-hospital treatment (e.g. as part of a behavioural programme)
- (c) willingness to accept day-hospital or out-patient treatment and co-operate in the study.

All patients gave informed consent and the study had approval from the ethical committee.

Initial interviews were carried out by the day-hospital consultant and follow-up interviews by a research senior registrar. The senior registrar was not made aware of the patients' treatment setting and made it clear at the start of her interview that it would be helpful if patients did not disclose what treatment they had received; it is unrealistic, however, to claim that single-blind conditions applied rigorously, as some patients spontaneously talked about their treatment. Day-hospital treatment with this patient group is usually for two to three months; we decided on a follow-up of six months from entry to assess progress a reasonable interval after day attendance.

In the initial interview patients were categorised according to the DSM-III criteria for anxiety and depression (American Psychiatric Association, 1980), although we departed from DSM-III in making separate ratings for anxiety and depression. The Standardised Psychiatric Interview (SPI; Goldberg *et al.*, 1970), which gives an overall clinical severity score, was administered to patients initially and at follow-up. Patients were also asked about how they organised their activities and time (time structuring/organisation), and maintained their social contacts (socialisation) in a specially designed semistructured interview (Appendix). At follow-up

patients completed a brief questionnaire on satisfaction with treatment and on coping.

The day hospital's main roles are community treatment of patients, (both neurotic and psychotic) who would otherwise require admission, and treatment of patients with severe persisting neurotic disability not responsive to or suitable for out-patient treatment alone. Attendance is generally from a few weeks up to several months, and there are up to 40 patients. Treatment is eclectic, with a focus on time structuring and socialisation, and a problem-orientated supportive/behavioural rather than psychodynamic approach. Staffing comprises three sessions per week of consultant time, three sessions per week of support medical time, three full-time trained nurses, and one full-time occupational therapist. Patients are referred by psychiatric colleagues, not general practitioners; colleagues are encouraged to refer patients to find out more about day treatment as one possible option rather than with the automatic expectation of attendance.

Patients allocated to continued out-patient treatment were seen approximately monthly and given advice on relaxation, anxiety management, and alternative approaches to time structuring and handling relationships. No constraints were put on use of medication in either setting. Limited input from psychologists, social workers, and community nurses was available to patients in both settings.

Patients were randomly allocated to day-hospital or out-patient treatment by opening a sealed envelope once the inclusion criteria had been met; they had, therefore, been assessed as suitable for both day-patient and out-patient treatment and had agreed to accept either. In practice the major difficulty lay in persuading those allocated to day treatment to attend, rather than in patients expecting day treatment being disappointed with out-patient treatment (perhaps not surprising in view of the substantial extra stress and time commitment involved in day attendance).

Of the 124 referrals who met the diagnostic criteria during the study period, all had had symptoms continuously for at least six months. Seven (mean PSI score 16.9) were excluded as too well, ten (mean PSI score 43.5) as too ill, and three (mean PSI score 32.3) because they required a specific behavioural programme: eight (mean PSI score 32.8) refused to accept day treatment as an option, but none refused out-patient treatment. The remaining 96 patients were randomised – 46 to day patient and 50 to out-patient treatment. Two out-patients but no day patients required in-patient care during the course of the study. All other patients completed at least one month of their assigned treatment. Two of each group were lost to follow-up.

The main analysis was of the 92 patients who completed follow-up to six months and was by intention to treat. The groups were comparable in initial characteristics (Table 1).

Statistical method

Differences between the groups for categorical variables were assessed by the χ^2 test, and Yates' correction was used for two-by-two tables. Comparison of clinical outcome was achieved by obtaining the difference between initial and final scores for each patient and comparing the two groups by the Mann-Whitney *U* test.

Table 1
Comparison of day and out-patients on entry

	Day patients (<i>n</i> = 44)	Out-patients (<i>n</i> = 48)
Age:		
< 45	26	22
≥ 45	18	26
Sex		
male	7	16
female	37	32
Marital status		
never married	7	4
married/cohabiting	24	27
separated/divorced	12	13
widowed	1	4
Employment		
working	6	5
not working	38	43
Diagnosis (DSM-III)		
depression		
major depressive	42	43
dysthymic	2	5
anxiety		
panic	17	21
phobic	9	8
generalised anxiety	16	15
no anxiety diagnosis	2	4
Alcohol use		
no problems	31	34
problems (but not dependency)	13	14
Interval since first contact		
two years or more	26	34
Most recent spell of adequate functioning		
within past year	7	4
not within past year	33	38
never as adult	4	6
Previously an in-patient		
yes	17	23
no	27	25

Results

The two groups were initially similar in their PSI scores (Fig. 1). After the six months of treatment a marked improvement was seen among most of the day patients, but among only a few of the out-patients. This difference was highly statistically significant (Mann-Whitney *U* test, $P < 0.001$). The results were in the same direction for time structuring ($\chi^2 = 32.9$, d.f. = 2, $P < 0.001$) and socialisation ($\chi^2 = 23.0$, d.f. = 2, $p < 0.001$) (Table 2). On self-rating of coping, 36 out of 44 day patients rated themselves as coping effectively at least half the time, compared with 13 out of the 48 out-patients, a statistically significant difference ($\chi^2 = 28.9$, d.f. = 3, $P < 0.001$).

All patients were offered advice in relaxation and anxiety management and were advised of the drawbacks of longer-term use of benzodiazepines. With day patients this was accompanied by supervised relaxation sessions and individual and group discussion. Despite this, many patients

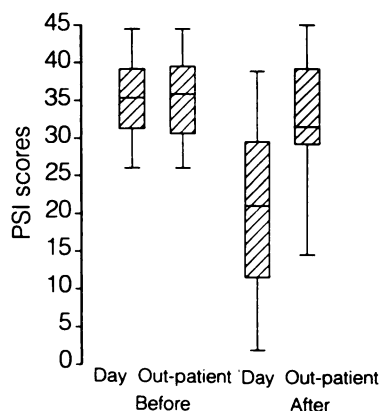


Fig. 1 PSI scores of patients randomised to day and out-patient treatment, before and after six months (highest and lowest ratings shown by bars, 25th–75th percentile by shaded box, median by horizontal line).

felt they continued to derive useful benefit from medication (although benzodiazepines were generally used in a variable-dose regime). There was little evidence of misuse or of escalating use. Patterns of drug use were similar in both groups before randomisation and at the end of follow-up (Table 3).

Of the 44 day patients, 37 were highly satisfied or satisfied with treatment compared with 28 of the 48 out-patients ($\chi^2 = 13.2$, d.f. = 4, $P < 0.05$).

The majority of patients in both groups were still in out-patient contact at six months. Mean duration of day treatment was 10.7 weeks (excluding two patients who were still attending at six months). There were no significant differences between the groups in mean number of contacts with a general practitioner (6.2 for day patients, 6 for out-patients), nor in the numbers seen by our community

Table 2
Time structuring and socialisation

	Worse	Same	Better
Time structuring			
day patients	0	6	38
out-patients	3	32	13
Socialisation			
day patients	1	11	32
out-patients	2	35	11

Table 3
Use of medication

	Day patients		Out-patients	
	Initially	At 6 months	Initially	At 6 months
Tranquillisers	11	16	14	13
Hypnotics	21	19	21	20
Antidepressants	20	18	28	26

psychiatric nurse, social worker, or psychologist (only a small minority in each group).

Discussion

For these patients and treatment settings, day-hospital treatment was superior to out-patient treatment both clinically and on a number of other measures; the effect was not achieved by increased drug prescribing. This finding differs from previously reported work. Unlike the most comparable previous study (Tyrer & Remington, 1979), however, our patients had already been identified as potentially suitable for day treatment, and had more severe, long-standing illnesses. Treatment was in a small unit with an experienced team using a structured, problem-orientated approach; day and out-patient treatment differed in quantity of treatment and availability of peer-group support rather than in fundamental approach. Thus the results of this study complement rather than contradict previous work.

The possibility that deprivation of day treatment may have had an adverse effect on the out-patient group needs to be considered. However, as there was no evidence of deterioration in this group and as the majority had had symptoms for at least two years it seems unlikely that this factor had a significant part to play.

Is a reduction in clinical severity (as judged by PSI scores) of between a third and a half worthwhile? Objectively, it was accompanied by useful clinical improvement and this was confirmed by patients' self-rating of coping and by our assessment of how the patients used their time and socialised. On balance, therefore, the reduction in clinical score, although modest, was worthwhile.

Day-hospital treatment is more expensive than out-patient treatment. Even given the clinical benefit, can this expense be justified? The majority of patients had experienced continuous symptoms for at least two years and many for much longer. They suffered severe symptoms and major impairment of their day-to-day activities and relationships. The majority had had unsuccessful trials of antidepressants and had either been regarded as unsuitable for, had failed to engage in, or had had an unsuccessful attempt at, individual therapy (cognitive, behavioural or psychodynamic). In the authors' view these factors make the expense justifiable, although it would also be important to look at the possibility of reducing the amount of contact, if this is possible without detriment to clinical outcome.

Why did day patients improve? Although the study was not designed to answer this question, two possible contributory factors emerged from the data

collected. Day-hospital attendance focused attention on time structuring and socialisation, and a clear improvement in these aspects of functioning may have contributed to clinical improvement rather than being secondary. Day-hospital staff also repeatedly advise and reinforce patients on how to cope with symptoms; the better coping ability of day patients at six months may reflect the effectiveness of this approach.

Although the extent to which it is possible to generalise from our results to settings outside Dundee is limited, our study does suggest a continuing place for day attendance as a second-line treatment for those patients who have failed to respond to out-patient treatment alone.

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Appendix

Time structuring and socialisation interview

Patients were asked about their routine, activities and social contacts over the preceding week. Open probes were followed by specific questions covering the aspects outlined below. The interview was concluded by obtaining a time budget for each weekend day and for one other day to check that the initial picture obtained was accurate.

Time structuring/organisation

Ask about basic routine (going to bed, getting up, feeding self), work, housework, conversation, reading, radio, music, television, hobbies, classes, sport, relaxation (sitting at peace). How much of the time was the patient actively engaged or comfortably relaxed? Did he/she require encouragement to maintain routine? Is he/she trying to rebuild routine? To what extent were activities disrupted by restless, unsettled behaviour?

0 = No problems with time structuring.

1 = Mild restlessness or inertia for minority of time. Limited disruption of usual activities, or activities maintained only with encouragement.

2 = Moderate restlessness or inertia up to half the time. Basic routine maintained. Moderate disruption of other activities, but regular attempts made to maintain routine and activities.

3 = Moderate restlessness or inertia for more than half the time, but no or infrequent severe restlessness. Some disruption of basic routine or basic routine maintained only with encouragement. Major disruption of other activities though some attempts still being made to maintain routine and activities.

4 = Regular acute disorganisation or continually in bed. Basic routine disrupted. Other activities dropped with little or no effort to restart them.

Socialisation

Ask about informal social interaction within the family, social contacts with extended family, neighbours and friends, and 'structured' social activities – church, bingo, social clubs; cover social aspects of sport and classes. How successfully was the patient maintaining day-to-day social interaction and other social activities? Did he/she require encouragement to interact and maintain social life?

0 = No problems with socialisation.

1 = Some unease, but only limited disruption of social contacts (or contacts maintained only with encouragement).

2 = Moderate disruption of socialisation, but still willing to maintain conversation/contact in familiar settings. Regularly attempting to keep up contacts.

3 = Most outside contacts avoided and some disruption of socialisation even in optimal settings. Some attempts still being made to maintain or restart socialisation.

4 = Interaction actively avoided despite encouragement, even with 'comfortable' friends or family.

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