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Effect of treatment in an active rehabilitation hostel on the need for hospital treatment

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Aims and method To describe the work of the 'Vron', a seven-bed active rehabilitation hostel which has operated in Gloucester for the last 15 years. Such units have been acknowledged as a successful alternative to hospital care for patients with severe mental illness, but nationally are grossly under-provided.

Results Demographic details, admission and discharge data were described for all 103 patients admitted over a 12-year period up to January 1996. Duration of hospital treatment fell from mean 105.8 days one year before and 138.0 days two years before admission to the Vron to: mean 28.6 days one year after and 57.1 days two years after discharge from the Vron. The change was highly significant for both one and two year analyses.

Clinical implications Residential rehabilitation, provided as part of a comprehensive rehabilitation service, was effective at reducing requirement for hospital care. Clinical approaches which contributed to this success were described. The results point to the value of a range of residential hostels, which can through skilled deployment effectively target individual needs for a wide ranging, heterogeneous population.

The mental hospital closure programme has been associated with the development of a range of residential community facilities. The rehabilitation hostel, also known as the 'ward in a street', has been recognised in recent reviews (Shepherd, 1991; Young, 1991) and by the Department of Health (1996) as an effective alternative to hospital care for the 'new long-stay' patient. Although such units were generally set up to provide long-term care, studies have consistently shown their success in rehabilitating even the most difficult patients with challenging behaviour, into less dependent settings (see Wykes & Wing, 1982; Shepherd *et al*, 1994; Reid & Garrety, 1996).

In more recent years, descriptions have appeared in the literature of hostels providing more explicitly "fast stream rehabilitation" (Simpson & Middleton, 1994), or "targeting patients with the greatest chance of rehabilitation" (Shepherd *et al*, 1994). Such units, adopting a more active rehabilitation approach of deliberately shorter duration, may intervene earlier in the patient's illness history, aiming to

improve psychosocial function and clinical outcome, and to reduce the requirement for hospital treatment following residential rehabilitation (Hawthorne *et al.* 1994). Such findings require that residential facilities (and their associated treatment programmes) should be viewed as treatment modalities in their own right, and their effectiveness assessed accordingly.

The present study was an attempt to examine the effectiveness of such a unit over a relatively prolonged period of its operation.

Service context

The Vron is a seven-bed hostel which opened in 1982. It is a detached Victorian house in a residential area of Gloucester, close to the city and a range of leisure/day care facilities. It is operated by the Mayfield Homes Trust Ltd as a psychiatric nursing home, with 10 full-time equivalent staff provided through the rehabilitation unit in the Severn National Health Service Trust. The unit is not registered to treat patients under the Mental Health Act 1983, and does not have the status of a hospital, but provides 24-hour nursed care. A full multi-disciplinary team meets weekly, with senior psychiatric, occupational therapy, social work and psychological input.

The unit was set up to provide short- or medium-term active training in rehabilitation with emphasis on domestic and social skills training. Each patient participates in an individualised programme of cooking and independent living skills, together with education about illness and training in medication management. He or she generally attends sheltered work, training or a day care placement daily through the week. The peer group of residents play an important role through daily team meetings, and the unit can be viewed as a modified therapeutic community. Length of stay has typically been less than 18 months, with discharge of patients into a well developed range of supported accommodation, patients are generally taken on by the associated community rehabilitation team to ensure continuity. It is anticipated that on discharge the skills developed through the residential treatment programme are maintained in the new placement and that the intensive support can gradually be withdrawn leading up to discharge. Four other Mayfield hostels provide longer term care for 28 patients (all having some, albeit slower, throughput), with backup from a 12-bed rehabilitation in-patient unit for readmission/crises. This ward also provides all the continuing in-patient care within the district served by the Trust (population 320 000).

The study

All patients admitted to the Vron between April 1986 and February 1996 were included in the

study. The unit was actually opened in April 1984, but health records were not available for the first two years of the unit's operation. There were 103 admissions over this time. Demographic data are shown in Table 1.

Health records were used to determine admission details. In most cases the patients remain under the care of the Gloucester rehabilitation service, and their progress can easily be followed through to the present day. ICD-9 diagnoses (World Health Organization, 1978) were as at the time of Vron admission. In five cases, patients were admitted twice to the Vron. Under such circumstances, admissions were treated as separate episodes and analysed accordingly. However, where Vron readmission took place within the study follow-up time-frame, the readmission was counted as a hospital admission (on the principle that the unit acts as a 'ward' in the community). In practice, this occurred in only one case.

Statistical analysis

Data were entered in to the SPSS software system for analysis. A non-parametric test, the Wilcoxon matched-pairs signed-ranks test, was used to analyse change in in-patient stay one year and two years before and after treatment in the Vron.

Results

Demographic, illness-related data and placements pre- and post-Vron admission are presented in Table 1. Mean duration of stay in the Vron was 29.2 weeks (range 0–107 weeks, *s.d.*=22.5). Length of time in the Vron was significantly negatively correlated with age ($r = -0.21$; $P = 0.035$); patients over 35 years of age spent mean 32.0 weeks, versus mean 25.0 weeks for the under 35-year-olds. The age of patients had decreased since the time of the Vron opening, mean age 36.6 years (range 19–69, *s.d.*=15.2) over the first six years, versus mean 33.5 (range 19–58, *s.d.*=11.0) over the last six years of the study period.

Duration of hospitalisation fell 73% from mean 105.8 days (range 0–365, *s.d.*=106.5) in the year before Vron treatment to mean 28.6 days (range 0–365, *s.d.*=75.4) in the year after (Wilcoxon signed-ranks; $Z = 6.1$, $P < 0.0001$). Hospitalisation fell 58% from 138.0 days (range 0–730, *s.d.*=160.3) in the two years before Vron treatment to mean 57.1 years (range 0–730, *s.d.*=134.9) in the two years after Vron treatment (Wilcoxon signed-ranks; $Z = -5.2$, $P < 0.0001$).

Table 1. Demographic/illness-related data and placement pre- and post-Vron treatment

	n (%)
Gender	
Male	67 (65)
Female	36 (35)
Mean age on admission to the Vron	35.1 (range 19–69, s.d.=13.2)
Primary ICD-9 diagnosis	
Schizophrenia/schizoaffective	71 (68.9)
Affective	13 (12.6)
Personality disorder	8 (7.8)
Obsessive-compulsive disorder	5 (4.9)
Other	
Organic	2 (1.9)
Learning difficulties	2 (1.9)
Substance abuse	1 (1.0)
Anxiety neurosis	1 (1.0)
Placement prior to Vron admission	
Acute ward	59 (57.3)
Independent/family accommodation	7 (6.8)
Supported lodgings	22 (21.4)
Group home	7 (6.8)
Other (hostel, 3; no fixed abode, 2; residential home, 2; private hospital, 1)	8 (7.8)
Placement following Vron admission	
Supported lodgings	41 (39.8)
Independent/family accommodation	19 (18.4)
Group home	18 (17.5)
Hospital	8 (7.8)
Private/residential care	7 (6.8)
Long-term hostel	7 (6.8)
Bed and breakfast	2 (1.9)
No fixed abode	1 (1.0)

Discussion

Our impression was that the unit adapted over the 12-year period studied, initially treating more elderly, institutionalised 'old' long-stay patients who had spent many years in institutions, but shifting its focus (with the closure of the long-stay wards) to a younger, more heterogeneous patient group, admitted at an earlier stage of illness. The data showed that in the most recent seven years, six patients with personality disorder and five patients with 'other' diagnoses (two with learning disability, one substance misuse, one anxiety neurosis and one with an organic disorder) were admitted, as opposed to two personality disordered and one 'other' diagnosed patient in previous years. Most patients were admitted to the Vron from acute wards, with a significant proportion coming directly from community placements such as supported lodgings, which were breaking down. As a 24-hour nursed facility, it has in some cases acted

as an alternative to acute hospital treatment. Over the study period pressure on the acute wards has increased, the Vron acting to reduce this pressure and to provide a more therapeutic setting for patients needing intensive support over the medium-term, and an active rehabilitation programme to rebuild skills.

The results of this study show a marked, highly significant change in duration of hospital treatment between the year and two years before and after admission to the Vron. Although this was consistent with our impression that the unit was effectively preventing new long-stay patients and blocking 'revolving door' admissions, some caution is needed in interpretation of these findings: This was not a controlled study, and the effectiveness of 'standard' hospital treatment cannot be directly compared. There was no recording of clinical change through the period of Vron treatment (although rating of this is now in place), and actual health/social gains were not measured. Due to the lack of a control group, it is not possible to rule out the possibility that the reduction in admissions may be due to the natural progression of illness. Similarly, it is possible (as most patients were discharged to supported accommodation) that the longer term support after discharge is what prevented further hospitalisation, rather than the impact of the Vron treatment programme.

However, the change in requirement for hospital care was considerable, and was in keeping with a finding in the only similar previous study found in the literature: Hawthorne *et al* (1994) found that 104 patients treated in two hostels in San Diego had significantly fewer admissions and shorter hospital stay in the year after (versus the year before) residential care. In the American study, the researchers also demonstrated significantly less psychopathology in patients, following hostel rehabilitation, and concluded that psychosocial residential treatment could offer "cost-effective and clinically efficacious care to persistently mentally ill patients". These authors concluded that projected savings in hospital costs alone exceeded the annual costs of hostel facilities. Lelliott (1996) showed that in the UK there are now only one-third of residential places for patients with severe mental illness as compared with 40 years ago. The NHS Executive has recommended that health authorities should commission a further 5000 24-hour nursed beds nationally (NHS Executive, 1994), and our findings add further support to the potential value of such units.

The experience of staff working in the Vron suggests that a number of factors may be important to the success of such units: Engagement in a therapeutic programme is crucial and needs to be established well before admission, usually by a programme of gradually increasing

visits. Family work is generally necessary, including at times the employment of contracts to manage boundary issues in over-involved families. Regular input from outside agencies for staff and patients, through the course of admission, is encouraged. Training and staff support are important. Strong links with the supported accommodation officer and the community rehabilitation team have proved helpful in finding appropriate placement and ongoing support after residential rehabilitation.

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Electroconvulsive therapy in Wales

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Aims and method The use of electroconvulsive therapy (ECT) was surveyed over the first six months of 1996 in Wales. Data on the indications for ECT and clinical outcome were collected in the first three months.

Results The computed annual rate was 22 patients treated with ECT per 100 000 population. Women constituted 71% of those receiving ECT (236/321). Eighty-three per cent had an affective disorder, and 80% had failed to respond to previous treatments. Only 33% of patients had been prescribed more than one class of antidepressant, and only 25% had received augmentation with lithium or an alternative drug before being given ECT.

Clinical implications ECT is mostly used after a failure of patients to respond adequately to a course of antidepressants.

Between 1990 and 1993 (data were last collected in Wales in 1993), the number of patients reported to be receiving electroconvulsive therapy (ECT) in Wales fell from by 26% from 39 to 29 per 100 000 population (Welsh Office, 1994). A number of factors may account for this:

- Improvements in pharmacotherapy with the introduction of effective antidepressants with fewer side-effects and the increased use of lithium as an adjunct. The treatment of resistant depression has probably also become more systematic with the introduction of treatment protocols.
- Stigma and adverse publicity may have made patients more reluctant to accept