ARTICLE

Community-Based Psychodynamic Treatment Program for Severe Personality Disorders: Clinical Description and Naturalistic Evaluation

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Abstract
Long-term inpatient treatment for personality disorders has become infrequent in the last two decades, and the gap left in service provision has been filled by psychodynamically and cognitively oriented partial hospitalization and outpatient, community-based approaches. It is still uncertain how these low-cost, lower-intensity models have fared relative to residential models that treat patients with severe personality disorders with the containment and control offered by the inpatient setting. In this article, we describe key features of a community-based psychodynamic program developed at the Cassel Hospital in the United Kingdom and present preliminary findings of a 2-year prospective naturalistic outcome study that monitored psychiatric morbidity (Brief Symptom Inventory General Severity Index [BSI-GSI]) and clinical outcome (self-mutilation, suicide attempts, and hospital admissions) in 68 patients with
personality disorders who were consecutively admitted to the program. Improvements shown by the community-based sample on all variables were compared with the results in a comparable sample of inpatients treated in a long-term psychosocial treatment program in the same institution. The naturalistic comparison of the two non-randomized treatment models revealed that the community-based sample improved to a significantly greater degree on all three clinical outcome dimensions and had significantly lower early dropout rates than those who received the long-term residential treatment. The findings indicate that, at least in terms of impulsive behavior and treatment adherence, the community-based program appears to offer a viable adequate alternative to long-term inpatient admission.

**Keywords:** personality disorders, borderline personality disorder, psychodynamic treatment, community-based treatment, outcomes, self-harm, suicide, long-term inpatient treatment

**BACKGROUND**

Until relatively recently, the treatment of choice for patients with severe personality disorders was admission for long-term treatment in psychotherapy hospitals1--3 or therapeutic communities.4 These institutions represented a new era of psychiatric institutional work that inspired generations of psychiatrists and other mental health workers and contributed to the rehabilitation of psychiatry from the horrors of the old institutional and custodial approaches to mental illness. Specific programs of rehabilitation based on an integration of psychoanalytic and psychosocial principles were developed. Intensive individual and group psychotherapy was complemented by increasingly sophisticated and structured sociotherapeutic programs aimed at reducing functional impairment in patients with personality disorders. A series of small and large group meetings would take place to facilitate communication, foster a sense of belonging, plan activities, and empower patients, who thus became responsible for running various aspects of institutional life. The total experience of day-to-day living in the institution provided opportunities for working therapeutically with patients within a cultural atmosphere of continual inquiry.5,6 The creation of a therapeutic culture of inquiry within the institution allowed for an ongoing examination and discussion of staff and patients’ roles and role relationships, overt and covert group dynamics, interpersonal and intrasystem difficulties, and other institutional defensive operations.

However, over the last two decades, we have witnessed a progressive decline in the relevance and influence of the inpatient psychotherapy model worldwide, with the number of
inpatient facilities that offer this type of treatment dramatically reduced. The shift in the sociopolitical context in healthcare towards market-driven reforms has promoted treatment cost considerations to a central position in health-care provision.¹ In the United States, the only surviving institution offering residential psychotherapeutic and psychosocial treatment is the Austen Riggs Center, while, in the United Kingdom, several therapeutic communities have been closed, including Henderson Hospital founded by Maxwell-Jones 61 years ago. The short-term future of the only two remaining state-funded centers, the Cassel Hospital in London and Main House in Birmingham, is uncertain. Likewise, Australia and New Zealand have seen a marked decrease in residential psychotherapy units.

The demise of specialist residential facilities risks leaving a gap in service provision for patients with personality disorders. In recent years, less costly alternatives in partial hospitalization and outpatient settings have been developed to treat patients with personality disorders who were once admitted as inpatients to specialist residential facilities. This development raises questions over the extent to which these psychodynamically informed programs in nonresidential settings can effectively constitute a viable and realistic alternative to long-term residential care in the treatment and management of severely disturbed individuals without the containment offered by the inpatient setting. The challenge is to ascertain the extent to which such programs are able to adapt principles and techniques developed over decades in residential settings to community settings and whether they can achieve equal clinical effectiveness in improving key dimensions of functioning.

In this article, we describe the key features of a psychodynamically informed, community-based program for patients with personality disorders developed at the Cassel Hospital, Richmond, United Kingdom and present the results of a prospective naturalistic evaluation of the program over a 2-year period. The program’s clinical features, outcome results, and relative costs are compared with features and results described in a previous published evaluation of long-term residential treatment for patients with severe personality disorders at the same institution.² Table 1 presents a comparison of the treatment components and intensity of treatment in the long-term residential and community-based treatment models. We hope that this cross-study comparison may provide some broad indications about the relative effectiveness and cost-effectiveness of the two programs.

CASSEL HOSPITAL LONG-TERM RESIDENTIAL PROGRAM
The adult unit of the Cassel Hospital is a tertiary referral facility that admits patients with personality disorders for whom previous general psychiatric treatment has not been
successful, with 55% of the patients admitted from outside the greater London area. Patients admitted for long-term treatment are expected to stay for 12 months.

The treatment program consists of 1) twice-weekly individual psychoanalytically oriented psychotherapy; 2) meetings with unit staff five times a week; 3) community meetings four times a week; 4) once weekly small group psychotherapy; 5) a structured program of activities (4 times a week) aimed at the acquisition of interpersonal skills, re-socialization, and rehabilitation; 6) psychotropic medication; 7) formal reviews of progress every two to three months. Through the application of therapeutic community principles, especially the ongoing exploration of interactions arising in the course of daily life in the hospital, patients are encouraged to take co-responsibility for their own treatment. Rather than being passive recipients, an organized system of daily activities ensures that patients actively assume essential roles in the social functioning of the hospital. The coordination of the activities in the milieu is achieved through regular small group meetings chaired by elected patients. Unit meetings, community meetings, and staff meetings provide arenas in which to observe, discuss, and understand individual and institutional functioning. Confrontations in the here-and-now concerning patients' functioning and behavior and exploration of their interpersonal ways of relating are central to patients' resocialisation and rehabilitation. This organization of treatment constitutes the framework within which patients' difficulties, conflicts, and way of relating are expressed, explored, and worked through in their multi-faceted interactions with staff and other patients. The hospital's social structure provides opportunities for reality testing, clarification, mutual learning, insight, and growth. Features of the residential setting such as the sense of belonging, containment, and safety, open communication, and involvement and empowerment are components peculiar to the hospital-based setting that are deemed necessary for patients to challenge and modify behavioral responses and affective experiences.

The hospital has an 'open door policy', with no locked room facilities and all patients are admitted to the hospital on a voluntary basis. However, patients are expected to participate fully in the program and there is only a degree of flexibility in the amount of therapeutic activities that patients can choose to miss. Although patients are encouraged to return to their residences for weekends if the clinical situation allows, patients are not to leave the hospital premises unless previously negotiated with staff.

The treatment allocation to the long-term residential program follows established criteria of geographical accessibility to treatment, whereby patients outside the Greater London Area
who are unable to attend the outpatient and community program offered by the hospital to patients who reside in London are either offered the step-down option or direct entry to the community-based program.

The mental health personnel in the residential unit include 1 senior psychiatrist (0.6 FTE), 2 senior nurses (1.0 FTE), 4 nurses (3.5 FTE), 3 individual and group psychotherapists (1.8 FTE) and 2 psychiatrists (0.6 FTE).

CASSEL COMMUNITY-BASED PSYCHOSOCIAL PROGRAM
The Cassel Adult Personality Disorder Outreach Program started in 1993 when only a handful of dedicated outpatient services for patients with personality disorders were operating in Great Britain. At that time, it was an experimental clinical program that preceded by 10 years the publication of government guidelines that recommended the development of outpatient services for patients with personality disorder across England and Wales. Over the years the program has developed further and its capacity has been expanded to about 30 patients. Referrals are now received from the Cassel inpatient unit as part of a step-down approach and from general psychiatrists within the greater London area for direct entry into the program.

The multidisciplinary clinical team includes the service director (a senior psychiatrist working 0.3 FTE), a psychiatrist (0.2 FTE), three group analysts (0.7 FTE), two outreach psychosocial nurses (1.2 FTE), a nurse supervisor (0.1 FTE), and one assistant psychologist (0.1 FTE), for a total of 2.6 FTE. The clinical components of the program consist of an initial psychiatric, psychosocial, and psychometric assessment; twice weekly small group psychotherapy; weekly outreach psychosocial nursing; regular psychiatric reviews and management meetings by senior psychiatrists; and family and couple therapy as required.

Clinical and Psychometric Assessment
As is usual clinical practice with this group of patients, the senior psychiatrist evaluates the severity and chronicity of the patient’s presenting problems; risk of harm to self and others, including the identification of possible patterns that led to self-harm; and early upbringing, with particular attention to a possible history of maltreatment or sexual and/or emotional abuse. A full treatment history is obtained to ascertain the degree and type of response that the patient experienced to previous psychiatric, psychological, and psychotherapeutic interventions, with particular attention to instances in which treatment might have had iatrogenic effects. It is not uncommon for patients referred to our service to present with a long list of previous treatment attempts by multiple mental health professionals, which the
patient experienced as toxic and damaging. The patient’s current social circumstances (poor housing is common), employment history (most patients are unemployed or unable to work or study), and leisure patterns (isolation or chaotic and exploitative relationships) are also explored, since these issues give indications of how to focus psychosocial treatment once the patient enters the program. It is considered important that as part of the routine assessment, the assessing clinician actively interacts with the patient in an attempt to provide the patient with a first experience of feeling understood and to lay the foundation for a future therapeutic alliance with the whole treatment team, by spelling out psychological reactions to the medical and social experiences the patient describes. This is how we operationalize the clinical principle that the assessment should not only be an information gathering exercise but also a means to initiate therapeutic engagement with the patient, which, for most patients with borderline personality disorder, is an objective to be gradually reached rather than a precondition of treatment.14

After the clinical assessment is completed, arrangements are made for the patient to meet with an assistant psychologist for psychometric evaluation, which includes a full diagnostic evaluation using a minimum set of standardized measures (Structured Clinical Diagnostic Interview for DSM-IV,15 Brief Symptoms Inventory (BSI),16 and the Community Adjustment Questionnaire8) that are repeated at 6, 12, 24, and 36 months after intake.

**Group Therapy**
The four ongoing psychotherapy groups have a capacity of up to 7 patients each and are led by senior group analysts with over 10 years of experience working with patients with personality disorders. The groups are held in different locations in London (Central, West and South-West) to facilitate patient access. Patients are expected to stay for up to 30 months, and each slow-open group (a new patient is admitted when someone finishes treatment) meets twice a week for 90 minutes. The groups have a focus on relationships and provide members with an opportunity for reflection on their unfolding emotional interactions with each other as well as their past and present relationships with people outside the group.

Initial difficulties with group therapy attendance are far from rare, for patients must repeatedly contend with anxieties about entering into relationships that evoke previous experiences which were all too often traumatic and intolerable. At other times, conflicts within the group, uncomfortable interactions with other group members or with the group analyst, or the emergence of disturbing material related to issues such as sexual abuse, rape, and violence may drive a patient towards dropping out.
Group members ultimately develop strong affective bonds with each other as well as with the group analyst together with the group as a whole. These sometimes intensely conflictual emotional attachments, as well as the primitive defenses of splitting, projection, and denial mobilized to deal with them, constitute a primary focus for exploration and discussion. This provides an opportunity for systematic examination of chronic maladaptive patterns of interpersonal relating, which in turn is a vital contribution to the resocialisation efforts that characterize the entire program. The group enhances interpersonal awareness in terms of psychological functioning and optimally generates empathy, validation, and mutual regard. Impulsive behavior is actively explored, and members are encouraged to develop better methods of self-regulation by verbalizing states dominated by destructive and self-destructive feelings and accompanying ideation without fear of criticism or sanctions.17

We assume that addressing the chaos of patients' internal relationship scenarios may initiate a process that will lead to improvement in the patients' dysregulated internal states, which are characterized by identity diffusion, extreme emotional oscillation, and unstable social relationships. One specific feature inherent in group psychotherapy that makes it particularly effective in the treatment of this central feature of personality disorders is the extensive opportunity it provides for reflecting on externalization and enactment of disorganized unconscious internal working models of relationships.18 The small group setting, as a microcosm of the patients' social worlds, offers multiple potential opportunities for enhancing patients' capacities to use adaptive defenses for negotiating emotionally charged intimate relationships. Ultimately, group members are able to become more aware of how they relate to other individuals in the group, what the psychological experience of these individuals might be in relation to their own, and what effects others have on their psychological states.

**Outreach Psychosocial Nursing**

Before being admitted to the program, patients have a preliminary meeting with their outreach nurse, who is trained in a psychosocial approach and has over 5 years experience in residential therapeutic community work. The discussion is focused on establishing an individually tailored working contract, in which specific and realistic objectives and areas of concern in the patient’s life and functioning are identified. The length of the psychosocial treatment varies from 12 to 18 months. The structure of contact with the outreach nurse involves weekly small group (up to 4 patients) meetings in the external community lasting 2 hours. The goal of these small informal group meetings is to work towards and gradually achieve patients' previously agreed-on objectives.19 The ethos of the therapeutic community,
which is based on mobilizing mutual active support among patients, is used in the external community to help patients achieve a sense of belonging and restructure their lives. Common goals of the program include helping patients to improve their living conditions, further their education, find employment, foster new interests, and make optimal use of health and other community resources. The psychosocial nurse fulfills a positive role in the process of engagement with, and subsequent retention in, the program. For example, if a patient gives an indication of dropping out of her group treatment, the nurse may contact or visit the patient to provide support, exploration, and encouragement to enable the patient to return to group therapy where her fears or grievances may be best addressed.

The psychosocial nurse connects with primary and secondary care services and with other nonmedical health personnel, including mental health professionals who may be involved with the patient's care in the community (e.g., social workers, occupational therapists, general psychiatric nurses), which complements and supports the role of the senior psychiatrist in liaising with other local general psychiatric colleagues. We see the role of the psychosocial nurse as counteracting iatrogenic responses that can result from uncoordinated services confronted with patients who frequently experience crises and acute decompensation. The psychosocial nurse has the capacity to act as a “lightning rod” by attracting the potential intensity of the “charge” generated by patients in individuals involved in their care. The improved coordination of, and communication between, patients’ health care workers reduces duplication of services and prevents possible splitting and fragmentation---not a rare occurrence when dealing with patients with borderline personality disorder. A robust and containing network may at times frighten and frustrate patients who wish to play one professional against the other to achieve gratification through creating an impact at a time when their sense of identity is most threatened, but it is an essential component of treatment to help patients struggle against this tendency and develop reliable sources of support.

Reviews and Management
The senior psychiatrist in charge of the program sees patients for scheduled appointments every 2--3 months to review progress and monitor psychotropic medication regimes. Unscheduled consultations are also offered to address the not so infrequent problems and crises encountered by patients during their journey through the program, such as repeated self-harm, deterioration in affective state, or risk of suicide. The senior medical professional has an important function in relation to the patients’ social care. For example, these patients are often vulnerable to stigmatization and discrimination by employers or those in charge of
social housing. Intervention by the senior psychiatrist in the form of a professionally worded letter or direct telephone contact can help establish a more understanding response towards these patients. Such interventions are undertaken along with concurrent exploration with patients concerning ways in which they may be colluding in maintaining an unsatisfactory situation, for example by antagonistic behavior or exploiting their condition by not making sufficient efforts to improve their lives. The senior psychiatrist is responsible for liaising with general psychiatrist colleagues, particularly at times when patients may need brief hospital admission following acute decompensation or life-threatening behavior. In these cases, clear and frequent communication is needed to integrate care and create mutual respect to promote optimal sharing of information concerning the patient’s treatment and management.

**Team Work**

The team meets once a week for 75 minutes to discuss patients’ progress and specific problems related to their management and treatment. It is considered essential to establish a coherent shared picture of the patient’s psychological state, and it is assumed that no single member of the team has privileged access to an understanding of the patient’s state of mind. Thus, each member of the team presents detailed information about an aspect of the treatment work, such as group therapy sessions, consultation or assessments, or nursing outreach work. In addition to creating an integrated view of the patient, this shared mentalizing process increases the cohesion of the team and generates mutual respect vis-à-vis the patient and other professionals, which counteracts splitting. By developing a comprehensive understanding of the patient’s point of view, the professionals in the team also strengthen their understanding of each other’s perspective in relation to the patient. A culture of containment and tolerance within the team is thus created, which will be transferred into work with the patient, who feels kept in mind and contained by the team.

The culture of the outreach team places little weight on rules and expectations, which may become an invitation for the patient with borderline personality disorder to challenge and test and create tempting short-cuts for “mindless” adherence to protocol as opposed to a genuine attempt at understanding behavior in psychological terms. We find that rigid rules concerning behaviors, such as abstinence from substance abuse or self-harm, are usually applied inconsistently or may in fact be unenforceable. Sanctioning patients for acting out and other manifestation of psychopathology, for which they entered treatment in the first place, conveys a moralistic message of disapproval and the treating team’s unwillingness to engage with the most difficult aspects of patients’ emotional disturbance. Sanctions can drive the disturbed behavior underground, making it unavailable for therapeutic work and
encouraging compliant attitudes, or create a vicious circle in which patients feel abandoned and resentful, thus triggering further disturbance.

METHODS
The study sample comprised 113 patients consecutively admitted to the community treatment program over a period of 12 years (1993-2004) who were either stepping down from inpatient treatment or who came via direct entry to the program. 34 step-down patients included in the analyses overlap with the sample originally described in a previously published follow-up study. It should be noted that all intake ratings reported in this study were taken on entry into the community-based program so the differences should be primarily attributable to the outpatient treatment. A significant portion of both groups reported on in this study have had recent inpatient treatment episodes and we cannot rule out the possibility that the observed outcomes of the community based treatments could be interpreted as carry-over effects of the inpatient treatments they received.

22 patients (19%) refused consent to fill in the questionnaires, 9 (8%) only completed baseline measures, 5 (4%) dropped out between the 6 and 12 months evaluations, and 9 (8%) had not yet reached the 24-month evaluation point. Thus, this study present results from 68 patients from the community-based treatment program who agreed to be followed up at 6, 12, and 24 months after intake and had completed the following set of outcome measures:

• The Brief Symptom Inventory (BSI)\textsuperscript{16} is a self-rated 5-point scale that measures patients’ subjective experience of symptoms. The General Severity Index (GSI) is the total score derived from the BSI raw scores used in this study to report changes in the dimension of psychiatric morbidity.

• The Cassel Community Adjustment Questionnaire\textsuperscript{2} collects details of self-mutilation, attempted suicide episodes, and number and length of psychiatric inpatient admissions over the year prior to the assessment. A random sample of the interviews was cross-checked against the records of the patients’ general practitioners, and a second sample was subjected to test-retest reliability checks.

Results from this community-based treatment sample were compared with previously published results for 38 patients with personality disorders treated in long-term residential psychosocial therapy at the Cassel Hospital over a 5-year period. This sample represents 71% of the intake group (n=55) in the original comparative study that included a treatment-
as-usual control group and a step-down program. 16 patients (29%) had either refused consent, dropped out of the study or committed suicide.

In order to ascertain differences in early dropout rates in the two treatment models, defined as attrition within 2 months of starting treatment, we compared all patients admitted to the community-based sample (n=113) with all consecutive admissions (N = 120) to the long-term residential treatment program at Cassel Hospital over a 7-year period (1993-2000) stored in the hospital database.

RESULTS
Patient Samples
The patients in the community-based treatment sample were, on average, in their early thirties (mean age = 33.9 years, SD = 9.1 years); the majority were female (72%), single (66%), Caucasian (82%), college educated (69%), and unemployed (90%). Rates of reported early loss (29%), maternal separation (31%), physical abuse by caregivers (49%), and sexual molestation by family members (32%) are an indication of traumas and unfavorable childhood and adolescence experiences. Reports of adult rape or sexual molestation were 18% and 27%, respectively. The personality disorder profile of the community-based treatment group indicated that borderline disorders (59%) were the most frequent diagnosis, followed by avoidant (47%), dependent (41%), depressive (35%), paranoid (27%), passive-aggressive (24%), histrionic (13%), narcissistic (13%), schizotypal (12%), schizoid (9%), and antisocial (8%) personality disorders. On average, each patient met 3.01 (SD = 1.65) criteria for a DSM-IV personality disorder.

No significant differences were found on admission in available sociodemographic variables (age, gender, marital status, race, education, and occupational status), premorbid variables (early loss, rape and sexual and physical abuse), and clinical variables (symptom severity, self-harm and hospitalization before treatment intake) between the community-based treatment sample and the long-term residential sample. Although no differences were found between the two samples in Cluster B and C personality disorders ($\chi^2 = 0.88$, df = 1, p = 0.35 and $\chi^2 = 1.91$, df = 1, p = 0.18, respectively), the residential sample had a higher percentage of Cluster A diagnoses compared with the community-based treatment sample (50.5% versus 36.8%, $\chi^2 = 5.56$, df = 1, p < 0.02). There were no significant differences on any clinical or demographic variables between the two groups with the direction of severity actually favoring the inpatient group over the community sample over most variables such as risk history, number of Axis I diagnoses, self harm episodes, hospital days prior to admission. Thus, overt severity of the presenting problem could not account for the referral pathway to inpatient treatment.
Comparison of Outcome Variables

The average duration of treatment for patients admitted to the community program was 18.2 months (SD = 10.5 months), while the average length of stay for patients admitted for long-term residential therapeutic community treatment at the Cassel Hospital was 7.2 months (SD = 4.7 months). Comparison of early dropout rates (dropout within 2 months of treatment initiation) revealed a significant difference between the long-term residential sample (27.5% dropout) and the community sample (8.8% dropout) ($\chi^2 = 13.45, \text{df} = 1, p < 0.001$). The odds ratio for early dropout for patients in the long-term residential treatment program compared with patients admitted to the community-based treatment program was 3.9 (95% CI 1.8--8.4). Kaplan-Meier Survival analysis through 11 months from admission confirmed the superior treatment compliance of the patients in the community-based sample compared with the long-term residential sample (Mantel-Cox test: $\chi^2 = 33.42, \text{df} = 1, p < 0.0001$) (Figure 1).

The number of patients who self-mutilated, attempted suicide, and were hospitalized at least once before admission to the program dropped significantly at 12 and 24 months in the community-based treatment sample (Cochran’s Q = 12.58, df = 2, $p < 0.002$; Cochran’s Q = 17.27, df = 2, $p < 0.001$; Cochran’s Q = 34.94, df = 2, $p < 0.001$, respectively). The difference was found to be significant when compared to the results obtained in the long-term residential-based sample on the same outcome dimensions. While no significant difference was found at intake between the two samples for self-mutilation (Mann-Whitney Test: $Z = –0.37, p = 0.71$), attempted suicide ($Z = –0.80, p = 0.42$), and hospitalization ($Z = –0.15, p = 0.89$), the difference was significant at 12 months for self-mutilation and attempted suicide ($Z = –2.42, p < 0.02$ and $Z = –3.39, p < 0.01$, respectively), and at 24 months for self-mutilation ($Z = –2.00, p < 0.05$), attempted suicide ($Z = –2.00, p < 0.03$), and hospitalization ($Z = –4.28, p < 0.001$).

The number of days spent as an inpatient following acute admission dropped significantly from intake through the 24-month assessment point both in the community-based treatment sample (Friedman test: $\chi^2 = 35.92, \text{df} = 2, p < 0.001$) and in the residential treatment sample (Friedman test: $\chi^2 = 8.27, \text{df} = 2, p < 0.02$). Although we found no difference between the community-based treatment sample and the long-term residential sample at intake on this dimension ($Z = –0.06, p = 0.95$), the difference between the two samples was significant at 24 months ($Z = –4.15, p < 0.001$), with the community-based sample spending significantly less days in hospital than the residential sample.
Odds ratio analysis revealed that patients in the community-based treatment were 3.4 times less likely to self-mutilate (95% CI 9.3--1.3), 2.9 times less likely to attempt suicide (95% CI 8.3--1.0), and 12.5 times less likely to be readmitted to hospital for psychiatric problems (95% CI 37.0--3.5) in the year prior to the 24 month assessment point than patients in the long-term residential treatment program (Table 2).

Multivariate analysis of BSI-GSI scores found no significant group-by-time interaction between the community-based treatment sample and the Cassel Hospital long-term residential sample by the 24-month follow-up assessment (Wilks' lambda = 0.99, F = 0.31, df = 3, 103, p = 0.82). Both samples improved significantly over the 24 months (community-based sample: Wilks' lambda = 0.77, F = 10.26, df = 3, 103, p < 0.001; residential sample: Wilks's lambda = 0.86, F = 5.52, df = 3, 103, p < 0.002) (Figure 2). The number of patients who achieved reliable change by 24 months according to the formula devised by Jacobson and Truax21 was 42 (60.9%) for the community-based treatment sample and 23 (60.5%) in the long-term residential sample, and the difference between the groups on this outcome was not significant (Kendal's Tau-b = −0.03, df = 2, p = 0.73).

At 2008 tariffs, the mean cost for treating patients in the community-based treatment sample for an average of 18.2 months was US $39,536 compared with a mean cost of US $141,679 for treating the residential sample for an average of 7.2 months. As expected, the difference in cost for treating the two samples was highly significant (Z=−6.08, p < 0.0001, d = 2.2).

DISCUSSION
The decline in the practice and relevance of long-term psychodynamically based residential treatment for personality disorders that has occurred over the last 20 years has left a vacuum that has been increasingly filled by less costly alternatives such as day hospital and specialist outpatient/community-based treatments. Modified psychodynamic approaches to personality disorders such as mentalisation-based treatment22 and transference-focused psychotherapy23 have received a degree of validation through randomized controlled trials. However, this is the first attempt to compare the clinical features and outcome results of a specialist community-based treatment with those of a long-term residential program. This report confirms that significant and reliable improvement in personality disorder can be obtained through an approach that combines psychosocial support in the community and psychodynamic group psychotherapy.24,25
The community-based psychotherapeutic program that has been described in this article has adapted features of the residential therapeutic community setting in a modified form for use in an outpatient and community-based environment. The comparison of the program outcomes with those obtained from a long-term residential program with a similar group of patients suggests that the community-based model has overcome some of the problems associated with long-term residential care, such as regressive phenomena resulting from institutionalization and iatrogenic effects, such as increase in self-harm and acting-out behavior, that have been discussed in previous reports. The resocializing, rehabilitative, and psychotherapeutic aspects of the community-based treatment program were delivered in a streamlined, semi-structured, consistent, and efficient fashion by a modestly manpowered mental health team without apparent loss of clinical effectiveness. Thus, a less intensive, less costly long-term community-based psychosocial model for patients with severe personality disorders was found to yield outcomes that were similar (based on self-report symptom severity) or better (based on dropout rates, self-mutilation, suicidality, and hospital readmission) than those reported for a very intensive, more costly long-term residential program in a therapeutic community setting. The "less is more" argument in the treatment of personality disorders presented in a previous report appears to be further strengthened by the outcomes of this study.

Recently developed treatment models have succeeded in reducing the notoriously high discontinuation of therapy historically seen in patients with borderline personality disorder. The low rates of drop-outs found in the community-based model are comparable to those found in partial hospitalization programs, modified psychodynamic outpatient programs, and schema-focused therapy, which suggests that this treatment model has a satisfactory level of acceptability. In contrast, the almost fourfold increased risk of early dropout in the long-term residential program raises questions concerning the potential iatrogenic effect of intense and less flexible models, which may not be suitable for some patients who are unable to withstand the “pressure cooker” atmosphere generated by, sometimes dysfunctional, group and institutional pressures.

With regard to outcome, the large and significant improvements found on the dimensions of psychiatric morbidity, self-mutilation, suicidal behavior, and hospital readmissions are promising indicators for the type of community-based treatment model described in this article. The results for self-report symptom severity are comparable to those found in the long-term residential sample, while the community-based treatment sample
showed superior outcomes for impulse-driven behavior such as self-mutilation and attempted suicide. As a consequence, patients in the community-based treatment program were also readmitted to the hospital significantly less often than patients in the long-term residential treatment program.

The significant differences found between the two samples on these clinical variables suggest that long-term residential treatment does not protect patients from impulsive behavior either on a medium- or long-term basis. This finding is paradoxical given that the motivation for inpatient treatment is often the belief that it will reduce the risk of suicide and self-harm.34 In fact, the number of completed suicides in the residential study sample was four, compared to one in the community-based study sample. The critical question is whether long-term follow-up 3 to 5 years following admission will confirm the improvements found in the community-based treatment sample and its superiority over the long-term residential program.

In terms of both treatment adherence and outcome, these results favor a community-based program for the treatment of personality disorders. They mirror findings in a randomized controlled study of adolescents with anorexia nervosa, where better clinical outcome and superior cost-effectiveness were found in the outpatient samples compared to a sample hospitalized in a specialist program for eating disorders.35

There are several limitations in the comparison of the results between the community-based treatment group and the long-term residential group. We wish to emphasize that this is not a randomized controlled trial and that we are comparing cohorts recruited some years apart. Although patients came from the same referral sources and we did not find any significant differences in demographic and clinical profiles, the significantly higher number of Cluster A personality disorders and non-significant differences in GSI scores and suicide attempts in the residential sample raises the possibility that this sample was more impaired and/or treatment-refractory than the community-based sample. These features could affect course and outcome within the 2-year time-frame. In previous studies, a diagnosis of a Cluster A personality disorder, when comorbid with a Cluster B disorder, was shown to be associated with relatively poor outcome in psychosocial treatment programs.36,37 It is also possible that the two groups referred for inpatient and community treatment might have differed in characteristics other than those available for statistical analysis. The degree of chronicity, treatment resistance, and disruptiveness to family and local services might have accounted for referral decisions and influenced outcomes. The decision to refer for
residential treatment may imply that referrers considered these patients more difficult than those referred for community-based treatment, which may increase the likelihood of assignment bias. However, in the absence of clear guidelines for referral pathways for personality disorder and uncertainty as to severity criteria, it is likely that referral of personality disorder for inpatient or community-based treatment in the UK is less influenced by severity of problem and may depend more on lack of availability of local treatment facility for patients living outside of the Greater London Area. In addition, the interpretation of the cost analyses, which showed large significant differences in costs between the two programs, is limited by the lack of information on the costs of other psychiatric treatments received after discharge from the programs. However, it is well known that the high costs associated with long-term inpatient treatment were perhaps the main factor that determined the demise of this approach in the US.

Further, the high level of non-completers in the inpatient group raises the issue of intercurrent therapies for these patients as well as the community patients during the follow-up period. A limitation of the study arose from the absence of resources available to permit study researchers to reliably monitor treatments that either group received after the end of formal treatment. An additional confounding factor is represented by the potential carry-over effect of previous inpatient treatment. The vast majority of the patients in the community-based sample had been in inpatient treatment before being admitted to the community-based program. All intake ratings were taken at entry into the outpatient program described and results largely reflect treatment effects imparted by the community-based nature of the model, but it is possible that some of the effects we observed over the outpatient treatment period may be carry-over effects from previous treatments. One could therefore argue that residential treatment may be required for community-based treatment to be beneficial in a treatment-refractory population with personality disorders. Further randomized controlled research comparing mixed residential/outpatient models with community-based models would clarify the extent to which a period of inpatient treatment may be a necessary requirement to improve outcome in this population.

Despite these limitations, the large differences in outcome between the samples found on four of the five clinical variables examined (attrition, self-mutilation, suicide attempts, and inpatient episodes) arguably suggest that the role of long-term residential treatment for personality disorders needs to be reconsidered and redefined in planning new services for patients with personality disorders. For example, we know that the risk of iatrogenic and regressive effects may be reduced and effectiveness increased in mixed
inpatient/outpatient models that include a period of 3 to 6 months hospitalization aimed at stabilization and preparation for long-term ambulatory treatment. It is not clear whether the results obtained reflect the negative effects of a long-term inpatient stay, which may delay spontaneous remission or the superior therapeutic effects of community-based programs for the treatment of personality disorders. In conclusion, the findings of this study raise concerns about long-term inpatient treatment, suggesting the need for more work to develop strategies for identifying which patients might benefit from an inpatient program and which patients might benefit from, or be harmed by, prolonged admission to these programs.

References

Table 1 Comparison of treatment components and intensity of treatment in a long-term residential and a community-based treatment models

<table>
<thead>
<tr>
<th>Long-term residential TC model</th>
<th>Average # per patient p.w.</th>
<th>Community-based psychotherapy model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual psychotherapy</td>
<td>2</td>
<td>2 Group therapy</td>
</tr>
<tr>
<td>Group therapy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Community meetings</td>
<td>2-4</td>
<td>1 Small informal group meetings in the community with psychosocial nurse</td>
</tr>
<tr>
<td>Unit meetings</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>TC structured activities</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>Frequency</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Individual meeting with primary nurse</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Review meetings &amp; Management meetings</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Total #</td>
<td>18.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Family/couple therapy</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td>TC patients’ group support</td>
<td>Daily</td>
<td>Occasional</td>
</tr>
<tr>
<td>Inter-agency networking</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td>Team composition (WTE)</td>
<td>7.5</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Review meetings
Management meetings
Family/couple therapy
Community patients’ group support
Inter-agency networking
Team composition (WTE)
Fig. 1 Kaplan-Maier Survival plot for treatment dropout 11 months from admission in the community-based and residential programs

Mantel-Cox p<0.0001
Fig. 2 Improvement in symptom severity (BSI-GSI) in the community-based treatment and the residential samples between intake and 24-month assessment.
Table 2 Clinical outcomes in patients with personality disorders treated in a community-based program and a long-term residential program

<table>
<thead>
<tr>
<th>Variable</th>
<th>Community program N=68</th>
<th>Residential program N=38</th>
<th>Odds Ratio&lt;sup&gt;1&lt;/sup&gt; (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-mutilation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>33 (48.5)</td>
<td>17 (44.7)</td>
<td></td>
</tr>
<tr>
<td>12 months</td>
<td>28 (41.2)</td>
<td>25 (65.8)</td>
<td>4.6 (12.8-1.6)</td>
</tr>
<tr>
<td>24 months</td>
<td>19 (27.9)</td>
<td>18 (47.4)</td>
<td>3.4 (9.3-1.3)</td>
</tr>
<tr>
<td>Parasuicide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>25 (36.8)</td>
<td>17 (44.7)</td>
<td></td>
</tr>
<tr>
<td>12 months</td>
<td>10 (14.7)</td>
<td>17 (44.7)</td>
<td>4.8 (12.7-1.8)</td>
</tr>
<tr>
<td>24 months</td>
<td>8 (11.8)</td>
<td>11 (28.9)</td>
<td>2.9 (8.3-1.0)</td>
</tr>
<tr>
<td>Hospital admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>33 (48.5)</td>
<td>19 (50.0)</td>
<td></td>
</tr>
<tr>
<td>12 months</td>
<td>16 (23.5)</td>
<td>13 (34.2)</td>
<td>1.8 (4.5-0.7)</td>
</tr>
<tr>
<td>24 months</td>
<td>6 (8.8)</td>
<td>17 (44.7)</td>
<td>12.5 (37.0-3.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hospital admissions (days)</th>
<th>mean (SD)</th>
<th>mean (SD)</th>
<th>Test of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake</td>
<td>56.5 (84.6)</td>
<td>52.4 (82.7)</td>
<td>M-W Z= -0.06, p=0.95</td>
</tr>
<tr>
<td>12 months</td>
<td>5.5 (16.5)</td>
<td>16.8 (36.8)</td>
<td>M-W Z=-1.30, p=0.20</td>
</tr>
<tr>
<td>24 months</td>
<td>10.5 (47.2)</td>
<td>33.5 (57.7)</td>
<td>M-W Z=-4.15, p&lt;0.001</td>
</tr>
</tbody>
</table>
Refers to the chances the residential sample has to self-mutilate, attempt suicide, be readmitted to hospital relative to the community-based treatment sample at 12 and 24 months assessment