Acute Day Hospitalization as an Alternative to Inpatient Treatment

Vincent Russell, MB, FRCP\textsuperscript{1}, François Mai, MD, FRCP\textsuperscript{2}, Keith Busby, PhD\textsuperscript{3}, David Attwood, MD\textsuperscript{4}, Marie Davis, BSc, MBA\textsuperscript{5}, Monica Brown, BA\textsuperscript{6}

Objective: This paper describes the administrative process by which the Ottawa General Hospital (OGH) closed 6 beds and used the staff and space resources thus released to set up an acute day hospital (ADH) for the treatment of 8 acutely ill psychiatric patients. Outcome data are presented on the first 160 patients admitted to the ADH.

Methods: Demographic and clinical information including diagnostic (DSM-III-R; Global Assessment of Functioning [GAF]) and questionnaire data (Symptom Checklist-90 Revised [SCL-90R]; Beck Depression Inventory [BDI]; State-Trait Anxiety Inventory [STAI]; patient satisfaction) were obtained from 160 ADH patients at admission and discharge. Forty-two of these patients provided follow-up data 3 to 6 months postdischarge. The outcome of ADH patients was compared with that of a retrospectively obtained random sample (n = 100) of inpatients on selected diagnostic and demographic variables.

Results: On clinician-rated and self-report clinical scales, ADH patients showed significant clinical improvement reflected in higher GAF scores and less psychological distress, depression, and anxiety at discharge relative to admission. There were no significant group differences in outcome indices except for shorter length of stay in the ADH group compared with inpatients. The ADH group rated the program highly in help received and quality of service. Short-term follow-up showed that gains made during treatment were maintained 3 to 6 months later.

Conclusions: These results show that a time-limited day hospital program is clinically effective for acutely ill psychiatric patients and leads to a more efficient use of inpatient resources. We believe that partial hospitalization for the treatment of acute psychiatric disorders may have wide application in psychiatric hospital practice.

(Can J Psychiatry 1996;41:629–637)

Key Words: partial hospitalization, day hospital, health care administration, utilization

We are living through a time of major structural, administrative, and financial changes in the health care system. A key component of these changes is the need for treatment programs to be both effective and economical. A round-the-clock hospital bed is expensive to maintain, and physicians are under strong pressure to minimize bed utilization by both avoiding admission where possible and reducing lengths of stay. In addition, bed numbers are being cut, hospitals are downsizing, and some are being closed—all actions designed to improve cost-efficiency.

Various types of partial hospitalization programs have been used to decrease use of the inpatient hospital bed. This variety has caused a great deal of semantic confusion, with the terms “day hospital,” “day treatment,” and “day care” being used interchangeably (1). Rosie (2) defines these terms as follows: the day hospital is that which provides diagnostic and treatment services for acutely ill patients who would otherwise be treated in traditional psychiatric inpatient units. Day treatment programs function primarily as an alternative to outpatient care and treat patients who are in some degree of remission from acute illness; their main goal is to improve social and vocational functioning. Day care programs have the maintenance and rehabilitation of chronic psychiatric patients as their main task. Day treatment and day care programs have been widely used for several decades (3–5). In Ontario, day hospital services are legislated under the
Ontario Mental Health Act (1980) as essential in all general hospitals that have psychiatric wards. Although these are called day “hospitals,” they function more as day “treatment” programs using the previously mentioned definitions. Efforts have been made to establish true day hospitals (6–8), but these appear to have had much more limited application (3,9,10). In practice, partial hospitalization programs have focused largely on the rehabilitation of patients with chronic psychiatric disorders.

Outcome research in partial hospitalization for acute psychiatric disorders has focused on the comparison of day hospitalization with inpatient treatment. Several methodological problems are encountered in such research, including poor definition of treatment conditions, wide variability in outcome measures used, loss of patients in follow-up studies, and inadequate randomization procedures in several controlled studies (11). Nonetheless, a number of well-designed prospective studies have demonstrated that day hospital and inpatient treatment are equally effective in achieving symptomatic improvement over 1- to 2-year follow-up (12–14). Furthermore, day hospitalization appears to be often superior to inpatient treatment in measures of social and functional outcome (6,15–17) and in preventing readmission (6,13,14,17). Day hospital patients seem to be at least as accepting of treatment and as satisfied with their care as inpatients (18), and their relatives do not seem to experience increased burden of care for day hospital patients (13,15,16,19). Despite this evidence, partial hospitalization is underutilized. Mosher (10) stated that the expectation that a serious psychiatrically disordered patient could be treated only in a hospital bed was “culturally sanctioned” and that this was a powerful force not easily modified.

In contrast to the weight of research evidence supporting the overall efficacy of day hospitalization in acute disorders, much less progress has been made in identifying which patients do well in day hospitals. A consistent finding across studies based on unselected populations has been that approximately 30% to 40% of all acute referrals can be managed successfully in a day hospital (12,13,18,20,21). Partial hospitalization, therefore, is clearly not a panacea. Kluyter and others (20) noted that of patients in all diagnostic categories, those with depression have not been excluded from any previous randomized control studies, suggesting that depressed patients as a subgroup may be most likely to succeed. The same authors concluded, however, that no established contraindications to day hospitalization exist and that the stringent selection criteria applied in some earlier controlled studies were unwarranted.

It seemed timely, therefore, to take another look at partial hospitalization for acutely ill psychiatric patients. If these patients could benefit from intensive treatment during a short-term admission, might they not benefit equally from an intensive day hospital admission and some of the high costs of the hospital bed be saved? To our knowledge, there is only one previous description of the use of day hospitalization with fixed length of stay (22). These authors reported a 33-day duration of treatment, which was considerably longer than ours. Most studies have reported longer durations for day hospital patients than for inpatients (3,13,18,23,24).

This paper is divided into 2 parts. Part I describes the administrative process by which the OGH closed 6 inpatient beds in a 45-bed psychiatric unit and used the personnel and space resources to establish a day hospital for the treatment of 8 acutely ill psychiatric patients. It also describes the impact that the ADH had on inpatient bed utilization. Part II describes the clinical program and the clinical outcome in a group of patients treated in our ADH. As far as we are aware, this is the first description in Canada of partial hospitalization for the treatment of acute psychiatric disorders.

PART I—ADMINISTRATIVE ASPECTS

Background Issues

The OGH is a 424-bed teaching hospital serving a predominantly urban population (> 800 000). The hospital had 45 psychiatric beds, which included 10 designated psycho-geriatric beds and a 6-bed medical–psychiatric unit. The full range of psychiatric treatments was used, and over 80% of admissions came through the emergency department.

Our decision to set up an ADH was influenced by a number of factors. We felt that there was a large gap in treatment facilities between inpatient hospitalization and outpatient treatment. Many patients with acute presentations require more intensive short-term treatment than is available to outpatients but not as intensive (that is, round-the-clock) as is available for inpatients. Physicians are often obliged to admit such cases because of the lack of an alternative. It appeared to us also that many patients with affective disorders who were hospitalized could be treated equally effectively in an ADH setting. In previous papers describing our inpatient unit (25,26), we had found that patients with affective or with adjustment disorders who could be treated in a day hospital setting constituted over 50% of our inpatient population. Finally, we carried out a survey of all hospitalized patients on a particular day. The survey involved the administration of the Day Treatment Appropriateness Scale (27) to all patients. This is a brief observer-rated questionnaire in which a patient’s suitability for treatment in a day hospital setting is evaluated. Results showed that 8 of the 31 patients met criteria which indicated that they could be appropriately treated in a day hospital setting; 15 were “questionable,” and only 8 were regarded as “poor” candidates. A similar survey of 53 patients seen in the emergency department using the same measure over a 3-week period showed that a substantial proportion could be treated in an ADH, if one were available, rather than as hospitalized inpatients. These factors all suggested to us that an acute day hospital would fill a void in our psychiatric treatment facilities. After discussions with departmental colleagues and with our hospital administration, we decided to fund and staff the program entirely by closing 6 beds and reallocating resources from the inpatient unit to the ADH.
Program Planning

A committee was struck with representation from the hospital administration, psychiatry, nursing, social work, psychology, and occupational therapy departments within the hospital. The committee was chaired by a psychiatrist (VR) and met regularly over a 12-month period to deal with the logistic, administrative, political, planning, and educational issues involved in closing beds and using these resources to open a day hospital. Several underlying philosophical principles guided the committee.

- Replication, in the ADH, of the clinical resources available on the inpatient unit.
- Group therapy as a predominant treatment modality.
- Length of stay on the ADH limited to a maximum of 3 weeks (that is, 15 working days).
- No additional resources other than those released by closing beds.
- Adequate program evaluation.
- Bilingual capacity of ADH staff.
- A commitment to “consumer involvement” in program administration and evaluation.
- A commitment to linkages and coordination with families and community agencies.

The closure of 6 beds (two 3-bed rooms) reduced the size of our inpatient unit from 45 to 39 beds. On a pro rata basis (according to our existing staff–patient ratios), this would release 2.3 full-time-equivalent (fte) nurses, 0.5 fte social workers, 0.3 fte occupational therapists, and 0.1 fte psychologists. Together with the psychiatrist, this would be the staff of the ADH. The 2 now-empty rooms would serve as the ADH centre. Representations were also made to the Ottawa-Carleton District Health Council (DHC) and to the other general hospital departments of psychiatry in the region to secure their support and approval. Approval by the DHC was obtained to set up the ADH on a 12-month trial basis on condition that a full program evaluation be carried out at the end of this period.

The planning committee also made decisions on the following 5 topics.

1. The Daily Program (detailed in Part II)

2. Referral to the ADH

Referrals would be accepted from psychiatrists within the OGH, from the hospital psychiatric crisis unit, from community physicians, and from other health professionals in the community. All patients with acute or serious disorders who might otherwise require admission to the inpatient unit would be considered for admission. Suicidal ideation, unless it was active and immediate, was not in itself a contraindication. It was anticipated also that many referrals would come from the inpatient unit; hence patients could be discharged from the ward much earlier, thus decreasing their length of stay and improving overall bed utilization.

A key component of the referral process was the need for an urgent decision and response from the ADH staff. We decided, therefore, that the assessment of referred patients would be jointly carried out within 24 hours of the request for a consultation by the psychiatrist, nurse, and social worker. This process was also based on the inpatient model, where a patient must be assessed and management decisions made within a short period after admission.

3. Charting

Chart structure and record keeping would follow closely those used on the hospital inpatient unit.

4. Emergencies during Out-of-Office Times

After consultation, the OGH psychiatric crisis service agreed to make itself available to deal with ADH patients who required urgent attention on weekends and overnight when the ADH was closed.

5. Program Evaluation (detailed in Part II)

Opening of the Day Hospital

We felt that staff education would have a powerful effect on whether or not the ADH proved successful. During the planning process, we sensed that support for the proposal was not universal, even within the OGH department of psychiatry. Time was taken at department meetings to discuss the plan in detail, explain its rationale, and answer questions. Meetings were also arranged with psychiatry residents and with other hospital staff who would be affected by the ADH or who might be expected to make referrals in order to secure their support and cooperation. The ADH officially opened in October 1993.

Impact on Inpatient Bed Utilization

Table I presents data that compare the use of inpatient psychiatric beds during 1993 (before the ADH was opened) with 1994 (after the ADH was opened). This shows that, over this 12-month time period, there were increases of 15% in the number of inpatients and 17.3% in the number of patient days, as well as an increase in severity as measured by Resource Intensity Weight (RIW). There was also a slight increase in mean length of stay. In addition to the improved utilization of inpatient beds, therefore, an average of 8 day patients were treated with the resources previously used to maintain 6 inpatient beds.

PART II—CLINICAL PROGRAM AND OUTCOME

Patients admitted to the ADH contracted to attend 6 hours per day, 5 days per week for a maximum of 3 weeks (15 days). The focus of treatment was on specific, written discharge goals, which were reviewed daily. Program content maximized group-based interventions (symptom management, problem solving, goal setting, and family support/psychoeducation) adapted from the short-term, restorative, partial hospitalization model described by Lefkowitz (28). Patients were expected to be responsible for self-administering prescribed medication and for transportation to and from the hospital. Program staff were not available at night or on
weekends, and patients had access only to regular after-hours emergency services. Individual clinical status was reviewed daily by the primary nurse and weekly or as needed by the attending psychiatrist.

Subjects
Selection criteria included 1) severity of symptoms and functional impairment to a degree requiring inpatient treatment, 2) the presence of identifiable major stressors contributing to the presenting illness, 3) the presence of environmental stressors of lesser degree coupled with underlying character pathology and/or an absence of adequate supports, 4) a level of premorbid adjustment suggesting that the patient was likely to be responsive to short-term, intensive treatment, and 5) the ability of the patients to make their own travel arrangements to attend the ADH each weekday.

Two groups of patients were studied: 1) patients (n = 160) admitted to the ADH during the period of October 1993 until the end of January 1995 and 2) a retrospectively obtained random sample of patients (n = 100) admitted to the inpatient unit during the same time interval. The comparison group was chosen in order to compare selected diagnostic and demographic characteristics of ADH patients relative to “typical” patients using psychiatric inpatient services. Patients admitted to the psychogeriatric (age > 65 yr) and medical–psychiatric units were excluded from the comparison group because these patients would not have been admitted to the ADH. During the selected time period, a total of 1075 admissions were made to the inpatient unit. After accounting for the previously mentioned exclusion criteria, as well as readmissions, we randomly selected 100 inpatient charts from a remaining total of 748 admissions.

Outcome Measures
Demographic and clinical data, including DSM-III-R Axes I to V (29), GAF at admission and discharge, and length of stay, were obtained for patients in both groups. In addition, as part of outcome evaluation, only ADH patients completed a battery of questionnaires at admission and discharge. Between 3 and 6 months postdischarge, these questionnaires were mailed (with a stamped return envelope) to ADH patients in an attempt to gather follow-up data. The questionnaires included a symptom self-report measure (SCL-90R) (30), the BDI (31), and the STAI (32). From the SCL-90R, only the General Severity Index (GSI) and Positive Symptom Total (PST) subscales were used because they have been shown to be the most reliable and stable (33). At discharge from the ADH program, patients also assessed their global satisfaction with treatment on a 4-point scale by rating their satisfaction with help received and with the quality of service. Open-ended questions soliciting patient responses were made regarding most and least beneficial program components and suggestions for program improvement.

Data Analysis
Group comparisons were made using chi-square analyses of variance (ANOVA with and without repeated measures), and t test statistics (SYSTAT) (34). Within the ADH group, outcome results were analyzed using ANOVA with repeated measures. The α = 0.05 level of significance was adopted, with Bonferroni and Geisser-Greenhouse corrected P values reported where appropriate.

Results
Group Profiles
During the first 16 months of operation, 239 patients were referred to the ADH, 160 of whom met selection criteria and were accepted. The most common reasons for rejection of referrals were the need for further inpatient stabilization, the requirement of longer-term day treatment (> 3 weeks), the adequacy of regular outpatient follow-up, or the presence of recent or active substance abuse, which was likely to preclude program benefit. Of the 160 patients, more than half (56.7%) received initial inpatient admission immediately prior to entry into the ADH program. The remainder were direct referrals from the outpatient (24%) and emergency (14.7%) departments, with a small number (4.7%) referred directly by family physicians. Following ADH treatment, 7.4% were directly transferred to the inpatient unit from the ADH, 41.9% went to outpatient services, 7.4% went to longer-term day treatment, and 43.2% were discharged to a variety of follow-up resources including family physicians, private psychiatrists, and community agencies. In addition, in the 6-month follow-up period following discharge from the ADH, 35 (21.9%) of the 160 patients were admitted to the inpatient unit compared with a readmission rate of 18% for the inpatient comparison group (χ² = 0.36, not significant). Demographic and clinical diagnostic data for the 2 groups are summarized in Tables II and III, respectively.

Group comparisons of GAF scores at admission and discharge (Table IV) yielded a significant group by time interaction (F[1,252] = 65.04, P = 0.000). Inpatients had significantly lower GAF scores on admission compared with ADH patients (t = 6.35, df 252, P = 0.000). Clinician-rated

| Inpatient Bed Utilization Comparing the 12-Month Period before (1993) and after (1994) the Opening of the ADH |
|---|---|---|---|---|---|
| Year | Total Cases (Inpatients) | Total Days | Mean Length of Stay (Days) | RIW | Average RIW |
| 1993 | 649 | 10 170 | 15.7 | 1092.53 | 1.74 |
| 1994 | 746 | 11 929 | 16.0 | 1297.91 | 1.68 |

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Cases (Inpatients)</th>
<th>Total Days</th>
<th>Mean Length of Stay (Days)</th>
<th>RIW</th>
<th>Average RIW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>649</td>
<td>10 170</td>
<td>15.7</td>
<td>1092.53</td>
<td>1.74</td>
</tr>
<tr>
<td>1994</td>
<td>746</td>
<td>11 929</td>
<td>16.0</td>
<td>1297.91</td>
<td>1.68</td>
</tr>
</tbody>
</table>
GAF scores improved significantly for both groups from admission to discharge ($F[1,252] = 762.39, P = 0.000$), with mean scores for each group being equivalent at discharge. Mean length of stay (days) was significantly shorter for the ADH group relative to the inpatient group (ADH: mean = 14.3 days, SD = 5.1; Inpatients: mean = 18.7 days, SD = 22.2; $F[1,257] = 5.81, P = 0.017$).

For ADH patients, significant improvements were obtained from admission to discharge on all patient-rated clinical indices. On the SCL-90R, significant decreases in psychological distress levels were found, as indexed by both GSI ($F[1,107] = 57.70, P = 0.000$) and PST subscale T-score values ($F[1,107] = 27.05, P = 0.000$). Similarly, significant decreases in depression ($F[1,108] = 82.65, P = 0.000$), trait anxiety ($F[1,110] = 39.44, P = 0.000$), and state anxiety ($F[1,115] = 21.97, P = 0.000$) were evident from admission to discharge. On measures of rated satisfaction obtained at discharge ($n = 120$), ADH patients rated the program highly on help received (mean = 3.63, SD = 0.75) and on quality of service (mean = 3.68, SD = 0.71). The most frequent comments regarding the beneficial aspects of the program centred on global support and opportunities to socialize, self-awareness and emotional expression, the learning of better strategies for coping, and the positive benefits derived from realistic goal setting. Comments regarding less-beneficial program components included patients’ perception of a lack of relevance of occupational therapy (OT) to the rest of the program and the inherent difficulties faced by patients in trying to concentrate on and provide viable solutions to current problems in problem-solving groups. Suggestions for improvement included extending the program to a 4-week duration, making more time available for discussion within a group psychotherapy format, and initiating direct follow-up after discharge from the program.

With regard to follow-up, 42 (26.3%) ADH patients returned self-report questionnaire data. Repeated analyses of variance (admission, discharge, and follow-up) performed on this subset of patient data indicated that the improvements gained while in the ADH program were maintained at short-term follow-up. Summary data are presented in Table IV. More specifically, psychological distress indices showed significant decreases over time (GSI: $F[2,76] = 23.00, P = 0.000$; PST: $F[2,76] = 18.27, P = 0.000$). Similar results were obtained for depression (BDI: $F[2,78] = 26.36, P = 0.000$) and anxiety (trait: $F[2,78] = 15.71, P = 0.000$; state: $F[2,78] = 10.90, P = 0.000$).

### Discussion

The present project was an attempt to implement an acute partial hospitalization model rather than to prove, yet again, its general efficacy. We have explored the feasibility of introducing to a general hospital setting a particular approach, namely, short-term, time-limited partial hospitalization, in a specific patient subgroup. We selected patients with acute affective symptoms for 3 reasons. The first was pragmatic: affective presentations accounted for the majority of acute inpatient admissions to our hospital. If some could be treated successfully in a day hospital setting, the possibility existed that other patients for whom inpatient admission is crucial could be accommodated in greater numbers. The second reason was the recent literature supporting the viability of partial hospitalization in depressed patients (20). The third reason was that it appeared that many acutely depressed patients could do well in an intense, short-term, time-limited program (28). Such patients often show high levels of subjective distress and marked disturbances on role performance combined with adequate premorbid adjustment.

Perhaps the most salient question is whether the ADH served the target population originally envisaged, namely, patients who would otherwise require inpatient treatment. Ideally, this question would be addressed by means of a prospective, randomized, controlled study of unselected referrals. Such a stringent method has rarely been attempted (12,14) and has been shown to be difficult to implement (35). Nonetheless, the demographic and clinical profile of patients in the ADH, especially in comparison with those who received inpatient treatment alone, provides a good indication...
of how the program was used. The percentage of referrals to the ADH that were refused on the basis of being regarded as too ill to attend and/or too chronic in their impairments to respond to such a brief period of treatment is consistent with most previous studies (11). The rate of direct transfer of ADH patients (7.4%) to the inpatient unit was much lower than that reported by researchers who either randomly assigned patients or who admitted all patients initially to the day hospital (20,21), but it was consistent with rates in other studies using selected referrals (36). In the landmark study of Gudeman and others (21), in which all patients believed to require inpatient psychiatric hospitalization were admitted to a day hospital, 56% required nighttime residential care. Similarly, Kluiter and others (20) found that 40% of patients randomly assigned to day hospitalization spent no more than 2 nights per week away from the hospital. Schene and others (18), whose target population consisted of patients who would usually be admitted to an open unit, found that some form of overnight admission was necessary in 34% of day hospital patients.

As expected, given our selection criteria, ADH patients were less likely to have a diagnosis of schizophrenia than inpatient controls. They were also less likely to have multiple Axis I diagnoses and had somewhat lower GAF scores on admission than inpatient controls. In addition, patients accepted to the ADH were more likely than inpatient controls to be female and married. This latter finding is consistent with previous studies of selected patients (11,15,36), suggesting that a greater degree of social support among married women may account for their being more likely to be selected for day hospitalization.

The present study suggests that ADH patients were less likely to have a psychotic illness, were less functionally impaired, and may have had more social support than inpatient controls. This is likely the result of the deliberately selective process of admission to the day hospital. ADH patients were, however, still likely to have required inpatient treatment were the program not available. They had a frequency of major affective disorders and diagnoses other than schizophrenia similar to that of inpatient controls, and they were as likely to require psychotropic medications and have concurrent medical conditions. ADH patients had similar levels of psychosocial stress, but they were more likely to

<table>
<thead>
<tr>
<th>Table III</th>
<th>Diagnostic and Clinical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Measure</td>
<td>ADH</td>
</tr>
<tr>
<td>Axis I (%)</td>
<td>11.9</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>52.5</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>2.5</td>
</tr>
<tr>
<td>Anxiety disorders</td>
<td>18.1</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>10.6</td>
</tr>
<tr>
<td>Eating disorders</td>
<td>5.0</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>14.4</td>
</tr>
<tr>
<td>Other</td>
<td>8.8</td>
</tr>
<tr>
<td>More than one Axis I diagnosis (%)</td>
<td>21.9</td>
</tr>
<tr>
<td>Concurrent Axis II diagnosis (%)</td>
<td>61.9</td>
</tr>
<tr>
<td>Concurrent Axis III diagnosis (%)</td>
<td>41.9</td>
</tr>
<tr>
<td>Axis IV (mean ± SD)</td>
<td>3.3 ± 0.8</td>
</tr>
<tr>
<td>Axis V (past-year GAF; mean ± SD)</td>
<td>67.7 ± 11.4</td>
</tr>
<tr>
<td>Previous hospitalization (%)</td>
<td>61.0</td>
</tr>
<tr>
<td>Medications (%)</td>
<td></td>
</tr>
<tr>
<td>Anxiolytics</td>
<td>23.8</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>68.1</td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>21.3</td>
</tr>
<tr>
<td>Mood stabilizers</td>
<td>5.0</td>
</tr>
<tr>
<td>No medications</td>
<td>6.3</td>
</tr>
<tr>
<td>≥ 2 medications</td>
<td>30.6</td>
</tr>
<tr>
<td>Information not available</td>
<td>9.4</td>
</tr>
</tbody>
</table>

*Reflects medication status (prescribed medication regimen) at time of admission.
have concurrent Axis II diagnoses than subjects in the inpatient subgroup. This finding supports evidence from previous studies (36,37), which found that many patients with concurrent character disorders may be successfully engaged in partial hospitalization programs, and has important implications for service delivery. ADH patients also showed high levels of symptom severity (SCL-90R, BDI, STAI) and considerable functional impairment (GAF). We conclude, therefore, that the ADH did in fact serve the target population originally identified and that this modality, as Kluiter and others (20) suggest, may be especially feasible for acute affective presentations even where there is concurrent character abnormality.

Another question addressed relates to the clinical efficacy of the ADH. In this regard, our study is limited by the absence of information on symptom severity and satisfaction with treatment for inpatient controls, by the short duration of follow-up, and by the rate of response to mailed self-report questionnaires in the follow-up study component. The finding of significant clinical improvement from admission to discharge and maintained at 3- to 6-month follow-up, however, strongly supports the efficacy of a brief-admission, structured day hospital program.

We cannot rule out the possibility that our ADH patients, whose average length of stay was only 14.3 days, were discharged prematurely. Indeed, results from the “suggestions for improvement” category in our evaluation show that many patients wished to remain longer. This conclusion is also supported by the relatively high admission rate of ADH patients to the inpatient unit (21.9%) within the 6-month period following discharge from the ADH. Nonetheless, high levels of clinical improvement were achieved in our program within a 3-week period. Coupled with the high rates of program completion and high levels of treatment satisfaction in our study, this result suggests that in patients with predominantly acute affective presentations, day hospitalization may not need to be longer than inpatient treatment. Also, a fixed length of stay may be advantageous in avoiding unnecessarily prolonged day hospital stays in this target population and minimizing dependency.

Another important issue regarding day hospitalization in acute psychiatric disorders is whether initial inpatient hospitalization is helpful. Several previous studies have found little advantage for day hospitalization as an adjunct to inpatient treatment (6,19,38). More than half of the ADH patients in the present study had initial inpatient admission. This group, however, did not differ in demographic or diagnostic profile from patients directly admitted to the ADH and showed similar levels of clinical improvement. Our findings do not, therefore, support the view that adjunctive day hospitalization is unhelpful, at least in the present target population. As the program becomes more established, however, the proportion of direct admissions from the community and the emergency department may increase. This shift in utilization would allow for a more thorough examination of which patient subgroups may require and benefit from initial inpatient hospitalization.

Our findings of high patient satisfaction with both the degree of help experienced and the quality of the program is similar to previous studies (18). More interesting is the pattern of patients’ comments regarding the most and least beneficial aspects of the program. Their responses support previous suggestions that global support and nonspecific benefits of this treatment program may be its most significant aspect (39,40). This finding supports our decision to parallel in the ADH the level of staff experience and expertise, as well as staff–patient ratio, found in the inpatient unit.

### Table IV

<table>
<thead>
<tr>
<th>Measure and Group</th>
<th>Admission</th>
<th>Discharge</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAF</td>
<td>45.8 (10.7)</td>
<td>59.8 (10.4)</td>
<td>—</td>
</tr>
<tr>
<td>ADH</td>
<td>35.0 (14.3)</td>
<td>61.6 (12.6)</td>
<td>—</td>
</tr>
<tr>
<td>Inpatient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCL-90R (T scores)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADH</td>
<td>73.4 (7.7) n = 108</td>
<td>66.9 (9.9) n = 108</td>
<td>65.3 (11.1) n = 39</td>
</tr>
<tr>
<td>GSI</td>
<td>69.9 (7.2) n = 108</td>
<td>65.7 (9.0) n = 108</td>
<td>63.5 (10.2) n = 39</td>
</tr>
<tr>
<td>PST</td>
<td>27.4 (11.5) n = 109</td>
<td>17.4 (11.5) n = 109</td>
<td>17.6 (13.2) n = 40</td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADH</td>
<td>58.8 (9.6) n = 111</td>
<td>52.7 (10.7) n = 111</td>
<td>49.6 (10.6) n = 40</td>
</tr>
<tr>
<td>STAI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trait</td>
<td>56.6 (12.2) n = 116</td>
<td>50.2 (13.9) n = 116</td>
<td>47.5 (13.7) n = 40</td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a Significance levels for specific comparisons are reported in the text.

(—) = data unavailable.
Our data confirm that patients with serious psychiatric disorders can be managed effectively and economically in a short-term day hospital setting. They also confirm that day hospitals can be established without additional funding by reallocating inpatient resources, that such a step does not affect length of stay adversely, and that it may improve the utilization of remaining inpatient beds.

This project also illustrates the usefulness of involving patients in the planning and evaluation of the program in their capacity as “consumers.” This approach is strongly emphasized in mental health reform legislation in Ontario and has been applied in many community-funded agencies. Our consumers, or former patients, described themselves as “graduates” of our program and were represented by invitation on our ADH Administrative Advisory Committee. Professional staff, while apprehensive at first, became comfortable with their presence and their participation. The involvement of our ADH consumers suggests that this concept can be successfully extended into hospital-based psychiatric care.

In this paper, we have shown the feasibility of setting up a day hospital for the short-term treatment of patients with acute psychiatric disorders by using the space and staff resources freed up by closing psychiatric beds. Patients with affective, adjustment, and personality disorders appeared to benefit most, particularly if their disorder was accompanied by an acute stress or crisis. We have emphasized the importance of careful planning, of involving the various “stakeholders” in the planning process, and of educating the various stakeholders regarding the use of an ADH. Finally, we have emphasized the value of encouraging patient participation in both the administrative and the evaluative aspects of the project. We believe that with careful planning, this concept may have wide application in psychiatric hospital practice.

Clinical Implications

- Acutely ill psychiatric patients can be managed in a time-limited (15 days) day hospital setting.
- Patients with anxiety, depressive, or adjustment disorders, with or without an underlying personality disorder, are most suited to this type of program.
- Day hospitalization is both beneficial and cost-effective for selected patients with acute psychiatric disorders who would ordinarily require hospital admission.

Limitations

- Patients who act out, who are psychotic, or who are actively suicidal are not suited for an acute day hospitalization program.
- Facilities need to be available for managing patients who develop acute crises during their day hospital admission (particularly during off-duty hours).
- Setting up an acute day hospital program by reallocating inpatient resources requires careful planning.

References

Résumé

Objectif : Dans cet article, on décrit le processus administratif grâce auquel l’Hôpital général d’Ottawa (HGO) a supprimé 6 lits et utilisé le personnel et l’espace ainsi libérés afin de créer un centre de soins actifs de jour (CSAJ) pour traiter 8 patients atteints de troubles psychiatriques graves. Des données sur les résultats obtenus auprès des 160 premiers patients admis au CSAJ y sont aussi présentées.

Méthodes : À l’admission et à la sortie, on a pris des renseignements démographiques et cliniques sur les 160 patients du CSAJ, notamment des données diagnostiques (DSM-III-R; Global Assessment of Functioning [GAF]) et des données extraites de questionnaires (Symptom Checklist-90 Revised [SCL-90R]; inventaire de dépression de Beck [IDB]; State-Trait Anxiety Inventory [STAI, questionnaire sur l’anxiété chronique et réactionnelle]; satisfaction du patient). De ce nombre de patients, 42 ont fourni des données de suivi 3 à 6 mois après leur sortie. Les résultats obtenus auprès des patients du CSAJ ont été comparés à ceux d’un échantillon aléatoire (n = 100) de patients hospitalisés obtenu rétrospectivement par la sélection de variables diagnostiques et démographiques.

Résultats : Sur des échelles cliniques d’autoévaluation établies par des cliniciens, les patients du CSAJ ont manifesté une amélioration clinique importante qui se reflète par l’obtention de scores plus élevés à la GAF et moins de détresse psychologique, de dépression et d’anxiété au moment de la sortie par rapport à l’admission. Les groupes ne présentaient aucune différence significative quant aux indices de sortie, sauf pour un séjour plus bref au sein du groupe du CSAJ par comparaison avec les patients hospitalisés. Le groupe du CSAJ a évalué le programme très positivement à l’égard de l’aide reçue et de la qualité du service. Le suivi à court terme a confirmé que les acquis du traitement sont conservés 3 à 6 mois plus tard.

Conclusions : Ces résultats démontrent qu’un programme hospitalier de jour à durée limitée est cliniquement efficace chez les patients atteints de troubles psychiatriques graves et qu’il donne lieu à une utilisation plus efficace des ressources en milieu hospitalier. Nous croyons que l’hospitalisation à temps partiel pour le traitement de troubles psychiatriques aigus est applicable sur une grande échelle à l’exercice de la psychiatrie en milieu hospitalier.