Increased Attendance in Inpatient Group Psychotherapy Improves Patient Outcomes

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This column describes an initiative that promoted increased attendance in group psychotherapy and its effect on patient outcomes. Information on patient- and staff-rated outcomes, readmission rates, and patient satisfaction was gathered for 2,782 inpatients in a private psychiatric facility in Australia. On average, after the initiative was implemented, patients went from attending one session per day to two sessions. Inpatients admitted after implementation had better patient- and staff-rated outcomes and lower rates of readmission within one month of discharge. However, patients' treatment satisfaction ratings declined. These findings indicate that increasing attendance in group psychotherapy can be a useful adjunct to hospital treatment. (*Psychiatric Services* 60:426–428, 2009)

Inpatient psychiatric admissions are financially costly and personally disruptive as individuals temporarily disengage from social roles. Therefore, it is of broad value to improve outcomes, so that the need for further treatment is reduced. To ensure that an intervention is a best practice it is necessary to evaluate changes to clinical practice in terms of the benefits to outcomes and patient satisfaction. This column reports on the effects of additional inpatient group psychotherapy.

Previously our group found that psychotherapeutic groups for inpatients (for example, cognitive-behavioral therapy) are effective in alleviating symptoms and that benefits were sustained after discharge (1), so we hypothesized that receipt of additional group psychotherapy would facilitate even greater improvement. One reason for this hypothesis is that research has shown that the more outpatient psychotherapy sessions people attend, the better the outcomes (2). However, it is not apparent that the dose-response relationship would translate to inpatient contexts, where presenting problems are more severe, patients receive concurrent nursing care and medical management, and the time course of treatment is compressed.

In the hopes that increased attendance of psychotherapeutic groups would lead to even better outcomes for psychiatric inpatients, management of a private psychiatric facility in Australia implemented an initiative that encouraged attendance in these groups. The initiative was effective in increasing attendance. On average, after the initiative was implemented, patients went from attending one session per day to two sessions (approximately 1.5 to 3.0 hours per day). This administrative decision allowed us to examine outcomes of patients admitted before and after the implementation to evaluate whether increased attendance had an effect on staff- and patient-rated outcomes.

Types of group psychotherapy offered

There are six types of group psychotherapy programs available at the psychiatric facility. The first one is the acute admission program, which involves crisis care and uses interpersonal and cognitive therapies to improve interpersonal and life coping. The second one is the prescriptive care program, which addresses remotivation and skills training. The third is the structured care severe program, which focuses on acute disorders and psychosis. The fourth one is the interpersonal psychotherapy program, which focuses on problems within the relationship domain. The fifth one is a substance abuse program that is based on cognitive-behavioral therapy for people with predominantly alcohol, marijuana, and amphetamine problems; the program is structured around the stages-of-change model. The sixth type of group psychotherapy offered is an intensive two-week cognitive-behavioral therapy closed group (1). All group sessions last for 1.5 hours.

The group programs are run by therapy staff, including psychologists, occupational therapists, and nurses. Group therapy is integrated into the overall care and managed by the admitting psychiatrist who coordinates pharmacotherapy and other treatments (for example, electroconvulsive therapy), with nursing staff managing care on the wards.

No attempt was made to distinguish between the various psychotherapy groups, because treating staff decided what types of groups and what order would be most appropriate for the patients (that is, patients could attend different types and num-

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bers of groups in different orders, depending on the clinicians' decisions). All groups (except the cognitive-behavioral therapy group) were open, so patients could attend as many sessions as they wished. The structured care program tended to be larger (up to 20 members) than other groups (up to ten members).

Psychotherapy groups were always available to patients, but after the initiative was implemented, the hospital encouraged greater attendance by using nursing staff to foster awareness of the programs and to follow up on inpatients not involved in psychotherapy. No one was forced to enter therapy against the wishes of the patient or doctor.

Evaluating the initiative

Patients treated between January 2005 and July 2006 (before the initiative to increase group attendance) were classified as the cohort with "less psychotherapy" (N=1,508). Patients treated between August 2006 and March 2008 (after the initiative) were classified as the cohort with "more psychotherapy" (N=1,274).

The sample was obtained retrospectively from archival data. Identifying information was removed from a data set of 2,782 consecutively admitted voluntary inpatients who were discharged from the private 98-bed psychiatric facility between January 2005 and March 2008. (Patients were excluded from the sample if they were admitted for a single day for electroconvulsive therapy.) Written consent regarding data use for evaluation is requested upon admission. Staff ratings were available for 2,671 patients (96.0%) at admission and discharge. Patient ratings were available for 2,310 patients (83.0%) at admission and for 1,753 (63.0%) at discharge. Patients were given diagnoses by their psychiatrists according to *ICD-10-AM* codes. Common primary diagnoses were affective disorders (N=1,806, 64.9%), neurotic or anxiety disorders (N=415, 14.9%), substance use disorders (N=248, 8.9%), and psychotic disorders (N=142, 5.1%); 1,650 (59.3%) had a secondary diagnosis. The mean±SD age of the sample was 42.2±16.7 years, 1,853 (66.6%) were female, and the mean length of stay was 14.0±10.6 days.

Clinic staff rated patients' general functioning with the Health of the Nation Outcome Scales (HoNOS) (3). Self-report indices included the Depression Anxiety Stress Scales (DASS-21) (4,5) and the vitality, emotional role function, social function, and mental health (6) subscales of the 36-item Medical Outcome Short-Form Health Survey (SF-36) (7). Satisfaction with therapy and with perceived outcomes was measured with the hospital's nine-item measure that asked how satisfied patients were with, for example, the group treatment, the therapists' approach, and the group support. Therapy satisfaction was rated on a 7-point scale ranging from 1, very much worse or dissatisfied, to 7, very much better or satisfied. The reliability of the scale in the sample presented here was excellent (Cronbach's α=.90).

At the facility, the HoNOS is routinely administered at admission and discharge. Ratings refer to the previous two weeks when rated at admission and over the preceding 72 hours when rated at discharge. Patients completed questionnaires at admission and discharge. In addition to standard psychiatric assessment and ongoing psychiatric care, all patients had the opportunity to be involved in group therapy programs, depending on their functional ability. Group attendance was measured in terms of 1.5-hour sessions.

Findings

To confirm that the policy to increase group attendance had been successful in increasing engagement, analysis of variance was used to show that although length of hospital stay remained constant at 14.01±10.6 days, the number of group sessions increased from 15.9 sessions per hospital stay in the period before the initiative to 27.0 once the program to increase group attendance was in place (F=232.98, df=1 and 2,780, p<.001). Thus, on average, patients went from attending one session per day to two sessions. There was no evidence of other changes in the sample over the study period (for example, diagnostic profiles).

Patients in the cohort with less psychotherapy exhibited substantial improvements on the staff-rated HoNOS, as well as in the self-reported DASS-21 and mental health subscales of the SF-36. [A table showing outcomes according to the average amount of group psychotherapy received is available as an online supplement at ps.psychiatryonline.org.] The mean effect sizes (the change in symptoms from admission to discharge divided by the standard deviation of the number of symptoms at admission) were very large at 1.2, and all differences were statistically significant (p<.05). Of greater importance was the observation that on every index, the symptom change was larger among patients who received more psychotherapy (averaging an effect size of 1.5 across all the indices). The relevant interaction contrasts were all statistically significant (p<.05), indicating that the observable improvement in outcomes when additional psychotherapy was available was reliable. The size of the added benefit in outcomes for patients who received additional psychotherapy, which was .3 standard deviation units, is a small to medium effect.

One way to validate the improved outcomes is to examine the readmission rates. The rate of patients readmitted within one month after discharge was nearly halved, from 9.6% (N=145 of 1,508) in the cohort with less psychotherapy to 5.4% (N=69 of 1,274) in the cohort with more psychotherapy.

Curiously, the mean satisfaction with therapy ratings remained high, but they were lower in the cohort with more psychotherapy (mean 5.4±.93) than in the cohort with less psychotherapy (mean 5.7±.84). These group differences on each index were statistically significant, and the mean effect size was –.3, reflecting that the people who received more psychotherapy reported lower levels of satisfaction.

Because there was no random assignment to conditions, it was not possible to determine whether higher levels of group attendance caused the improved outcomes nor was it possible to determine whether factors oth-

er than the provision of psychotherapy were responsible for improved outcomes. For instance, it is possible that because greater scrutiny by the hospital was being given to group attendance, then ratings of staff and patients may have changed (that is, a "Hawthorne effect"), but this increase would be evident only in the more recent cohort of patients. To address these issues, we examined the existence of a dose-response relationship between group attendance and outcomes by comparing patients who did not attend any group sessions with those who attended one to five sessions and those who attended six or more sessions. Greater psychotherapy was linearly associated with more favorable outcomes on the staff-rated HoNOS ($F=30.56$, $df=2$ and $2,518$, $p<.001$), the patient-rated DASS-21 ($F=9.02$, $df=2$ and $1,483$, $p<.001$), and the patient-rated mental health subscales of the SF-36 ($F=17.6$, $df=2$ and $1,483$, $p<.001$). Thus the pattern of improved outcomes being associated with additional psychotherapy was observed within patients, which is consistent with the notion that additional therapy is associated with higher levels of improvements in outcomes.

Discussion

Across an average 14-day inpatient admission, when the typical patient received three hours of therapy per day instead of 1.5 hours, the self-reported and staff-rated outcomes improved and the rate of patients readmitted within one month of discharge was halved. Curiously, despite these improved outcomes, patient satisfaction ratings declined. Minimally, these results are consistent with other research implying that it is important not to equate satisfaction ratings with outcomes (8). Although the reasons for the discrepancy were not examined, it is possible that patients did not appreciate the staff's expectations of greater group involvement. Second, it may be that the additional structuring of the day restricted the patient's perceived autonomy in choosing how to spend the day. Third, patients may not have liked what they learned about themselves during therapy. Although the reasons for decreased levels of satisfaction are not clear, the other outcomes measured showed improvement, which suggests that efforts need to be focused on understanding patient satisfaction.

The results presented here need to be interpreted in the context of their limitations. First, the patients were all privately insured, and it is not clear to what extent the benefits of additional psychotherapy would generalize to the public sector. Second, the satisfaction ratings were obtained with a measure developed by the hospital. Although the scale had excellent internal consistency and face validity, the degree to which these results would be replicated with other instruments still needs to be researched. Third, the study presented here compared one cohort with another, and although there were no apparent differences, the better outcomes in the group that received more group psychotherapy could be due to some unmeasured factor. We are not aware of other changes to hospital care that could have caused the observed results, but clearly that issue can be resolved only with a randomized controlled trial.

Conclusions

When inpatient attendance at psychotherapy groups was increased, staff- and patient-rated outcomes improved and the rates of readmission within one month were halved. The study presented here examined an instance of an emerging best practice—a hospital-based intervention to increase the amount of psychotherapy available as an adjunct to a psychiatric admission—and the results are consistent with a dose-response model of psychotherapy (2). The unexpected discrepancy between outcomes and satisfaction warrants further investigation. Perhaps regular monitoring of patient progress during an inpatient stay (9) combined with feedback on progress could lead to increased levels of satisfaction, as patients become more aware of the extent of improvement.

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