Training Persons With Schizophrenia in Illness Self-Management: A Randomized Controlled Trial in Japan

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Introduction by the column editors: **Despite the worldwide shift from inpatient to community-based treatment for individuals with severe mental illness, Japanese psychiatric services remain hospital based. In 1998, Japan had 29 psychiatric beds per 10,000 persons, twice as many as in most European countries and five times as many as in the United States (1).**

The reasons for Japan's slow transition to a community-based mental health system are both economic and cultural. For instance, 90 percent of psychiatric beds are in private for-profit hospitals. There is little incentive for inpatient facilities to discharge patients promptly, because the Japanese health care system provides universal coverage with virtually unlimited reimbursement for inpatient services, and the government does not have a mechanism for financing the relocation of resources from hospitals to communities (2). In addition, the stigma associated with mental illness in Japanese families is high (3). Thus a patient's primary residence is the psychiatric hospital, and opportunities are provided for periodic visits from the family.

However, psychiatric rehabilitation principles and practices are beginning to take root in Japan. Anzai and his colleagues at the Matsuzawa Psychiatric Hospital in Tokyo have adapted an empirically validated skills training program to prepare patients with schizophrenia for life in the community after discharge from the hospital. In this column, they report the results of a randomized controlled trial of this approach in an inpatient facility serving a large urban center.

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Because of the limited resources for supervised residential and community mental health services for persons with schizophrenia in Japan, patients discharged from psychiatric hospitals must be able to self-administer their medication, attend psychiatric aftercare facilities independently, and use a relapse prevention or emergency plan that includes recognition of warning signs of relapse. The Community Re-entry Module, which was designed and validated by Liberman and associates (4,5) in the psychiatric rehabilitation program at the University of California, Los Angeles (UCLA), was developed to teach patients with schizophrenia and other major mental disorders the knowledge and skills they will need to live in the community. To determine whether this module would be suitable for the special needs and constraints of the Japanese patient, practitioner, and mental health system, a Japanese translation of the module was used in a controlled clinical trial for inpatients being prepared for discharge from the hospital.

Methods

The participants were 32 inpatients meeting *ICD-10* and *DSM-IV* criteria for schizophrenia who were transferred to rehabilitation wards at Matsuzawa Psychiatric Hospital in Tokyo because of persistent and refractory symptoms of psychosis and poor insight into their illness. The mean±SD duration of the current hospitalization was 4±4.3 years, and the mean duration of illness was 20.5±11.6 years. The mean age of the 32 patients was 46.8±10.9 years. The study was approved by the hospital's institu-

tional review board. Only patients who volunteered and who gave written informed consent were included.

Patients were randomly assigned to participate in 18 one-hour sessions of either the Community Re-entry Module or a conventional occupational rehabilitation program. Sessions were conducted twice weekly by ward nurses. No statistically significant differences in clinical or demographic characteristics were found between the two groups.

The Community Re-entry Module (6) consists of sessions on medication and how to self-administer it, warning signs of relapse and how to develop and implement an emergency plan to deal with relapse, how to find and secure housing and continuing psychiatric care in the community, and how to reduce stress and promote coping after discharge. The conventional program emphasizes arts and crafts, reality-orientation groups, and work assignments in the hospital.

Comparisons between the two groups of patients were made by a multilevel battery of assessments given before, immediately after, and one year after the completion of the sessions. Before training started, two participants in the training group and one in the control group were discharged from the hospital. These patients were not included in calculations of the discharge rates. Ten of the 14 patients in the training group (71 percent) were discharged, compared with only three of the 15 patients in the control group (20 percent). At baseline the patients did not differ significantly in their knowledge of and skills in self-management of medications and symptoms or the other topics covered in the module. Immediately after the sessions, the patients who received training in the module demonstrated a significant increase in knowledge and skills, as indicated by the change in their mean±SD score from 9.3±5.7 to 14.1±6.1 on a 21-item instrument. Scores on the instrument, which is part of the training manual for the module, range from 0 to 21. Patients in the comparison group showed no significant gains. At one-year follow-up, the knowledge and skill levels had eroded somewhat in the group that received the training, but they were still significantly higher than levels at baseline and in the comparison group. These findings are consistent with the durability of training effects reported by the UCLA team (7).

One measure used in the study was the REHAB scale (8), a 23-item instrument that measures a variety of self-care, social, and independent living skills relevant to community reintegration. Possible scores on the REHAB scale range from 5 to 115, with lower scores indicating better functioning in the skill areas. The mean± SD score of the group that participated in the Community Re-entry Module indicated a statistically significant improvement. The baseline score was 31.2±18.2, and the score immediately after the training was 18.2±13.0 ($t=3.92$, $df=13$, $p<.05$). The scores of patients in the group that received conventional rehabilitation did not change significantly, decreasing from 37.3± 25.1 at baseline to 32.5±22.7.

In addition, the patients who were trained in the module spent significantly more days in the community after discharge.

For the patients who received skills training, the improved scores on the REHAB scale, which measured patients' functioning in naturalistic situations on the wards, and the longer community tenure suggest that patients were able to generalize the skills learned in the module to everyday life, both in the hospital and in the community.

The mean scores of the two groups on the Positive and Negative Syndrome Scale (9) did not differ significantly after the sessions or at the one-year follow-up, as might have been expected. Drug therapy was similar for both groups and did not change during the controlled trial, and all patients had a history of suboptimal response to antipsychotic medications.

Therapeutic outcomes in schizophrenia are treatment specific; thus it is not surprising that patients who received training in community reintegration showed improvements in related domains of functioning, whereas neither group experienced significant improvements in psychopathology as a result of drug treatment.

For patients who received training in the module, a substantial negative correlation ($r=.65$) was found between the duration of illness and gains and maintenance in knowledge and skills, suggesting that "overlearning," atypical antipsychotic drugs, and other biobehavioral strategies might be required to improve neurocognitive functioning and readiness for rehabilitation among long-term inpatients with treatment-refractory psychosis.

It is somewhat surprising that only 18 sessions of focused training in three major areas of community reentry would have such an enduring effect on community tenure. The relationship between community tenure and the acquisition of knowledge and skills suggests that this outcome was due at least in part to the impact of the Community Re-entry Module. Another explanation is that the skills acquired during the training placed patients on a trajectory of aftercare that reinforced their learning and promoted their posthospital adjustment to community life.

Further studies of this module in combination with various types of aftercare in the community—particularly services that provide opportunities, encouragement, and reinforcement for the knowledge and skills learned during hospitalization—are greatly needed by practitioners working with individuals who have schizophrenia (10).

Afterword by the column editors: Four factors made it possible for the staff at Matsuzawa Psychiatric Hospital to successfully implement a community-oriented rehabilitation module that went against the grain of the traditionally long-term—often indefinite—inpatient care of patients with schizophrenia in Japan. First and foremost, Dr. Anzai, who led the effort to adopt the Community Re-entry Module, was also the medical director of inpatient services for adults and thus had administrative influence and clout with his clinical team. Second, social skills training has achieved considerable popularity in Japan since its introduction in 1988. The Japanese Association for Social Skills Training was created in 1995. It holds scientific meetings twice a

year that are attended by representatives from each region of the country. Over the past decade, the number of hospitals and other facilities using social skills training has grown from none to more than 500. Third, the Japanese Association for Social Skills Training, together with other advocacy organizations, successfully petitioned the Ministry of Health to include skills training as a reimbursable treatment modality for psychiatrists and other mental health practitioners (11).

A fourth influence has been the prescriptive structure of skills training, especially the user-friendliness of the UCLA modules that were translated into Japanese. The highly specified curriculum, which uses a trainer's manual, a video, and participant workbooks, appeals to Japanese practitioners, who value organization and quality control. In fact, the Japanese Association for Social Skills Training has taken a further step with the UCLA modules, which are only gradually being implemented in the United States. The society certifies trainers and instructors in use of skills training on the basis of their meeting and maintaining standards of fidelity to the rehabilitation procedures outlined in the modules.

Similar factors have been critical in successful adoption of rehabilitation innovations in the United States (12), including the widespread use of skills training for psychosocial rehabilitation at the South Carolina State Hospital, which was described in a previous Rehab Rounds column (13). ♦

References

1. Mizuno M, Murakami M: Differences in strategies for implementing community-based psychiatry in Japan, in Family Interventions in Mental Illness: International Perspectives. Edited by Lefley HP, Johnson DL. Westport, Conn, Praeger, 2001
2. Ikegami N, Campbell JC (eds): Containing Health Care in Japan. Ann Arbor, University of Michigan Press, 1996
3. Inoue S: Community care systems for the mentally ill in Japan: can we switch hospital-based care to community-based programs? Psychiatry and Clinical Neuroscience 52(suppl):S354–S356, 1998
4. Smith TE, Hull JW, Anthony DT, et al: Post-hospitalization treatment adherence of schizophrenic patients. Psychiatry Research 69:123–129, 1997
5. Kopelowicz A, Wallace CJ, Zarate R: Teaching psychiatric inpatients to re-enter the community: a brief method of improving the continuity of care. Psychiatric Services 49:1313–1316, 1998
6. Psychiatric Rehabilitation Consultants: The Community Re-entry Program Module. Camarillo, Calif, Psychiatric Rehabilitation Consultants, 1994
7. Eckman TA, Wirshing WC, Marder SR, et al: Technique for training schizophrenic patients in illness self-management: a controlled trial. American Journal of Psychiatry 149:1549–1555, 1992
8. Baker R, Hall JN: REHAB: a new assessment instrument for chronic psychiatric patients. Schizophrenia Bulletin 14:97–111, 1988
9. Kay SR, Fiszbein A, Opler LA: The Positive and Negative Syndrome Scale (PANSS) for schizophrenia. Schizophrenia Bulletin 13:261–276, 1987
10. Tauber R, Wallace CJ, Lecomte T: Enlisting indigenous community supporters in skills training programs for persons with severe mental illness. Psychiatric Services 51:1428–1432, 2000
11. Ikebuchi E, Anzai N, Niwa SI: Adoption and dissemination of social skills training in Japan: a decade of experience. International Review of Psychiatry 10:71–75, 1998
12. Liberman RP, Corrigan PW: Implementing and maintaining behavior therapy programs, in Behavior Therapy in Psychiatric Hospitals. Edited by Corrigan PW, Liberman RP. New York, Springer, 1999
13. Smith RC: Implementing psychosocial rehabilitation with long-term patients in a public psychiatric hospital. Psychiatric Services 49:593–595, 1998

PSYCHOPHARMACOLOGY

Continued from page 538

patient than some atypical agents. Despite the general shift to the use of atypical agents, conventional antipsychotics remain an effective group of medications. Some patients may do better without switching or may need to switch back to a conventional agent.

From a medicolegal perspective, the reasons for keeping a patient on a conventional antipsychotic should be carefully documented. Records of discussions about side effects and variations in the risk of side effects with different antipsychotics should also be made, and periodic evaluations for movement disorders should be documented. Conventional antipsychotics appear to be associated with a much higher risk of tardive dyskinesia, which has been the subject of legal suits. Although we know of no legal cases resulting from the use of conventional antipsychotics as opposed to atypical agents, practitioners need to be cautious. ♦

References

1. Breier A, Tran PV, Herrera JM, et al: Current Issues in the Psychopharmacology of Schizophrenia. Philadelphia, Lippincott Williams & Wilkins, 2001
2. Buckley PF: New antipsychotic agents: emerging clinical profiles. Journal of Clinical Psychiatry 60(suppl 1):12–17, 1999