Effectiveness of a Work-Related Stress Management Program in Patients With Chronic Schizophrenia

Hui-Ling Lee, Happy Kuy-Lok Tan, Hui-Ing Ma, Chia-Yu Tsai, Yung-Kung Liu

OBJECTIVE. The purpose of this study was to examine the effect of a work-related stress management program on perceived work-related stress in patients with chronic schizophrenia.

METHOD. A single-blind, randomized crossover design was used. Twenty-nine patients undergoing vocational training while working at paid part-time jobs in a psychiatric center were randomly assigned to receive 12 weeks of a work-related stress management program followed by 12 weeks of no treatment, or the reverse. The Work-Related Stress Questionnaire for Chronic Psychiatric Patients (WSQP) was developed for this study and used to examine the treatment effect.

RESULTS. The decrease in stress was significantly greater when the participants were undergoing the program compared to the decrease of stress when they were not ($t = 2.93, p = .0034, r = .49$).

CONCLUSION. The results show that the work-related stress management program had large short-term positive effects on the patients’ perceived work-related stress. These findings support providing this type of program to employed patients with chronic schizophrenia.

In the early 1900s, an insight regarding the value of work for patients with psychiatric illness contributed to the foundation of occupational therapy as a profession. According to Adolph Meyer (1922/1977), work helps patients to structure their time and to engage in reality and actuality. Additionally, work may provide the satisfactions of completion and achievement. Although most of the work for psychiatric patients in Meyer’s time consisted of making crafts, these observations are still relevant to contemporary work. Bell, Lysaker, and Milstein (1996) described in detail the benefits of productive activities for psychiatric patients. According to these authors, a work program is reality oriented and provides social interaction and ego-strengthening experiences; therefore, it may reduce positive symptoms and the threat of self-disintegration. In addition, a work program provides increased goal-directed, motivated activity and social interaction opportunities, and thus may reduce negative symptoms. Therefore, following the philosophy of occupational therapy, and in view of the benefits of work programs, occupational therapists in our psychiatric center encourage chronic patients to engage in work activities. Accordingly, for those chronic patients who are not ready to perform full-time, competitive work, our center has offered institutionally-based, part-time paid job opportunities, such as coffee shop clerk, bookseller, delivery person, and building cleaner.

Work may also cause stress, however. Work-related stress, or occupational stress, has been recognized as a major worldwide problem that adversely affects the health of workers as well as the productivity of organizations (Mann, 1996). One definition of work-related stress is “the interaction of work conditions with characteristics of the worker such that the demands of work exceed the ability of the worker to cope with them” (Ross & Altmaier, 1994, p. 12). According to this definition, patients with psychiatric disorders are especially susceptible to experiencing work-related stress given their cognitive, emotional, and motivational...
impairments. Moreover, evidence from the stress vulnerability model reveals that patients suffering from schizophrenia and related disorders are particularly sensitive to stress in their daily lives, and that their perceived stress is associated with variation in intensity of symptoms (Myin-Germeys, Krabbendam, Jolles, Delespaul, & van Os, 2002; Norman et al., 2002). The symptoms—especially negative symptoms and depression—have further been shown to have substantial negative impact on the probability of employment (Slade & Salklever, 2001). Therefore, it is important to reduce work-related stress of persons with chronic schizophrenia. One direct approach to addressing this concern would be the provision of a work-related stress management program.

Until the inception of this study, however, there were no reports on the effectiveness of this type of program. Most of the existing literature consisted of reports of individual case studies and descriptions of programs using general stress management techniques for patients with schizophrenia (e.g., Starkey, Deleone, & Flannery, 1995; Stein & Nikolic, 1989). We found only one well-controlled study (Norman et al., 2002), which showed that patients who received a 12-week (general) stress management program had fewer hospital admissions in the year following treatment, compared to the patients in a social activities program. It is not clear, however, whether any of their participants were employed or whether the program reduced work-related stress.

A review of available and effective strategies ought to provide guidelines for designing such a program (see Table 1) (Mathney, Aycock, Pugh, & Cannella, 1986; Wolfgang, 1995). Research conducted with nurses as participants has shown that frequent use of active–cognitive coping strategies (e.g., talking with a friend) were associated with greater job satisfaction (van der Klink, Schene, and van Dijk, 2001) and related stress. They reported that cognitive–behavioral approaches aiming at changing cognitions and subsequently reinforcing active coping skills were more effective than relaxation techniques. The use of cognitive–behavioral intervention seemed to be effective in improving the perceived quality of work life, enhancing psychological resources and responses, and reducing complaints.

We therefore drew on the work of Mathney et al. (1986) and Wolfgang (1995) in order to design a work-related stress management program that emphasized preventive and cognitive–behavioral strategies. The purpose of this study was to examine the effectiveness of this program on perceived work-related stress in patients with chronic schizophrenia. Three hypotheses were proposed:

1. Participants in the stress management program would report a significantly greater decrease in stress after program completion than participants not in the program.
2. The decrease in stress would be significantly greater when the participants were undergoing the program than when they were not undergoing the program.
3. There would be no significant difference in stress scores reported 12 weeks after the stress management program compared to the stress scores immediately after the stress management program (i.e., effects of the program would be maintained).

### Method

#### Participants

Thirty-one patients with chronic schizophrenia (22 men and 9 women, mean age = 39.4 years) gave informed consent to participate in the study. All participants were inpatients of a psychiatric center and engaged in Level 4 or Level 5 of the center’s part-time paid job program before the study began. The institutional jobs in the center were classified into five levels, requiring abilities from low to high. The criteria for placing patients in the institutional jobs related to their attention span, hand function, occupational performance, and supervision needed. Within each level, there were several different types of jobs, and patients were encouraged to choose a job that matched their abilities and interest. Only very low wages were paid.

To be included, the participants also had to have scores higher than 15 in the Work-Related Stress Questionnaire for Chronic Psychiatric Patients (WSQP) (Lee, Ma, Tsai, Lieu, & Chen, 2003). All participants had residual symptoms. Additionally, they were taking antipsychotic medications and

<table>
<thead>
<tr>
<th>Citation</th>
<th>Description of Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathney, Aycock, Pugh, &amp; Cannella (1986)</td>
<td>• Preventive strategies: Monitoring stressors and symptoms, marshaling resources and attacking stressors, tolerating unavoidable stressors, and lowering stressful arousal.</td>
</tr>
<tr>
<td>Wolfgang (1995)</td>
<td>• Active–cognitive: Managing one’s appraisal of a situation’s stressfulness. • Active–behavioral: Attempting to deal directly with problems and their effects. • Avoidance: Attempting to avoid confrontation of problems or to indirectly reduce emotional tension.</td>
</tr>
</tbody>
</table>

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Table 1. Summary of Stress Management Strategies
were medically stable (i.e., had no changes in medication over the previous 3 months). Two participants withdrew 3 weeks after the treatment began (one was discharged and the other was admitted to a general hospital for treatment of cancer), which resulted in 29 participants in this study.

**Design**

A single-blind, randomized crossover design was used. Each participant was randomly assigned to either Group A or Group B (see Table 2). Group A received 12 weeks of work-related stress management program followed by 12 weeks of no treatment, and Group B received the opposite sequence, resulting in a crossover design. Evaluations were made at the beginning of the study (also as screening criteria), and 12 and 24 weeks later. The participants were assessed by an independent therapist, who was unaware of the group to which they had been assigned.

The crossover design was adopted because it allowed all participants to have the chance to receive treatment (ethical consideration). Additionally, providing treatment to a larger number of participants would allow a more reliable estimate of the treatment effect.

**Intervention**

The work-related stress management program was held once a week, 1 hr each time, for 12 weeks. The program was led by the first author, an occupational therapist with more than 10 years of experience working in the Department of Occupational Therapy of a psychiatric center in Nantou County, Taiwan. The content of group sessions was based on the work by Mathney et al. (1986) and Wolfgang (1995) on management of work-related stress. That is, to help patients monitor their stressors and symptoms, short lectures were given on the influences of stress on cognition, emotion, and behavior. Patients' negative emotions associated with stress, such as anxiety and anger, were self-evaluated with the goal of increasing the patients' awareness of these negative emotions. Subsequently, the techniques of handling negative emotions and stress (e.g., deep breathing, strut [walking proudly], exercise) were practiced. Additionally, the idea of emotional intelligence was introduced and ways of improving emotional intelligence were practiced.

Further, to increase the patients' resources for coping with stress, several sessions were devoted to communication skills training, assertiveness training, and problem-solving skills training. These three types of training were tailored for the specific working situations to help patients develop positive attitudes and habits toward work. Finally, methods of dealing with work-related crises and bottlenecks were presented and practiced.

In consideration of the patients' residual symptoms, each group session involved a 15- to 20-min warm-up to increase motivation and a brief didactic lecture (brief because of patients' short attention spans), followed by role-play to improve their stress management skills. Finally, homework was assigned to reinforce what they learned during the group sessions.

**Instrument**

To the best of our knowledge, there had been no questionnaire for evaluating work-related stress in patients with chronic psychiatric illness. We therefore developed the Work-Related Stress Questionnaire for Chronic Psychiatric Patients (WSQP) (Lee et al., 2003). This questionnaire was designed based on a literature review of work-related stress and symptoms of psychiatric illness (Chiou, 1996; Crandall & Perrewé, 1995; Hwu, 1999), and it includes 26 items in six domains: (a) factors intrinsic to the job, (b) organizational structure and climate, (c) relationships with others, (d) career and achievement, (e) home and work interface, and (f) psychotic symptoms. Each item states a situation. The participant is asked whether the situation happened or not during the last month and, if yes, how stressful it was to the participant. The stress level is graded from 0 to 3, with a higher score representing greater stress.

Content validity was sought through discussion with a panel of experts and a focus group of 12 patients with chronic psychiatric illness. The revised questionnaire was then administered to 61 patients twice with a 2-week interval to assess internal consistency and test–retest reliability. Labor’s Job Stress Inventory (Chiou, 1996) was also used 1 week after the first administration of the WSQP for the evaluation of criterion validity. The results suggested adequate reliability and validity of the WSQP. The internal consistency, as expressed by Cronbach’s alpha, ranged from 0.63 to 0.74. The test–retest reliability calculated by intraclass correlation coefficient (ICC) ranged from 0.76 to 0.88. The correlation between the WSQP and related items in the Labor’s Job Stress Inventory ranged from 0.46 to 0.51.

**Procedure**

After the Institutional Review Board’s approval, occupational therapists recruited patients engaged in the center’s Level 4 or Level 5 jobs for participation in the study.

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**Table 2. Randomized Crossover Design Used in the Study**

<table>
<thead>
<tr>
<th>Time</th>
<th>Week #0</th>
<th>Week #12</th>
<th>Week #24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>O, R</td>
<td>X</td>
<td>O, O</td>
</tr>
<tr>
<td>Group B</td>
<td>O, R</td>
<td>O, O</td>
<td>X</td>
</tr>
</tbody>
</table>

**Note:** O = Work-Related Stress Questionnaire for Chronic Psychiatric Patients (Lee, Ma, Tsai, Lieu, & Chen, 2003) administered; R = random assignment; X = treatment condition (work-related stress management program).
Interested patients were informed of the confidentiality of their personal information if they participated in the study. All volunteers were individually given the screening test of the WSQP in one week (i.e., week #0), and those who met the criteria (WSQP >15) signed the informed consent form. In the same week, the eligible participants were randomly assigned to either Group A or B. For the first 12-week period, Group A received the program, and Group B in the control condition did not (but all of their other rehabilitation programs continued as usual). All participants were given a second WSQP test the final week of the program (i.e., week #12). For the second 12-week period, Group B received the program, and Group A did not. At the end of the second 12-week period (i.e., week #24), Groups A and B were given a third WSQP.

Data Analysis

Baseline group comparability was analyzed using an independent \( t \) test for numerical data or a chi-square test for categorical data. For hypothesis #1, an independent \( t \) test was conducted for the data from the first 12-week period to compare the change in the WSQP total scores between Group A (in treatment condition) and Group B (in control condition) (Keppel, 1991; Portney & Watkins, 2000). For hypothesis #2, a paired \( t \) test was run to compare the change in the total scores between the treatment condition (Group A in the first 12-week period and Group B in the second 12-week period) and the control condition (Group A in the second 12-week period and Group B in the first 12-week period) (Kirk, 1995; Portney & Watkins, 2000, p. 190; Shadish, Cook, & Campbell, 2002). For hypothesis #3, a paired \( t \) test was used to compare the second versus third testing for Group A. The alpha level was set at .016 using the Bonferroni approach. If a significant difference in the total scores was found, post hoc comparisons were performed on the individual domain scores to understand which aspects of work-related stress were more sensitive to the treatment.

Although the data from the WSQP were ordinal, a \( t \) test was used because we believed that the stress measure was approximately equal-interval in the sense that all of the points represented meaningful, discernable steps toward a clinically relevant situation. Although the data might not be normally distributed, with moderate sample sizes, a \( t \) test is said to be robust when the normality assumption is violated (Johnston, Keith, & Hinderer, 1992).

The \( t \) value was further used to calculate effect size \( r \), which indicates the degree to which the phenomenon under study is manifested (Cohen, 1988). Effect size is free from sample size influence. According to Cohen, an \( r \) of .10 indicates a small effect, of .30 a moderate effect, and of .50 a large effect.

Results

Characteristics of the participants are presented in Table 3. There were no significant differences between the groups in demographic or baseline outcome variables. The attendance rate was 96.1% for Group A and 96.9% for Group B.

Table 4 shows the descriptive statistics for Group A and B in the three testings. The trend of the WSQP total scores in the three testings is depicted in Figure 1. In the first 12-week period, the score of Group A (in treatment condition) decreased, while the score of Group B (in control condition) slightly increased from the first to the second testing. In the second 12-week period, the score of Group A (in control condition) increased, while the score of Group B (in treatment condition) decreased from the second to the third testing.

For the first 12-week period, the results from the independent \( t \) test revealed a significant and large difference between Group A and Group B in the change of total scores.

### Table 3. Demographic and Clinical Characteristics of Study Participants

<table>
<thead>
<tr>
<th>Group</th>
<th>Gender</th>
<th>Education level</th>
<th>Age (years)</th>
<th>Illness duration (years)</th>
<th>Years of work</th>
<th>WSQP scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Junior high</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Group A</td>
<td>12</td>
<td>6</td>
<td>41.21 (6.24)</td>
<td>19.43 (6.41)</td>
<td>1.26 (1.23)</td>
<td>21.93 (10.22)</td>
</tr>
<tr>
<td>Group B</td>
<td>10</td>
<td>5</td>
<td>37.53 (3.91)</td>
<td>16.2 (5.47)</td>
<td>1.67 (1.31)</td>
<td>17.8 (5.68)</td>
</tr>
<tr>
<td><strong>Comparison</strong></td>
<td>( \chi^2 = 1.43 )</td>
<td>( \chi^2 = 1.17 )</td>
<td>( t = 1.92; p = .0657 )</td>
<td>( t = 1.46; p = .1549 )</td>
<td>( t = -0.86; p = .3974 )</td>
<td>( t = 1.33; p = .1981 )</td>
</tr>
</tbody>
</table>

Note. WSQP = Work-Related Stress Questionnaire for Chronic Psychiatric Patients (Lee, Ma, Tsai, Lieu, & Chen, 2003).
Post hoc comparisons suggested that major changes occurred in domains one \((t = 2.35, p = .0131, r = .41)\), two \((t = 4.75, p = .0001, r = .67)\), and four \((t = 1.83, p = .0394, r = .33)\).

When the data from the first and second 12-week periods were combined, the results of the paired \(t\) test suggested a significant and large treatment effect for the change of total scores \((t = 2.93, p = .0034, r = .49)\). The change was mainly due to the improvement in domains one \((t = 2.50, p = .0095, r = .43)\), two \((t = 3.91, p = .0003, r = .60)\) and four \((t = 2.46, p = .0103, r = .43)\). Finally, the comparison of the second testing versus third testing for Group A revealed a nonsignificant, but moderate-to-large, increase of stress during the control condition \((t = 1.74, p = .1062 \text{ [two tailed]}, r = -.43)\).

**Discussion**

The data analysis for the first 12-week period supports hypothesis #1, that the decrease of work-related stress was significantly greater in the group receiving the stress management program than in the group not receiving the program. In addition, after combining the data of the first and second 12-week periods, the results support hypothesis #2, that the decrease of stress was significantly greater when the participants were undergoing the program compared to the decrease of stress when they were not. The significant treatment effect reflected improvement of the group receiving the program and deterioration of the group not receiving it. The overall findings suggest that providing the work-related stress management program, the design of which was based on preventive, cognitive–behavioral strategies (Mathney et al., 1986; Wolfgang, 1995), reduced work-related stress in patients with chronic schizophrenia. The treatment effect, however, was not maintained 12 weeks.

**Table 4. Means and Standard Deviations of Group A and Group B in the Three Testings of the Work-Related Stress Questionnaire for Chronic Psychiatric Patients (WSQP)**

<table>
<thead>
<tr>
<th>Group</th>
<th>First testing</th>
<th>Second testing</th>
<th>Third testing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total scores</td>
<td>21.93 (10.22)</td>
<td>14.71 (7.89)</td>
<td>18.79 (9.62)</td>
</tr>
<tr>
<td>B</td>
<td>17.80 (5.68)</td>
<td>19.40 (10.90)</td>
<td>16.93 (8.27)</td>
</tr>
<tr>
<td>Domain 1—Factors intrinsic to the job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>7.5 (2.56)</td>
<td>4.93 (2.16)</td>
<td>6.00 (2.86)</td>
</tr>
<tr>
<td>B</td>
<td>6.47 (2.47)</td>
<td>7.07 (3.53)</td>
<td>5.73 (3.37)</td>
</tr>
<tr>
<td>Domain 2—Organizational structure and climate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3.00 (2.54)</td>
<td>1.64 (1.86)</td>
<td>2.79 (2.58)</td>
</tr>
<tr>
<td>B</td>
<td>1.60 (1.88)</td>
<td>2.13 (1.73)</td>
<td>1.80 (1.52)</td>
</tr>
<tr>
<td>Domain 3—Relationships with others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>4.21 (2.69)</td>
<td>3.43 (2.74)</td>
<td>3.71 (2.23)</td>
</tr>
<tr>
<td>B</td>
<td>4.47 (1.41)</td>
<td>4.87 (3.00)</td>
<td>4.73 (2.31)</td>
</tr>
<tr>
<td>Domain 4—Career and achievement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1.57 (1.34)</td>
<td>0.71 (0.99)</td>
<td>1.64 (1.65)</td>
</tr>
<tr>
<td>B</td>
<td>0.87 (0.92)</td>
<td>1.00 (1.20)</td>
<td>0.73 (0.88)</td>
</tr>
<tr>
<td>Domain 5—Home/work interface</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2.79 (2.33)</td>
<td>1.64 (1.55)</td>
<td>1.36 (1.50)</td>
</tr>
<tr>
<td>B</td>
<td>2.33 (2.23)</td>
<td>1.80 (2.18)</td>
<td>1.67 (1.88)</td>
</tr>
<tr>
<td>Domain 6—Psychotic symptoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>2.86 (2.93)</td>
<td>2.36 (2.47)</td>
<td>3.29 (1.98)</td>
</tr>
<tr>
<td>B</td>
<td>2.07 (1.79)</td>
<td>2.53 (2.65)</td>
<td>2.27 (2.05)</td>
</tr>
</tbody>
</table>

*Note.* The higher the score, the greater the stress. The dotted line means that the program was provided during that period. That is, Group A received the program between testings 1 and 2, and Group B received the program between testings 2 and 3.
after program completion, according to the data of Group A. The increase of perceived stress during the control condition suggests the tendency for patients to accumulate work-related stress over time when they were not provided with the stress management program.

Previous studies have documented the beneficial effect of cognitive–behavioral strategies on reducing work-related stress (Kandolin, 1993; van der Klink et al., 2001; Wolfgang, 1995). The present study extends the previous findings by showing that cognitive–behavioral strategies were also effective in patients with chronic schizophrenia. Although patients with schizophrenia are considered to have cognitive and motivational impairments, we believe that emphasizing the warm-up (to raise motivation) and role-play (to practice skills) helped our participants learn to use cognitive–behavioral strategies to reduce their work-related stress.

The patients in this study were not highly stressed, as evidenced by their low initial scores in the 26-item WSQP (range: 17–22). Two factors might have contributed to their low stress scores. First, the WSQP was developed for various work situations, but some situations in the WSQP might not have been encountered by the participants. After reviewing the data, we found that an average of one patient per testing had responded to at least two items with “did not happen.” As a result, the patients’ stress scores were lowered. Second, we observed that our participants, who had been hospitalized for several years, were sensitive to the responses they made in psychological measures, even though they were informed of the confidentiality of their response. We speculate that they might have been conservative when filling out the WSQP because they were afraid that if a moderate or high stress level was indicated, the treatment they were receiving (e.g., medication, rehabilitation) might be changed. In addition, the Likert scale in the WSQP ranges only from 0 to 3. The relatively large gap between adjacent scores may thus temper the sensitivity of the WSQP.

The positive effects found in this study support the future application of this program to patients with chronic schizophrenia. The program was held once a week; increasing the frequency of the treatment in future studies may increase the amount of stress reduction. The increase of stress in Group A during the second 12-week period, however, implies a limited long-term effect of this program. Future researchers may think about how to structure the program to increase its long-term effect or whether the program should be offered as a long-term support for those who work. In addition, future researchers may want to include other outcome variables related to staying or leaving the job in order to understand the relationship between work-related stress and successful employment.

Because the participants of this study were able to perform the center’s Level 4 or Level 5 jobs, they were considered to have fair-to-good cognitive ability, which allowed them to learn the cognitive–behavioral strategies used in this study. There are, however, still a large number of chronic psychiatric patients whose cognitive function has regressed to a lower level, and some of them may also have part-time jobs (e.g., our center’s Level 1 to Level 3 jobs) and experience work-related stress. Because these patients are likely to have problems learning the strategies used in this study, providing a stress management program for them is another challenge for future researchers.

Methodologically, this study has fair internal validity, because a randomized crossover design was adopted and the test administrator was blinded to participant assignment. Nevertheless, there are still some shortcomings. First, no placebo treatment was provided in the control condition; therefore, the change between treatment and control conditions may be attributed to the different amount of attention or time allocated to the participants. Additionally, the stress management program was led by the first author, who was aware of the research hypotheses, and thus some experimental bias might exist because of the experimenter’s unconscious expectation of study results. Future work to enhance design validity may include sham treatment and employ independent therapists to conduct the program. Finally, the use of multiple t tests in this study may have inflated the Type I error, increasing the potential for finding significance in the absence of an effect. Thus, a causal relationship may not actually exist between the intervention and the outcome. It could be argued, however, that the primary purpose of this study was to examine the change of total scores. The highly significant results (p < .005) of the t tests for hypotheses #1 and #2 suggest that the effect could not be overlooked. Accordingly, the subsequent analyses of domain scores are considered to be protected against the problem of “capitalizing on chance,” because some of the t values must be legitimately significant if the t values of the total scores are significant (Rosenthal & Rosnow, 1991).

Whereas supported employment in the United States places clients in competitive, real-world settings (Bond et al., 2001), the jobs we provided were institutionally based and sheltered our patients from the normal realities of the everyday world of work. Therefore, the stress of clients in supported employment is likely to be higher than the stress experienced by our study participants. Occupational therapy practitioners should be concerned about the work-related stress of patients with chronic schizophrenia when...
placing patients in vocational training or supported employment programs. The results of this study demonstrated that providing stress management programs that were tailored to patients’ working situations and psychotic symptoms alleviated patients’ stress and, therefore, we recommend including this type of program as part of support services for those undergoing vocational training or supported employment programs.

In conclusion, this study adopted a randomized crossover design and observed large short-term effects of the work-related stress management program on reducing work-related stress in patients with chronic schizophrenia. This study provides empirical evidence supporting future application of this type of therapy, while also calling for future research with a more solid design and comprehensive measurements.

Acknowledgments

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References


