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Effect of a Vocationally-Focused Brief Cognitive Behavioural Intervention on Employment-Related Outcomes for Individuals with Mood and Anxiety Disorders

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Abstract. Despite an increasing emphasis on the importance of vocational success to the quality of life of individuals with mental illness (Bond, Drake, & Becker, 2008), minimal work has examined the impact of cognitive behavioural interventions that focus on vocational stressors. Vocational stressors commonly faced by persons with mental illness include difficulties with work task completion, obtaining employment, and coping with interpersonal stressors (Becker et al., 1998). The purpose of this pilot study was to examine the effectiveness of a brief cognitive behavioural therapy group intervention that targets vocational stressors for individuals whose vocational functioning had been significantly impacted by mental illness. Participants included 16 individuals with mood and anxiety disorder diagnoses. After this intervention, it was found that employed persons reported an improved sense of mastery in the completion of work tasks, improved satisfaction with work supervision, and decreased satisfaction with advancement and job security. Unemployed participants reported improved expectancy for employment success. *Key words:* vocational; brief; cognitive behaviour therapy; expectancy; mastery; job satisfaction.

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The topic of employment among persons with mental illness has become increasingly salient in the research literature, as practitioners identify both the benefits of employment to quality of life and the difficulties faced by persons with mental illness in obtaining and maintaining competitive positions (Bond, Drake, & Becker, 2008). These difficulties include the impact of symptoms on work task completion, difficulty coping with work stress, and the impact of interpersonal stressors (Becker et al., 1998). Despite this increasing emphasis on employment, the primary focus of most mental health practitioners is on the amelioration of symptomatology, with

employment often viewed as a secondary or adjunctive concern addressed by employment specialists after treatment has been concluded (Waynor, Pratt, Dolce, Bates, & Roberts, 2005). Similarly, relative to the voluminous literature regarding the effectiveness of cognitive and behavioural strategies in the treatment of mental health conditions, documentation of efforts to apply cognitive behavioural therapy (CBT) strategies to employment-related stressors is minimal. Only one study was found that examined the outcomes of vocationally-oriented CBT intervention for persons with mental illness. This study, in which the majority of participants

had a diagnosis of schizophrenia, found improvement in mental health, optimism, and attitudes toward work (Rose & Perz, 2005). Studies of similar interventions conducted with the general population of unemployed persons have suggested outcomes such as improved success in finding work and increased mastery (Proudfoot, Guest, Carson, Dunn, & Gray, 1997; Vinokur & Schul, 1997).

The goal of this pilot study was to examine the effectiveness of a brief CBT intervention that targets vocational stressors/issues. Based on the previous work that has examined CBT for vocational stress in the general population and among persons with mental illness noted previously, we formulated the following hypotheses:

1. For persons who were unemployed, it was anticipated that CBT would increase their expectancies regarding future success in obtaining competitive employment.
2. For those who were employed, it was expected that CBT would improve job satisfaction and sense of mastery in the completion of work-related tasks.

Method

Participants

To be eligible, participants must have previously had some form of CBT treatment (in order to have developed core skills) and have psychiatric symptomatology that was affecting either work performance or the ability to secure employment. No participant was enrolled in concurrent CBT treatment at the time of the study. Of the 21 participants registered, 16 completed the CBT intervention (7 women, 9 men; 15 white, 1 person of Caribbean descent) from whom pre-post intervention data were gathered. Participants were administered pretreatment surveys 1 to 2 weeks before beginning the group with measures repeated at the end of the last group session. Ages ranged from 24 to 55 years ($\mu=41.3$, $SD=9.70$), and participants had a mean of 15.9 years ($SD=2.54$) of education (some college/university). Eight participants were employed and eight were unemployed. The participant pool was composed of individuals whose referring provider diagnosed mood and anxiety disorders (five with

comorbid major depressive disorder [MDD] and an anxiety disorder, primarily social phobia; six with only MDD; two with only anxiety disorders [social phobia and generalized anxiety disorder]; three with bipolar disorder). Six participants were on disability leave from work (range=1–5 years) as a result of mental illness. Of those working, a mean of 2.5 days of work (range=1–4, $SD=1.55$) had been missed as a result of mental health concerns in the month before the intervention. No substantial differences in diagnosis or life circumstance were noted between those who completed the group and those who dropped out. The primary reason given for dropout was a conflict with work schedule, although the group was held in the early evening to reduce this potential barrier. Participants were referred to the group through a range of outpatient providers.

Measures

Participants who were employed at the time of intake completed the 32-item Indiana Job Satisfaction Scale (IJSS; Resnick & Bond, 2001), which provides a total satisfaction score and subscales scores in the areas of general satisfaction, pay, advancement and security, supervision, coworkers, and how the individual feels on the job, rated on a 4-point scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). Employed persons also completed the 12-item Relative Mastery Measurement Scale (RMMS; George, Schkade, & Ishee, 2004), providing a measure of sense of mastery/competence regarding job tasks (binary scale: *agree/disagree*). Both scales have previously demonstrated good reliability (IJSS: .90; RMMS: .97) and validity (George et al., 2004; Resnick & Bond, 2001) with the following Time 1 (T1) and Time 2 (T2) reliability coefficients noted in the present study: IJSS T1=.87, T2=.87; RMMS T1=.66, T2=.59. Participants who were seeking work at the time of intake completed the 15-item Generalized Expectancy for Success Scale (Hale, Fiedler, & Cochran, 1992) as an indication of expectancies regarding vocational success, rated on a 5-point scale ranging from 1 (*highly improbable*) to 5 (*highly probable*). This scale has previously demonstrated good reliability (.92) and validity (Hale et al., 1992), with the following reliability

findings noted in the present study: $T1 = .95$, $T2 = .90$.

CBT intervention

Session 1. The cognitive model was reviewed, highlighting interactions among situations, thoughts, and outcomes (emotional, behavioural, physiological), with work-related examples used to illustrate points. Approaches to address automatic thoughts (e.g., evidence technique) and related cognitive distortions were reviewed. Instruction was also provided regarding deep breathing and progressive muscle relaxation to reduce anxiety.

Session 2. The second session focused on job task completion (whether on the job or related to job search). Psychoeducation was provided in the areas of time management, breaking tasks into components, prioritizing, pacing of workload, and using a problem-solving framework in task completion. This session also incorporated mindfulness in the form of discussion of how, when an individual is feeling overwhelmed, mindfully completing a less demanding task could help with regaining focus and reducing anxiety, thereby avoiding a complete withdrawal from work.

Session 3. This session used the framework for interpersonal effectiveness developed by Linehan (1993), which outlines a range of effective strategies for making requests, refusing requests, and resolving interpersonal conflict (e.g., assertiveness and negotiation skills).

This session incorporated role-plays in which participants had the opportunity to practice their skills in difficult social interactions.

Session 4. The fourth session had three areas of focus: response to feedback using the interpersonal skill framework, balance of life activities, and issues pertaining to the disclosure of mental health problems to current or prospective employers.

Session 5. This session was held 2 weeks later to allow more time for participants to practice their newly acquired skills. In this session, participants problem-solved around areas of ongoing difficulty. Homework was assigned in each of the first four sessions (e.g., thought records, relaxation exercises, interpersonal effectiveness worksheet), with each session including time for a review of homework. A clinical psychologist was the primary facilitator of all groups with cofacilitation by a vocational specialist with CBT training.

Results

Wilcoxon's signed rank test was used to test change as a result of the intervention; effect sizes were calculated with Cohen's d for repeated measures (see Table 1). For employed individuals ($n=8$), a significant change with a large effect size was noted in mastery (T^+ statistic=19.05, number of signed ranks=6, $p < .05$, $d = -1.14$), and although no significant changes were noted in job satisfaction domains using the signed rank test, a

Table 1. Means (and standard deviations), number of signed ranks ($N_{s/r}$), Wilcoxon T^+ statistics, and Cohen's d effect size estimate across pre- and posttreatment measures for employed ($n=8$) and unemployed ($n=8$) persons

Measure	Pretreatment	Posttreatment	$N_{s/r}$	T^+	d
RMMS ^a	1.57 (.19)	1.71 (.18)	6	19.05*	-1.14
IJSS					
Job satisfaction, total score ^a	2.91 (.41)	2.87 (.40)	8	15.00	0.14
General satisfaction	2.78 (.50)	2.75 (.57)	7	12.50	0.09
Pay	3.13 (.77)	2.78 (.57)	6	5.50	0.06
Advancement and security	2.84 (.80)	2.62 (.83)	8	12.50	0.42
Supervision	2.98 (.52)	3.20 (.71)	6	16.50	-0.82
Coworkers	3.00 (.39)	2.96 (.48)	6	9.00	0.10
How person feels on the job	2.82 (.51)	2.78 (.36)	6	8.00	0.16
Generalized expectancy for success ^b	3.54 (.96)	3.74 (.72)	7	20.00	-0.84

Note. RMMS=Relative Mastery Measurement Scale; IJSS=Indiana Job Satisfaction Scale.

^aEmployed persons. ^bUnemployed persons.

* $p < .05$.

small to moderate effect size (decrease, $d=0.42$) was noted in the area of advancement and security and a large effect size was observed in quality of supervision (increase, $d=-0.82$). For unemployed individuals ($n=8$), no significant change was noted in expectancy for success, although a large effect size was observed (increase, $d=-0.84$). These discrepancies between effect sizes and statistical significance are likely artifacts of the small sample size, with some commentary suggesting a greater emphasis on effect size analysis for small sample studies (Cohen, 1990).

Discussion

The present study found that, for employed persons, participation in a brief vocational stress-focused CBT group was associated with an increase in their sense of mastery in the completion of work-related tasks and an increase in satisfaction with work supervision. These findings are similar to those noted in other CBT interventions among the general unemployed population (Vinokur & Schul, 1997) and persons with schizophrenia (Rose & Perz, 2005). In contrast, the present study found a trend toward lower satisfaction with opportunities for advancement and job security. Although requiring further exploration, such a finding might reflect an increased interest in advancing in and maintaining work with an associated increase in critical appraisal of these domains. Finally, it was found that expectancy of future success in securing employment improved for persons seeking work. This finding is consistent with the work of Rose and Perz (2005), who found increased optimism regarding employment after CBT intervention.

Although the small sample size of this study, modest changes in scale mean scores, and the limited breadth of outcome measures require a very cautious interpretation of these findings, they indicate the potentially beneficial impact of this form of intervention. Informal feedback from participants, most of whom suggested that the impact of the group would have improved with a greater opportunity to actively implement the strategies learned, was an additional consideration in the appraisal of this intervention. Considering these points, promising areas for future

investigation include (a) examination of the outcomes of separate CBT interventions specifically tailored for employed and unemployed individuals; (b) examination of the impact of CBT interventions when paired with an evidence-based vocational intervention (e.g., supported employment), as has been suggested by others (e.g., Bond, 2004); and (c) examination of longer versions of this form of intervention (e.g., 8–10 sessions) to help to determine whether this would improve assimilation of materials/techniques and provide more opportunities to practice skills.

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