

Neurocognitive enhancement therapy with work therapy: Productivity outcomes at 6- and 12-month follow-ups

Morris D. Bell, PhD;^{1-2*} Gary J. Bryson, PsyD;¹⁻² Tamasine C. Greig, PhD;² Joanna M. Fiszdon, PhD;¹⁻² Bruce E. Wexler, MD²

¹Department of Veterans Affairs (VA) Connecticut Healthcare System, West Haven, CT; ²Department of Psychiatry, Yale University School of Medicine, New Haven, CT

Abstract—Neurocognitive enhancement therapy (NET), which involves computerized cognitive training and other methods, has been shown to improve working memory and executive function in schizophrenia. In the present study, 145 outpatients with diagnoses of schizophrenia or schizoaffective disorder recruited from a Department of Veterans Affairs mental hygiene clinic and from a community mental health center were randomized to 6 months of paid work therapy (WT) or to NET+WT. Mixed random effects analyses revealed significant increase in hours worked and money earned over time for both conditions ($p < 0.0001$). NET+WT worked more hours than WT ($p < 0.03$), with differences emerging after rehabilitation. Responders to NET+WT worked the most during follow-up and tended to have more competitive-wage employment. Results indicate that work outcomes were enhanced by NET training. Effects were greatest for NET responders. Findings support the efficacy of cognitive training when it is integrated into broader rehabilitation programs.

Key words: cognition, cognitive remediation, functional outcomes, neuropsychology, psychiatric rehabilitation, psychosis, psychosocial rehabilitation, schizophrenia, vocational rehabilitation, work therapy.

INTRODUCTION

People with schizophrenia encounter many barriers to successful reentry into work life. One of the greatest barriers has been the availability of appropriate opportunities with sufficient accommodations and supports. The Amer-

icans with Disabilities Act offers legal remedies to egregious violations of rights, but the stigma associated with severe mental illness and some of the self-stigmatizing features of the illness have slowed progress in the provision of work services for the mentally ill. Other barriers outside the person that influence vocational outcomes include unintended disincentives of most entitlement programs. Moreover, barriers inside the person, directly or indirectly related to the illness, impede vocational success.

Abbreviations: CWT = compensated work therapy; df = degrees of freedom; fMRI = functional magnetic resonance imaging; IT = incentive therapy; NET = neurocognitive enhancement therapy; NS = not significant; SCID-I = Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Axis I disorders; SD = standard deviation; SE = supported employment; VA = Department of Veterans Affairs; VACHS = Department of Veterans Affairs Connecticut Healthcare System; VCRS = Vocational Cognitive Rating Scale; WBI = Work Behavior Inventory; WT = work therapy.

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*Address all correspondence to Morris Bell, PhD; Psychology Service 116B, VA Connecticut Healthcare System, West Haven, CT; 203-932-5711, ext. 2281; fax: 203-937-4883. Email: morris.bell@yale.edu

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