

Can Cognitive Remediation Services Improve Employment Outcomes for Individuals with Psychiatric Disabilities?

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Vocational services for individuals with serious mental illnesses are still relatively new. Most began by adapting service models designed for the developmentally disabled. They offered services characterized by lengthy vocational assessments, extensive, and sometimes perpetual, pre-placement training, sheltered employment, or, not infrequently, no employment at all. With experience, vocational service providers made modifications, and new models emerged, such as Individualized Placement and Support, which emphasized integration with clinical services, job matching, on-the-job training, and competitive employment. As a result, program placement rates improved.

Why is a 50 percent Placement Rate Considered Realistic?

A 50 percent placement rate is widely used as a standard for supported employment programs, appearing in performance-based contracts and service quality goals. Yet, why has the bar been set so low? Why is it acceptable that 50 percent of the individuals that a program serves don't become employed? And for those that do get employed, why do so many terminate employment in the first six months?

As any supported employment provider will tell you, the reasons are both complex and numerous. Some are systemic - limited funding and the associated difficulties of recruiting and retaining qualified staff, the seemingly different goals of the vocational rehabilitation and mental health treatment systems, in which some clinicians are wary of work as a potential destabilizing factor. Other factors often cited include societal stigma and the increasingly competitive job market, which requires people to be more versatile and to work harder and longer. Individuals and their families fear the loss of benefits, the potential for relapse, and stigma in the workplace. Lack of belief in self-efficacy and fear of failure also come into play.

But another reason is that, until recently, vocational service providers have not been able to integrate into their programs what the latest behavioral science research tells us about cognition and mental illness. Vocational service providers for people with mental illnesses have long recognized that many of their participants have difficulties paying attention, remembering and processing information, planning, problem-solving, and dealing with novel situations. Service providers viewed these problems as secondary to other symptoms like psychosis, as medication-related, or related to institutional stays. It was thought that they would go away or significantly improve when people recovered, when their medication dosages could be lowered or newer medications tried, or when they became fully integrated into a community or an employment setting.

Program administrators have responded to these issues in a variety of ways. They've sought to place their participants in low-demand environments and matched them with entry-level jobs that required repetitive work and minimal decision-making. Such environments have been perceived as more suitable, regardless of the educational backgrounds of the participants, given their observed limitations. They've provided job coaches, sought accommodations from employers, and taught an array of compensatory strategies such as partializing tasks, note-taking, use of recording devices, alarms, checklists, and use of reminders to prioritize tasks and to perform sequential tasks. Sometimes these strategies worked, quite often they didn't.

Even after months on a job, participants continued to have difficulty maintaining attention and focus, organizing and mobilizing themselves to get a task done, following instructions, absorbing information, mastering new tasks, and setting priorities. Frequently participants could not increase the speed at which they were performing certain tasks. Although employers tolerated slower work speeds in the first months of a job, they expected employees to increase their speed as they gained experience on the job. And when that

didn't happen, terminations often resulted. In addition, some people felt stuck in jobs they were initially happy with but then felt limited by. Yet they were fearful about moving on because they were already having difficulties in their current job.

Mental Illness and Cognition

Over the past several years, numerous articles have appeared in the behavioral science literature regarding the impact of serious mental illness, schizophrenia in particular, on cognition. In their excellent handbook "Dealing with Cognitive Dysfunction Associated with Psychiatric Disabilities," Drs. Alice Medalia and Nadine Revheim define cognition as "...thinking skills, the intellectual skills that allow you to perceive, acquire, understand and respond to information. This includes the abilities to pay attention, remember, process information, solve problems, organize and reorganize information, communicate and act upon information."

The cognitive problems observed in individuals with mental illnesses are now recognized as primary symptoms of mental illness, caused by the way mental illnesses impact the brain's ability to receive and process information. The result is that many people with mental illnesses have impairments in cognitive skills such as attention, memory, the ability to process and respond to information rapidly, to think critically, to plan, organize and problem-solve, and in some instances, to quickly coordinate eye-hand movements. Most, if not all of these skills, are important to successful workplace functioning. It is now known that these cognitive skills can be improved, facilitating the type of learning required in the workplace.

What Is Cognitive Remediation?

Cognitive rehabilitation services have been widely used to treat the cognitive impairments of traumatic brain injury patients. In recent years, they have been made available to consumers of mental health services in a small number of inpatient and outpatient facilities. Cognitive rehabilitation services may involve remediation, which uses techniques to directly improve a targeted skill, compensatory strategies which teach alternate ways to perform a task, for example using mnemonic devices to compensate for poor memory, and adaptive approaches which modify an individual's environment, for example, using a watch alarm to remind someone to take their medication.

Cognitive remediation interventions consist of an array of educational and training techniques designed to improve a broad range of thinking skills. They involve a series of highly specific exercises that help the brain to practice and strengthen certain cognitive skills, just as physical therapy may involve a specific series of exercises to strengthen weak muscles. Remediation interventions can be provided on an individual basis or in a group. They may involve pencil and paper, or the use of a computer.

A typical computer-assisted cognitive remediation exercise designed to improve attention might provide a computer simulation of a conveyer belt carrying manufactured objects through a quality control checkpoint at a certain speed. A participant would be required to repeatedly identify flawed items on the conveyer belt and remove them by clicking a mouse. An computer-assisted exercise targeting attention and reaction time might require a participant to stop a moving clock hand at designated times.

Integration of Cognitive Remediation and Supported Employment Services: A Research Project

The Mental Health Association of New York City, Goodwill Industries, and the Institute for Community Living are participating in a cognitive remediation research project sponsored by the New York Work Exchange and funded by the New York State Office of Mental Health. This research project, led by Dr. Susan McGurk, Assistant Professor, Department of Psychiatry, at the Mount Sinai School of Medicine, will help to determine whether combining cognitive remediation services with supported employment services will improve the ability of individuals with mental illnesses to acquire and maintain employment. Specific cognitive skills targeted include attention, memory, motor speed and problem solving, all believed to be linked to successful employment outcomes. Supported employment program participants who choose to enroll in this research project will receive an initial neurocognitive assessment in the areas of attention, problem-solving, motor speed, learning and memory and reading level. As a result of this assessment, participants, employment program staff and the research team will jointly develop priorities and goals for

an individualized service plan. A supported employment staff member, trained in cognitive remediation techniques, will provide three computer-assisted cognitive remediation sessions for forty-five minutes to an hour each week for approximately eight weeks. Throughout the eight-week period, participants will be monitored and periodically evaluated for skill improvement. They will then be followed for two years to determine how helpful these services are in reaching their employment goals.

This research project brings important, previously unavailable, resources to supported employment participants, with the potential to significantly improve their employment outcomes. Neurocognitive assessments, a costly service normally not available to participants, will provide insight into individuals' cognitive strengths and weaknesses. Computer-assisted cognitive remediation services will help individuals to improve in areas of weakness. The Project's outcomes will help to determine the benefits and feasibility of making these services available to supported employment participants on a larger scale.

Note: For more information on cognition and mental illness, read "Dealing with Cognitive Dysfunction Associated with Psychiatric Disabilities, A handbook for families and friends of individuals with psychiatric disorders", written by Alice Medalia, Ph.D and Nadine Revheim, Ph.D. and sponsored by the New York State Office of Mental Health. This publication is available on the New York State Office of Mental Health's website www.omh.state.ny.us/omhweb/resources