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How I Stumbled on Cognitive Enhancement Therapy

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The fall of 1984 was a difficult time for me. I had asked permission from the Department of Rehabilitation Counseling at the University of Pittsburgh to write a review of the literature on cognitive remediation in schizophrenia as a partial requirement for my doctoral degree. I did not anticipate that my son Adi would be hospitalized with a bone infection and that I would be sitting on the floor of the Children's Hospital with index cards spread around me in a disorganized pile. From this discouraging beginning, a great deal has emerged.

The inspiration for the paper came from my work with schizophrenia at the historic clubhouse for persons with mental illness in Jerusalem Israel called Moadon Shalom. Dr. Mark Spivak had instilled all those who worked there with a deep appreciation of the role of cognitive deficits in schizophrenia and functional disability. My work as graduate assistant with Professor Jerry Hogarty's EPICS program at the University Of Pittsburgh School Of Medicine had allowed me to become familiar with a vast literature on the cognitive deficits in schizophrenia.

As a graduate student in Rehabilitation Counseling, I had set myself the quixotic task of reviewing that literature and deducing a new clinical intervention in schizophrenia. I experienced some difficulty convincing the faculty that I was not being overly ambitious. They felt a more modest goal was appropriate for the task. In retrospect without the deep understanding of disability and rehabilitation imbued by that faculty, Cognitive Enhancement Therapy (CET) would have been very different. CET is greatly informed by the disciplines of Rehabilitation Counseling and Rehabilitation Psychology.

The paper was accepted, my son mostly recovered, I earned my doctoral degree and in 1986 I went to work full time with Professor Hogarty's clinical research team as a vocational counselor. My work as a vocational rehabilitation counselor both in Israel and Pittsburgh profoundly influenced my thinking about cognitive remediation. I was also very lucky to be working with a man who had pioneered the psychotherapy research in schizophrenia.

Jerry had created that rare environment in which interdisciplinary clinical excellence came together with cutting edge clinical research. His studies on medication, psychotherapy, family therapy and social skills training had transformed the understanding of severe mental illness. Informed by these evidence based clinical practices, his team was putting more and more time between psychotic episodes for their patients. Individuals were more stable. They were better but still not well. Mentally ill people could live in the community for the most part but they were not taking on the meaningful social and vocational roles that most of us have. Clearly, there was work to do.

At the request of Dr. Ralph Tarter, Editor of Neuropsychology Review, I reworked my paper on cognitive remediation and it was published in the very first edition of Neuropsychology Review. Early in the 1990's the paper caught the attention of Professor Hogarty. NIMH had offered him the possibility of submitting a request for a Merit Award. On the basis of a short proposal, the Hogarty team was awarded funding to finish their ongoing study of Personal Therapy and to start working on developing and testing cognitive remediation in schizophrenia. I had come up with the idea as a graduate student and now a few years later, I had interested a major schizophrenia researcher and NIMH saying that doing cognitive remediation was the way to go.

Now the pressure was on to create a real program that matched the theory. Jerry kept asking me if I could really keep patients and therapists busy for a whole year. I didn't know for sure but I was hopeful.

With financial support Jerry had obtained, I was able to travel around the country and see who was doing what. Bonnie Spring who, together with Joe Zubin, had come up with the stress diathesis model for schizophrenia suggested to us that Dr. Ben Yishay's program at New York University for head trauma could inform our practice. This was a more than a helpful suggestion. Together with Dr. Beth Vendetti, I traveled to New York. One visit was enough to convince me that a holistic approach to remediation was the way to go. Dr. Oddie Bracy of Indianapolis kindly donated his software. In short order Dr. Debby Greenwald and I were piloting these new methods with real people.

We had a start but a piece was still missing. I was convinced that in addition to basic deficits in basic cognition, our population was handicapped by difficulties in social cognition. Ben Yishay's holistic approach with head injured individuals implicitly recognized social cognitive problems of the head injured.

But the issue with schizophrenia was subtly different. Jerry and I were convinced that both the cognitive and social cognitive deficits predated the actual onset of symptoms. Our patients seemed to have never successfully negotiated the psychological and practical emancipation from their family of origin that happens during early adulthood. Many of them seemed to be still dealing with issues of independence more typical of adolescence. Of course, there is a prolonged coming of age for many people in a postindustrial society. With our patients the social developmental delay was more noticeable.

Our research group had the good fortune of having Dr. Mary Carter, a sociologist who also knew a great deal about schizophrenia. Together with her, I submitted an article to the American Journal of Psychiatry provocatively titled the Neuropsychology of Schizophrenia. Developmental delays in basic and social cognition were linked the neurodevelopmental anomalies in schizophrenia. This brief article provided both a theoretical basis to our work with social cognition and many ideas that informed our practice. Jerry continued to think about the developmental issues and was blessed with the insight that the impaired neuropsychological

function in adult schizophrenics was very similar to normal functioning in children. He theorized that our patients continued to process information in verbatim fashion as children do and had not yet mastered the more gistful thinking style of adults. Together Jerry and I submitted a pair of articles in Schizophrenia Bulletin in 1999.

One article described our theory, the other our practice. Describing the practice was possible because beginning in 1994, we began our first Cognitive Enhancement Therapy Group with seven participants. We used the word enhancement rather than remediation to emphasize that we were dealing with a developmental disorder and a developmental treatment. Rather than finding a remedy to an illness, we set out to enhance the less than fully developed capacities. The urgency of starting the research compelled us to create many of the materials as we went along.

Psycho-education talks were formulated week by week as were the social cognitive exercises. I had been privileged to see the family psycho-education program at EPICS and I figured that a psycho-educational talk every week for a year might be useful. Mark Spivak had taught me the importance of social cognitive exercises. Ben Yishay's program showed taught me the importance of homework. Both elements were added to each and every group. Dr. Bracey's 3 software allowed us to keep our subjects engaged for a year. Dr. Ben Yishay's group also provided some very helpful software. Before the first group had finished a second group was started. In all ten groups of subjects eventually successfully completed the first controlled study.

In October of 2000, I left the University of Pittsburgh to train the staff at PLAN of Northeast Ohio in Cleveland Heights, OH and Renaissance Center in Pittsburgh, PA, the protocol of Cognitive Enhancement Therapy. Renaissance Center eventually merged with Mercy Behavioral Health. Both PLAN of Northeast Ohio and Mercy Behavioral Health have well trained staff. PLAN of Northeast Ohio has created a Center for Cognitive Innovation and has taken on the dissemination of CET to other agencies.

As of this writing, August, 2008, approximately 35 staff members of various agencies have been trained or are in the process of being trained as CET coaches. Thirteen have been certified as coaches and three have been certified as master coaches qualified to train others. Dissemination projects are underway in Northfield, OH; Cincinnati, OH; Dallas, TX; and Morgantown, WV.

In September of 2004 the results of the first two years of the CET study at the University of Pittsburgh were published in the Archives of General Psychiatry. The effects were significant and robust in several realms both at one and two years. The results of the three year study have since been published in 2006 in Psychiatric Services. Most of the positive results are still evident at three years; a full year after the treatment was completed. A second study of CET was conducted on first episode patients in Pittsburgh. Functional imaging was used to detect

changes in the brain. Although the results have not yet been published, they appear to be promising. My son Andi was eleven years old when he became ill. At this writing he is thirty-five. He feels that his hospitalization may have caused me to write the original paper. Perhaps my son deserves some credit. So do many other people.