



COGNITIVE REMEDIATION THERAPY

MHSA Innovation Project Evaluation Report
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ABSTRACT

Cognitive Remediation Therapy (CRT) Program is a four-year Innovation project combining two evidence-based practices, Cognitive Enhancement Therapy (CET) and Cognitive Behavioral Therapy for Psychosis (CBTp), for the purpose of testing the combination of these two approaches with the goal of increasing the quality of available services for individuals with psychosis and psychotic features including schizophrenia, schizoaffective disorder, bipolar disorder and major depressive disorder.

Patricia Wallace-Burke, PhD

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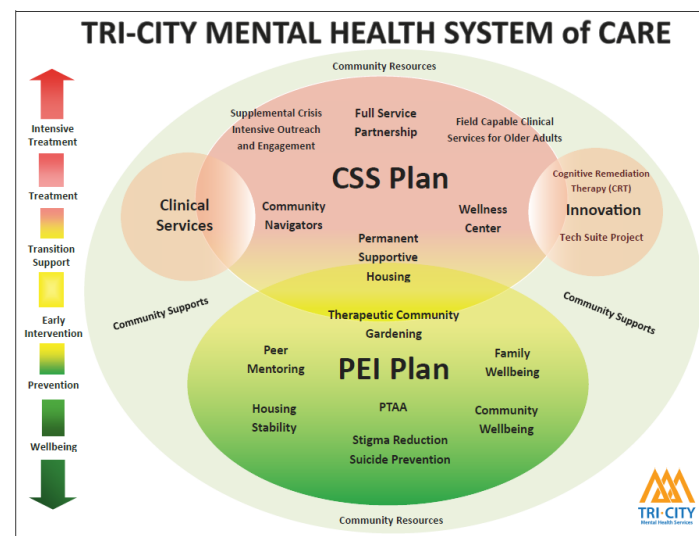
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TRI-CITY MENTAL HEALTH SERVICES SYSTEM OF CARE

Tri-City Mental Health Services (TCMHS) was created in 1960 as a result of the Joint Powers Authority adopted by the cities of Claremont, La Verne, and Pomona. It provides high-quality, culturally-competent, behavioral health care treatment, prevention, and education in the diverse cities of Claremont, La Verne and Pomona by understanding the needs of consumers and families.

TCMHS uses the MHSa planning effort to create a unique and transformative approach to mental health service delivery. Guided by a vision of a system of care that is aimed at creating wellbeing in the three cities of Claremont, La Verne and Pomona TCMHS plays a critical but not exclusive role in providing mental health supports and services. Rather, the system of care is made possible by the community's own capacity to care for its members without relying exclusively on expanded services provided by TCMHS. The role of TCMHS in this system of care is to provide services when necessary and to support the community's capacity to care for its members.

This orientation toward building a community's capacity for well-being, recovery, and mental health is the foundation of TCMHS' MHSa programming. The approach can be visualized using the following map of the emerging system of care and the MHSa investments that have been made to date:



TCMHS' emphasis on increasing the well-being of all community members urged us to consider treatments and approaches that could more directly allow individuals with psychosis and related disorders to live more productive, connected and meaningful lives. Hence, an innovative version of Cognitive Remediation Therapy which integrated two existing evidence-based practices was conceived as another component of the system of care that continued to build on the strength of TCMHS to support mental health and recovery. The following report represents areas of learning that we believe can increase community capacity, improve services, and enhance our system of care.

MENTAL HEALTH SERVICES ACT INNOVATION PROJECTS
INN-03 COGNITIVE REMEDIATION THERAPY

PROGRAM NAME: COGNITIVE REMEDIATION THERAPY

PROGRAM START DATE: SEPTEMBER 2014

PROGRAM END DATE: JUNE 2018

Summary of Project

The Cognitive Remediation Therapy (CRT) Innovation Project was originally proposed to be completed by June 2017. The project was first approved by the Mental Health Oversight and Accountability Commission (MHSOAC) in August 2014. The three-year project was originally scheduled to begin in September 2014 and be completed by June 2017. However, due to staff member changes and the challenge to identify a compatible client base for this unique program, this project experienced a delay in implementation and an extension was requested from the MHSOAC for a revised completion date of June 2018.

The CRT Innovation Project included a combination of two evidence-based practices, Cognitive Enhancement Therapy (CET) and Cognitive Behavioral Therapy for Psychosis (CBTp). CRT was marketed as Minds Moving Together (MMT) at Tri-City Mental Health Services (TCMHS) because the name was thought to sound less clinical and be more appealing to potential participants. However, the project is known as the CRT Program in this report.

CET is a performance based developmental approach to the rehabilitation of social and non-social (neuropsychological) cognitive deficits among those with schizophrenia and related disorders (Hogarty and Greenwald, 2006). It is designed to improve cognitive functioning such as memory, attention and problem-solving; improve processing speed, improve social cognition (the ability to act wisely in social situations), improve communication and listening, improve cognitive flexibility and improve the adjustment and management of disability. CET incorporates neuro-cognitive computer assisted training to help improve cognitive deficits often seen in those with psychosis.

CBTp is an evidence-based practice that has been adapted from cognitive behavior therapy. Cognitive behavior therapy is based on a cognitive model that suggests the “way we interpret events will have consequences for how we feel and behave and that such interpretations are influenced by our core beliefs, which are formed as a result of life experience” (Morrison and Barrett, 2010). There are several cognitive models of psychosis and psychotic symptoms or experiences (Chadwick and Birchwood, 1994; Garety et al., 2001; and Morrison, 2001) “that suggest that it is the way that people interpret psychotic phenomena that account for distress and disability, rather than the psychotic experiences themselves” (Morrison and Barret, 2010). Therefore, the aim of CBTp is primarily to reduce distress and functional deficits associated with psychosis rather than to necessarily get rid of the unusual experiences themselves” (Maddox, 2014). When the individual experiences, for example, auditory hallucinations,

the aim is not to stop “hearing voices”, but CBTp might make them appraise the meaning of those voices in a different, less threatening way (Maddox, 2014).

While other treatments (e.g., medications) focus on helping individuals reduce symptoms of psychosis such as hallucinations and delusions, in CBTp, “distressing experiences take center stage” (Freeman, 2013). An initial aim of CBTp is to develop an individualized understanding that accounts for distressing delusions and/or hallucinations (Freeman, 2013). Another aim is to reduce distress, increase confidence, and reengage in activity. Furthermore, “fearful thoughts are carefully reevaluated, withdrawal from social contact and activity is gradually reversed, and feelings of hope and self-worth are fostered” (Freeman, 2013).

CBTp also emphasizes a stress vulnerability model to help the individual understand the emergence of a psychotic symptoms as well as “understand that vulnerability is a dynamic concept that can be influenced by many factors such as life events, coping mechanisms or physical illness” (Kingdon and Turkington, 2006). An individual’s vulnerability to psychotic experience will interact with their experience of stressful life events, and their way of coping with those events can alter the likelihood of experiencing a psychotic episode or symptoms (Zubin and Spring, 1977).

The combination of two evidence-based practices that formed an innovative version of CRT was proposed to help individuals with psychosis or psychotic features improve skills that address social and cognitive deficits, and better manage psychotic symptoms by reducing distress and changing thoughts about them. Although CET addresses helping the individual understand, adjust to and better manage psychosis, specifically schizophrenia, as well as improve social cognition, gistful (main point) thinking, coping, cognitive flexibility, memory, attention and problem-solving, it does not address distress specific to psychotic symptoms. While CBTp addresses helping the individual change how to think about delusions and hallucinations, reduce distress associated with psychotic experiences and develop behavioral skills (e.g., problem-solving) it does not address cognitive and social deficits. CRT proposed to treat a broader area of deficits common in those with psychosis or psychotic features.

Previous experience with other CET innovation projects at TCMHS found that many clients did not meet the strict eligibility requirements because some had active use of alcohol or other drugs; did not meet IQ and reading level requirement; or did not have the required transportation and/or family support. CRT proposed to have simpler eligibility requirements such as having at least a seventh grade reading level, allowing those who are homeless and those who have co-occurring disorders to participate as long as they are willing to make the commitment to the program cycle. In an effort to remove a potential barrier to attendance, CRT provided transportation for each cohort.

CRT explored the breath of clients who might benefit from this program. CRT included clients who were diagnosed with Schizophrenia, Unspecified, Schizoaffective Disorder, Bipolar Type, Schizoaffective Disorder, Depressive Type, Other Psychotic Disorder Not Due to a Substance or Known Physiological Condition, Bipolar Disorder, Current Episode Depressed, Severe with Psychotic Features, Bipolar Disorder, Current Episode Manic, Severe with Psychotic Features and Major Depressive Disorder, Recurrent, Severe with Psychotic Symptoms. A few of the clients who participated in CRT had co-

occurring disorders such as Cannabis Dependence, Uncomplicated and Other Stimulant Abuse, Uncomplicated. Several clients continued to use substances during their participation in the program which required additional agency support.

The proposed requirements for CRT were for 18 years of age or older (59), experience with psychosis or psychotic features, a commitment to the program cycle and participation open to residents of Claremont, La Verne and Pomona. The actual requirements were experience with psychosis or psychotic features, at least a seventh grade reading level, a basic understanding of math to help with the computer exercises, a commitment to the 13-week program cycle for Cohort 1 and Cohort 2 or a commitment to the 16-week program cycle for Cohort 3 and Cohort 4. The age requirement was changed from 18 years of age or older (59) to 18 years of age to 55 years of age. The reduction in the age limit was made to lessen the possibility of encountering those with age related cognitive impairment. Participation was open only to any resident of Claremont, La Verne and Pomona who was enrolled at TCMHS for mental health services and was actively engaged in treatment in any of the following programs: Adult Outpatient Services, Full Service Partnership-Adults and Full Service Partnership-Transitional Age Youth.

The reading eligibility criterion of seventh grade was established by the CRT staff members for a specific rationale. CET programs have different reading level criteria. The modified CET program previously conducted at TCMHS had a fourth grade reading level criterion that was consistent with an evidenced-based CET program located in Ohio. A different evidence-based CET program did not emphasize a specific reading level criterion. After reviewing specific CET modules, CRT staff members thought that some of the information was complex for a fourth grade reading and comprehension level. For example, the module on cognitive flexibility might be challenging for a fourth grade reading and comprehension level. In an effort not to set up clients for failure, the reading level was increased to a seventh grade reading level. Several modules such as regulating your limbic system and memory were also eliminated from the curriculum.

Traditional CET is conducted in either 48 or 45 weeks, but was conducted in 52 weeks at TCMHS. Individual CBTp is typically provided in a range of 12 to 20+ weekly sessions. Cohort 1 and Cohort 2 of CRT were conducted in 13 weeks which included 12 weeks of intervention and a graduation ceremony on the final 13th week. Cohort 3 and Cohort 4 of CRT were conducted in 16 weeks which included 15 weeks of intervention and a graduation ceremony on the final 16th week. This change occurred as a result of information learned from Cohort 1 and Cohort 2. The change included an increase in the length of Cohort 3 and Cohort 4 due to the inclusion of two exclusive 2 ½ hour computer sessions added to each cohort.

The CET pilot program conducted at TCMHS was proposed to be administered only to a monolingual Spanish-speaking cohort. However, the proposal was changed because the cohort encountered significant attrition due to issues such as loss of housing, economic challenges and family responsibilities in addition to the required 52-week commitment and no opportunity to replace those who discontinued the program. The following modified CET cohorts experienced attrition although improved. Therefore,

in an effort to further reduce attrition and maintain consistent participation, a significant reduction in the number of weeks for the CRT program was proposed.

CRT recruited potential clients to participate in the project in numerous ways. A CRT staff member provided a presentation to the Adult Outpatient Services, Full Service Partnership-Adults and Full Service Partnership-Transitional Age Youth programs. Clinicians and case managers were then contacted and requested to make referrals of eligible clients. A CRT staff member attended the new employee orientation and informed them about the project. Flyers were also located in strategic areas throughout the agency to attract potential clients. However, the majority of Cohort 1 clients were recruited from the caseload of one of the CRT staff members. Those clients who met the eligibility criteria were interviewed and asked about their interest in participating in a new and innovative group at TCMHS. They were selected to be in Cohort 1 if they made the 13-week program commitment.

Recruitment for Cohort 2 began with a review of a master client list that contained all the clients who had an eligible diagnosis and who were receiving services in any program at the agency. Once CRT staff members eliminated clients who exceeded the age limit and who were monolingual, an exhaustive review of the progress notes, psychosocial assessments and treatment plans was conducted to further rule out ineligible candidates. For example, clients who also received services from the Regional Centers were eliminated due to IQ and reading level concerns. Clients who had inconsistent engagement and treatment attendance (e.g., had not received services seen in four weeks) were eliminated because presumably, clients who were inconsistent with their individual and/or group treatment would not make the commitment to participate in a new weekly group for 13 weeks. Clients who were in school or working during the group time were eliminated. Clients who were in the process of being stepped down to a lower level of care outside of the agency were also eliminated. Homeless clients were interviewed on a case-by-case basis. Those who had symptom stability and were willing to make the commitment to the group despite their living situation were accepted.

Recruitment for Cohort 3 occurred in a similar manner to Cohort 2. Outreach to staff members at the Adult Outpatient Services, Full Service Partnership-Adults and Full Service Partnership-Transitional Age Youth programs was conducted concurrently with the review of the master client list. CRT staff members provided presentations to these programs and answered questions in an effort to encourage program staff members to refer their clients. A review of potential clients' progress notes, treatment plans and psychosocial assessments also took place. Several clinicians, case managers and two psychiatrists who were aware of previous CRT groups and had received positive feedback from their clients, referred potential candidates to Cohort 3 even before the recruitment period began. All clients whether referred by the various programs' staff members or selected from the master client list were informed about CRT, interviewed and then selected.

Recruitment for Cohort 4 did not include presentations to the various programs. Staff members in these programs were informed of the start of CRT. Several program staff members provided referrals; however, most of the eligible clients were selected from the master client list. The CRT staff member collaborated with clinicians and case managers, and asked their assessment of the potential candidates.

Clients were interviewed and the final selection was made based on their eligibility, interest and commitment to the 16-week program.

Summary of Purpose

The purpose of the CRT Program was to develop an innovation project to increase the quality of available services including measurable outcomes for people with psychosis and psychotic features including schizophrenia, schizoaffective disorder, bipolar disorder and major depressive disorder. The project integrated two existing evidenced-based practices CET and CBTp that elsewhere are administered independently, each addressing one part of a client's interrelated cognitive impairment and psychotic symptoms. This project tested an approach to treating the whole person who experiences psychotic illness with an innovative combination of treatments to address both cognitive impairment and psychotic symptoms. Additional purposes of this project were to increase access to underserved groups, increase access to services and promote interagency collaboration.

TCMHS' focus on increasing the well-being of all community members was one of the catalysts for a proposed project that could more directly allow individuals with psychosis and psychotic features to significantly improve their abilities to function in the community and experience more purposeful lives. Moreover, this project explored the potential of faster recovery by combining two existing evidenced-based practices into one program and offering it in a reduced time-frame. This project also addressed some of TCMHS' values such as accessible, accountable, client-driven, cultural competence, collaborative, research-informed, respectful and strength based.

Project Questionnaires

It must also be noted that while there was a modified traditional CET program conducted at TCMHS, there was no CBTp intervention completed at this agency. There was an attempt to establish an individual therapy CBTp control group of clients in adult outpatient services who met the criteria for a diagnosis of a psychotic disorder or disorder with psychotic features. CRT staff members collaborated with a TCMHS therapist trained in CBTp with the intention to have him administer pre and post intervention questionnaires in similar time frames to those given to the CRT clients. However, maintaining the control group proved to be challenging. Only a small number of clients initially met the criteria of having symptoms of psychosis to be part of the control group. One of the clients who participated in the control group was not ready to address his addiction and eventually discontinued treatment. The other potential client could not participate in the control group because he had already completed the CRT program. As a result of these challenges, our ability to maintain a control group and obtain survey data to help quantify the differences in outcomes proved to be unfeasible.

While an individual therapy CBTp control group was not established for this project, there has been data reported that supports the effectiveness of CBTp as an individual treatment (Dunn et al. 2012; Garety et

al. 2008; and Kingdon and Turkington, 2006). However, CBTp group therapy data has shown inconsistent outcomes. For example, Owens et al. (2015) found that a four-week group of CBTp with inpatients indicated significant reductions in distress and increased confidence. However, Wykes et al. 2008 found from their meta-analysis that the effect size for groups was likely to be inflated, so the findings may not be as significant as what has been reported.

Although there was no control group, Cohort 1 and Cohort 2 completed a questionnaire given at pre-intervention and post-intervention to measure the reduction of psychotic symptoms. Cohort 1 and Cohort 2 were asked the following questions: I have trouble speaking the words I want to say; When I say the things I want to say, people tell me they can't understand what I am saying; I see or hear things that other people cannot see or hear; I smell, taste or feel things other people cannot smell, taste or feel; Sometimes my thoughts are not organized or connected to each other; I believe that someone may be planning to cause me harm or may be about to cause me harm in the future; I sometimes feel like I have no emotions; I have difficulty getting myself organized to complete any kind of daily activity; I enjoy working in groups; and I am able to build relationships or connections with people in my community.

Cohort 1 and Cohort 2 used an on-line computer brain-training program to address memory, attention and problem-solving, but there was inconsistent data collection to measure cognitive functioning. The on-line computer brain-training program presented difficulties for several reasons. First, clients were assigned to complete five computer exercises per week at home. Clients selected the exercises they wanted to play and were to record the score for each completed exercise. They also were to provide final scores which included an overall score, an attention score, a speed score, a flexibility score, a memory score and a problem-solving score. Clients could write comments about the games they played if they wanted to do so. Second, since the clients completed the computer exercises at home, staff members had no way to control which exercises they selected and sometimes a few clients did not complete any. If for example, a client had a low score on memory as indicated by a performance index, and he or she preferred working on attention games, but could benefit from memory games, there was no way to ensure that he or she would work on these games. Third, some clients reported that they completed the five computer exercises, but forgot to fill in the provided homework sheets. Finally, data could not be collected when the homework sheets were incomplete which resulted in no data analysis for either Cohort 1 or Cohort 2. The advantage of clients working on the computer games at home was that there was no time constraint and they could work on them as long as they wanted to until the games stopped after about four trials. However, the disadvantages outweighed the advantages.

The concept of brain-training presented a difficulty. The research literature contained contradictory results regarding the efficacy of brain training games and according to "A Consensus on the Brain Training Industry from the Scientific Community," Max Planck Institute for Human Development and Stanford Center on Longevity (2014), there's no convincing evidence that any brain training programs will improve general cognitive abilities or prevent cognitive slowing or brain disease. Moreover, studies have not shown whether benefits gained from brain training persist and transfer to real life (Doraiswamy and Argonin, 2009). For these reasons, a different approach was utilized for Cohort 3 and Cohort 4.

Information learned from Cohort 1 and Cohort 2 resulted in a change from measuring psychotic symptom reduction to measuring psychotic symptom management for Cohort 3 and Cohort 4. There was also a change in the measures used in Cohort 3 and Cohort 4. A client questionnaire was created by using six items from the Illness Management and Recovery Scale (Fardig et al., 2011) to measure progress toward goals, knowledge about mental illness, symptoms distress, impaired functioning, coping efficacy and using medication effectively. Four items from the Beliefs about Voices Questionnaire (BAVQ-R) (Chadwick, 2000) were used to measure beliefs about voices. The questionnaire contained one item that measured how stressful hallucinations/delusions are. It was rated from very stressful to not at all stressful. Items from the Delusions Inventory (Peters et al., 1999) were used to measure delusional beliefs and vivid mental experiences. Four items were used and for each item that was answered yes, “how stressful are these beliefs” was also measured. The “yes” responses were rated from very stressful to not at all stressful.

Data was collected for Cohort 3 and Cohort 4 utilizing several assessments that were completed by CRT staff members or either the clinician/therapist or case manager of the client. The Cognitive Style and Social Cognition Eligibility Criteria was developed by (Hogarty et al. 2004) for the original CET research at the University of Pittsburgh Medical Center, Western Psychiatric Institute and Clinic. It was completed by a CRT staff member. This assessment originally measured the change in three types of thinking styles seen in those with schizophrenia: unmotivated style, disorganized cognitive style and inflexible style. The Social Cognitive Criteria was included as part III of the Cognitive Style and Social Cognition Eligibility Criteria and was also completed by the CRT staff member. It measured the change in social cognitive criteria that included vocational ineffectiveness, interpersonal ineffectiveness, lack of foresight, gist extraction deficits and adjustment to disability. A score of five for both of the assessments indicated severe impairment and a score of one indicated rare or no impairment. The lower the score, the better the score. The Social Cognitive Criteria assessment was modified for CRT and eliminated two items: vocational ineffectiveness and lack of foresight. The items were eliminated because the CET portion of the CRT curriculum did not address these areas in Cohort 3 due to time constraints; however, lack of foresight was addressed in Cohort 4. There was a total of three items. The modified CRT version of the Social Cognitive Criteria assessment was unable to determine a cut-off score to indicate severe and very severe social cognitive criteria, so mean scores were analyzed to determine changes in social cognitive criteria.

The Cognitive Style Inventory was developed by (Hogarty et al., 2004) and completed by a mental health professional such as a clinician/therapist or case manager who was familiar with the client. It measured cognitive traits that often interfere with a successful rehabilitation. The original assessment contained 18 items that measured Impoverished (Problems Getting Started); 18 items that measured Disorganized (Problems Maintaining Focus) and 10 items that measured Rigid (Problems Changing Ideas). The Cognitive Style Inventory was modified for CRT to accommodate the reduced length of intervention of the CET portion. The reduced CET portion of the intervention did not address various problem areas. For example, the reduced CET portion was unable to address motivation, so the item, lacks motivation was eliminated. The modified CRT version of the Cognitive Style Inventory contained six items that measured Impoverished (Problems Getting Started), six items that measured Disorganized (Problems

Maintaining Focus) and four items that measured Rigid (Problems Changing Ideas) for a total of 16 items compared to the original 46 items. Items were rated as almost never, sometimes, often, usually and almost always. Although the original assessment added the Impoverished Style Score, Disorganized Style Score and the Rigid Style Score to obtain a total score, the modified CRT version of the Cognitive Style Inventory could no longer use a total score due to the reduced number of items in each category. Therefore, individual scores and group averages were analyzed at pre-intervention and post-intervention to determine changes.

The Social Cognition Profile was developed by (Hogarty et al., 2004) and measured changes in social cognition which is the ability to act wisely in social situations. It was completed by a mental health professional such as a clinician/therapist or case manager who was familiar with the client. The mental health professional scored how the client felt and acted today or in the past month toward family, friends or other clients. The original assessment contained 49 items and was rated almost never, sometimes, often, usually and almost always. The Social Cognition Profile was modified for CRT to include 24 items that accommodated the reduced CET portion of the intervention. The original assessment used four factor scores that were obtained by summing various items that measured tolerant, supportive, perspective and self-confident. Since the modified CRT version of the Social Cognition Profile used only 24 items, factor scores could not be used. Individual scores and group averages were analyzed at pre-intervention and post-intervention to determine changes.

Cohort 3 and Cohort 4 addressed memory, attention and problem-solving utilizing the Neuropsychonline (NPO) Cognitive Rehabilitation Therapy System (Bracey, 2001). NPO is a neurocognitive rehabilitation and training program. Specifically, it is an online compendium of cognitive exercises for the purpose of conducting comprehensive and effective cognitive rehabilitation therapy or cognitive skills training. CRT used various NPO computer exercises to enhance cognitive functioning or skills across the following domains: Attention Skills, Memory Skills, Problem-Solving Skills and secondarily across the following domains: Executive Skills, Visuospatial Skills and Communication Skills. NPO contains computer exercises that are divided into six Tracks and are reflective of these cognitive domains. Each Track contains up to 15 exercises or tasks and up to four Levels of complexity. NPO uses a prescription system that automatically presents the prescribed exercises to the client. The client is advanced to the next exercise in a particular Track based on his or her performance. When a client demonstrates mastery of a Level, NPO will advance him or her to the next Level or Task within the Track hierarchy. The therapist also has the option setting up a prescription for the client. The CRT staff member set up a prescription for each client in Cohort 3 and Cohort 4.

CRT conducted a total of 15 computer training sessions. The first two sessions were exclusively computer training and each was scheduled for 2 ½ hours. The remaining 13 weekly sessions were scheduled for 50 minutes. CRT used the first trial of Track 1: Attention Skills, Task 1: Simple Visual Reaction (Fixed) and the first trial of Track 3: Memory Skills, Task 1: Sequenced Recall (Digits Visual) as the pre-intervention measurement of attention skills and memory skills. Specifically, Track 1: Attention Skills, Task 1: Simple Visual Reaction (Fixed) used reaction time as a measure of focus and initiation of responses. Track 3: Memory Skills, Task 1: Sequenced Recall (Digits Visual) used the ability to recall up to eight digits as a measure of working memory or immediate recall.

Once clients completed the trials, they were assigned to Track 2: Executive Skills, Task 1 to work on executive skills for the remainder of the first computer session. On the following computer training session, clients were not allowed to work on Track 1: Attention Skills, Task 1: Simple Visual Reaction (Fixed) or Track 3: Memory Skills, Task 1: Sequenced Recall (Digits Visual). They could either continue to work on Track 2 Executive Skills, Task 1 until they completed the four levels and were advanced to the next task or they could begin either Track 1: Attention Skills, Task 2; Track 3: Memory Skills, Task 2; Track 4: Visuospatial Skills, Task 1 or Track 5: Communication, Task 1.

Clients worked on a task until they successfully passed all four levels and were automatically advanced to the next task within a particular track or appeared bored and were moved to a different track and task by the CRT staff member. Clients were also moved to a different track and task if they asked the CRT staff member to move them because they felt the task was too challenging or difficult and they had made numerous unsuccessful attempts. The CRT staff member consistently reminded the clients that even though they were having difficulty passing a particular level or could not figure out the best way to complete a task, they were still “working” the brain which was a goal. Clients were encouraged to work on a particular task as much as possible before being moved due to reported difficulty. While some clients continuously asked for help on how to complete a particular task, CRT staff members reminded them that it was important for their brains to figure out how to complete the task if possible. The CRT staff members assisted clients in understanding the directions to make sure they understood what they were doing without telling them how to do it. Some clients found the computer exercises very challenging and were unable to move beyond a Task 2 exercise in any of the six Tracks, while others completed Task 4 exercises in several of the Tracks.

In summary, the following criteria were measured in Cohort 3 and Cohort 4: 1. Symptom management; 2. Beliefs about voices; 3. How stressful hallucinations/delusions are; 4. Delusional beliefs and associated stress; 5. Three types of thinking styles: unmotivated style, disorganized style and inflexible style; 6. Social cognitive criteria: interpersonal effectiveness, gist extraction deficits and adjustment to disability; 7. Cognitive traits that often interfere with a successful rehabilitation: impoverished, disorganized and rigid; 8. Social cognition; 9. Attention skills (focus and initiation of responses) as measured by reaction time; and 10. Memory skills (working memory or immediate recall) as measured by the ability to recall up to eight digits.

Project Curricula

The curriculum for Cohort 1 and Cohort 2 consisted of 12 weeks, 23 modules and a graduation ceremony. Each module was 45 minutes and two modules were presented during each group session for a total of 90 minutes. A brief bathroom break is recommended between the two modules.

Module 1 Computer Lab was created by a CRT staff member to introduce clients to the on-line brain training computer program as well as address basic internet navigation. Clients were given an opportunity to participate in a practice session. Clients were informed how structured homework would be assigned and monitored, and how to use the performance index.

Module 2A Rule Setting/Introduce Yourself consisted of rule setting and establishing group norms. Clients were encouraged to create rules that would help the group run smoothly. This module also consisted of Introduce Yourself which was based on the Introduce Yourself module located in the Cognitive Enhancement Therapy: The Training Manual (Hogarty and Greenwald, 2006). Module 2B Psychoeducation introduced clients to non-stigmatizing language to use to describe symptoms. The module informed clients about how stress vulnerability such as genetic vulnerabilities and family stressors can bring on psychotic disorders. The module presented a review of clients' treatment goals and informed them how the CRT curriculum, cognitive enhancement exercises, regular contact with the treatment team and support from family and friends could help them achieve their goals.

Module 3A Word Sorting was based on the Categorization modules located in the Cognitive Enhancement Therapy: The Training Manual (Hogarty and Greenwald, 2006). Module 3B Relaxation, part 1 introduced clients to use of relaxation techniques as a part of symptom management. A basic relaxation script (Baylor University, n. d.) was used to demonstrate these skills.

Module 4A Mix N' Match was created by a CRT staff member to enhance clients' abilities to recall the location of objects organized by color, number and symbol, and enhance clients' social interaction in pairs as well as in the larger group. Module 4B Relaxation part 2/Mindfulness introduced clients to the concept of mindfulness (Mindfulness Staff, 2014) and how tuning in to themselves can raise further awareness of the impact of their symptoms.

Module 5A Eenie, Meenie, Miny, Moe was a card game created by one of the CRT staff members to help clients enhance their abilities to solve problems and recognize numbers quickly and efficiently. It was also created to help clients enhance their social interaction in pairs and in the larger group. Module 5B Self-Monitoring utilized a self-monitoring worksheet to help clients "play detective" to enhance their awareness of when or where symptoms are most prevalent and act as a cue to utilize relaxation skills. The module also reviewed a list of faces with corresponding feelings to increase their use of feeling words and recommended that they practice new words with their family and friends.

Module 6A Lunchbox was an activity created by one of the CRT staff members in which clients participated in a musical chairs process to choose a card from a lunchbox if she or he was holding it when the music stopped. Once clients had selected their cards, they had to remember the name of a color written on them. While standing (for all those who could stand) clients listened to a story about a garden with embedded color names that corresponded to directions, e.g., red=sit. At the end of the story, clients were either sitting or standing depending on the color they selected and depending if they remembered the color and followed the directions. The module was designed to assist clients in enhancing their memory, attention and retention abilities as well as enhancing social interaction in the larger group. Module 6B Unhelpful Thoughts introduced clients to the concept of thoughts influencing feelings and behaviors (cognitive triangle) and raised awareness of how unhelpful thoughts makes them feel bad, while helpful thoughts can make them feel good. The module reviewed a list of 10 unhelpful thinking styles (cognitive distortions) such as all or nothing thinking (Burns, 1989: Revised, 1999).

Module 7A Condensed Messages utilized scenarios based on the Condensed Messages module located in the Cognitive Enhancement Therapy: The Training Manual (Hogarty and Greenwald, 2006) to enhance clients' abilities to directly communicate thoughts, feelings, or concerns in the simplest form. The module also focused on enhancing clients' social interaction in pairs or in the larger group. Module 7B Goin' Back (review) provided a review of all therapeutic topics and materials presented in past weeks and provided the opportunity for a "check in" with clients to raise questions, feelings, or concerns they've had about their work thus far. The module also addressed the importance of motivation and provided encouragement for clients to continue their work by reflecting all they've accomplished in past weeks.

Module 8A Word Scramble was created by one of the CRT staff members and included 15 scrambled words that were related to topics discussed in the previous groups. The activity was created to help clients focus on a task as well as collaborate with a partner to help unscramble the words. Hints were provided for each word to help clients get the answers. Module 8B Strong Thoughts explains the difference between a thought and belief. The module introduced clients to strong beliefs known as delusions when they are false. The module provided an illustration of a person having a strong belief, and what he was thinking, how he was feeling and how he was behaving. Clients were encouraged to discuss the illustration as well as share personal experiences of strong thoughts/beliefs.

Module 9A Sound Bytes was based on the Sound Bytes module exercises located in the Cognitive Enhancement Therapy: The Training Manual (Hogarty and Greenwald, 2006). Five factual stories containing three paragraphs were provided to help clients practice gist (main point) extraction. Each client collaborated with a partner to answer five questions about the stories. Module 9B Problem Solving provided a five step process (Tarvin, n. d.) that involved defining the problem, generating possible solutions, examining the solutions, choosing a solution, and gauging its effectiveness to help improve clients' abilities to solve problems.

Module 10A Beach Buckets was created by one of the CRT staff members to help clients focus on improving their recollection of various items presented to them, help their abilities to differentiate things from each other and enhance their social interaction in pairs and in the larger group. Module 10 B Social Skills was created by one of the CRT staff members to review skills aimed at helping clients connect with other people and subsequently reduce isolation as well as practicing these skills among peers and gaining feedback. Role-plays were conducted that addressed how to begin a basic conversation with someone clients know, how to start a conversation with a complete stranger and how to start a conversation with a staff member. Role-plays also included scenarios such as starting conversations while sitting in a doctor's office or waiting at the bus stop.

Module 11A Perspective Taking was created by one of the CRT staff members to promote clients' awareness of different perspective that they can take and point out that emotions can be connected to the perspectives that they see. The module also explained how perspectives especially those different from the clients' own can trigger feelings and emotions. Module 11B Selecting Activities was created by one of the CRT staff members to promote the idea of doing things clients enjoy to make them feel good

while also emphasizing how doing things with someone is also a good way to enjoy the activity. Activity sheets were provided for clients to identify activities they like to do alone and/or in groups.

Module 12A Time (Perspective Taking 2) was created by one of the CRT staff members to help enhance clients' social cognition by instructing them to observe a video (Mr. Bean, 1995) and focus on the interaction among the characters to gauge perspective taking of each one, and answer questions about what they saw. Module 12B Maintenance and Termination addressed clients' termination and reviewed their participation in MMT, addressed their feelings about termination and normalized any concerns they may have about it. The module addressed clients' highlights or progress with the curriculum as proof of their capacity to change. The module also addressed the transition to other services or programs offered by the agency to help clients engaged in meaningful activities after MMT ends.

Graduation: A graduation ceremony took place on the following week to celebrate the clients' accomplishments in the MMT groups.

The curriculum for Cohort 3 and Cohort 4 consisted of 15 weeks, 26 modules and a graduation ceremony. Each module was 45 minutes and two modules were presented during each group session for a total of 90 minutes. A brief bathroom break or a time to stand up and stretch is recommended between the two modules.

The curriculum used for Cohort 3 and Cohort 4 was revised to include specific modules from Cognitive Enhancement Therapy: The Training Manual (Hogarty and Greenwald, 2006) and handouts that are associated with a particular module and located on the Cognitive Enhancement Therapy Supplemental CD-ROM (Hogarty and Greenwald, 2006). The training manual and CD-ROM can be purchased from CET Training, LLC at www.cognitiveenhancementtherapy.com. Several modules from Cognitive Behavioural Therapy for Psychotic Symptoms: A Therapist's Manual (Smith et al., 2003) served as a guide to develop similar CBTp modules that addressed interventions for auditory hallucinations and delusions. There were also modules, diagrams, charts, homework assignments, study guides and quizzes that were specifically developed for the curriculum used in Cohort 3 and Cohort 4. See separate curriculum.

Project Results

Cohort 1 data indicated no change, a slight increase, a slight increase in the wrong direction, a slight decrease or a decrease. For example, for the statement, I sometimes feel like I have no emotions, a post-intervention average of 2.7 indicated that after treatment, clients continued to feel like they had no emotions. Cohort 2 data indicated either no change, a slight increase, a slight increase in the wrong direction or one significant increase in the wrong direction. For example, for the statement, sometimes my thoughts are not organized or connected to each other, the post-intervention average of 3.5 increased from 2.5 which was statically significant and indicated that after treatment, clients increased in their beliefs that sometimes their thoughts were not organized or connected to each other. This result was in the wrong direction. Overall, there was no significant reduction in psychotic symptoms for either Cohort 1 or Cohort 2 due to insufficient measures and an insufficient curriculum. There also no cognitive enhancement data analyzed for Cohort 1 or Cohort 2 as previously mentioned.

Cohort 3 data analysis of individual scores and group averages indicated overall improvement. The post-intervention results of the client questionnaire- Illness Management and Recovery Scale indicated 43% improvement in progress toward goals; 17% improvement in knowledge about their symptoms; 27% improvement in impairment of functioning; and 22% improvement in coping efficacy. The post-intervention results of the client questionnaire – Beliefs about Voices Questionnaire indicated a 9% improvement in my voice is very powerful; and 36% improvement in my voice wants me to do bad things. There was a 22% improvement in how stressful are your hallucinations/delusions. The post-intervention results of the client questionnaire – Delusions Inventory indicated that only one client endorsed that he had delusions, so the data was too small for analysis.

The post-intervention results of the Cognitive Style and Social Cognition Eligibility Criteria are as follows:

Eligibility Criteria (C)	<ul style="list-style-type: none"> The total mean score of the eligibility criteria significantly decreased from pre to post ($p < .05$). 100% of the clients decreased their total mean score of the eligibility criteria (N=6)
	<ul style="list-style-type: none"> The mean score of unmotivated style significantly decreased between the pre and post ($p < 0.5$). 100% of the clients decreased their score (N=6)
	<ul style="list-style-type: none"> The mean score of disorganized cognitive style significantly decreased between the pre and post ($p < 0.5$). 100% of the clients decreased their score (N=6)
	<ul style="list-style-type: none"> The mean score of inflexible cognitive style significantly decreased between the pre and post ($p < 0.5$). 100% of clients decreased their score (N=6)
	<ul style="list-style-type: none"> The mean score of social cognitive criteria decreased between the pre and post ($p < 0.5$). 67% of clients decreased their score (N=6)

The post-intervention results of the Cognition Style Inventory indicated a 27% improvement in fails to complete task; 15% improvement in affectively blunted; 15% improvement in gist formation; 16% improvement in planning/problem solving very effortful; 11% improvement in difficulty recalling details; 20% improvements in tend to jump around when answering questions; 15% improvement in grabs attention to whatever, relevant or not; 13% improvement in disorganized verbal productions; 0% improvement in ideas tend to be loose or hard to follow; 4% improvement in selecting relevant gist; 18% improvement in planning and problem solving that are imprecise or chaotic; and 16% improvement in gets stuck on one idea.

The post-intervention results of the Social Cognition Profile indicated 18% improvement in concerned about other's welfare; 40% improvement in being assertive, let others know what he/she thought, felt; 20% improvement in being involved, wasn't daydreaming; 39% improvement in being gistful, looked for the big picture; 37% improvement in being insightful, understands different reasons; 22% improvement in being outward directed, put self in their shoes; 43% improvement in being confident, did not have self-doubts; 43% improvement in being interested; did not act indifferent toward others; 7% improvement in being moral; did not lie, break law, acted ethically; 14% improvement in being

interactive; tried not to withdraw from others; 43% improvement in being independent, did not rely on others for everything; 32% improvement in being self-improving, did something to make self a better person; 32% improvement in being self-aware, aware of motives; 14% improvement in being connected, spent time with family, was not isolative; and 19% improvement in being flexible, could change ideas or plans.

The post-intervention results of NPO Track 1: Attention Skills, Task 1: Simple Visual Reaction (fixed) indicated a 48% improvement in attention skills (focus and initiation of responses) as measured by reaction time. The post-intervention results of Track 3: Memory Skills, Task 1: Sequenced Recall (Digits Visual) indicated a 25% improvement in memory skills (working memory or immediate recall) as measured by the ability to recall up to eight digits.

Cohort 4 data analysis of individual scores and group averages indicated overall improvement. The post-intervention results of the client questionnaire- Illness Management and Recovery Scale indicated a 33% improvement in progress toward goals; 100% improvement in knowledge about their symptoms, treatment, coping strategies and medications; 70% improvement in symptom distress; 40% improvement in knowledge about their symptoms; 40% improvement in impairment of functioning; and 31% improvement in coping efficacy. The post-intervention results of the client questionnaire – Beliefs about Voices Questionnaire indicated little or no reduction in my voice is very powerful; little or no reduction of my voice is evil; little or no reduction in my voice wants to harm me; and 15% improvement in my voice wants me to do bad things. There was a 7% improvement in how stressful are your hallucinations to you. The post-intervention results of the client questionnaire – Delusions Inventory indicated a 75% improvement in do you feel as if someone is intentionally trying to harm you; 86% improvement in do you ever feel as if you are being persecuted in some way; 43% improvement in do you feel as if there is a conspiracy against you; and 100% improvement in do you feel as if some organization or institution has it in for you.

The post-intervention results of the Cognitive Style and Social Cognition Eligibility Criteria are as follows:

Eligibility Criteria (C)	<ul style="list-style-type: none"> The total mean score of the eligibility criteria significantly decreased from pre to post ($p < .05$). 100% of the clients decreased their total mean score of the eligibility criteria (N=5)
	<ul style="list-style-type: none"> The mean score of unmotivated style significantly decreased between the pre and post ($p < 0.5$). 80% of the clients decreased their score (N=5)
	<ul style="list-style-type: none"> The mean score of disorganized cognitive style slightly decreased between the pre and post ($p < 0.5$). 40% of the clients decreased their score (N=5)
	<ul style="list-style-type: none"> The mean score of inflexible cognitive style significantly decreased between the pre and post ($p < 0.5$). 100% of clients decreased their score (N=5)
	<ul style="list-style-type: none"> The mean score of social cognitive criteria significantly decreased between the pre and post ($p < 0.5$). 100% of clients decreased their score (N=5)

The post-intervention results of the Cognition Style Inventory indicated a 33% improvement in fails to complete task; 25% improvement in tends to say very little about the people and situations in his or her life; 15% improvement in affectively blunted; 24% improvement in gist formation; 13% improvement in planning/problem solving very effortful; 13% improvement in difficulty recalling details; 42% improvements in tends to jump around when answering questions; 0% improvement in grabs attention to whatever, relevant or not; 30% improvement in disorganized verbal productions; 27% improvement in ideas tend to be loose or hard to follow; 33% improvement in selecting relevant gist; 25% improvement in planning and problem solving that are imprecise or chaotic; 36% improvement in thinking tends to be inflexible; 0% improvement in maintains tight control over affective expression; 23% improvement in gets stuck on one idea; and 27% improvement in repeats same idea over and over.

The post-intervention results of the Social Cognition Profile indicated 0% improvement in concerned about other's welfare; 8% improvement in being assertive, let others know what he/she thought, felt; 9% improvement in being involved, wasn't daydreaming; 7% improvement in being empathetic; 11% improvement in being gistful, looked for the "big picture"; 18% improvement in being insightful, understands different reasons; 10% improvement in being sociable, tried not to avoid others; 36% improvement in being reciprocal, returned favor(s); 18% improvement in being aware, how behavior affected others; 25% improvement in being confident, did not have self-doubts; 86% improvement in being patient; 25% improvement in being moral; did not lie, break law, acted ethically; 20% improvement being interactive, tried not to withdraw from others; 20% improvement in being independent, did not rely on others for everything; 0% improvement in being responsible; 0% improvement in being self-improving, didn't engage in self-defeating behavior; 29% improvement in being self-aware; aware of motives; 29% improvement in being connected, spent time with family, was not isolative; and 60% improvement in being flexible, could change ideas or plans.

The post-intervention results of NPO Track 1: Attention Skills, Task 1: Simple Visual Reaction (fixed) indicated a 67% improvement in attention skills (focus and initiation of responses) as measured by reaction time. The post-intervention results of Track 3: Memory Skills, Task 1: Sequenced Recall (Digits Visual) indicated a 70% improvement in memory skills (working memory or immediate recall) as measured by the ability to recall up to eight digits.

Learning Questions

The following are the learning objectives outlined in the project plan and the responses.

1. Is the new combination of treatments more successful than each of the treatments alone?

What We Sought to Learn: Does the combining of CET and CBTp with reduced time frames lead to increased positive outcomes for cognitive impairment and psychotic symptoms in Cohort 1, Cohort 2, Cohort 3 and Cohort 4? Does the combining of CET and CBTp with reduced time frames for Cohort 3 and Cohort 4 lead to increased positive outcomes for symptom management (progress toward goals, knowledge about mental illness, symptom distress, impaired functioning, coping efficacy and using medications effectively); stressful hallucinations and delusions, beliefs about voices, three types of

thinking styles, social cognitive criteria, cognitive traits that interfere with a successful rehabilitation, social cognition, attention skills (focus and initiation of responses) and memory skills (working memory or immediate recall).

We sought to learn if an individual therapy model (CBTp) could be conducted in a group format while combined with CET. We also sought to learn if CET which is typically conducted in either 45 or 48 weeks could be combined with CBTp and reduced to 12 weeks of intervention plus graduation for a total of 13 weeks for Cohort 1 and Cohort 2; and reduced to 15 weeks of intervention plus a graduation for a total of 16 weeks for Cohort 3 and Cohort 4.

What We Learned: The CRT project was conducted with four different cohorts using two different curricula. Cohort 1 and Cohort 2 utilized 23 modules and Cohort 3 and Cohort 4 utilized 26 modules and two extended computer training sessions. We learned that while the first curriculum was creative and fun per clients' reports, it lacked specific CET fundamental modules such as social cognition, perspective taking and adjusting to disability. We learned that the CBTp portion of the curriculum was inadequate and it did not include challenging thoughts about auditory hallucinations, reducing conviction of delusional thoughts, identifying consequences of delusions and hallucinations or developing behavioral skills.

We learned that maintaining a control group throughout the duration of the project proved to be nonviable. The two clients who met the eligibility criteria for the CBTp control group could not be included in the data collection. As previously mentioned, one client discontinued treatment and the other client had already participated in the CRT program. Therefore, we were unable to overcome these challenges and collect survey data to help quantify the differences in outcomes.

We learned that the combination of treatment for Cohort 1 and Cohort 2 was not more successful than modified CET alone conducted at TCMHS or CBTp alone as indicated in the research literature. This finding led to a change in the CRT curriculum to make it more reflective of existing CET curricula and to modify the CBTp portion to make it more user friendly by adding handouts that included colorful diagrams and charts, and in group activities. This finding also led to a change in the use of an on-line brain-training computer program to a computer neurocognitive rehabilitation system. Although the outcomes of these cohorts were less successful; there were some successes as reported by the clients and the parent of a client.

The following is a success story that occurred during Cohort 1. When the clients started the group, many of them were apprehensive to engage with one another. As time passed the clients began to bond well with one another, form relationships and referred to each other as family. During the final group session, the clients commented on how they were going to miss their time in the group as they always looked forward to seeing each other every Wednesday morning. Many of them also talked about getting together in the community after the group ended (graduation) and "hanging out" with one another. Another success story came from the

mother of one of the graduates of Cohort 2. The mother reported that because her son takes “things” literally, he was very concerned when he got the graduation invitation that stated participants could bring one guest. The mother reported that she told her son she did not think that the staff members would mind if she and his father attended the graduation. The mother reported that she has never seen her son so excited about a program. The mother reported that her son stated that he looked forward to going to the groups and she has seen a positive change his behavior. The mother also reported that her son was looking forward to the graduation ceremony.

We learned that the new combination of treatments for Cohort 3 and Cohort 4 were as successful as modified CET alone conducted at TCMHS. We could not determine whether Cohort 3 and Cohort 4 were more successful than CBTp alone because it was not conducted at this agency. It would be difficult to compare our outcomes with what has been reported in the literature. As previously mentioned, there have not been many studies that have tested the effectiveness of CBTp in groups and some reported outcomes have been inflated. However, one study reported positive outcomes that were not inflated and Cohort 3 and Cohort 4 reported positive outcomes as well.

We learned that clients in Cohorts 3 and Cohort 4 both demonstrated improvement on various criteria. Cohort 3 indicated improvements in how much they know about their symptoms, treatment, coping and medication by a small percentage, but Cohort 4 improved in these areas by 100%. While Cohort 3 indicated no change in how much their symptoms bothered them, Cohort 4 indicated a 70% improvement in how much their symptoms bothered them. Overall, Cohort 3 indicated minor to moderate improvement in three types of thinking styles: unmotivated, disorganized and inflexible; minor to moderate improvements in cognitive traits that interfere with a successful rehabilitation; minor to moderate improvements in social cognition; a moderate improvement in attention skills (focus and initiation of responses) and a minor improvement in memory skills (working memory or immediate recall). Overall, Cohort 4 indicated minor to moderate improvement in three types of thinking styles: unmotivated, disorganized and inflexible; minor improvements in cognitive traits that interfere with a successful rehabilitation; minor to major improvements in social cognition; a major improvement in attention skills (focus and initiation of responses) and a major improvement in memory skills (working memory or immediate recall).

Both Cohorts culminated in success stories. In Cohort 3, a client’s therapist recommended a transition from Full Service Partnership-Adults to Adult Outpatient Services, which was a step-down to a lower level of care based on the progress exhibited from participation in the project. In Cohort 4, a client’s mother expressed gratitude for the client’s involvement and reported that the significant improvement allowed the client to not only participate in a sibling’s wedding as a member of the wedding party, but also initiate conversations with various family members.

1a. In what ways was it more successful?

What We Sought to Learn: If providing four cohorts of CRT would indicate in what ways the program was more successful than the modified CET program once the data was analyzed.

What We Learned: Cohort 1 and Cohort 2 interventions and measures were too different to be compared to the modified CET cohorts. Cohort 3 and Cohort 4 were not more successful, but had similar outcomes compared to two modified CET cohorts with regard to the four pre and post assessment measures utilized. The results of two modified CET cohorts could be compared or contrasted to the results of Cohort 3 and Cohort 4 depending on how the data was analyzed.

Two modified CET cohorts indicated a significantly decreased eligibility criteria total mean score for two thinking styles: unmotivated and disorganized, but not inflexible. These results compared to a significantly decreased eligibility criteria total mean score for three thinking styles: unmotivated, disorganized and inflexible for both Cohort 3 and Cohort 4. Two modified CET cohorts indicated a significantly decreased total mean score for the social cognitive criteria. Cohort 3 and Cohort 4 both indicated a significantly decreased total mean score for the social cognitive criteria compared to the two modified CET cohorts. Two modified CET cohorts did not measure cognitive traits that interfere with a successful rehabilitation. However, Cohort 3 and Cohort 4 both indicated zero to minor improvements in cognitive traits that interfere with a successful rehabilitation. Two modified CET cohorts indicated no change for the social cognition profile total mean score. These results contrasted with minor improvements in the various criteria that composed the social cognition profile for Cohort 3 and zero to major improvements in the various criteria that composed the social cognition profile for Cohort 4.

Two modified CET cohorts indicated reaction time total scores that included a significantly decreased score for variable time and a significantly decreased score for constant time. Results for Cohort 3 and Cohort 4 were not comparable to the two modified CET cohorts because the reaction time of processing speed was measured. Cohort 3 and Cohort 4 measured reaction time of attention skills (focus and initiation of responses). Cohort 3 indicated a moderate improvement in attention skills (focus and initiation of responses). Cohort 4 indicated a major improvement in attention skills (focus and initiation of responses).

We learned that Cohort 3 and Cohort 4 were more successful than three modified CET cohorts with regard to attendance and attrition. Three modified CET cohorts were conducted in 52 weeks with an approximately 48% attrition rate for two combined cohorts and 0% attrition rate for the final cohort. Cohort 1 and Cohort 2 were conducted in 12 weeks plus graduation for a total of 13 weeks. Cohorts 3 and Cohort 4 were conducted in 15 weeks plus graduation for a total of 16 weeks. Cohort 1 had an attendance rate of 80% and an attrition rate of 20%. Cohort 2 had an attendance rate of 63% and an attrition rate of 37%. Cohort 3 had an attendance rate of 86 % and an attrition rate of 14%. Cohort 4 had an attendance rate of 71% and an attrition rate of 29%. The attrition rate for three modified CET cohorts was higher than the attrition rate for three CRT cohorts which was likely a result of the 52-week length of the modified CET program.

We learned that the provision of transportation for all of the CRT cohorts was essential and helped decrease attrition as well as helped clients attend the program more consistently. Providing transportation allowed clients the opportunity to use the social skills that they were learning to help them bond with each other and the driver. Riding in the van allowed opportunities for clients to practice how to behave in informal social settings, e.g., joking with peers which differed from how to behave in more formal settings like the structured groups.

1b. Why was it more successful (or not)?

What We Learned: The success of CRT was based on several factors. We learned that the clients were able to develop a relationship with the CRT staff member in both an individual setting via the coaching sessions and in a group setting. We learned that a positive relationship with a CRT staff member was salient in encouraging attendance and participation. We learned that reinforcement in the form of praise from the CRT staff member as well as from the clients during the group sessions was important in encouraging attendance and reducing attrition. Healthy competition played a role in the success of the project. While competition was not a formal part of the project, it existed particularly during the computer training exercises. Competition was observed taking place among some of the men more than among the women. Some of the men reported that they really liked the computer games and they wanted to see who passed a particular training level first. There was also competition with some clients regarding the two quizzes and they talked among themselves about their belief that they would get the highest score.

1c. Are there specific components of the combined method that contributes to its success?

What We Learned: The coaching sessions which were a component of the CET portion of the combined treatment significantly contributed to the success of the project. The coaching sessions provided the opportunity for the CRT staff member to review topics presented in each session, answer specific questions and provide repetition for learning the information. The coaching sessions provided the opportunity to review homework instructions and ensure that clients understood the assignments. Clients often completed the homework assignments during the coaching sessions or completed some of the assignment once they were certain they understood it and completed the remainder before the following group. The CRT staff member presented study guides for both the first and final quizzes, and was able to address feelings that occurred when clients anticipated taking the quizzes.

We also learned the value of providing the coaching sessions at the clients' residence. We knew that transportation was an issue for many of our clients and we wanted to remove this potential barrier. Providing the coaching sessions at the clients' residences created the opportunity to not only observe their progress, but to observe how they managed their households. We also learned that the coaching sessions encouraged the development of a positive relationship and an alliance between the CRT staff member and client, which we think contributed to the consistent attendance of some of the clients. There were also occasions when a professional

relationship developed between the CRT staff member and a family member which contributed to family support of the client's participation in the project.

We learned that paired learning which occurred during various group activities contributed to the success of CRT. Paired learning occurred when each client had to select a partner and the two of them had to collaborate in order to complete a task. For example, a pair was given a newspaper article in which each person would take turns reading it with the goal of identifying the gist or main point. The pair would need to work together in order to answer a set of questions about the article. We learned that this type of learning was beneficial because it encouraged the quieter clients to increase their participation and challenged the more talkative and active clients to take turns and listen. Clients of different ethnic backgrounds worked in pairs, men and women worked in pairs and younger and older clients worked in pairs. All the clients had the opportunity to work with each other and we learned that it facilitated connecting with each other as well as learning from one another.

2. Can this combination of evidence-based practices lead to outcomes for cognitive functioning and reduction of psychotic symptoms?

What We Sought to Learn: If the combination of the two treatment methods known as CRT could increase symptom management and enhance cognitive functioning.

What We Learned: CRT for Cohort 1 and Cohort 2 did not lead to positive outcomes of enhanced cognitive functioning and reduced psychotic symptoms due to inadequate measures and an inadequate curriculum. CRT for Cohort 3 and Cohort 4 did lead to positive outcomes. Specifically, Cohort 3 and Cohort 4 indicated increased symptom management as measured by how much your symptoms get in the way of you doing things you like to do or need to do and how well you feel like you cope with your mental or emotional illness from day to day. Cohort 3 indicated improvements in how much they know about their symptoms, treatment, coping and medication by a small percentage, but Cohort 4 improved in these areas by 100%. Cohort 4 indicated a major improvement in symptom distress; a moderate improvement in impairment of functioning; and 31% improvement in coping efficacy. As previously mentioned, Cohort 3 indicated minor to moderate improvement in three types of thinking styles: unmotivated, disorganized and inflexible; minor to moderate improvements in cognitive traits that interfere with a successful rehabilitation; and minor to moderate improvements in social cognition. Cohort 3 also indicated improved cognitive functioning. Cohort 3 indicated a moderate improvement in attention skills (focus and initiation or responses) and a minor improvement in memory skills (working memory or immediate recall). Cohort 4 indicated minor to moderate improvement in three types of thinking styles: unmotivated, disorganized and inflexible; minor improvements in cognitive traits that interfere with a successful rehabilitation; and a minor to major improvements in social cognition. Cohort 4 also indicated improved cognitive functioning. Cohort 4 indicated a major improvement in attention skills (focus and initiation of responses) and a major improvement in memory skills (working memory or immediate recall).

A significant lesson learned involved our awareness of the lack of measurement of the clients' cognitive functioning at baseline. Pre and post intervention cognitive measures such as Wechsler Memory Scale or Wisconsin Card Sort Test and the Tests of Everyday Attention would have yielded data to help us better determine the significance of the attention and memory results of Cohort 3 and Cohort 4. However, the time frame between the start of each cohort was insufficient to recruit potential clients and then administer such measures.

3. Can the revised cognitive remediation approach become a positive additional treatment option in the overall system of care available to clients who are not participating in the combined treatment?

What We Sought to Learn: If 16 weeks of CRT could be incorporated in the overall system care to clients who meet the eligibility requirements.

What We Learned: CRT could be considered a specialty program because it required unique components. CRT required at least two staff members to be in the groups even when they are small (five to six clients) especially during the computer training exercises. The lead CRT staff member needs to be trained in CBTp and training in NPO would be helpful, but not mandatory. Computer equipment is mandatory and IT assistance is essential. Transportation is necessary and lunch is very helpful as reinforcement as well as a time to practice social skills. We learned that if all of these components are in place, CRT could become a positive additional treatment option in the overall system of care.

4. Can the CBTp methodology become a positive additional treatment option in the overall system of care available to clients who are not participating in the combined treatment?

What We Sought to Learn: Whether a broad scope of clients with a diagnosis of psychosis could benefit from CBTp if implemented in the TCMHS system of care.

What We Learned: We learned that those with a diagnosis of Schizophrenia, Unspecified, Schizoaffective Disorder, Bipolar Type, Schizoaffective Disorder, Depressive Type, Other Psychotic Disorder Not Due to a Substance or Known Physiological Condition, Bipolar Disorder, Current Episode Depressed, Severe With Psychotic Features, Bipolar Disorder, Current Episode Manic Severe With Psychotic Features and Major Depressive Disorder, Recurrent Severe with Psychotic Features could benefit from the CBTp portion of CRT. Clients who were enrolled in Adult Outpatient Services, Full Service Partnership-Adults and Full Service Partnership-Transitional Age Youth participated in CRT and demonstrated positive outcomes utilizing CBTp.

CBTp has been shown to be effective throughout the literature (Turner et al., 2014). It can be in conducted as individual treatment or group treatment. CBTp is currently being considered for a new project at TCMHS to be used both in individual treatment and group treatment with adolescents and young adults.

CBTp requires training for effective implementation. Since TCMHS hired a consultant to train staff members who provide adult outpatient services, several of them are currently able to offer

this valuable form of treatment. Finally, from our experience with CRT, we learned that CBTp could become an additional treatment option to enhance services throughout the TCMHS system of care.

5. Can TCMHS implement a combined cognitive treatment for psychotic disorders in a cost effective way? Are there reimbursement opportunities?

What We Sought to Learn: Whether we could initially provide a 13 week combined cognitive treatment program for individuals with psychotic disorders and get reimbursed for those services. We also sought to learn if we could get reimbursed for a 16 week combined cognitive treatment program for individual with psychotic disorders.

What We Learned: We learned that while Medi-Cal provides reimbursement for the development of cognitive skills to improve attention, memory and problem-solving by direct one-to-one client contact, it does not reimburse for neurocognitive computer assisted training. A significant portion of the combined cognitive treatment program focused on the computer exercises. Not only were we unable to bill for these services, we had to purchase a membership subscription plan of which numerous options were available. The membership plans could be purchased on a monthly, semi-annual or annual basis. The basic membership plan included client slots (computer access) for up to five clients. If there were more than five clients who would use the computer exercises, a different plan had to be purchased. CRT averaged five to seven clients which meant the plan two that included the basic membership plus five client slots for a total of ten slots was purchased. This plan cost additional funds.

We learned that for Cohorts 1 and 2, 12 weeks of interventions were Medi-Cal reimbursable and the 13th week was not because it was the graduation ceremony. We learned that for Cohorts 3 and 4, 13 of the 16 weeks were Medi-Cal reimbursable because the first two weeks were computer training and the final week was the graduation ceremony. We learned that the intervention modules of CET and the intervention modules of CBTp had to be billed as group rehabilitation and as such needed to focus on some type of skills acquisition. All the CET and CBTp modules addressed some type of skills acquisition. For example, CET modules Getting the Gist, Gist part 2 & Sound Bytes, Gist & Perspective Taking, Nonverbal Cues/Facial Expressions, Listening and Giving Support and Initiating and Maintaining Conversation addressed communication skills and satisfied billing requirements. CBTp modules Challenging Thoughts about Unusual Sounds or Voices, Strongly Held Beliefs (Delusions)- part 1, Challenging Strongly Held Beliefs (Delusions)- part 2, Unhelpful Thinking, and How to Change Unhelpful Thinking, and Selecting Activities addressed coping skills and satisfied billing requirements.

6. Can a broader group of participants (with fewer eligibility screens) succeed with combined treatment?

What We Sought to Learn: As a result of the previous modified CET project, TCMHS learned that many clients did not meet the program's strict eligibility requirements because they may have active use of alcohol or other drugs; do not meet reading level requirements; or do not have the required transportation and/or family support. By establishing simpler eligibility requirements,

the CRT project sought to explore the option of eliminating barriers for clients who may still benefit from this combination of treatments.

What We Learned: The requirements for participation in this CRT project were:

- Resident of either Claremont, La Verne, or Pomona
- 18 years of age to 55 years of age
- Experience of psychosis or disorders with psychotic features
- Commitment to the program cycle
- At least a seventh grade reading level

We learned that a broader group of participants (with fewer eligibility screens) could succeed with combined treatment. Specially, we learned that by reducing the requirements to participate in CRT, TCMHS was able to increase total participation with simpler eligibility requirements. We learned that by limiting the age of participation to 55 years of age, we reduced the risk of encountering clients with age related cognitive decline. By starting the age of participation at age 18, clients without family support were able to participate without parental consent.

The earlier CET programs focused on treatment of those with Schizophrenia or Schizoaffective Disorder. Some CET programs expanded the treatment diagnoses to include psychosis and disorders with psychotic features. CRT continued with the expanded treatment diagnoses. We learned that the majority diagnosis represented in all of the cohorts was Schizoaffective Disorder with the exception of Cohort 4 where it was Unspecified Psychotic Disorder. We learned that all the clients with various psychotic disorders were able to benefit from the combined treatments as well as from the computer exercises in Cohorts 3 and 4.

Clients who had co-occurring disorders were allowed to participate in the CRT cohorts on a case-by-case basis. These clients had to be willing to commitment to program cycle as well as be involved in additional work toward their sobriety. We learned that all clients who had a co-occurring disorder were able to complete the particular cohort. We also learned that one client required additional agency support that resulted in a collaboration with the CRT staff member, therapist and supervisor which helped him complete the cohort.

We learned that eliminating barriers was important to the positive outcomes. One of the most significant barriers was the CET treatment protocol that required 48 weeks of treatment (delivered in 52 weeks at TCMHS) and no new clients admitted once the program began. The CET protocol prevented interested clients who were unable to participate in the program at the beginning from joining at a later date. CRT also utilized the same protocol, so no new clients were admitted once the program began. However, we learned that by reducing the number of weeks of treatment, interested clients would not have to wait one year before a new program cycle began. We learned that by reducing the program to 16 weeks, interested clients would only have to wait four weeks after the group ended before a new group began.

As previously mentioned CRT increased the reading level requirement from the fourth grade to seventh grade. We learned from feedback by clients who discontinued Cohort 2 that much of the information was too difficult for them to understand and they felt bad when they attended the group, so they stopped. We learned that by increasing the reading requirement, there would be a better likelihood that clients would be able to comprehend the material. In Cohort 3, clients reported their opinions about whether the content was too hard for them to understand. They reported 0% that most of the time the content too difficult for them to understand, 60% reported sometimes the content was too difficult for them to understand, 20% reported unsure that the content was too difficult for them to understand, and 20% reported that never was the content of the group too difficult for them to understand. In Cohort 4, 0% reported that most of the time the content was too difficult for them to understand, 67% reported that sometimes the content was too difficult for them to understand, 0% reported unsure the content was too difficult for them to understand and 33% reported never was the content of the group too difficult for them to understand. We learned that we were less likely setting clients up for failure based on their feedback.

Any Variation in Outcomes Based on Demographics

The CRT project was open to adults 18 years and older with psychosis or psychotic features. Seventeen percent of clients between the ages of 16 to 25 participated in Cohort 1 and 83% were between the ages of 26 to 55. The mean age was 37.5. The youngest age was 20 and the oldest age was 53. There were no formal measures that addressed age variation, but we had some observations. As expected, the youngest clients in Cohort 1 were very comfortable with the computer and the homework assignments, but so were the older clients. A 52-year-old client had the most consistent homework assignment completion and had one of the highest performance index scores that included memory, attention, flexibility, problem-solving and speed. This client also often reported a love of computer games.

Ten percent of the clients were between the ages of 16 to 25 who participated in Cohort 2 and 90% were between the ages of 26 to 55. The mean age was 37.8. The youngest age was 20 and the oldest age was 54. There were also no formal measures that addressed age variation, but there were some observations. The younger clients reported more enjoyment of the computer training games which were completed at their homes. Many of them had smart phones and were able to play the games on them. The oldest client had no computer experience and did not know how to use the mouse. However, the oldest client consistently met for individual instruction outside of the groups with a CRT staff member and consistently worked on the computer games to improve comfort with the computer.

Twenty-nine percent of clients were between the ages of 16 to 25 who participated in Cohort 3 and 71% of the clients were between the ages of 26 to 55. The mean age was 38.16. The youngest age was 22 and the oldest age was 51. There were no measures that addressed the effects of age differences on the interventions. For Cohort 3, we were unable to determine if younger clients demonstrated a lower average reaction time on attention skills than the older clients or demonstrated more of an increase in immediate recall than older clients. Anecdotally, we observed little variations in the operation and comfort with the computer. We observed that youngest client appeared the most comfortable with

computer exercises and asked for considerable less assistance in navigating the various tracks and tasks than his peers while the oldest client who was 51 years of age appeared almost as comfortable using the computer and asked for little assistance.

Twenty-nine percent of the clients were between the ages of 16 to 25 who participated in Cohort 4 and 71% of the clients were between the ages 26 to 55. The mean age was 33.6. The youngest age was 23 and the oldest age was 51. For Cohort 4, we were also unable to determine if younger clients demonstrated a lower average reaction time for focus and initiation of responses than the older clients or demonstrated more of an increase in immediate recall than older clients. However, we observed slightly more variation in ages in Cohort 4. The oldest client who was 51 had the most difficulty navigating the computer exercises and consistently asked for assistance. The client who was 28 years old and not the youngest in the group appeared to be the most comfortable and seldom asked for assistance. The youngest client who was 23 years of age and who had participated in Cohort 3 before dropping out had some difficulty navigating the various tracks and tasks. This client asked for assistance more than one might expect given that she had some familiarity with the computer program.

CRT was offered to an ethnically diverse group of clients for all cohorts. Seventy-five percent Hispanics, 8% Native Americans and 17% Whites participated in Cohort 1. Fifty-eight% were men and 42% were women. Ten percent Asians, 14% Blacks/African Americans, 52% Hispanics, 5% Other and 19% Whites participated in Cohort 2. Fifty-seven percent were men and 43% were women. Fourteen percent Asian/Pacific Islanders, 43% Hispanics, and 29% Whites participated in Cohort 3. Fifty-seven percent were men and 43% were women. Fourteen percent Asian/Pacific Islanders, 29% Black/African Americans and 57% Hispanics participated in Cohort 4. Fifty-seven percent were men and 43% were women. We were unable to determine any race or gender variations in outcomes and there were no specific variations observed in any cohort.

How the Project was Culturally Competent

Pomona and the surrounding area is a community of ethnic diversity and outreach was conducted to engage clients from adult and TAY ages who met the eligibility criteria. All the cohorts were comprised of diverse individuals with various ages, life experiences, religions and cultural backgrounds. These individuals came together to form groups that reflected the community in which TCMHS serves.

A significant benefit of having cohorts of clients of different ages, ethnicities, life experiences and religions contributed to the group discussion portion of the project. All the cohorts provided paired learning group activities in which partners had to collaborate to complete a specific task. When a TAY age client worked with an older adult (age 55 or less), they had the opportunity to accomplish the task by integrating their unique perspectives.

Different religion experiences were a topic of group discussions. When discussing social content appraisal (i.e., evaluating what is going on in a social setting to determine appropriate behavior) of a church service, a Muslim client informed the group what would be socially and culturally appropriate. Moreover, the CRT staff member was sensitive to address cultural issues as they related to a particular

module topic. For example, when discussing the stress vulnerability model of mental unwellness (mental illness), clients were encouraged to share how their families viewed mental unwellness from a cultural perspective. Finally, each client was able to be a source of information for one another and these diverse life experiences complimented each other and contributed to the social cognition aspect of the project.

How Stakeholders Contributed to This Evaluation

The CRT project was presented to the community through the stakeholder process of workgroups, stakeholder meetings and the Public Hearing. A series of stakeholder workgroups were held during the project development where specifics of the project were finalized with stakeholder input, including the approach to project measurement. Clinical and supervisory staff members overseeing the implementation of CRT would regularly meet to assess the progress of the project and make adjustments accordingly. Information on the progress of the project was disseminated to the staff members, community and other stakeholders via community held meetings and MHSA Annual Update.

Assessment of Activities that Contributed to Successful Outcomes

In addition to the computer exercises and interventions there were many activities that contributed to successful outcomes. One of these activities was client feedback. We realized that valuable input could also be gained from our clients, so we solicited feedback by creating a brief questionnaire to gain insight from the clients' perspective for Cohort 3 and Cohort 4. We did not solicit formal feedback for clients in Cohort 1 and Cohort 2. However, based on informal client feedback from Cohort 1 and Cohort 2, and the need to make some of the curriculum more reflective of a traditional CET curriculum, the length of the CRT program was increased from 13 weeks to 16 weeks. The increased length of time allowed for additional computer sessions. The increased length of time also allowed clients to continue to make a commitment to each program cycle.

The weekly individual coaching sessions were vital to the successful outcome for several reasons. First, the sessions were conducted at the client's residence, so that transportation to the agency would not be a barrier to treatment. A client could opt to meet at the staff member's office if preferred. Second, the coaching sessions provided an opportunity to build rapport and develop an alliance with the CRT staff member that fostered respect and trust which were essential for client disclosures. Third, the coaching sessions provided an opportunity to address any questions about the information presented, review the homework assignments, complete the homework assignments if desired, gauge overall progress in the groups and provide repetition for learning the information. Finally, the coaching sessions provided an opportunity for clients to ask questions that they might feel too embarrassed to ask in the group or discuss a related issue that they might not feel comfortable discussing in the group.

In the supportive environment of CRT, many clients were willing to disclose the challenges they encountered particularly when dealing with topics of experiencing unusual sounds (hallucinations) and strongly held beliefs (delusions). CRT created an environment that was safe and free of judgement to share these experiences when each client felt comfortable to do so. Clients were also able to address stigma as it related to their personal experiences with mental unwellness which contributed to successful outcomes.

Another activity that contributed to the successful outcomes was the promotion effort. The CRT project was promoted to the various programs at TCMHS on an on-going basis to help ensure a continuous stream of potential clients to form a new cohort. The project was presented to all newly hired clinicians and they were encouraged to refer clients who met the eligibility criteria. Clinical staff members were informed of when each cohort would begin and encouraged to refer clients after a presentation of the CRT project. The CRT staff member also ensured that supervisors, psychiatrists, clinicians and case managers were periodically reminded to submit client referrals. The CRT staff member selected potential clients from the master agency list and collaborated with clinicians or case managers regarding their opinions about the appropriateness of the client for the project. Teamwork was essential in helping the project begin 3 out of the 4 cohorts with adequate participants.

The fifth activity that contributed to successful outcomes was the collaboration with different departments at TCMHS. Clients were introduced to activities such as Green Ribbon Week which highlighted stigma reduction, informed about the Wellness Center for groups and computer training, and given printed information about the Therapeutic Community Garden for various groups. Flyers and brochures from agency programs were reviewed to help clients consider options for group involvement or specialty program involvement. The introduction of these services was seen as a next step for clients to take once their cohort ended.

The sixth activity that contributed to successful outcomes was transportation. Providing transportation was critical for some clients to maintain participation in the cohorts. By offering transportation we were able to maintain a higher than expected participation and completion rate. Additionally, the transportation rides allowed the clients to share time together, listen to music or practice social cognition skills such as backstage context appraisal which is the determination of how to behave in informal social settings.

We found that offering food acted as positive reinforcement for all of the cohorts and contributed to successful outcomes. The computer exercises and intervention modules took 2.5 hours to complete for Cohort 3 and Cohort 4. This was a long period of consistent mental activity for some of the clients. A few of the clients took prescription medications that made them drowsy. We found that by offering snacks and water at the conclusion of the computer exercises helped alleviate fatigue and the anticipation of a delicious and satisfying lunch after the group sessions proved to be a significant motivator. Although the food was an incentive to attend the groups, the lunch period became significant because it provided clients the opportunity to get to know one another and develop relationships.

Finally, the formal graduation ceremony contributed to successful outcomes. The graduation ceremony was a structured event provided to recognize the clients' achievement and commitment, and it proved to be a meaningful and positive activity. Many of the clients brought family and friends to the graduation where food was served and certificates of completion were awarded to them. The last homework assignment instructed clients to write about their experiences in the CRT (MMT) groups. During the graduation ceremony, clients were invited to read what they had written or say a few words about their experiences. Many clients feeling more confident and comfortable due to the social cognition skills that they had learned in addition to the trust established in their cohort opted to stand up in front of the audience and read a prepared statement, recite an original poem or sing a song. The graduation ceremony also provided the opportunity for clients to practice social cognition skills such as active listening, perspective taking and identifying nonverbal cues. The graduation was a culmination of the clients' hard work and the recognition was a source of pride for not only the clients, but for their families and friends who were there to support and encourage them.

Future Project Application

As previously mentioned, CBTp is currently being considered for a new project at TCMHS to be used both in individual treatment and group treatment with adolescents and young adults who are experiencing early psychosis. CBTp is an effective treatment that is being used in early psychosis programs throughout the country and it is likely that it will become a part of the new early psychosis program at TCMHS. A CET curriculum is also being considered for the new early psychosis program. Adolescents and young adult who experience early psychosis often experience cognitive impairment as well as social impairment and cognitive remediation is being used in early psychosis programs to address these deficits.

In FY 2018-19, stakeholders will be invited to attend an MHSA stakeholder meeting where they will be presented with an update regarding the CRT project. A copy of this final report will be posted on the Tri-City website for review. In addition, once the Early Psychosis program is developed and presented to the community (April 2020), stakeholders will be able to share their thoughts regarding adding the CRT component to the new Early Psychosis program.

Whether the Project Achieved its Intended Outcome

The results of the data analysis indicated that the project achieved its intended outcomes in the areas of symptom management, social cognition, cognitive enhancement, attrition and client feedback. However, the achievement of outcomes depended on the cohort and the particular measure. Moreover, some achievement was more significant than others. For example, in Cohort 3, there was only a minor improvement in how much clients knew about their symptoms, treatment, coping and medication suggesting a small achievement. However, in Cohort 4, there was 100% improvement in these areas suggesting a major achievement. Cohort 3 indicated no change in how much their symptoms bothered them, but Cohort 4 indicated a 70% improvement in how much their symptoms bothered them. Cohort 3 indicated a 27% improvement in how much their symptoms got in the way of

them doing things they liked to do while Cohort 4 indicated a 40% improvement in this area. Although both cohorts indicated minor improvement in how well they felt like they were coping with their mental or emotional illnesses, we consider even a 22% and 31% improvement, examples of achieved outcomes.

Cohort 3 and Cohort 4 indicated significant decreases in scores that measured changes in three types of thinking styles: unmotivated, disorganized and inflexible. Both cohorts indicated significant decreases in scores that measured interpersonal ineffectiveness, gist extraction deficits and adjustment to disability. Cohort 3 indicated minor improvements in cognitive traits that interfere with a successful rehabilitation while Cohort 4 indicated minor to moderate improvements in this area. Both cohorts indicated minor to moderate improvements in social cognition.

Cohort 3 indicated minor improvement in attention skills (focus and initiation of responses) and moderate improvement in memory skills (working memory or immediate recall). Cohort 4 indicated major improvement in attention skills (focus and initiation of responses) and major improvement in memory skills (working memory or immediate recall). These improvements support CRT achieving its intended outcomes for cognitive enhancement.

The CRT project achieved its intended outcomes with regard to attrition. Cohort 1 had an attrition rate of 20% and Cohort 2 had an attrition rate of 37%. Cohort 3 had an attrition rate of 14% and Cohort 4 had an attrition rate of 29%. Each cohort had an attrition rate of less than 50% which indicated that clients were willing to make the commitment to either the 13-week program cycle for Cohort 1 and Cohort 2 or the 16-week program cycle for Cohort 3 and Cohort 4.

Finally, the clients' feedback was an important testament to whether the CRT project achieved its intended outcomes. In Cohort 3, 67% of the clients thought the 15-week program not including the graduation was just right and 33% of them thought it was too short. In Cohort 4, 40% of the clients thought the 15-week program not including the graduation was too long, 40% thought it was just right and 20% thought it was too short. When asked was the content of the groups too hard to understand, in Cohort 3, 67% said "sometimes" and 33% said "never" while in Cohort 4, 60% said "sometimes", 20% said "unsure" and 20% said "never".

When asked to identify their favorite part of CRT, clients in Cohort 3 wrote comments such as "talking about feelings", "learning a lot of new topics", "challenging strongly held beliefs", "computer courses", "cognitive triangle" and "computer games and the gist". Clients in Cohort 4 wrote comments such as "coming to the group and learning new things", "the food", "learning about all my symptoms", "the learning", "the gist of the conversation and making my point in conversations" and "the breathing techniques and social media".

When asked to identify their least favorite part of CRT, clients in Cohort 3 wrote comments such as "nothing was least favorite", "sitting in the middle", "unable to get everything right", "homework", and "I liked it all". Clients in Cohort 4 wrote comments such as "learning computer", "the computer", "I have none", "stress vulnerability model", and "I don't have one".

When asked what would you change about CRT to make it better for you, clients in Cohort 3 wrote comments such things as “nothing”, “longer classes and more computer games”, “I like it the way it is” and “great achievements and super help to get me going”. Clients in Cohort 4 wrote comments such things as “not use the computer”, “nothing it was just what I needed to move forward in life”, “it was too short, everything was good” and “most time with computer game was discussing”.

Lessons Learned After Implementation

Most of the lessons learned occurred prior to or during implementation such as providing a 10-minute break with a snack after the computer sessions and providing a five-minute break to stand-up and do some stretching in between the two intervention modules at each group session. A significant lesson learned during implementation pertained to the anticipation that non-TCMHS clients who resided in Claremont, La Verne and Pomona would receive CRT. We learned it was unfeasible to offer CRT to individuals who were not already receiving mental health services at TCMHS because of the eligibility criteria. Since individuals had to have psychosis or psychotic features, there was no way to determine a diagnosis if they were not active clients of TCMHS. It would have been difficult to ascertain other eligibility criteria without access to records. There was also no way to address the possibility for reimbursement unless the individual was involved in our system of care.

The significant lesson learned after implementation was the length of the program. With the knowledge that 52 weeks or 48 weeks was too long for our patient population, deciding on an effective number of weeks was a challenge. After conducting Cohort 3 and Cohort 4 in 15 weeks of interventions, we learned that this number of weeks was insufficient. Although an improvement from the 12 weeks of interventions offered in Cohort 1 and Cohort 2, there were too many modules of a traditional CET program left out of 15 weeks of intervention. We also discovered that the last six modules for Cohort 3 and Cohort 4 contained a large amount of material and the CRT staff member often had to rush to present all of the information in these sessions. The future challenge would be to extend the program to as many weeks as possible without causing potential clients not to make the necessary program commitment, perhaps 20 weeks.

A final lesson learned after implementation involved “increasing the speed of recovery”, which was included in the CRT project proposal. We did not define recovery nor did we measure a recovery rate. Therefore, we were unable to determine whether any of the cohorts achieved faster recovery toward their highest potential of wellness. However, our positive outcomes especially for Cohort 3 and Cohort 4 demonstrated that the CRT project was effective and improvement was shown.

APPENDIX 1:

PROJECT DEMOGRAPHICS

The demographic data include all clients who began the CRT programs even if they did not complete them. It must be noted that for Cohort 3, seven clients began the CRT program and six clients completed it. For Cohort 4, seven clients began the CRT program and five clients completed it. Thus the gender and age percentages are the same for Cohort 3 and Cohort 4.

Cohort 1

AGE	PERCENT
16-25	17.0
26-59	83.0
Total	100.0

GENDER	PERCENT
Male	58.0
Female	42.0
Total	100.0

RACE	PERCENT
Hispanic	75.0
Native American	8.0
White	17.0
Total	100.0

CITY	PERCENT
Claremont	0.0
La Verne	8.33
Pomona	91.67
Total	100.00

Cohort 2

AGE	PERCENT
16-25	88.0
26-59	12.0
Total	100.0

GENDER	PERCENT
Male	58.0
Female	39.0
Unknown	3.0
Total	100.0

RACE	PERCENT
Asian	6.0
Black	12.0
Hispanic	55.0
Other	6.0
White	18.0
Unknown	3.0
Total	100.0

Cohort 3

CITY	PERCENT
Claremont	9.0
La Verne	6.0
Pomona	82.0
Unknown	3.0
Total	100.0

AGE	PERCENT
16-25	29.0
26-59	71.0
Total	100.0

GENDER	PERCENT
Male	57.0
Female	43.0
Total	100.0

RACE	PERCENT
Asian/Pacific Islander	14.0
Black	0.0
Hispanic	43.0
Other	14.0
White	29.0
Total	100.0

CITY	PERCENT
Claremont	14.0
La Verne	0.0
Pomona	86.0
Total	100.0

Cohort 4

AGE	PERCENT
16-25	29.0
26-59	71.0
Total	100.0

GENDER	PERCENT
Male	57.0
Female	43.0
Total	100.0

RACE	PERCENT
Asian/Pacific Islander	14.0
Black	29.0
Hispanic	57.0
Total	100.0

CITY	PERCENT
Claremont	14.0
La Verne	0.0
Pomona	86.0
Total	100.0

APPENDIX 2: PROJECT QUESTIONNAIRES FOR COHORTS 1 AND 2

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Tri-City Mental Health Services CRT Pre Survey

Please take a moment to answer the following questions. The information you provide is confidential and will be used to learn more about how this program may be improved.

Client ID:

Are you currently employed? Yes No

If yes, what is your occupation?

Are you currently a student? Yes No

If yes, what is your major?

Do you have any health related problems? (e.g., diabetes, etc.) If so, please describe.

Do you currently use drugs or alcohol? If so, please describe.

In the past have you used drugs or alcohol? If so, please describe.

Do you smoke? Yes No

Are you currently taking medications? If so, please list.



Tri-City Mental Health Services CRT Pre Survey

Please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
I have trouble speaking the words I want to say.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I say the things I want to say, people tell me they can't understand what I am saying.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see or hear things that other people cannot see or hear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I smell, taste, or feel things other people can't smell, taste, or feel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes my thoughts are not organized or connected to each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that someone may be planning to cause me harm, or may be about to cause me harm in the near future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes feel like I have no emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty getting myself organized to complete any kind of daily activity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel sad, down, or hopeless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble falling asleep or I sleep too much.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have no appetite or I overeat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have little energy to do things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I am much more talkative or speak much faster than usual.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There have been times when I was much more active or did more things than usual.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There have been times when I have felt both high (elated) and low (depressed) at the same time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy working in groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to build relationships or connections with people in my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Tri-City Mental Health Services CRT Post Survey

Please take a moment to answer the following questions. The information you provide is confidential and will be used to learn more about how this program may be improved.

Name: DOB:

Are you currently employed? Yes No

If yes, what is your occupation?

Are you currently a student? Yes No

Do you currently volunteer? Yes No

If yes, what is your major?

If yes, where?

Gender:

Male Female Other

Ethnicity:

White/Caucasian Black/African American Asian Hispanic or Latino Origin American Indian/Alaskan Native Pacific Islander Other

Do you have any health related problems? (e.g., diabetes, etc.) If so, please describe.

Do you smoke?

Yes No

Are you currently taking medications? If so, please list.

Please share with us any comments you have about the groups. This could be areas where we can improve or things you thought went well:



Tri-City Mental Health Services CRT Post Survey

Please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
When I say the things I want to say, people dismiss me or do not take what I say seriously.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble speaking the words I want to say.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I say the things I want to say, people tell me they can't understand what I am saying.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see or hear things that other people cannot see or hear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I smell, taste, or feel things other people can't smell, taste, or feel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes my thoughts are not organized or connected to each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that someone may be planning to cause me harm, or may be about to cause me harm in the near future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes feel like I have no emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty getting myself organized to complete any kind of daily activity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel sad, down, or hopeless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have trouble falling asleep or I sleep too much.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have no appetite or I overeat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have little energy to do things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I am much more talkative or speak much faster than usual.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There have been times when I was much more active or did more things than usual.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy working in groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to build relationships or connections with people in my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use drugs or alcohol to deal with my symptoms (e.g. anxiety, hearing voices, depression).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX 3: PROJECT QUESTIONNAIRES FOR COHORTS 3 AND 4



Tri-City Mental Health Services CRT Pre Survey

Please take a few moments to fill out the following survey. We are interested in the way things are for you, so there is no right or wrong answer. If you are not sure about the question, just answer it as best you can.
Shade in the bubble of the answer that fits you best

1. In the past 3 months, I have come up with...

No personal goals A personal goal, but have not done anything to finish the goal A personal goal and made it a little way toward finishing it A personal goal and have gotten pretty far in finishing the goal A personal goal and have finished it

2. How much do you feel like you know about symptoms, treatment, coping strategies (coping methods) and medications?

Not very much A little Some Quite a bit A great deal

3. How much do symptoms bother you?

My symptoms really bother me a lot My symptoms bother me quite a bit My symptoms bother me somewhat My symptoms bother me very little My symptoms don't bother me at all

4. How much do your symptoms get in the way of you doing things that you would like to do or need to do?

My symptoms really get in my way a lot My symptoms get in my way quite a bit My symptoms get in my way somewhat My symptoms get in my way very little My symptoms get in my way hardly at all

5. How well do you feel like you are coping with your mental or emotional illness from day to day?

Not well at all Not very well Alright Well Very well

6. How often do you take your medication as prescribed? (Don't answer if your doctor has not prescribed medication for you)

Never Occasionally About half the time Most of the time Every day

Please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	I am Neutral	Agree	Strongly Agree
7. My voice is very powerful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. My voice is evil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. My voice wants to harm me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My voice wants me to do bad things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Please answer the following questions as honestly as you can. There are no right or wrong answers.

		Very stressful 1	2	3	4	Not at all stressful 5
11. How stressful are your hallucinations/delusions to you?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Do you ever feel as if someone is intentionally trying to harm you?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Do you ever feel as if you are being persecuted in some way?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Do you feel as if there is a conspiracy against you?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Do you feel as if some organization or institution has it in for you?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please take a moment to answer the following questions. The information you provide is confidential and will be used to learn more about how this program may be improved.

Name:

DOB:

Are you currently employed? Yes No

If yes, what is your occupation?

Are you currently a student? Yes No

Do you currently volunteer? Yes No

If yes, what is your major?

If yes, where?

Gender: Male Female Other: _____

Ethnicity:

White/Caucasian Black/African American Asian Hispanic or Latino Origin American Indian/Alaskan Native Pacific Islander Other: _____

Do you have any health related problems? (e.g., diabetes, etc.) If so, please describe.

Do you smoke? Yes No

Are you currently taking medications? If so, please list.

Thank you for taking the time to answer these questions!



Tri-City Mental Health Services
CRT Pre Survey - Appendix B - Cognitive Style & Social Cognition Criteria

Client Name: _____

I. COGNITIVE STYLE CRITERIA

A. UNMOTIVATED STYLE

Rare	Mild	Moderate	Severe	Very Severe
------	------	----------	--------	-------------

1. Basic Impairment: Poverty of speech; poverty of ideational content; amotivation; reduced/flat affect (not depressed); no preference for either relevant or irrelevant information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Functional Disability: Effortful planning and/or problem solving; difficulty initiating behavior; effortful retrieval (recall) of information from memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Social Handicap: Language does not adequately express needs, preferences or opinions; does not give credible account of behavior; lack of stamina, slowed down; socially withdrawn, disinterested, apathetic, inactive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. DISORGANIZED COGNITIVE STYLE

Rare	Mild	Moderate	Severe	Very Severe
------	------	----------	--------	-------------

4. Basic Impairment: Ineffective inhibition (easily distracted by intrusive ideas); affect lability (limbic dominant responses that are emotional, spontaneous, but unconsidered); loose ideational content; difficulty maintaining attention; poverty in the content of speech.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Functional Disability: Chaotic or imprecise planning; difficulty selecting a preferable problem solving alternative; difficulty staying on task; failures to "chunk" or categorize memory stores.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Social Handicap: Inappropriate responses are not self-edited or monitored; difficulty using language coherently; readily changes goals, plans or opinions; hard to follow train of thought; impulsive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey Source: Hogarty, G.E., Flesher, S., & Greenwald, D. *Cognitive Style and Social Cognition Eligibility Criteria*

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C. INFLEXIBLE COGNITIVE STYLE

	Rare	Mild	Moderate	Severe	Very Severe
7. Basic Impairment: Fixed, inflexible, ideational content; restricted cognitive schema; constrained affect; obsessive or repetitive thinking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Functional Disability: Plans, goals, problem solving limited by inflexible thinking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Social Handicap: Behavior restricted by obsessive pre-occupation with details; tends toward stereotyped views of individuals, events and relationships; single-minded pursuit of inappropriate goals, career plans.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

II. SOCIAL COGNITIVE CRITERIA

	Rare	Mild	Moderate	Severe	Very Severe
10. Interpersonal Ineffectiveness: Lack of empathy, flexibility, or understanding; inability to negotiate conflicts or express needs; inability to control behavior when necessary; inability to take view of other person, or see self as others do; inability to act wisely in relationships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Gist Extraction Deficits: Inability to understand formal and informal rules of conduct as social contexts change; inability to "see" central point or norm in a social situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Adjustment to Disability: Inability to temporarily revise expectations; failure to understand and/or accept residual limitations imposed by illness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for taking the time to answer these questions!



Client Name: _____

Tri-City Mental Health Services CRT Pre Survey - Appendix C - Cognitive Style Inventory

INSTRUCTIONS: The following items include a list of cognitive traits that often interfere with a successful rehabilitation. Rate each of these traits for the client that reflects behavior in the PAST MONTH, using the following scale:

1. Almost never = not at all, once or twice only
2. Sometimes = once in a while, but behavior is neither typical nor usual
3. Often = fairly regular behavior, but not generally characteristic
4. Usually = frequent and regular behavior, with clear exceptions or intervals
5. Almost always = characteristics and typical behavior during rating period

IN THE PAST MONTH:

A. IMPOVERISHED (Problems Getting Started)

	Almost Never	Sometimes	Often	Usually	Almost Always
1. When this client fails to complete a task, coming to attention or shifting attention to an alternate solution is a principal problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Given a choice, the client tends to say very little about the people and situations in his or her life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Affectively blunted or flat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Difficulty thinking in abstract terms (gist formation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Planning and problem solving are very effortful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Difficulty recalling details	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. DISORGANIZED (Problems Maintaining Focus)

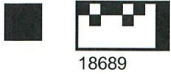
	Almost Never	Sometimes	Often	Usually	Almost Always
7. Tends to jump around when answering questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Attends to whatever first grabs attention whether it is relevant or not	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Verbal productions tend to be disorganized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Ideas tend to be loose, or hard to follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Difficulty selecting the relevant gist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Planning and problem solving are imprecise or chaotic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C. RIGID (Problems Changing Ideas)

	Almost Never	Sometimes	Often	Usually	Almost Always
13. Thinking tends to be inflexible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Maintains tight control over affective expression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Tends to get stuck on one idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Repeats same idea over and over	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for taking the time to answer these questions!

Survey Source: Hogarty, G.E., Flesher, S., & Greenwald, D. *Cognitive Style Inventory*



Client Name: _____

Tri-City Mental Health Services CRT Pre Survey - Appendix D - Social Cognition Profile

INSTRUCTIONS: Please select the best response for each item that best describes how the client has felt and acted today or in the PAST MONTH toward family, friends, or other clients.

- 1. Almost never = not at all, once or twice only
- 2. Sometimes = once in a while, but behavior is neither typical nor usual
- 3. Often = fairly regular behavior, but not generally characteristic
- 4. Usually = frequent and regular behavior, with clear exceptions or intervals
- 5. Almost always = characteristics and typical behavior during rating period

Today or in the past month:	Almost Never	Sometimes	Often	Usually	Almost Always
1. <u>Concerned</u> about other's welfare; didn't ignore them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. <u>Assertive</u> let others know what she/he thought and felt; was not overly submissive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. <u>Friendly</u> was approachable; did not turn others off	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. <u>Involved</u> with people or tasks; wasn't daydreaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. <u>Empathetic</u> showed sympathy to people with problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. <u>Gistful</u> looked for the deeper meaning or "big picture"; not overly concrete	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. <u>Insightful</u> could understand different reasons for own or others behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. <u>Sociable</u> tried not to avoid others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. <u>Reciprocal</u> acknowledged what people did; said thanks; returned favor(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. <u>Outward Directed</u> thought of others first; put self in their shoes; was not egocentric	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. <u>Aware</u> how behavior affected others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. <u>Confident</u> didn't have self doubts or ambivalence about decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. <u>Patient</u> , not easily frustrated by others behavior; long-suffering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. <u>Respectful</u> , avoided being rude	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. <u>Interested</u> didn't act indifferently towards others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. <u>Supportive</u> gave encouragement to someone that was feeling down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. <u>Moral</u> didn't lie, cheat or break the law; acted ethically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. <u>Interactive</u> , tried not to withdraw from others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. <u>Independent</u> didn't rely on others for everything; could make own decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. <u>Responsible</u> didn't blame others for own problems or mistakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. <u>Self-Improving</u> did something to make self a better person; didn't engage in self defeating behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. <u>Self-Aware</u> , knew what she/he was doing; aware of motives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. <u>Connected</u> spent time with family/friends; was not isolative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. <u>Flexible</u> could change ideas or plans if situation called for it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for taking the time to answer these questions!

Survey Source: Hogarty, G.E., Flesher, S., & Greenwald, D. *Social Cognition Profile*



Tri-City Mental Health Services CRT Post Survey

Please take a few moments to fill out the following survey. We are interested in the way things are for you, so there is no right or wrong answer. If you are not sure about the question, just answer it as best you can.
Shade in the bubble of the answer that fits you best

1. In the past 3 months, I have come up with...

No personal goals A personal goal, but have not done anything to finish the goal A personal goal and made it a little way toward finishing it A personal goal and have gotten pretty far in finishing the goal A personal goal and have finished it

2. How much do you feel like you know about symptoms, treatment, coping strategies (coping methods) and medications?

Not very much A little Some Quite a bit A great deal

3. How much do symptoms bother you?

My symptoms really bother me a lot My symptoms bother me quite a bit My symptoms bother me somewhat My symptoms bother me very little My symptoms don't bother me at all

4. How much do your symptoms get in the way of you doing things that you would like to do or need to do?

My symptoms really get in my way a lot My symptoms get in my way quite a bit My symptoms get in my way somewhat My symptoms get in my way very little My symptoms get in my way hardly at all

5. How well do you feel like you are coping with your mental or emotional illness from day to day?

Not well at all Not very well Alright Well Very well

6. How often do you take your medication as prescribed? (Don't answer if your doctor has not prescribed medication for you)

Never Occasionally About half the time Most of the time Every day

Please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	I am Neutral	Agree	Strongly Agree
7. My voice is very powerful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. My voice is evil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. My voice wants to harm me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My voice wants me to do bad things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Please answer the following questions as honestly as you can. There are no right or wrong answers.

		Very stressful 1	2	3	4	Not at all stressful 5
11. How stressful are your hallucinations/delusions to you?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Do you ever feel as if someone is intentionally trying to harm you?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Do you ever feel as if you are being persecuted in some way?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Do you feel as if there is a conspiracy against you?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Do you feel as if some organization or institution has it in for you?	<input type="radio"/> Yes <input type="radio"/> No	If yes, how stressful are these beliefs or experiences to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please take a moment to answer the following questions. The information you provide is confidential and will be used to learn more about how this program may be improved.

Name:

DOB:

Are you currently employed? Yes No

If yes, what is your occupation?

Are you currently a student? Yes No

Do you currently volunteer? Yes No

If yes, what is your major?

If yes, where?

Gender: Male Female Other:

Ethnicity: White/Caucasian Black/African American Asian Hispanic or Latino Origin American Indian/Alaskan Native Pacific Islander Other:

Do you have any health related problems? (e.g., diabetes, etc.) If so, please describe.

Do you smoke? Yes No

Are you currently taking medications? If so, please list.

Thank you for taking the time to answer these questions!



**Tri-City Mental Health Services
CRT Post Survey - Appendix B - Cognitive Style & Social Cognition
Criteria**

Client Name: _____

I. COGNITIVE STYLE CRITERIA

A. UNMOTIVATED STYLE

Rare	Mild	Moderate	Severe	Very Severe
------	------	----------	--------	-------------

1. Basic Impairment: Poverty of speech; poverty of ideational content; amotivation; reduced/flat affect (not depressed); no preference for either relevant or irrelevant information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Functional Disability: Effortful planning and/or problem solving; difficulty initiating behavior; effortful retrieval (recall) of information from memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Social Handicap: Language does not adequately express needs, preferences or opinions; does not give credible account of behavior; lack of stamina, slowed down; socially withdrawn, disinterested, apathetic, inactive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. DISORGANIZED COGNITIVE STYLE

Rare	Mild	Moderate	Severe	Very Severe
------	------	----------	--------	-------------

4. Basic Impairment: Ineffective inhibition (easily distracted by intrusive ideas); affect lability (limbic dominant responses that are emotional, spontaneous, but unconsidered); loose ideational content; difficulty maintaining attention; poverty in the content of speech.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Functional Disability: Chaotic or imprecise planning; difficulty selecting a preferable problem solving alternative; difficulty staying on task; failures to "chunk" or categorize memory stores.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Social Handicap: Inappropriate responses are not self-edited or monitored; difficulty using language coherently; readily changes goals, plans or opinions; hard to follow train of thought; impulsive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey Source: Hogarty, G.E., Flesher, S., & Greenwald, D. *Cognitive Style and Social Cognition Eligibility Criteria*

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C. INFLEXIBLE COGNITIVE STYLE

	Rare	Mild	Moderate	Severe	Very Severe
7. Basic Impairment: Fixed, inflexible, ideational content; restricted cognitive schema; constrained affect; obsessive or repetitive thinking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Functional Disability: Plans, goals, problem solving limited by inflexible thinking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Social Handicap: Behavior restricted by obsessive pre-occupation with details; tends toward stereotyped views of individuals, events and relationships; single-minded pursuit of inappropriate goals, career plans.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

II. SOCIAL COGNITIVE CRITERIA

	Rare	Mild	Moderate	Severe	Very Severe
10. Interpersonal Ineffectiveness: Lack of empathy, flexibility, or understanding; inability to negotiate conflicts or express needs; inability to control behavior when necessary; inability to take view of other person, or see self as others do; inability to act wisely in relationships.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Gist Extraction Deficits: Inability to understand formal and informal rules of conduct as social contexts change; inability to "see" central point or norm in a social situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Adjustment to Disability: Inability to temporarily revise expectations; failure to understand and/or accept residual limitations imposed by illness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for taking the time to answer these questions!



Client Name: _____

Tri-City Mental Health Services CRT Post Survey - Appendix C - Cognitive Style Inventory

INSTRUCTIONS: The following items include a list of cognitive traits that often interfere with a successful rehabilitation. Rate each of these traits for the client that reflects behavior in the PAST MONTH, using the following scale:

1. Almost never = not at all, once or twice only
2. Sometimes = once in a while, but behavior is neither typical nor usual
3. Often = fairly regular behavior, but not generally characteristic
4. Usually = frequent and regular behavior, with clear exceptions or intervals
5. Almost always = characteristics and typical behavior during rating period

IN THE PAST MONTH:

A. IMPOVERISHED (Problems Getting Started)

	Almost Never	Sometimes	Often	Usually	Almost Always
1. When this client fails to complete a task, coming to attention or shifting attention to an alternate solution is a principal problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Given a choice, the client tends to say very little about the people and situations in his or her life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Affectively blunted or flat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Difficulty thinking in abstract terms (gist formation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Planning and problem solving are very effortful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Difficulty recalling details	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. DISORGANIZED (Problems Maintaining Focus)

	Almost Never	Sometimes	Often	Usually	Almost Always
7. Tends to jump around when answering questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Attends to whatever first grabs attention whether it is relevant or not	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Verbal productions tend to be disorganized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Ideas tend to be loose, or hard to follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Difficulty selecting the relevant gist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Planning and problem solving are imprecise or chaotic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C. RIGID (Problems Changing Ideas)

	Almost Never	Sometimes	Often	Usually	Almost Always
13. Thinking tends to be inflexible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Maintains tight control over affective expression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Tends to get stuck on one idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Repeats same idea over and over	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for taking the time to answer these questions!



Client Name: _____

Tri-City Mental Health Services CRT Post Survey - Appendix D - Social Cognition Profile

INSTRUCTIONS: Please select the best response for each item that best describes how the client has felt and acted today or in the PAST MONTH toward family, friends, or other clients.

- 1. Almost never = not at all, once or twice only
- 2. Sometimes = once in a while, but behavior is neither typical nor usual
- 3. Often = fairly regular behavior, but not generally characteristic
- 4. Usually = frequent and regular behavior, with clear exceptions or intervals
- 5. Almost always = characteristics and typical behavior during rating period

Today or in the past month:	Almost Never	Sometimes	Often	Usually	Almost Always
1. <u>Concerned</u> about other's welfare; didn't ignore them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. <u>Assertive</u> let others know what she/he thought and felt; was not overly submissive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. <u>Friendly</u> was approachable; did not turn others off	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. <u>Involved</u> with people or tasks; wasn't daydreaming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. <u>Empathetic</u> showed sympathy to people with problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. <u>Gistful</u> looked for the deeper meaning or "big picture"; not overly concrete	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. <u>Insightful</u> could understand different reasons for own or others behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. <u>Sociable</u> tried not to avoid others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. <u>Reciprocal</u> acknowledged what people did; said thanks; returned favor(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. <u>Outward Directed</u> thought of others first; put self in their shoes; was not egocentric	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. <u>Aware</u> how behavior affected others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. <u>Confident</u> didn't have self doubts or ambivalence about decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. <u>Patient</u> , not easily frustrated by others behavior; long-suffering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. <u>Respectful</u> , avoided being rude	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. <u>Interested</u> didn't act indifferently towards others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. <u>Supportive</u> gave encouragement to someone that was feeling down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. <u>Moral</u> didn't lie, cheat or break the law; acted ethically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. <u>Interactive</u> , tried not to withdraw from others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. <u>Independent</u> didn't rely on others for everything; could make own decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. <u>Responsible</u> didn't blame others for own problems or mistakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. <u>Self-Improving</u> did something to make self a better person; didn't engage in self defeating behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. <u>Self-Aware</u> , knew what she/he was doing; aware of motives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. <u>Connected</u> spent time with family/friends; was not isolative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. <u>Flexible</u> could change ideas or plans if situation called for it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thank you for taking the time to answer these questions!

Questions for additional data that were asked after the final quiz (See CRT curriculum, Appendix 2).

Questions about the MMT Group

Please circle your response.

1. The 15 weeks (not including the graduation) of MMT was: too short
just right too long
2. The content of the groups was too hard for me to understand:
Most of the time Sometimes Unsure Never

Please answer the following questions.

3. My favorite part of MMT was _____

4. My least favorite of MMT was _____

5. What would you change about MMT to make it better for you? _____

Minds Moving Together (MMT)




SLIDE 2

What is MMT?

- ▶ MMT is an Innovation Project that consists of 15 weeks of group intervention designed to serve TCMHS clients who are diagnosed with a psychotic disorder (e.g., Schizophrenia, Schizoaffective disorder) or disorders with psychotic features.
- ▶ MMT integrates concepts from two models Cognitive Behavioral Therapy for Psychosis (CBTp) and Cognitive Enhancement Therapy (CET) to manage presenting symptoms while also enhancing cognitive functioning.


SLIDE 3

How is MMT conducted?

- ▶ Clients who are currently enrolled in formal services and meet diagnostic and other criteria are recruited via outreach from MMT staff members to their primary treatment staff members (therapists, MHRS, etc.).
 - ▶ MMT staff members will create treatment goals centered on symptom management once clients are formally enrolled in the MMT group.
 - ▶ Clients will complete a questionnaire prior to the start of the group and at the completion of the group.
- 

SLIDE 4

How is MMT conducted? (cont.)

- ▶ During the 15 week MMT group, clients will participate in computer exercises aimed at improving their cognitive functioning (e.g., memory, attention and problem-solving) and social interaction with one another. Clients will also participate in group discussions and group activities to further raise awareness of the effects of their symptoms, while acquiring skills and strategies aimed at managing them.
- 

SLIDE 5

In the end

- ▶ After 15 weeks of participation in the group, clients get to participate in a special graduation ceremony and lunch to commemorate their work and efforts in the program.




SLIDE 6

Qualifying criteria

- ▶ Clients must be between the ages of 18–55
- ▶ Be formally enrolled in services.
- ▶ Be able to communicate in English.
- ▶ Have a reading/writing level equivalent of the 7th grade, as well an understanding of basic arithmetic.


SLIDE 7

Additional support (for clients)

- ▶ Clients who need transportation to and from group.
 - ▶ Computer training for clients who do not have computer skills.
 - ▶ Weekly in home coaching sessions by a MMT staff member for clients to assist them with reviewing homework assignments, as well as subjects discussed during the week's group.
 - ▶ Courtesy lunch will be provided after each group.
- 

SLIDE 8

MMT requirements from staff

- ▶ Ongoing communication from a MMT staff member to the referring staff member to discuss client's response to the group, as well as issues which could impact client's participation.
 - ▶ Referring staff member will be requested to complete two questionnaires prior to the client's participation in the group and two questionnaires after client completes the group.
 - ▶ MMT staff member will remind clients that they must remain in individual treatment while attending the group.
- 

APPENDIX 5: PROJECT FLYERS

Cohort 1 MMT Flyer

Welcome!

Minds Moving Together (MMT)

What is MMT?

MMT clients participate in weekly groups and play brain exercise games, while participating in therapy discussions focused on symptom management. At the end of each group, clients enjoy a free lunch or early dinner. The groups last for 12 weeks with a special recognition lunch for clients at the end.



Important Notes

- The first group will meet at the Wellness Center on Wednesday May 4, 2017 at 12:00PM. Please be on time.
- All other groups will be held at the Tri-City clinic (2001 N Garey) on Thursdays at 10:30am.
- You will be given a notebook and a folder. Please bring these items to each group.
- Please let Luis or Dr. Burke know if you'll need a ride to group each week.



The Minds Moving Together (MMT) group combines and integrates concepts from two models (CBT for Psychosis & Cognitive Enhancement Therapy) to manage presenting symptoms of psychosis while also enhancing cognitive functioning.

PARTICIPANT REQUIREMENTS

- 18 to 55 years old
- Diagnosed with a psychotic disorder or disorder with psychotic features
- Clients must be stable and actively participating in therapy at Tri-City
- Must agree to remain in individual therapy throughout the duration of the MMT program cycle
- Basic understanding of arithmetic
- Be able to communicate in English

GROUP INCLUDES

- Introductory computer training will be available for participants prior to the group start date (if additional support is needed)
- Individual coaching sessions
- Transportation for group meetings
- And free lunch!



GROUP STRUCTURE

- 16 weeks
- Group discussions addressing symptom management
- Brain training computer exercises aimed at improving memory, attention and problem solving skills
- Weekly "homework" to improve socialization skills and symptom management



If you have any questions or would like more information about the enrollment process, please contact Dr. Patricia Wallace-Burke: pwallace-burke@tricitymhs.org or ext. 3042

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