THE OUTCOMES OF SUPPORTED EMPLOYMENT WITHIN THE RECOVERY MODEL OF REHABILITATION FOR INDIVIDUALS WITH SEVERE MENTAL ILLNESS

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DEDICATION

I would like to thank the members of my Graduate Committee, my parents, my family, and my friends for their consistent support and patience. Special thanks go to my grandmothers, Doris Harvis and Nadyne Pursley, both of whom passed away during my time in graduate school.

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Individuals with severe mental illnesses such as severe Major Depressive Disorder, Bipolar I Disorder, Schizophrenia, and Schizoaffective Disorder face heavy barriers to employment, including the symptoms of the disorders themselves, medication side effects, and stigma and misconceptions about mental illness from coworkers and employers. Consistent employment has a strong positive impact on recovery prognosis for the severely mentally ill, but up to 90% are unemployed in spite of their own desire for competitive employment and the presence of federal legislation and incentive programs intended to reduce unemployment in this population. Literature shows that access to and participation in supported employment services is the most powerful

predictor of competitive employment for those with severe mental illness, but the presence of differing models of rehabilitation contributes to inconsistent levels of service and results. The medical model and the recovery model are two of the most popular and widespread models of rehabilitation currently in use. Research comparing these models is necessary to determine which is more effective at helping the mentally ill achieve and maintain competitive employment. This thesis reviews relevant literature and presents a research design for a nonequivalent group study inspired by the Metroplex Employment Model, comparing the outcomes of the medical model of rehabilitation and placement with those of supported employment within the recovery model of rehabilitation. The goal is to determine which service format provides the desired results (prompt and sustained employment) more efficiently and consistently, making process-based and outcomes-based program evaluation a vital part of the design. Samples of program evaluation forms can be found in the Appendix. It is hypothesized that supported employment services following a biopsychosocial, recovery-based model will result in consumers with severe mental illness attaining employment significantly more quickly and sustaining it for longer than rehabilitation services that follow the traditional medical model. Following the literature review and basic design, there is discussion of the importance and implications of the results of such a study, potential improvements upon the design, and variations on how the data may be computed.

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LIST OF DEFINITIONS

Age of onset – The age at which an individual acquires, develops, or first experiences a condition or symptoms of a disease or disorder

Anhedonia – The loss of pleasure and interest in activities that one previously found worthwhile, engaging and enjoyable

Biopsychosocial – A synergistic view that takes biological, psychological, and social factors into account

Certified peer support – Peer support services in which the peer support provider has successfully completed a certified training program teaching the use of effective, evidence-based techniques

Competitive employment – Meaningful, paid employment in an integrated workplace

Divalproex – An anticonvulsant medication commonly used to treat Bipolar I Disorder; marketed under the brand name Depakote

DSM-IV-TR – The *Diagnostic and Statistical Manual of Mental Disorders*, a classification system for psychological disorders and the symptoms compiled by the American Psychiatric Association

Medical model of rehabilitation – The oldest and most widespread model of rehabilitation, based on a clinical concept of recovery from illness with the complete or nearly complete remission or cure of symptoms and no further hospitalizations as its goal

Mental illness – A pattern of behaviors and psychological symptoms that causes clinically significant impairment and distress in one's personal, social, or occupational functioning

Metroplex Employment Model (MEM) – A multidisciplinary, biopsychosocial model of vocational rehabilitation service delivery with the goal of improving the fast-tracking of employment for people with severe mental disorders. Core beliefs: ongoing employment is the key to recovery for individuals with mental illness, and that ongoing employment can be achieved if rehabilitation services are executed proficiently by a support system that works as one cooperative unit

Metroplex Employment Model Pilot (MEMP) – An effort begin the use of the MEM to improve vocational rehabilitation services to individuals with severe and persistent mental illness within the Dallas/Ft. Worth metroplex, using a rehabilitation team assembled from local service providers

Outcomes-based Evaluation – Program evaluation focused on determining whether a program is bringing about the outcomes needed by the clients who participate

Peer Support – A form of treatment and rehabilitation in which individuals who have self-disclosed as having a mental illness and seek to help others who have been diagnosed

Process-based Evaluation – Program evaluation geared toward understanding the strengths and weaknesses of a program, how each part really works and produces the results that it does, and how efficiently it does so

Program Evaluation – The careful collection of information about a program or some part of a program in order to make decisions about the program

Rehabilitation – The process of restoring an individual to a useful and constructive place in society, especially through some form of vocational, correctional, or therapeutic retraining

Recovery Model of Rehabilitation – A newer model of rehabilitation which is not about attaining a "cured" state, but rather about managing and coming to terms with one's symptoms in order to live a meaningful and successful life

Severe mental illness – Severe instances of psychological disorders marked by the presence of most of the criteria symptoms, surpassing the basic diagnostic requirements of the disorder in question and causing clear-cut, observable disability in multiple areas of functioning.

Side effect – Any effect of a drug, chemical, or other medicine that is in addition to its intended effect, especially an effect that is harmful or unpleasant

Social Security Disability Insurance (SSDI) – a payroll tax-funded, federal insurance program of the United States government, managed by the Social Security Administration and designed to provide income supplements to people who are restricted in their ability to be employed because of a notable disability. Generally, recipients must have been employed for 5 out of the last 10 years prior to onset of disability. Once one qualifies for benefits, they are contingent upon the inability to sustain employment.

Supplemental Security Income (SSI) – a United States government program that provides stipends to low-income people who are either aged (65 or older), blind, or disabled. Although administered by the Social Security Administration, SSI is funded from the U.S. Treasury general funds, not the Social Security trust fund. One of the requirements to receive SSI is that the individual's income must be below certain limit, and earnings above that limit result in loss of benefits.

Supported Employment – An approach to vocational rehabilitation for people with serious mental illnesses that emphasizes helping them obtain competitive work in the community and providing the supports necessary to ensure their success in the workplace

Vocational Rehabilitation – Rehabilitation with the specific goal of attaining and maintaining employment

Wellness Recovery Action Plan (WRAP) – A self-monitoring system that provides a structured way for individuals experiencing psychiatric symptoms to address and relieve their symptoms on a day-to-day basis in order to promote recovery from mental illness and prevent relapse

CHAPTER ONE
Introduction

Individuals with severe mental illnesses such as severe Major Depressive Disorder, Bipolar I Disorder, Schizophrenia, and Schizoaffective Disorder face heavy barriers to employment, including the symptoms of the disorders themselves, medication side effects that can be almost as disruptive as the disorders they are intended to treat, and stigma and misconceptions about mental illness from coworkers and employers. Those with an age of onset in late adolescence or early adulthood may have been unable to complete their educational goals, cultivate a healthy social support network, maintain strong family connections, or build a reliable history of formal employment. Alternately, individuals' whose symptoms began later in life may have had some or all of these things, but lost them once they became unable to cope with the symptoms of their illness. These individuals also face practical and economical challenges, such as lack of independent transportation and limited availability of jobs. Even so, a majority of people with severe mental illness wish to be employed.

Consistent employment has a strong positive impact on recovery prognosis for the severely mentally ill, but up to 90% are unemployed in spite of their desire for competitive employment and the presence of federal legislation and incentive programs intended to reduce unemployment in this population. Literature shows that access to and participation in supported employment services is the most powerful predictor of competitive employment for those with severe mental illness, but the presence of differing models of rehabilitation contributes to inconsistent levels of service and results. The medical model and the recovery model are two of the most popular and widespread

models of rehabilitation currently in use. The medical model is the older and more prevalent model, in which it is the clinician's job to provide complete or nearly complete remission or cure of symptoms in order for the patient to be prepared for a return to work. Unfortunately, this can be a lengthy process, during which the patient may become entrenched in the role of mental illness and allow professional skills and social networks to fade. The recovery model, by contrast, presents a collaborative approach to rehabilitation, in which the consumer is empowered and expected to take an active role in planning the course of his or her rehabilitation with a goal of symptom management and attaining the highest level of wellness he or she is capable of even if the symptoms of mental illness never fade entirely. Returning to work promptly with the aid of ongoing professional and peer support in seeking and retaining employment during the recovery process is a major feature of this model, intended to maintain existing practical and interpersonal skills while learning to overcome symptoms in a realistic environment.

Both models are capable of yielding positive results, particularly when applied from a biopsychosocial standpoint, but research comparing these models is necessary to determine which is more effective at helping the mentally ill achieve and maintain competitive employment. This thesis reviews relevant literature and presents a research design for a nonequivalent group study inspired by the Metroplex Employment Model, comparing the outcomes of the medical model of rehabilitation and placement with those of supported employment within the recovery model of rehabilitation. The goal is to determine which service format provides the desired results of prompt and sustained employment more efficiently and consistently, making process-based and outcomes-based program evaluation a vital part of the design. Samples of program evaluation forms

can be found in the Appendix. It is hypothesized that supported employment services following a biopsychosocial, recovery-based model will result in consumers with severe mental illness attaining employment significantly more quickly and sustaining it for longer than rehabilitation services that follow the traditional medical model. Following the literature review and basic design, there is discussion of the importance and implications of the results of such a study, potential improvements upon the design, and variations on how the data may be computed.

CHAPTER TWO
Review of the Literature

Definitions of Severe Mental Illness

Defining mental illness, particularly severe mental illness, can be a difficult task. Fortunately, the American Psychiatric Association has compiled a classification system for psychological disorders and the symptoms that characterize them, the *Diagnostic and Statistical Manual of Mental Disorders*, currently in its fourth edition text revision (DSM-IV-TR). This study will use the accepted DSM-IV-TR criteria to define the psychological disorders that have been selected to represent severe mental illness for the purposes of this research. Those disorders are severe Major Depressive Disorder, Bipolar I Disorder, Schizophrenia, and Schizoaffective Disorder. The symptoms and behaviors associated with each of these conditions cause clinically significant impairment and distress in one's personal, social, or occupational functioning, in accordance with the basic features of mental disorders discussed in the DSM-IV-TR (American Psychiatric Association [APA], 2000). Severe instances of these disorders are marked by the presence of most of the criteria symptoms, surpassing the basic diagnostic requirements of the disorder in question and causing clear-cut, observable disability in the areas of functioning previously mentioned (APA, 2000). Individuals with a severe mental disorder often reach the point that they are unable to function in one or more important life roles, such as caring for their children, sustaining employment, or maintaining social relationships, and face a significantly increased risk of death, pain, or an important loss of freedom (APA, 2000; Feiner & Frese, 2009; Maxmen, Ward, & Kilgus, 2009).

Severe Major Depressive Disorder is categorized as a mood disorder that accounts for approximately 12.8% of psychological patients (Maxmen et al., 2009), occurring with about a 2:1 ratio of women to men (Preston, O'Neal, & Talaga, 2010). Average age of onset is 40, but may occur at any point in the adult life cycle or as early as childhood or infancy (Maxmen et al., 2009). Individuals may experience only one occurrence of severe major depression, but 80% of those who experience major depression will encounter recurrent episodes over the course of their lives (Preston et al., 2010). Note that for the purposes of this study, only severe unipolar depression will fall within this category. The primary symptoms of major depression are one or both of depressed mood and anhedonia, the latter of which refers to the loss of pleasure and interest in activities that one previously found worthwhile, engaging and enjoyable (APA, 2000). Those primary symptoms are accompanied by a blend of some or all of the following: marked weight change, appetitive increase or decrease, sleep disturbances, psychomotor retardation or agitation, fatigue, feelings of worthlessness, pervasive feelings of guilt, difficulty thinking or concentrating, and recurrent thoughts of death or suicide (APA, 2000). Suicide is a common risk for those with severe major depression, with up to 9% successfully completing suicide and 15% attempting to do so at some point during their illness (Maxmen et al., 2009; Preston et al., 2010).

While major depression may occur purely as a reaction to environmental stressors or purely as a result of biological factors, both elements are often present in instances of severe Major Depressive Disorder (Maxmen et al., 2009; Preston et al., 2010). Individuals with severe depression often experience a variety of the symptoms mentioned earlier, which can present formidable practical and functional barriers in

occupational and social settings. Anhedonia can be particularly insidious, leading to reduced interest in job tasks and resulting in reduced speed and quality of work, social withdrawal, and reduced motivation to complete difficult tasks. Slowed psychomotor functioning can result in impaired attention and focus, diminished ability to think or make decisions, and reduced alertness and reaction speed (Maxmen et al., 2009; Preston et al., 2010). Fatigue, low energy levels, and sleep disturbances further contribute to these problems, and taken together they often result in difficulty performing job tasks at the expected level, trouble remembering appointments, reduction in quality of work, organizational problems, poor work attendance, and a variety of other difficulties in the workplace. Combined with the low self-esteem and negative thinking patterns that are also common symptoms of severe depression, depressed individuals feel overwhelmed even by easy tasks and may no longer try to do anything (Maxmen et al., 2009; Preston et al., 2010, giving up on employment, interpersonal relationships, and neglecting basic self-care. In the most extreme cases of major depression, individuals may even develop psychotic symptoms such as delusions or hallucinations, often following a theme of guilt and extremely low self-esteem (Maxmen et al., 2009; Preston et al., 2010).

Treatment of severe major depression is most often a combination of some form of psychotherapy in conjunction with antidepressant medication, with the medications acting to normalize neuronal function and the psychotherapy addressing the cognitive, emotional, and environmental factors that contributed to the condition, with the addition of antipsychotic medications for patients experiencing psychotic symptoms (Preston et al., 2010). Up to 80% of individuals treated with antidepressant medication experience some symptom relief (Preston et al., 2010), but medication side effects, which vary

depending on the medication in question, can present further barriers to recovery and occupational functioning. These can include dry mouth and skin, nausea, constipation, difficulty urinating, sexual dysfunction, dizziness and light headedness due to hypotension, sedation, weight gain, anxiety, insomnia, anxiety, restlessness, and even cardiac arrhythmia (Preston et al., 2010). Ironically, long-term use of some antidepressants can loss of energy, passivity, decreased pleasure, and decreased libido, resembling the depression for which the patient is being treated, while others can increase the likelihood of seizures or of dangerous hypertensive reactions (Preston et al., 2010). While these side effects are rarely experienced in their most extreme forms, they can result in reduced job performance due to drowsiness or inattentiveness, difficulty maintaining appropriate grooming standards, reduced self-confidence, embarrassment and social withdrawal, difficulty arriving to work on time and consistently, impaired focus on job tasks, and other everyday problems that may complicate social and occupational functioning. Other, less conventional treatments such as electroconvulsive therapy have also proven effective in treating severe major depression (Preston et al., 2010), but tend to be less readily available and also carry their own potential for negative side effects, particularly memory loss and neurological problems.

Bipolar I Disorder is a mood disorder that accounts for about 7% of psychological patients (Maxmen et al., 2009), and occurs with equal frequency in men and women (Preston et al., 2010). Bipolar I disorder often arises before age 30, with 20 being the mean age of onset (APA, 2000; Maxmen et al., 2009). As a result, symptoms often arise during the period when individuals are trying to complete their education, establish a career, or start a family. Bipolar I Disorder is often recurrent, with individuals

experiencing multiple episodes over the course of their lives. Manic episodes are a distinctive feature of this disorder, and are characterized by "abnormally and persistently elevated, expansive, or irritable mood" combined with three or more of the following: grandiosity, decreased need for sleep, loquaciousness, distractibility, extremely goal-focused activity, or hedonism (APA, 2000). These symptoms can combine to result in recklessly overconfident, impulsive, or extravagant behavior. In occupational settings, this can lead to inappropriate or irresponsible behavior, starting projects one is incapable of finishing, applying for jobs that exceed one's normal qualifications or abilities, beginning more projects than one can handle once the mania fades, and becoming prickly and quick to anger when others fail to go along with one's ideas and enthusiasm. Organizational problems, erratic job performance, difficulty delivering what one promises, conduct problems, and job loss are not uncommon. Florid psychoses can appear during severe manic episodes, including persecutory or grandiose delusions, ideas of reference, disorganized thinking, and hallucinations (Maxmen et al., 2009). This out of control behavior may end with socially, physically, or fiscally harmful consequences for the patient, and hospitalization is often required for those exhibiting psychotic symptoms.

In addition to manic episodes, those with Bipolar I Disorder usually eventually suffer from accompanying bipolar depression, a deep depression that tends to last longer, relapse more frequently, and display more and more severe depressive symptoms than those seen in Major Depressive Disorder (Maxmen et al., 2009). The rate of completed suicide among those suffering from Bipolar I Disorder is somewhat higher than that of those suffering from Major Depressive Disorder, at 15% to 20% (Preston et al., 2010).

Psychopharmacological medication is often the primary treatment for Bipolar I Disorder, with lithium or anticonvulsants such as divalproex playing a central role in regulating manic and depressive episodes (Maxmen et al., 2009; Preston et al., 2010). Unfortunately, the therapeutic dose of lithium is very close to its toxicity threshold. Overdoses can result in seizures, central nervous system depression, irregular heartbeat, kidney dysfunction, coma, or death, making careful dosage management and frequent blood tests a necessity (Preston et al., 2010). That said, lithium maintained at a safe level is an effective treatment for 60 to 80 percent of individuals with bipolar disorder, with fewer sedative and euphoriant effects than other psychotropic medications, including the anticonvulsants frequently prescribed by those seeking a safer alternative (Preston et al., 2010). The side effects of bipolar medications as a whole present another set of difficulties for the patient to overcome, potentially including weight gain, nausea, vomiting, diarrhea, lethargy, muscle weakness, fine hand tremor, sedation, skin rashes, low thyroid, or decreased white blood cell count (Preston et al., 2010). As with the side effects of the other treatments mentioned, these rarely occur in their most severe form; however, they can still cause practical and interpersonal problems in social and occupational settings, including embarrassment, punctuality and attendance problems, and difficulty attending to and completing job tasks. Recent findings by the National Institute of Mental Health have revealed a common genetic root with Schizophrenia (National Institute of Mental Health [NIMH], 2009), and some clinicians have begun testing the effectiveness of low doses of medications used to treat Schizophrenia at managing bipolar symptoms. Psychotherapy has proven beneficial as an adjunct treatment for medication-stabilized patients, improving compliance with medical

treatment, insight into one's symptoms, teaching healthier coping skills, and improving social function (Maxmen et al., 2009; Preston et al., 2010). Electroconvulsive therapy is considered a viable alternative treatment for those resistant to medication or if medication is contraindicated (Preston et al., 2010).

Schizophrenia is a chronic psychotic disorder that occurs in 1% of the population, but accounts for two thirds of all psychiatric inpatients and costs the United States approximately 2% of its gross national product each year (Maxmen et al., 2009; Preston et al., 2010). The classic symptoms of Schizophrenia include delusions, auditory and visual hallucinations, incoherent and disorganized speech and thoughts, bizarre behavior, and catatonia (APA, 2000).

The onset of Schizophrenia often occurs in late adolescence or early adulthood, and symptoms often persist for the rest of the patient's life. Schizophrenia is particularly disruptive due to its typical age of onset, early to mid-20s for men and slightly later for women (Maxmen et al., 2009), which coincides with the time of life in which one is often first attempting to develop one's adult identity, attend college, and begin one's career. The symptoms of Schizophrenia present a number of barriers to occupational and social functioning, making it difficult for individuals with this diagnosis to sustain employment. Impaired attention, concentration, and memory are common, as are disorganized thinking and flattened or inappropriate affect. Clear communication with others is likely to be difficult, and reliably self-motivating and completing tasks is also a common problem. In some cases this appears to be the result of internal stimuli, such as delusions and hallucinations, interfering with the patient's ability to attend and react to real events even when he or she is able to differentiate between the two (Maxmen et al., 2009). In any

case, maintaining appropriate standards of grooming and completing relatively simple everyday tasks takes extra effort, and people with Schizophrenia are often perceived as behaving in eccentric or unsettling ways by others, making it difficult to maintain consistent work performance and participate socially. Even those who succeed in coping with and managing their symptoms are likely to have limited ability to cope with stressful situations, and social isolation is common, as is divorce (Maxmen et al., 2009).

With proper medication symptoms can be reduced to manageable levels, allowing the patient to live independently and productively, but the traditional prognosis is bleak, with few returning to a consistent premorbid level of functioning and a 30% to 40% possibility of repeated relapse and continued degeneration over time (Maxmen et al., 2009; Preston et al., 2010). The risk of suicide is high among those with Schizophrenia, with about 10% completing suicide and 20% attempting to kill themselves at some point (Maxmen et al., 2009; Preston et al., 2010). In contrast, recent studies have suggested a more optimistic picture for individuals diagnosed with Schizophrenia, showing a pattern of 40% regaining economic and residential independence and 20% experiencing full remission of psychotic symptoms and a return to premorbid levels of functioning (Warner, 2009). Some data also suggest that chemical changes that occur as the brain ages may naturally ameliorate the symptoms of Schizophrenia in some individuals (Kelly & Gamble, 2005).

The typical treatment for Schizophrenia is antipsychotic medication in combination with other agents such as mood stabilizers, minor tranquilizers, and other psychiatric medications as needed to manage symptoms and side effects (Maxmen et al., 2009; Preston et al., 2010). The side effects of antipsychotic medications can be

unpleasant or even medically dangerous, serving as barriers to employment and healthy social functioning in their own right. The most severe side effects can include muscle spasms, confusion, dizziness due to hypotension, inability to urinate, prolonged or severe constipation, rash, high fever, involuntary movements, hepatic dysfunction, sexual dysfunction, severe sedation, or severe restlessness (Preston et al., 2010). Some antipsychotics can also increase the likelihood of seizures or metabolic symptoms. While few individuals experience these side effects at full strength, they can be embarrassing or frightening even in their less intense forms, contributing to social withdrawal and medication noncompliance. Psychotherapy is often another important part of treating those with Schizophrenia, once medications have reduced active symptoms to a manageable level. Typical goals include improving social function with family and others, education about the disorder and treatment rationale, promoting medication compliance, improving reality testing, and addressing the belief systems that underlie the hallucinations and delusions common to those experiencing even residual psychotic symptoms (Maxmen et al., 2009; Preston et al., 2010).

Schizoaffective Disorder is a psychotic disorder that combines the hallucinations and delusions of Schizophrenia with the affective components of a major depressive episode or of a manic episode, or sometimes those of both (APA, 2000). Little is currently known about the causes behind Schizoaffective Disorder, but the results of examinations of patients' family histories suggests that there is at least some genetic component to the disorder's etiology (Maxmen et al., 2009). Schizoaffective disorder appears to occur more often in women than in men, with age of onset typically during early adulthood, though it can occur anywhere from adolescence to late in life (Maxmen

et al., 2009). Treatment of Schizoaffective Disorder is as variable as the disorder itself, but medication management plays a key role. Schizophrenic symptoms are treated with antipsychotic medication, depressive symptoms with antidepressants, and bipolar symptoms with mood stabilizers (Maxmen et al., 2009). Barriers to employment and social functioning correspond with those listed for the other diagnoses mentioned in this section, depending on which symptoms present most strongly. Medication side effects will likewise vary with the medications used, potentially including any of those mentioned previously. Psychotherapy is often beneficial, especially when used in conjunction with the aforementioned medical treatments to improve coping skills and encourage positive lifestyle changes (Maxmen et al., 2009).

Research On Unemployment Characteristics of Those With Severe Mental Illness

Unemployment is widespread among those with severe mental illness. As much as 85% of the mentally ill are unemployed (Brown, 2007; Rubin & Roessler, 2001). Other studies find that unemployment rates among those with psychiatric disabilities may be as high as 90% (Dalgin & Gilbride, 2003; Razzano et al., 2005). For those with Schizophrenia, in particular, the unemployment rate is often 80% or higher (Bond & Drake, 2008). This pervasive unemployment is especially striking when one considers that over half of psychiatric patients with severe mental illness actively want to be employed (Drake, Becker, & Bond, 2003). Some studies suggest that as much as 70% of adults with severe mental illness desire employment (Substance Abuse and Mental Health Services Administration [SAMHSA], 2009a). Age does not seem to be a

differentiating factor, as patients of middle age and older also express a desire for meaningful employment and are as capable of working in the community as their younger counterparts (Twamely, Jeste, & Lehman, 2003; Twamely et al., 2005).

The primary reasons for this rate of unemployment are a direct result of the symptoms of the psychiatric disorders themselves, especially negative symptoms (Razzano et al., 2005). Many of those with severe mental illness lack vocational experience, present a poor work history, or lack necessary job skills (Dalgin & Gilbride, 2003; Rubin & Roessler, 2001). Other negative vocational factors commonly associated with severe mental illness are the lack of a social support system, inappropriate or bizarre behaviors, pathological anxiety, impulse control problems, tardiness, difficulty maintaining acceptable levels of personal grooming, or an inability to complete job tasks and follow directions (Rubin & Roessler, 2001). The patients themselves are not unaware of these problems, and many of those who are unemployed doubt their own ability to work (Bond & Drake, 2008), which may lead to reduced motivation when seeking employment. The occasionally incapacitating side effects of the medications that are prescribed in an attempt to control the symptoms of psychiatric disorders (Dalgin & Gilbride, 2003) present further barriers to employment, and sometimes play as great a role in patients' difficulty finding employment as the illnesses they are intended to treat. These side effects can include rapid weight gain, insomnia, excessive sleepiness, reduced alertness, irritability, neurological problems, and other issues that can further damage one's self-image and make it more difficult to maintain the appropriate behaviors and the quality of work expected in a competitive workplace (Preston et al., 2010).

The high rate of unemployment among individuals with severe mental illness is unfortunate on multiple levels. Work is a source of identity and meaning in the lives of most adults, and forms a large part of how they define their place within their social system, making one's employment status a powerful factor in coping with mental illness (Warner, 2009). People who have remained or become employed in spite of the presence of mental illness have shown improved social integration, more normalized peer relations, and an improved self-image, while those who remain unemployed for long periods show increased risk of social alienation, apathy, substance abuse, physical ill-health and isolation (Lehman et al., 2002; SAMHSA, 2009a; Warner, 2009).

Even those patients who manage their symptoms and get their psychiatric difficulties under control continue to face difficult vocational prospects due to the social prejudices and stereotypes associated with severe mental illness. Federal legislations and incentive programs, such as the Americans with Disabilities Act (ADA) of 1990/1992, the Rehabilitation Act Amendments of 1992, and the Ticket to Work and Work Incentives Improvement Act of 1999, have been created to reduce the obstacles to employment, require reasonable accommodations, and promote the hiring of those with disabilities, but the rate of unemployment among the mentally ill remains relatively unchanged (Brown, 2007; Gilbride, Stensrud, Vandergoot, & Golden, 2003). This suggests that the stigma associated with mental illness presents as much of an obstacle to employment as the illness itself. Out of a sample of 127 potential employers, only one in six knowingly hired a former mental patient (Rubin & Roessler, 2001). Employers generally view persons with severe mental illness as unreliable workers, prone to violence and unpredictable behavior, requiring more supervision, incapable of tolerating

surprises or frustration while on the job, and prone to relapse, even though this is often not the case (Cornell University, 2000; Rubin & Roessler, 2001).

Evidence has shown that people with severe mental illness are able to work in the community (Dalgin & Gilbride, 2003; Gilbride et al., 2003; Razzano et al., 2005), but even those who consistently manage their symptoms and perform their job duties may face a negative response in the workplace if they reveal that they have a history of mental illness. This response may take the form of minor changes, such as increased supervision or reduced social interaction, or the changes may be more dramatic: lack of opportunity for advancement, discounting of one's worth as an employee, or termination (Dalgin & Gilbride, 2003). Because mental illness is not always physically apparent and the ADA prohibits employers from asking direct questions about psychiatric symptoms or treatment during the hiring process, it is often difficult to tell that a job applicant has a severe mental illness unless he or she chooses to discuss it (Cornell University, 2000). However, employers are not obligated to provide accommodations for disabilities unless they are made aware of them before one starts work (Cornell University, 2000). This presents a hard choice for those seeking employment, as they must either choose to conceal their psychiatric history and forfeit any accommodations that they might have been able to request in their work environment, or disclose their disability and risk a negative reaction in the workplace or reducing their odds of being hired at all.

Much research has focused on the characteristics and factors that make it difficult for the severely mentally ill to become and remain employed, but comparatively little research has been done on positive predictors of employment for this population. According to a literature review by Bond and Drake (2008), the most powerful predictor

of successfully achieving and maintaining employment is access to vocational rehabilitation services, discussed in more detail below. While not as strongly predictive of positive employment outcomes as access to vocational rehabilitation services, there are several individual traits that improve patients' likelihood of success. High premorbid functioning, as measured by a positive work history and advanced education, is consistently associated with better employment outcomes, as are patient motivation and an internal locus of control (Bond & Drake, 2008). One's level of social skills also appears to impact the likelihood of successful employment, as does good physical health.

Environmental elements can also play a significant role in contributing to or detracting from the chance of someone with severe mental illness successfully becoming and remaining employed. The local economy, which impacts the availability of jobs, can negatively affect the chance of employment, especially if local unemployment rises above 10% (Bond & Drake, 2008). Societal, community, and employer attitudes toward mental illness are also a major predictor, and the presence of social support both in and out of the workplace appears to be vital (Bond & Drake, 2008). The most powerful negative predictor of employment among the mentally ill appears to be the receipt of disability benefits, such as Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI), which are not connected to seeking rehabilitation or further employment (Bond & Drake, 2008). The combination of benefit payments contingent upon the presence of disability and accompanied by employment (in the case of SSDI) or income (in the case of SSI) limits reduces motivation to seek work, provides powerful disincentives to doing so, and also strengthens patient identification with the "disabled" role that keeps one eligible for those benefits.

Medical Model of Rehabilitation And Placement

The medical model of rehabilitation is both the oldest and most widespread model of vocational service in the private sector and in the State-Federal system (Gilbride, Stensrud, & Johnson, 1994; Twamely et al., 2003). At its most basic level, this model treats rehabilitation as the process of returning a disabled worker to a state of reemployability (Brown, 2007). It is often based on a clinical concept of recovery from psychopathology, with the complete or nearly complete remission or cure of symptoms and no further hospitalizations as its goal (Davidson, Lawless, & Leary, 2005; Kelly & Gamble, 2005). This model views mental illness in much the same way that a physician views acute, curable illness: as a problem seated within the patient that can be fixed with the proper treatment. Once the symptoms and signs of illness are resolved, the illness is over and the role of the clinician has been fulfilled (Feiner & Frese, 2009).

This approach to rehabilitation follows a train-test-place sequence in which the client undergoes a lengthy treatment and training process before employment or supported employment is sought. A client is paired with a rehabilitation counselor who then proceeds to coordinate the treatment of the client's disability or disorder with a program of training in the social, mental, and physical skills needed to make the client employable. While job placement is the final goal of such a program, it is not actually attempted until the client has achieved a given level of functioning (Brown, 2007), and during the course of treatment the client often remains unemployed and isolated from the world of competitive employment (Gilbride et al., 1994). Once the client has been

deemed successfully employed and rehabilitated, he or she is considered recovered and thus the case is closed and treatment is terminated. Given the often cyclical nature of severe psychiatric disorders, this tends to leave the apparently rehabilitated client lacking support in the event of future difficulties and symptom breakthroughs unless he or she has the foresight and resources to independently secure some form of continued treatment. Additionally, research suggests that a primarily symptom-focused view of treatment is "not necessarily associated with an increase in executive function or self-esteem or a decrease in depression or family conflict," as the disruption of lifestyle and relationships associated with severe mental illness can be as harmful to the client as the clinical symptoms (Bond & Drake, 2008; Davidson, Lawless, & Leary, 2005).

Recovery Model of Rehabilitation

The recovery model of rehabilitation is newer than the medical model, but has steadily gained in popularity and prominence in mental health services over the past decade (Davidson et al., 2005). Originally used in the treatment of patients recovering from alcoholism and other substance abuse, the recovery model was later adapted for use in the general treatment of those experiencing mental or physical illness that did not respond readily to the more traditional rehabilitation methods (Davidson et al., 2005). The recovery model is not about attaining a "cured" state, but rather about managing and coming to terms with one's symptoms (Davidson et al., 2005; Kelly & Gamble, 2005). Warner provides a more detailed definition of the ideal recovery: remission of symptoms, engagement in productive activity, independent management of day-to-day

needs, cordial family relations, participation in recreational activities, and satisfying peer relationships (Warner, 2009). Instead of relying primarily on the provider to fix things and placing the weight of the problem on the patient, it is a more cooperative system that allows the patient to take credit for progress and empowers the patient to assert control over the illness to the best of his/her ability. Another part of this element of empowerment is encouraging the client to take an active and involved role in making decisions about their illness and about treatment options (Warner, 2009), leading to a more collaborative relationship between the consumer and the provider. While allowing the client to have a more self-determined role in treatment is something that traditionally trained professionals and clinicians may be unused to, it can be vital in promoting increased hope and self-esteem, as well as lessening the occurrence of depression and reducing the sense of stigma experienced by many that are fighting to recover from severe mental illness (Warner, 2009).

In the context of the recovery model, rehabilitation is ideally a very individualized process offering clients an active, volitional role in treatment, with a significant element of self-help (Kelly & Gamble, 2005). Because the recovery process does not have a set ending point it can be applied to clients at many stages of illness with the expectation of some degree of success if they commit themselves to the treatment. For many it is an ongoing process of "growing beyond the catastrophe of mental illness" (Kelly & Gamble, 2005) as they work to attain and maintain the healthiest level of functioning that they are capable of. This is often a difficult proposition for those experiencing severe mental illness, requiring a great deal of personal dedication to making and sustaining progress in the face of recurring symptoms and discovered

limitations. Some common components play a significant role in the progression of successful recovery: hope, mentorship, spirituality, growth, and individuality (Kelly & Gamble, 2005). “Hope” relates to the belief that recovery is possible for any individual and motivates the expectation of improvement, persistence in the face of failure, learning new coping skills, creative problem solving, and a continued push for improved health and social inclusion. “Mentorship” refers to the presence of at least one supportive individual that believes in the client’s ability to improve, offers encouragement, and genuinely values and likes the client as a person. “Spirituality” is the personal process of coping with existential issues and finding meaning in the trials of one’s illness. “Growth” is the aspect of recovery that focuses on coming to terms with the losses and limitations of illness and finding the places where one can develop and improve. “Individuality” is the separation of one’s identity from one’s illness, reminding both others and the self that the illness is a part of one’s identity but does not define it (Kelly & Gamble, 2005), and that even though someone has been diagnosed with a mental illness, they can still live a life that is meaningful and successful (McDonough, 2011).

Biopsychosocial Model of Health, Wellness, and Disability

The focus of the recovery model on assisting the client’s efforts to live life in a meaningful and gratifying way in spite of the limitations imposed by enduring disability (Davidson et al., 2005) lends itself well to a multidisciplinary approach, addressing not only an individual’s internal medical and mental health issues, but also environmental and interpersonal factors that may contribute to the illness and to impaired functioning.

The biopsychosocial model is a synergistic model of health, wellness, and disability that takes into account biological, psychological, and social factors. These factors include medical and physical aspects, psychodynamic, cognitive, emotional, and behavioral aspects, as well as familial, interpersonal, and cultural features (Maxmen et al., 2009).

The biopsychosocial model is not, in and of itself, an independent treatment modality. Instead, it is a conceptual model that can be applied to most other models of illness, treatment, and rehabilitation. For example, if one applies the biopsychosocial model to the treatment of mental illness using either the medical or the recovery model, one attempts to take into account all of the various biological, psychological, and sociological factors that may contribute to the etiology and perpetuation of a given example of mental illness (Maxmen et al., 2009). In a continuation of the example of mental illness, application of the biopsychosocial model to the treatment and rehabilitation of mental illness would result in the mental health provider or rehabilitation counselor attempting to address all of the above factors in his or her efforts to aid the client, including not just psychological interventions, but also medical treatments, medications, environmental and ergonomic factors, social and familial support, community resources, and any other situational factors that seem relevant to the client's case. This is especially important to people experiencing severe mental illness, as positive family and social support have been found to be vital predictive factors of a positive outcome (Maxmen et al., 2009; Warner, 2009).

Wellness Recovery Action Plan (WRAP)

The Wellness Recovery Action Plan (WRAP) is a self-monitoring system that provides a structured way for individuals experiencing psychiatric symptoms to address and relieve their symptoms on a day-to-day basis in order to promote recovery from mental illness and prevent relapse (Copeland, 2005; Feiner & Frese, 2009; SAMHSA, 2003). The WRAP system was originally designed by Mary Ellen Copeland, M.S., M.A. in 1997, and has since been embraced by a variety of local, state, and regional mental health organizations as a part of their rehabilitation services (Copeland, 2005; Feiner & Frese, 2009; Schwenk, Brusilovskiy, & Salzer, 2009). The action plans developed with the WRAP system are not intended to replace the use of medication or professional mental health care, but rather to complement them by promoting improvements in an individual's overall quality of life through improved self-care, symptom awareness, and an organized response to the presence of stress, worsening symptoms, symptom triggers, or full relapse (Copeland, 2005; Feiner & Frese, 2009; SAMHSA, 2003).

The WRAP system provides a flexible organizational framework for designing and applying recovery plans, but the actual content of each plan is determined by the individual for whom the plan is being formulated, sometimes with the assistance of a mental health provider. Thus, the action plans made using the WRAP system are highly individualized, but tend to have some basic characteristics in common. A well-designed WRAP improves communication with healthcare providers and family members; directly addresses feelings, symptoms, circumstances, and events that are most troubling to the patient with plans to respond to them; and empowers the patient to take an active role in

setting up and pursuing the day-to-day process of recovery (Copeland, 2005; Feiner & Frese, 2009; SAMHSA, 2003).

The first step to designing one's WRAP is building a "Wellness Toolbox." The Wellness toolbox is a list of the things one does or could do to take care of oneself, as well as the things one thinks would be helpful in coping with the symptoms of mental illness and preparing for situations and circumstances that may trigger or worsen those symptoms and the behaviors rooted in them (Copeland, 2005; SAMHSA, 2003). Wellness tools can range from basic self-care ("shave and shower every morning") to specific coping strategies ("take slow, deep breaths to reduce tension when feeling nervous") or accessing sources of support ("ask Dad for directions before driving somewhere unfamiliar"). The next step in designing a WRAP is formulating a personal concept of biopsychosocial wellness, defining what it would mean for the individual to be well and providing a set of goals for him or her to work toward.

The Wellness Toolbox is used, along with a list of one's symptoms and symptom triggers, to develop a daily self-care routine, plan responses to specific symptom triggers, monitor one's stages of wellness and symptom breakthrough, and set out specific actions to take if one's condition begins to worsen, such as calling one's doctor or scheduling more frequent appointments with one's psychotherapist (Copeland, 2005; Feiner & Frese, 2009; SAMHSA, 2003). A complete WRAP includes developing a crisis plan and distributing it to those who one wishes to be responsible for one's care in the event that one is no longer capable of adequately caring for oneself or keeping up with one's responsibilities (Copeland, 2005; SAMHSA, 2003). The WRAP can also be used after such a crisis to gauge one's improvement as symptoms become less severe and

maladaptive behaviors and coping strategies are gradually replaced with those that promote and indicate progress toward the standard of wellness set while designing the plan. To summarize, a well-designed WRAP can serve to improve day-to-day wellness and functioning, help patients cope with symptoms of illness through planned responses, and provide criteria for monitoring symptom breakthrough and one's progress toward recovery.

Peer Support Specialists

Peer support, which harnesses the power of personal communications from clinical experience, is not a new concept in rehabilitation. Alcoholics Anonymous, one of the most widespread examples of organized peer support, has been in continuous operation since 1935, and its Twelve Steps have been adapted to a variety of substance abuse support groups (Wilson, 2002). While recovery from substance abuse is one of the more well-known areas in which peer support has been applied, peer support specialists have been working in a variety of programs in varying capacities for decades, and have proven to be play an invaluable role in the recovery process. Peer support specialists are "individuals who have self-disclosed as having a mental illness and who seek to help others who have been diagnosed" (McDonough, 2011). Unlike traditional mental health services, where there is a clear division between the recipient and the service provider, the power of peer support comes largely from the fact that peer support specialists are not only service providers, but have been or currently are recipients of mental health services, and have faced many of the same challenges as those they would help (Salzer & Shear,

2002). Mutual support, the sharing of experiential knowledge, skills, and social learning—these aspects of peer support allow consumers to encourage and engage other consumers in recovery and provide each other with a sense of belonging, supportive relationships, valued roles, and community (Feiner & Frese, 2009). Salzer and Shear (2002) found that the act of providing peer support can be as beneficial for the support provider as it is for the recipient, and is associated with reduced symptoms, increased functioning, and enhanced sense of empowerment, recovery, hope, and quality of life. Daphne Manz, a peer support provider working for the Adult Mental Health division of the Central Plains Center in Plainview, Texas, stated that "getting out and helping others has done wonders to keep me stable and avoid the depression which follows the manic phase of my bipolar disorder. It gives me a reason to watch out for myself. It helps me to focus because I have goals for every day" (D. H. Manz, personal communication, June 18, 2011). Rather than being the testimony of an isolated individual, Manz' benefits from acting as a peer support provider are in line with gains reported by many who share her occupation: an increased sense of interpersonal competence as a result of making an impact on another's life, development of a sense of equality in giving and taking between self and others, better understanding of how to manage their own problems through teaching others how to do so, and receiving social approval and acceptance from the people they help and from others (Salzer & Shear, 2002).

Interest in the potential roles of peer support in rehabilitation and recovery has grown even more since Medicaid and similar financial assistance programs have begun recognizing and reimbursing certified peer specialists (Salzer, Katz, Kidwell, Federici, & Ward-Colasante, 2009; Schwenk et al., 2009). The key word is "certified." With

increased interest and opportunity for monetary reimbursement has also come increased scrutiny and awareness of the need to ensure quality of services by certifying that paid peer support providers are trained in the use of effective, evidence-based techniques (Salzer et al., 2009). As a result, Certified Peer Specialist (CPS) training programs have been developed around the country, often along state or regional lines (Katz & Salzer, 2007, Salzer et al., 2009). While the exact content and format of the certification programs varies, Katz' and Salzer's (2007) descriptions highlighted some common features. Basic CPS training often involves a mix of didactic and experiential instruction over an average of sixty training hours, followed by a written examination (Katz & Salzer, 2007). Material covered typically includes communication skills such as active listening, demonstration of empathy, the recovery model, cultural competency, outreach, engagement strategies, problem-solving skills, WRAP training, navigating the workplace, ethical standards, psychoeducation, biopsychosocial concepts of wellness, and basic understanding of the mental healthcare system one is expected to work within (Katz & Salzer, 2007, Salzer et al., 2009).

Peer support specialists can be found in a wide variety of settings, including case management, inpatient treatment, outpatient treatment, education and advocacy, administration, psychiatric rehabilitation and recovery, and vocational recovery (Schwenk et al., 2009). One form of peer specialist, the job coach, discussed in more detail in the next section, plays a vital role in acclimating and supporting people with severe mental illness as they return to the workplace. While relatively little research has specifically targeted the outcomes of job coaching, the outcomes for individuals who have been trained as certified peer support providers showed a significant improvement

in ability to cope with and function within a mainstream workplace. A study in Pennsylvania showed that 97% of those accepted into CPS training successfully completed the certification process, with scores on competency tests improving by 22% in a pretest/posttest comparison, tripling the number of individuals earning a passing score (Salzer et al., 2009). Of those who completed the certification process, 81% were working as certified peer support providers when contacted a year later, and 67% percent of those unemployed before training were competitively employed (Salzer et al., 2009). Job satisfaction among those working as peer support providers was high, and they reported significant improvement in self-esteem, coping skills, and confidence in their ability to recover from mental illness (Salzer et al., 2009).

Supported Employment

The system of supported employment is a model of vocational service that was originally created for use with severely disabled individuals for whom a more traditional approach to rehabilitation may not have been practical or feasible (Gilbride et al., 1994). The Substance Abuse and Mental Health Services Administration (SAMHSA) defines supported employment as an approach to vocational rehabilitation for people with serious mental illnesses that emphasizes helping them obtain competitive work in the community and providing the supports necessary to ensure their success in the workplace (SAMHSA, 2009a). A recovery-based concept of rehabilitation, with a focus on living a life worth living in the presence of enduring psychiatric disability seems to fit naturally with the methods of supported employment (Davidson et al., 2005). Unlike the previously

mentioned medical model of rehabilitation, supported employment within the recovery model of rehabilitation utilizes a place-train-test sequence. Placement in real-world conditions and competitive jobs is the first priority in supported employment and prerequisite employability is deemphasized (Drake et al., 2003; Gilbride et al., 1994). Consumers are judged to be "work ready" when they express the desire to work and the willingness to pursue employment (Bond & Drake, 2008; SAMHSA, 2009a). One of the central ideals of supported employment is that every person with a serious mental illness is capable of working competitively in the community if the right kind of job and work environment can be found, and that any individual that wishes to participate in supported employment should be given the chance to do so, regardless of psychiatric diagnosis or symptoms (SAMHSA, 2009a).

The ultimate goal of supported employment is to see the client competitively employed at a job that is integrated, paid, and meaningful. Competitive jobs are jobs that anyone could have regardless of disability status, and which exist in the open labor market rather than being set aside for individuals with a particular disability status (SAMHSA, 2009a). An integrated workplace is one that blends its disabled or otherwise handicapped employees with its other employees, allowing them to work side-by-side rather than segregating them or isolating them. Working in an integrated setting has been shown to reduce the stigma placed upon individuals with mental illness within the workplace and encourages those experiencing mental illness to act as a part of the workplace community rather than isolating themselves from it (SAMHSA, 2009a). Meaningful work is work in which the employee makes a valid contribution to the employer and/or the workplace, rather than simply occupying space, and works for at

least twenty hours per week. Paid work, as defined within the context of vocational rehabilitation, is work that earns at least minimum wage and is paid on a regular basis (SAMHSA, 2009a). Bond and Drake summed many of these factors up in their definition of competitive employment as "regular community jobs alongside nondisabled coworkers that pay minimum wage or higher" (Bond & Drake, 2008).

The Individual Placement and Support (IPS) style of supported employment has been shown to be particularly effective in the recovery progression of patients with severe mental illness, improving employment rates by as much as 38% (Bond & Drake, 2008; Lehman et al., 2002; Twamley, et al., 2005; Warner, 2009). In fact, Bond and Drake suggested that access to vocational rehabilitation services including IPS was the strongest predictor of attaining and holding competitive employment, particularly for individuals with Schizophrenia (Bond & Drake, 2008). An eleven year evaluation of the effectiveness of supported employment within the state of Indiana further supports the efficacy of supported employment at improving the likelihood and duration of competitive employment for individuals with serious psychiatric disabilities, but suggested that these improvements are more likely to take the form of reliable "small wins" rather than dramatic and immediate vocational success, due largely to the powerful barriers to employment mentioned earlier (Perkins, Born, Raines, & Galka, 2005). This fits well with the recovery model's paradigm of rehabilitation as an ongoing process of adjustment and improvement, rather than a cure to the problems of mental illness.

In the IPS model of supported employment, the client's supervising counselor or case manager helps him or her explore job opportunities within one month after beginning the supported employment program (SAMHSA, 2009a) and pairs the client

with a job coach. Collaboration with the client is a vital part of investigating employment options, as those placed in jobs that they find interesting tend to have higher levels of satisfaction with their jobs and stay employed for longer periods of time (SAMHSA, 2009a). The job coach is responsible for the client, getting him or her acclimated to the work environment and training the client in the tasks and coping skills necessary to perform the required job duties. During that acclimation process, the job coach will join the client at work and will fulfill any requirements of which the client is currently incapable. As on-the-job training progresses and the client's coping skills improve, the client will gradually take over more and more of the responsibilities of the job. This allows the job coach to gradually fade from the workplace. The job coach and counselor never fade from the picture entirely, instead promoting independence while maintaining long term follow-along supervision of the client and providing further support as the client needs it (Bond & Drake, 2008; SAMHSA, 2009a).

Some of the benefits of this method are employment and payment throughout the recovery process and integration into a mainstream workplace with nondisabled coworkers, helping to prevent social isolation and withdrawal (Lehman et al., 2002). Another benefit of supported employment is that the consistent work and social interaction allow the client to continue using the social and coping skills that he or she may already possess rather than neglecting them or coming to identify with an "invalid" role. Delays of more than one month before seeking employment, even for a period of training and evaluation required by the provider, reduce the likelihood of getting and keeping a job, tend to reduce the client's self-esteem (Warner, 2009; SAMHSA, 2009a), and may strengthen a self-perception of being separated from or less able to work than

those without mental illness. Conversely, a study conducted by Warner in 2009 noted that improved self-esteem, enhanced functioning, and an expanded social network were all positive results commonly found in patients that were gainfully employed or participating in an effective vocational rehabilitation program (Warner, 2009).

The Metroplex Employment Model and Metroplex Employment Model Pilot

The Metroplex Employment Model (MEM) is a multidisciplinary, biopsychosocial model of vocational rehabilitation service delivery with the goal of improving the fast-tracking of employment for people with severe mental disorders. The MEM is based upon the principles of the recovery model of rehabilitation and has two core beliefs: that ongoing employment is the key to recovery for individuals with mental illness, and that ongoing employment can be achieved if rehabilitation services are executed proficiently by a support system that works as one cooperative unit (Knauss, 2006). Emphasis is placed upon the need for full cooperation and weekly communication between all of the core team members, including the consumer, vocational rehabilitation counselor, psychiatrist, case manager, family, job developer/job coach, peer support provider, WRAP planner, and benefits planner, who will work together to rapidly place the consumer in a job carefully matched to his or her strengths and weaknesses (Knauss, 2006). This emphasis on active interdisciplinary cooperation and communication is one of the distinctive features of the MEM, setting it apart from standard vocational rehabilitation practices. If executed proficiently, this will enable the rehabilitation team to avoid the communication gaps and delays that can result when the various service

providers work independently of each other, rather than as a cohesive unit, and when the consumer feels as if he or she plays a minimal role in treatment planning and execution. Ideally, the support system and treatment plan will be in place and the consumer will be ready to begin job placement and supported employment after five weeks (Knauss, 2006).

The Metroplex Employment Model Pilot (MEMP) is an effort begin the use of the MEM to improve vocational rehabilitation services to individuals with severe and persistent mental illness within the Dallas/Ft. Worth metroplex (Knauss, 2006), using a rehabilitation team assembled from local service providers. In addition to improving local standards of service to persons with mental illness, the MEMP will play a vital role in developing the local networks and systems necessary to applying the MEM on a larger scale, finding ways around logistical and practical barriers to forming and maintaining an integrated multidisciplinary team of rehabilitation professionals willing to work cooperatively and maintain the frequent communication that is essential to the success of the MEM. Because of this, particular attention is being paid to program analysis and the development of program analysis instruments for the MEMP. The MEMP is overseen by Jim Knauss, Operations Director of Programs for the Dallas/Ft. Worth area Department of Assistive and Rehabilitative Services (DARS), a state-funded agency whose purpose is to provide and/or coordinate the delivery of vocational rehabilitation services to disabled individuals within the state of Texas. DARS provides the vocational rehabilitation counselor and the case manager, often the same individual, who is expected to coordinate services and weekly communication between all of the other core team members. The other team members, except the consumer, are drawn from local Community Rehabilitation Program (CRP) providers who have expressed interest in being a part of

the MEMP. These communications address not only treatment progress and medication changes, but changes in consumer job status, adjustment to job issues, life changes (housing, transportation, family, etc), symptom status, missed appointments, and any other factors or events that are relevant to the rehabilitation and supported employment effort (Knauss, 2006). The core beliefs of the MEM also guide the MEMP, meaning that the consumer is expected to play an active and integrated role in the treatment process, including being receptive to education about his or her disability and the recovery model, the collaborative development of a personalized WRAP and treatment plan, and communicating openly and honestly with the service providers when discussing job matching and workplace issues (Knauss, 2006).

CHAPTER THREE
Methodology

Purpose

There are many models of vocational rehabilitation in use by various professionals and agencies, some of which are more effective than others. Two of the most prevalent are the medical rehabilitation model and the recovery model, which is often paired with supported employment. While they are each more effective than no treatment at all, there is some question as to which method obtains faster and longer lasting results for the severely mentally ill. The purpose of this study is to compare the effectiveness of the medical model of rehabilitation and placement with that of supported employment within the recovery model of rehabilitation with regard to enabling the severely mentally ill to find and sustain competitive employment

Hypotheses

The independent variable in this study is the model of treatment and placement provided to the participants: the medical model, or supported employment within the recovery model. The group treated using the medical model of rehabilitation and placement will be called Group A, whereas the group treated using supported employment within the recovery model will be called Group B. There are two dependent variables: elapsed time from the beginning of treatment to the participant attaining employment and the duration of employment. The first hypothesis proposes that the average elapsed time from the

beginning of treatment to attainment of employment for Group A will be greater than that for Group B. The second hypothesis proposes that the percentage of individuals who remain with the same employer for two months after becoming employed will be greater in Group B than in Group A.

Participants

The participants in this study will be 40 consumers from the Dallas/Fort Worth area presenting with some form of severe mental illness, as defined in the literature review, and referred to the Texas Department of Assistive and Rehabilitative Services (DARS) for vocational assistance. Those presenting with substance-induced symptoms or with mental illness due to a general medical condition will not be considered eligible to participate. Individuals between 18 and 70 years of age will be considered eligible, with both women and men accepted into the study.

Materials and Measures

The desired participant background information will be gathered using a Client Information Questionnaire designed for the purposes of this study, which will include an informed consent form to be signed by the participant and a release form granting those performing the study permission to exchange confidential information about the participant with the agency or provider managing the participant's case. This initial information will include the participant's DARS client number, clinical diagnosis, age,

ethnicity, gender, educational history, employment history, and the starting date for the current rehabilitation and/or supported employment services. This initial documentation should also include the results of a comprehensive measure of intellectual functioning, the results of a comprehensive measure of achievement, the results of a personality assessment, an educational history, and a history of prior employment. Information about the job or jobs that each participant performs after finding employment will be gathered using a Job Information Questionnaire designed for the purposes of this study. This will include the job's start date, a description of the participant's duties, and contact information for the employer and job location. Monthly survey forms will be used to monitor the employer's satisfaction with each participant's job performance, the participant's job satisfaction, the participant's satisfaction with the rehabilitation services provided, and the service providers' satisfaction with their roles in the rehabilitation process.

Ideally, records including the desired background information and assessment results for each participant will be made available to the researchers at the time that the participant is recommended for inclusion in the study. If the required information is unavailable or is for some reason unsuitable for use, the researchers will provide limited assessment services if appropriate. The Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV) will be used as a comprehensive measure of intellectual functioning for individuals who do not have results from the WAIS or a comparable assessment on record. If data is being drawn from the results of a prior evaluation, scores from the WAIS-III are acceptable. If possible, the Full Scale IQ will be used as a measure of intellectual functioning. In the event that the Full Scale IQ is not suitable for use as a

general measure of intellectual functioning, the scoring and interpretation guidelines for the version of the WAIS in question will be used to select an alternate measure of intellectual functioning from among the participant's index scores on the WAIS. The Wide Range Achievement Test – Fourth Edition (WRAT-4) Expanded will be used as a comprehensive measure of academic achievement in order to obtain measures of overall academic performance and grade equivalents in the areas of reading, mathematics, and written language. The Minnesota Multiphasic Personality Inventory – Second Edition (MMPI-2) will be used to measure the relative severity of the participants' psychopathology in key areas. Special attention will be paid to Scale 2 (Depression), Scale 4 (Psychopathic Deviate), Scale 8 (Schizophrenia), and Scale 9 (Hypomania). T-scores of 65 or higher on one or more of these scales indicate that the respondent has endorsed significantly elevated levels of behaviors, symptoms, and ideas associated with severe mental illness. In the event that a patient's reading level does not meet the requirements of the MMPI-2, the fifth edition of the Sixteen Personality Factor Questionnaire (16 PF) may be used instead, with special attention paid to the Q factors, which are particularly relevant to work behavior.

Procedure

Written invitations will be sent to DARS case managers within the Dallas/Ft. Worth area, or whichever geographic area the participants will be drawn from, describing what their responsibilities would be as part of the study, detailing the prerequisites for eligibility, and inviting them to register as a referral source for potential participants, who

would be drawn from the eligible consumers on their caseload. Case managers that are interested in providing referrals will be asked to complete a questionnaire regarding the rehabilitation and placement practices that they prefer to provide to their consumers, which will determine whether participants that they refer to the study will be sorted into Group A or Group B.

Client Information questionnaires will be given to the DARS case managers, to be filled out by those consumers interested in participation in the study and returned to the researchers at the time of referral. After those forms are returned, a review will be done of the initial information about each participant, and arrangements will be made with the DARS case manager to obtain any missing data or signatures if possible. If necessary, the researchers will offer to assist in matters of participant assessment using the instruments listed above. If a potential participant is judged eligible, Job Information questionnaires will be mailed to each participant's DARS case manager to be completed once the participant has become employed. If the Job Information form is not returned within three weeks, a follow-up call will be made to the case manager to check on the employment status of the participant and request that the form be completed as soon as possible once the participant becomes employed. One month after each participant becomes employed, a follow-up questionnaire will be mailed to the participant's DARS case manager to check the continuing employment status and job performance of the participant, and the participant and service providers will be asked to complete their respective satisfaction surveys. Another follow-up questionnaire will be sent to the DARS case manager after the second month of employment, and the participant and service providers will be asked to complete a final set of satisfaction surveys. In the case

of the job performance questionnaire, it is recommended that the case manager speak to both the client and the client's immediate supervisor or job coach in order to obtain a broader perspective.

Participants' demographic and response data will be collected in a database for later analysis. Upon admission to the study, each participant will be assigned a unique identification code for use when recording and storing their raw data. In order to preserve participant confidentiality, the key that matches participant identification codes with their DARS numbers and any other identifying information will be kept separate from the database in which their raw data is recorded and analyzed.

Data Analysis

Program Evaluation

Program evaluation is, at its most basic, the careful collection of information about a program or some part of a program in order to make decisions about the program (McNamara, 1999). Common reasons for conducting program evaluation are maintaining awareness of the impact of services on clients, improving efficiency of delivery mechanisms, and verifying if the program is actually doing with it was intended to do (McNamarra, 1999). Within the field of psychiatric and vocational rehabilitation, this assists in demonstrating the impact of services, guiding programs to become more outcome-oriented, and offers information about how to improve and enhance the quality of services so that they provide the benefits practitioners claim they will (Hutchinson & Razzano, 2005).

While there are many possible ways to apply program evaluation to a supported employment program, the three most common are goals-based evaluation, process-based evaluation, and outcomes-based evaluation (McNamara, 1999). Goals-based evaluation examines whether or not a program is achieving its overall, predetermined objectives. Process-based evaluation is geared toward understanding the strengths and weaknesses of a program, how each part really works and produces the results that it does, and how efficiently it does so. Outcome-based evaluation facilitates asking if a program is bringing about the outcomes needed by the clients who participate (McNamara, 1999). According to SAMHSA, the two most important kinds of program evaluation to apply to provision of supported employment are process-based and outcomes-based measures (SAMHSA, 2009b). In the context of supported employment, process measures provide an objective, structured way to determine if a program is delivering SE services in the way that research has shown will result in desired outcomes and also aids in comparing supported employment programs to one another (SAMHSA, 2009b). Outcome-based measures assess how well the supported employment program meets immediate and long-term consumer and program goals – in other words, whether the services are actually providing the desired benefit to consumers, which is ultimately the "bottom line" for mental health services (SAMHSA, 2009b).

Perkins, Born, Raines, and Galka (2005) provide a number of suggestions for the practical application of program evaluation to supported employment programs, both on the level of evaluating individual programs and from a broader ecological perspective that can include supported employment providers on a regional or statewide level. Particularly when operating on a larger scale, it is important to use evaluation tools that

record the necessary process and outcome related data in a consistent, concise way. This is especially important when attempting to gather and share information among multiple providers and employers in an area such as the Dallas/Fort Worth Metroplex. Structured checklists are suggested as a useful way of gathering information quickly, uniformly, and with relative ease (Perkins et al., 2005). Applied examples of information gathering procedures and basic process and outcome measures similar to those suggested by Perkins, Born, and associates can be seen in use by the Metroplex Employment Model Pilot, an ongoing cooperative evaluation of the effectiveness of supported employment services offered within the Dallas/Fort Worth area. At this time, the project is overseen by Jim Knauss of the Department of Assistive and Rehabilitative Services. Examples of the program evaluation forms considered useful for a study of supported employment services can be found in Appendix A: Forms.

Statistical Analysis

This is a nonequivalent group design study comparing the outcomes of the medical model of rehabilitation and placement (Group A) with those of supported employment within the recovery model of rehabilitation (Group B). The comparison will focus on two particular outcomes. The first comparison will be of the length of time required for those with severe mental illness to attain employment after beginning the rehabilitation process. The second comparison will be of the ability of the mentally ill to retain employment for a period of two months. The statistics of this study will be calculated on a computer using IBM's Statistical Package for the Social Sciences (SPSS) software. Raw data will be converted to T-scores (mean of 50, standard deviation of 10)

and an analysis of covariance (ANCOVA) will be run on the resulting data groups, covarying for IQ in all groups. It may also be helpful to covary for age or education. If the difference between groups proves to be statistically significant, Tukey's Honestly Significant Difference (HSD) test will be used to further analyze the significance of the differences between the data sets.

Expected Results

Based upon the literature reviewed and upon the limited data available, it is expected that the data will support both of the study hypotheses, showing a statistically significant difference in outcomes between Group A and Group B, with individuals in Group B attaining employment more quickly and remaining employed for longer than individuals in Group A.

CHAPTER FOUR
Implications and Recommendations

Implications

As the results of the study proposed here have not yet been obtained or analyzed, specific outcome data cannot be discussed at this time. The potential importance of the results is an easier point to contemplate. The presence of severe mental illness presents formidable vocational challenges for reasons that have already been mentioned. The difficulty of overcoming these challenges is that they manifest in many different forms. Two different people with the same clinical diagnosis may have only a few symptoms in common and will likely come to treatment with different support systems and coping strategies in place (APA, 2000; Maxmen et al., 2009). Additionally, no two individuals will have the exact same recovery prognosis, meaning that reasonable expectations for one individual may be improbably optimistic for another. For these reasons there are a variety of different treatment approaches available for counselors to put to use. It is unlikely for any one counselor or case manager to be fully educated in all of these methods, and attempting to hit upon the right treatment system for a given case of severe mental illness through trial-and-error can be time consuming and strain the financial resources of both the client and the providing agency or individual. Knowing, based upon scientific evidence, which model of treatment and rehabilitation is most likely to have the desired outcome will improve the speed and consistency with which these services are provided,

and will allow financial resources to be allocated to those services that will be of the greatest benefit to the consumers.

An ideal treatment approach would be flexible and effective, and could be adapted to the varied needs of a varied population while still achieving reliable results. The medical and recovery models of rehabilitation and supported employment are two of the most popular treatments currently in use. There is evidence that both methods have beneficial results, but given their different methodologies it seems logical that one of them is more effective than the other in the vocational treatment of individuals with severe mental illness. If one of these approaches can be shown to be more effective than the other at achieving the desired outcomes of quickly obtaining employment and then of continuing it over a longer period of time, service providers can focus their efforts on the better treatment. This would lead to a significant improvement in the vocational rehabilitation services provided to clients with severe and persistent mental illness, as the more effective treatment would increase in prevalence and be further refined over time. Previous studies have shown that the state of being employed is an important factor in recovery for many mental health patients, and often results in improved quality of life (SAMHSA, 2009a; Twamely et al., 2003; Warner, 2009). Thus, an improvement in vocational rehabilitation services will have an important impact on the outcomes of the treatment process as a whole. Furthermore, the overall design of this study is likely to be useful if applied to the comparison of other treatment and rehabilitation practices, and the process-based information collected throughout the study can be used to examine service delivery and satisfaction at various stages in the rehabilitation process, rather than looking solely at the final outcome. This will be helpful in spotting inefficient or

unsatisfactory performance in certain stages of the rehabilitation process, such as service delays between beginning treatment and beginning job placement activities, and in examining which services are judged to be most helpful to the consumers and at which stages in the process the most significant improvements occur.

Recommendations

The design of this study, while adequate, does have weak points that could be improved upon in future studies with more time and resources at their disposal. To begin with, the sample size and sampling method of the current study are limited. A larger sample size would be desirable in future research, as the sample size for this study (N = 40) is fairly small for a study that will attempt to generalize its results across so large a group as those presenting with severe mental illness and seeking vocational assistance. A larger sample size will increase the validity and reliability of the results, improving their predictive power, better accounting for standard error and variability within the population, and more clearly displaying the differences in outcome between the treatment approaches that the study compares. In essence, using a larger number of participants will produce data that more accurately reflects differences of outcome within the general population of those with severe mental illness, instead of being accurate only for those within the sample group. A larger sample size will also reduce the impact of participant attrition and disqualification upon the study, whereas a smaller initial sample might be reduced to the point that the results would no longer have a useful level of statistical power. Another way of making the sample more representative of the target population

would be to draw participants from a wider geographical area rather than limiting the sample to individuals in a single city or region. This would not only make the information more suitable for generalization, but would potentially enable comparison of the treatment outcomes and delivery for each area if the sample size was large enough.

Changing variables or accounting for potential confounding factors may suggest additional ways of using the data from this study to test the effectiveness of the different treatment models. Many individuals with severe mental illnesses are also being treated with medication or other mental health interventions at the same time that they are seeking vocational rehabilitation and supported employment, a factor which this study does not attempt to take into account. In future research, medication type, prescribed dosage of medication, and whether or not the client complies with the suggested dosage schedule could be taken into consideration when attempting to rule out extraneous variables, or possibly become a variable itself, as could participation in psychotherapy, group counseling, or other services. The use of "severe mental illness" as a singular category may result in some important data being overlooked. Later studies may find it useful to sort the participants by their diagnoses when comparing treatment outcomes. Additionally, individuals with severe mental illness may also be experiencing comorbid psychiatric diagnoses, such as learning disorders or anxiety disorders, which may act as confounding variables unless accounted for.

The test duration of two months after attaining employment is probably not long enough to accurately predict long-term efficacy of the treatments in question. A more useful duration would be six months, as can be seen in the Metroplex Employment Model, checking in with the participants' employers and case managers 30, 60, and 90

days after hiring and again at the six month mark. Depending on the resources available for maintaining contact with the participants and their employers in order to collect data, the duration of such research could be extended even further, tracking and comparing job retention, duration of any periods of unemployment, job satisfaction, and job performance for the participants, providing valuable information about the long-term employment and recovery outcomes for individuals with severe mental illness, even before comparing the two models of rehabilitation and vocational placement.

CHAPTER FIVE
Conclusions

Severe mental illness is an ongoing presence in the modern world, and while scientific understanding of the mechanisms and treatment of these disorders continues to advance, it is a problem which does not show any signs of going away in the foreseeable future. Severe mental illness affects numerous men and women of all ages and from all walks of life, impacting not only their quality of life, but the quality of life of those who care about them, live with them, and work with them. Thus, the provision of vocational rehabilitation and mental health services to people with severe mental illness is and will continue to be an immediate concern for society as a whole, and particularly for those who provide the services in question.

Using the models and methods of treatment that provide the best and most efficient results will not only enable individuals those with severe mental illness to improve their standard of wellness and fulfill their rehabilitation and employment goals more effectively, it will reduce the financial and emotional strain placed upon the consumers, their families, and upon the federal, state, and local programs that provide rehabilitation services to them. This makes ongoing comparison and evaluation of the outcomes and quality of treatment and rehabilitation efforts absolutely vital, particularly given the current paucity of resources, so that service providers can focus their attention and resources on the methods and practices that offer the most benefit to consumers. Complacent adherence to the traditional model of vocational rehabilitation without clear

evidence showing that it provides better outcomes than the increasingly popular recovery model would be not only irresponsible, but inexcusable.

APPENDIX A
Forms

Acknowledgements

The design of the study proposed in this thesis is based on the ideas of the Metroplex Employment Model, overseen by Jim Knauss, Operations Director of Programs for the D/FW area Department of Assistive and Rehabilitative Services (DARS). My thanks go out to Mr. Knauss, Dr. Gerald Casenave of UT Southwestern Medical Center, and Bobbie Vash, M. Ed., of UT Southwestern Medical Center for allowing me to make use of some of their forms as samples of the program evaluation materials which would be useful for the purposes of the study detailed in this thesis.

Service Documentation Summary

Measure/Document	Completed By	Completed When
▸ *Background Information*		
Psychological Eval.	MHMR	File origination date (1st rept)
Current Psyc status report	Referring Psychiatrist	Upon Referral to MI Project
Vocational Assessment	DARS	Upon Referral to Project
Demographics/History	DARS	Upon Referral to Project
Employment Quest	Employment Specialist	After WRAP & Before job search begins
> Program Eval Background Info. Form	Project Coordinators	Within the 1st mo. of referral
▸ Quarterly Consumer Milestones & Man Hr. Report	Program Supervisor	Quarterly
> WRAP Consumer Eval.	Consumer w/ WRAPstaff Initiation	At the end of WRAP training
> Benefits Planning Form	Bennefits Planner	During WRAP Training
> Placement Plan	DARS	Prior to Job Placement Referral
>Employment Attainment Record	Job Developer	Beginning every employment opportunity
▸ Consumer Satisfaction Survey (Employment)	Consumer (with staff assistance if needed)	Within 30 days of starting new job then 60 and 90 days & 6 mo.
▸ Employer Satisfaction Survey	Employer	Within 30,60, 90 days of starting job and at 6 mo.
▸ Closure /Termination Information	ESS	VR closure/termination of agency SE services (whichever comes first)
▸ Client-Intervention Time Sheet (required by VRS)	ESS	Monthly

The consumer number on each form should always be the client chart number from your agency. Please remain consistent by using the same consumer number on each

Background and Information Form – Instructions

This form is completed by Project Coordinator within the 1st 30 days after the consumer is referred to the MI Project.

Basic Information

Revision(s): Check this box if you have already completed the initial form and you are making a change or updating information from the initial form.

Case #: The case number on each form should always be the individual's chart number from DARS.

DOB: Date of birth, in MM/DD/YYYY format

GAF: When evaluating Global Assessment of Functioning (GAF), consider the individual's general level of functioning in the last 30 to 60 days. Please pay close attention to the criteria on the scale that relates to vocational functioning. Remember, you can use the full range of numbers in the scale, e.g., 42, 37, 14 (bit just 30, 40, & 50).

Current Sources of Income:
SSI – Supplemental Security Income
SSDI – Social Security Disability Insurance
VA – Veteran's Administration
HUD – Housing and Urban Development (Section 8)
Food Stamps
Earnings
None

Diagnoses: Axis I – Thought disorders include schizophrenia and other psychotic disorders (DSM 295.xx, 297.xx, 298.xx)
Mood disorders (DSM 296.xx)
Anxiety disorders (DSM 300.xx)
Chemical and substance abuse disorders (DSM 303.xx – 305.xx)

Axis II – Personality disorders (DSM 301.xx)
MR/DD – mental retardation or developmental disabilities (DSM 299.xx, 314.xx – 319.xx)

Axis III – Physical disability
Physical illness

Service Information

Identify all services that were provided for MI Project.

Services:
SE – Supported Employment
JP – Job Placement
ACT – Assertive Community Treatment
ADLs – Activities of Daily Living
BP - Benefits Planning
JC – Job Coaching
PC - Peer Counseling
Independent Living
WRAP
Other

Funding Sources:
VRS – Vocational Rehabilitation Services
MRO – Medicaid Rehabilitation Option
TANF – Temporary Assistance for Needy Families Grant(s)
Self-pay
Ticket-to-work
None
Family

Relevant Service Dates: Internal – DARS or MHMR referral received – if the individual is already a client, the date s/he is referred from the project psychiatrist or therapist to the team.

Referral to DARS – the date of referral by the MI Project to VRS (if applicable).

Initial DARS authorization – the date that the DARS authorization is received.

First contact with client and services are initiated – the date that the employment staff makes contact with the individual and starts services.

Metroplex Employment Model
Program Evaluation
Background Information Form
To be completed by DARS counselor upon referral

Date: _____ **Agency:** _____

Staff Name: _____

☐ Initial Form ☐ Revision

Basic Information

DARS ID# _____ DOB _____ Current GAF _____

Ethnicity *(check only one)*
☐ Caucasian ☐ Hispanic/Latino ☐ Asian
☐ African-American ☐ Native American ☐ Multiracial

Gender *(check only one)*
☐ Male ☐ Female

Current Sources of Income *(check all that apply)*
☐ SSI ☐ SSDI ☐ VA ☐ HUD ☐ None ☐ Food Stamps ☐ Earnings

Current Insurance Coverage *(check all that apply)*
☐ Medicaid ☐ Medicare ☐ Private _____ ☐ None

Diagnoses *(check all that apply)*

Axis I	Axis II	Axis III
☐ Thought disorder	☐ Personality disorder	☐ Physical disability
☐ Mood disorder	☐ MR/DD	☐ Physical illness
☐ Anxiety disorder		
☐ Chemical/substance abuse		

Education *(check only one)*
☐ Less than HS diploma ☐ HS diploma/GED ☐ Some college/no degree ☐ Vocational school/technical cert. ☐ Undergraduate degree ☐ Graduate degree

Previous Jobs *(check all that apply)*
☐ Retail ☐ Food service ☐ Clerical ☐ Housekeeping/cleaning ☐ Outdoor/lawn care ☐ Janitorial/maintenance ☐ Construction/laborer ☐ Professional/technical ☐ Assembly/light industrial

Highest wage obtained: _____ per _____
(e.g., $500 per week)

Criminal History *(check all that apply)*
☐ No arrests or convictions ☐ Felony arrests/no convictions ☐ Misdemeanor arrest/no convictions
☐ Felony conviction(s) ☐ Misdemeanor conviction(s) ☐ Crime(s) against property
☐ Crime(s) against person(s) ☐ Crime(s) related to substances ☐ Served jail/prison time
☐ Unknown

Service Information

Funding Sources *(check all that apply)*
☐ DARS ☐ MHMR ☐ Ticket-to-work ☐ Grant(s) ☐ Self-pay ☐ Other ☐ None

Service Dates
(complete as applicable)

Initial Psychiatric Treatment	_____	DARS Eligibility	_____	Peer Specialist Start Date	_____	Job Coach	_____
Case Management	_____	Placement Plan	_____	Initiate Job Development	_____	Placement Date	_____
DARS Referral	_____	Benefit Planning Date	_____	WRAP Training Start	_____	Independent Living	_____
ACT	_____	Other	_____	Other	_____		

Metroplex Employment Project

Service Hour Report

To be completed by each Provider of services, on each consumer, for each calendar month. The document will be emailed to Jim Knauss with The Department of Assistive and Rehabilitation Services at Jim.Knauss@dars.state.tx.us

Date: _____ **Agency:** _____

Consumer _____ **Provider** _____

Consumer Number _____ **Reporting Month:** _____

Service	**Number of hours for The month**

DARS to collapse information into Quarterly Cost Report & email to: bobbie.vash@utsouthwestern.edu

Metroplex Employment Model
Program Evaluation

Quarterly Consumer Cost Report

To be completed on each Consumer every 4 months that they are in the project. List consumer numbers for all persons served in the reporting quarter. For each person listed, write each service provided during that quarter.

Year: _____ **Reporting Quarter:**

Check one: o Jan. 1 – Mar. 31 o July 1 – Sept. 30,

o Apr. 1 – June 30 o Oct. 1 – Dec. 31

Consumer Number	Services Provided	Total Quarterly Man hours of Service Provided	Quarterly Total Cost of Services Provided

Email to: Bobbie.Vash@utsouthwestern.edu

Metroplex Employment Model
Program Evaluation

Employment Attainment Record

To be complete by the Job Developer on the first day of employment for each job attained for each consumer.

Date: _____ Agency: _____

Staff Name: _____

Consumer Number: _____

Service Type*: (check one):*

Supported Employment ____ Self Placed ____ Professional Placement Agency ____

1. Start date for employment: _____
2. Job Coaching Services Date: _____
3. Starting wage at this job: $ _____
4. Work hours _____ Days per week: _____
5. Part Time _____ Full time _____
6. What number of job is this since beginning project services

   1st____ 2nd____ 3rd____ Other (#) _____

   If not first job, when was last day of last job? _____
7. Is employer aware of employee's disability: Yes_____ No _____
8. Were accommodations made at work site: Yes _____No _____
9. Is employer aware of employee's criminal history? Yes_____ No____ N/A_____

   If yes, please check one of the following:

   ____ Only aware of offense(s) that would directly affect nature of work/specific job site.

   ____ Aware of entire criminal history.

   ____ Knows there is a criminal history, but none of the specifics.

10. Initial job development contact made by:

    ____ Consumer

    ____ Employment Support Specialist

____ Employment Support Specialist & consumer

____ Natural Support person

____ Other

11. Which of the following job clusters best describes individual's current employment?

____ Housekeeping/Cleaning ____ Janitorial/Maintenance

____ Food Service ____ Outdoor/Lawn Care

____ Retail/Clerical ____ Assembly/Light Industry

____ Construction/Laborer ____ Professional/Technical

12. Which of the following job clusters best describes the individual's most recent requested employment choice?

____ Housekeeping/Cleaning ____ Janitorial/Maintenance

____ Food Service ____ Outdoor/Lawn Care

____ Retail/Clerical ____ Assembly/Light Industry

____ Construction/Laborer ____ Professional/Technical

13. Have the consumer respond to this statement: I am satisfied with this job choice: (circle one)

Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
1	**2**	**3**	**4**

Email to Jim.Knauss@dars.state.tx.us

Metroplex Employment Model
Program Evaluation

Consumer Services Satisfaction Survey I

Consumer, thank you for completing this form honestly. Your name will remain confidential but the information you report to us will be used to improve this program. We ask that you seal this survey in the stamped and addressed envelop accompanying this survey, and either mail it or return the sealed envelop to your job coach who will mail it for you.

Today's Date: _____

Consumer Number: _____

Part I. Service Rating: Please rate the following statements concerning the services the program provided prior to your employment.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1. The Employment Specialist provided enough job leads for me.	☐	☐	☐	☐
2. My DARS counselor was responsive to my needs and provided me with clear guidance and assistance.	☐	☐	☐	☐
3. The DARS counselor was accessible.	☐	☐	☐	☐
4. The time it took to start working with my Employment Specialist was reasonable.	☐	☐	☐	☐
5. I participated actively in the job development and planning aspect of my job.	☐	☐	☐	☐
6. My Peer Specialist was helpful and accessible.	☐	☐	☐	☐
7. The WRAP Program helped me feel more confident about going to work.	☐	☐	☐	☐

8. I have been treated with respect by Project Professionals. YES / NO
(if "NO", please describe) _____

9. I would recommend this Project to others YES / NO
(if "NO", please explain) _____

10. This Project has met my needs. YES / NO
(if "NO", please explain what would have helped) _____

11. If you could change any part of our Project Employment Services, what would it be? _____

_____

_____

_____

Job Coach please be sure the consumer number and the days date is printed on the form and has an envelop accompanying it before giving the survey to the consumer. Please be sure the survey is sealed in the envelop before it is returned to you. Mail the envelop to Jim Knauss, Metroplex Regional Office, 218 Billings Ste 310, Arlington Tx, 76010

Metroplex Employment Model
Program Evaluation

Consumer Services Employment Satisfaction Survey II

Consumer, thank you for completing this form honestly. Your name will remain confidential but the information you report to us will be used to improve this program. We ask that you seal this survey in the stamped and addressed envelop accompanying this survey, and either mail it or return the sealed envelop to your job coach who will mail it for you.

Today's Date: _____

Consumer Number: _____

Part II. Job Rating: If you are currently working, please rate the following statements concerning your job.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1. I am treated differently at work because of negative attitudes about my disability.	☐	☐	☐	☐
2. I am better off financially because I work.	☐	☐	☐	☐
3. The pay I receive from this job is adequate.	☐	☐	☐	☐
4. This job provides me with adequate benefits (e.g., vacation, sick pay, insurance, child care).	☐	☐	☐	☐
5. I am satisfied with my choice of this job.	☐	☐	☐	☐
6. This job improves my self-respect and self-esteem.	☐	☐	☐	☐
7. This job fits my overall career plans and interests.	☐	☐	☐	☐
8. I have good support from my co-workers at this job.	☐	☐	☐	☐
9. I feel successful at my present job.	☐	☐	☐	☐
10. I receive the Project support needed to keep my job.	☐	☐	☐	☐

Job Coach please be sure the consumer number and the days date is printed on the form and has an envelop accompanying it before giving the survey to the consumer. Please be sure the survey is sealed in the envelop before it is returned to you. Mail the envelop to Jim Knauss, Metroplex Regional Office, 218 Billings Ste 310, Arlington Tx, 76010 . To be completed after 30 days of employment and again after 6 months of employment.

FOR OFFICE USE ONLY

30th day of employment	60 days of employment	90 days of employment	6 months of employment	DARS Case Closure	Closure date with program
☐	☐	☐	☐	☐	☐

Metroplex Employment Model
Program Evaluation

Employer Satisfaction Survey

Form to be completed by the employer, at the employment service's request, at the end of the 1st 30 days and 6 months on the job. Please note this information will be used to improve employment services and will be not be shared with the Employee.

Top part to be complete by employment specialist

Employer: _____ **Date:** _____

Company: _____

Employment Specialist: _____

Employment Date: _____

This section to be complete by the employer

Part I. Employee Rating: Please rate the EMPLOYEE on each of the following characteristics.

	Unsatisfactory	Needs Improvement	Meets Expectations	Highly Satisfactory	Outstanding
1. Attendance	☐	☐	☐	☐	☐
2. Initiative	☐	☐	☐	☐	☐
3. Cooperation	☐	☐	☐	☐	☐
4. Reliability	☐	☐	☐	☐	☐
5. Productivity	☐	☐	☐	☐	☐

To be completed by the employer

Part II. Employment Service Rating: Please rate each of the following statements regarding the EMPLOYMENT SERVICE:

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1. The supported employment staff were available when needed.	☐	☐	☐	☐
2. My employees and I received adequate information about the employment service.	☐	☐	☐	☐
3. Supported employment staff did not interfere with my regular daily business.	☐	☐	☐	☐
4. I would use this employment service again.	☐	☐	☐	☐

5. Your comments and suggestions to assist us in providing quality service will make a difference:

_____

_____

_____

Please mail to Jim Knauss, Metroplex Regional Office, 218 Billings Ste 310, Arlington, Tx., 76010

Metroplex Employment Model
Program Evaluation

Provider Satisfaction Survey

From to be completed by each provider after the last day of their service to the consumer. Form to be emailed to each provider by DARS. **Evaluation is confidential, names of respondent will not be revealed.**

Date: _____ **Agency:** _____

Service provided: _____

Part I. Service Rating: Please rate the following statements concerning the services you provided.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1. The service I provided was useful to the consumer. (if not, explain) _____	☐	☐	☐	☐
2. The time I spent with the consumer was adequate and not excessive.	☐	☐	☐	☐
3. I had the resources I needed to provide helpful services. (if not, please list needs)_____	☐	☐	☐	☐
4. The referral process was efficient.	☐	☐	☐	☐
5. I received adequate support to provide helpful services.	☐	☐	☐	☐
6. I feel good about my contribution. (if not, explain) _____	☐	☐	☐	☐
7. I was adequately compensated for my time.	☐	☐	☐	☐
8. The documentation was reasonable.	☐	☐	☐	☐
9. I would refer a family member to this program for services. (if not, explain) _____	☐	☐	☐	☐

Email completed form to Bobbie.Vash@utsouthwestern.edu

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