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PREDICTING EMPLOYMENT OUTCOMES AMONG WOMEN OF COLOR WITH PSYCHIATRIC DISABILITIES IN THE STATE-FEDERAL VOCATIONAL REHABILITATION PROGRAM

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SHEMYA VAUGHN

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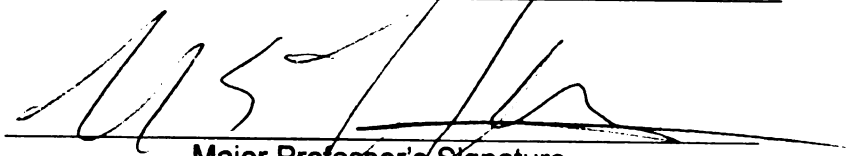

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May 14, 2009

Date

PREDICTING EMPLOYMENT OUTCOMES AMONG WOMEN OF COLOR WITH PSYCHIATRIC DISABILITIES IN THE STATE-FEDERAL VOCATIONAL REHABILITATION PROGRAM

By

Shemya Vaughn

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ABSTRACT

PREDICTING EMPLOYMENT OUTCOMES AMONG WOMEN OF COLOR WITH PSYCHIATRIC DISABILITIES IN THE STATE-FEDERAL VOCATIONAL REHABILITATION PROGRAM

By

Shemya Vaughn

The purpose of this study was to examine employment predictors and employment barriers for women of color with psychiatric disabilities who receive Temporary Assistance for Needy Families (TANF) benefits using the Rehabilitation Services Administration (RSA) dataset, which contained employment outcome information for all individuals with closed cases. The social cognitive career theory (SCCT) was used to categorize specific RSA variables into four constructs from Lent, Brown, and Hackett's 1994 SCCT model: person inputs, background contextual affordances, contextual influences, and outcome expectations. The sample size (N=10,238) consisted of women of color with a mental illness diagnosis. Within this group of women included 820 women of color who received TANF benefits. The TANF group's person inputs, background contextual affordances, and contextual influences were compared to the larger group to identify significant differences between the two groups of women. The results indicated that person inputs had a limited impact on employment outcomes, while background contextual affordances and contextual influences had a significant impact on

employment outcomes. Regarding the women who did not receive TANF, 16 out of 20 variables predicted a successful employment outcome. Regarding TANF recipients, 8 of 19 variables predicted a successful employment outcome. It appeared that age interacted with level of education and employment status but not vocational rehabilitation (VR) services. For example, most of the women who received TANF had less educational achievement than women who did not receive TANF. There was an insignificant relationship or interaction between age and VR services or age and employment outcome. However, level of education and employment status had an impact on employment outcome. There was an insignificant interaction between level of application and successful employment outcomes.

To my daughter, Ashley Ranai McClinton

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

Introduction

Past research studies noted employment barriers for women with mental illness (Dickerson, Boronow, Stallings, Origoni, Cole, & Yolken, 2004; el-Guebaly, Currie, Williams, Wang, Beck, Maxwell, & Patten, 2007; Krantz & Ostergren, 2000; Marcotte, Wilcox-Gok, & Redmon, 2000; Mechanic, Bilder, & McAlpine, 2002), women who receive TANF (Corcoran, Danziger, Kalil, & Seefeldt, 2000; Corcoran, Danziger, & Tolman, 2003; Goldberg, 2002) and women in the state and federal vocational rehabilitation (VR) system (Dew & Alan, 2005; Fabian, 2000; Gold, Goldberg, McNary, Dixon, & Lehman, 2002; Nadel, Wamhoff, & Wiseman, 2003). These studies noted common barriers such as transportation, child care, work history, and education (Corcoran, Danziger, & Tolman, 2003; Danziger & Seefeldt, 2002; Jayakody & Stauffer, 2000; Taylor & Barusch, 2004).

Despite these barriers, a majority of the women who participated in these studies achieved successful employment outcomes. However, there were some women who were not able to achieve a successful employment outcome (Corcoran, Danziger, & Tolman, 2003; Gutman, McKay, Ketterlinus, & McLellan, 2003; Jayakody & Stauffer, 2000). If both cohorts reported the same barriers, what prevented the women without successful employment outcomes from obtaining and maintaining employment?

Purpose of the Study

The purpose of this study was to examine employment predictors and employment barriers for women of color with psychiatric disabilities who receive TANF benefits using the Rehabilitation Services Administration (RSA) dataset, which contained employment outcome information for all individuals with closed cases.

Significance of the Problem

Employment is immensely important in a person's life, as it provides economic benefits and contributes to an individual's quality of life (Fabian & Coppola, 2001). For individuals with psychiatric disabilities, employment remains an "elusive goal" (McReynolds & Garske, 2003). Twenty-six percent of Americans ages 18 and older are diagnosed with a psychiatric disorder, and 45% of individuals with any psychiatric disability meet the criteria for two or more mental disorders (National Institute of Mental Health (NIMH), 2008). Among these mental disorders, anxiety and mood disorders are the most common diagnoses (NIMH, 2008) affecting among 17% of the working age population - ages 18-54 (Derr, Hill, & Pavetti, 2000). The impact of mental illness on the ability to maintain employment for individuals in the working age population is significant.

As noted by Lustig and Strauser (2007), a key component of the relationship between disability and poverty includes the lack of employment. There have been several government programs developed to address employment needs of people with disabilities such as state vocational rehabilitation services. Additionally, there have been some government programs to address the issues with poverty and income such as welfare-to-work initiatives (Work First, Michigan Works, Wisconsin Works, etc.). However,

disability and poverty as they impact women specifically, has not been adequately addressed by welfare reform programs (Derr, Hill, & Pavetti, 2000), such as the Personal Responsibility & Work Opportunity Reconciliation Act of 1996 (PRWORA).

Since the passage of PRWORA, welfare to work programs developed by states have contributed to the decline in the number of families receiving TANF, causing state policymakers to develop additional strategies to move individuals remaining on TANF into employment (Derr, Hill, & Pavetti, 2000). The decrease in the number of caseloads since PRWORA has led policy makers to refocus. Policy makers now seem intent on examining those who appear more difficult to employ and are still receiving financial support (Danziger & Seefeldt, 2002; Haskins, Sawhill, & Weaver, 2001).

The individuals who continue to receive public assistance are often the TANF recipients with the most severe and persistent barriers to employment (Derr, Hill, & Pavetti, 2000). Some of the most persistent barriers are transportation, lack of education, child care, and mental health problems (Anthony, Cohen, Farkas, & Gagne, 2002; Danziger & Seefeldt, 2002; Ovwigho, Born, Ferrero, & Palazzo, 2004; Taylor & Barusch, 2004). The current study emphasized constructs that may have been overlooked by other researchers by using the social cognitive model of career development.

Theoretical Framework

The social cognitive model of career development (Lent, Brown, & Hackett, 2000) was used as the conceptual framework in the current investigation. In social cognitive theory, learning from the consequences is observational learning (Bandura, 1989). When learning [employment behaviors], behavioral norms may appear after observing the results of individual past actions (Bandura, 1989). This method of learning

does not guarantee that the best solutions will be developed, but once a solution appears to work, it is used without considering other alternatives (Bandura, 1989).

This ideology was integral to the current examination because Lent, Brown, and Hackett used social cognitive theory to construct a career development model for women. The majority of individuals receiving TANF and exiting VR services with or without a successful employment outcome are women (Corcoran, Danziger, Kalil, & Seefeldt, 2000; Lennon, Blome, & English, 2001; Mayo, 2006). Byars and Hackett (1981) applied the social cognitive theory to the career development of women of color. This conceptual framework relates directly to employment behaviors and employment outcomes for women of color with psychiatric disabilities.

The current research effort focused on women who participated in the TANF and vocational rehabilitation (VR) programs. It is important that this study focus primarily on women of color as Bolton, Bellini, and Brookings (2000) noted that more women were in the psychiatric disability groups; and people of color were overrepresented in the psychiatric disability groups. Predicting employment outcomes among women with psychiatric disabilities may involve constructs from Lent, Brown, and Hackett's career development model. The goal was to use quantitative measures to discover the person inputs, contextual influences, background contextual affordances, and outcome expectations that may predict successful and unsuccessful employment outcomes.

Social cognitive career theory (SCCT) highlights variables (person inputs, background contextual affordances) that enable people to influence their own career development and contextual variables (contextual influences, outcome expectations) that augment or limit personal employment goal achievement (Chronister & McWhirter,

2003; Fabian, 2000; Lent, Brown, & Hackett, 1994; Ochs & Roessler, 2004; Perrone, Sedlacek, & Alexander, 2001). SCCT can be used as a framework for studying employment barriers (Lent, Brown, & Hackett, 2000).

As previous studies (Bryars & Hackett, 1998; Chronister & McWhirter, 2003; Fabian, 2000; Lent, Brown, & Hackett, 1994; 2000; Ochs & Roessler, 2004) explored self-efficacy, learning experiences, interests, choice goals, and choice actions, the current study focused on the remaining variables in the SCCT model: person inputs, background contextual affordances, contextual influences, and outcome expectations. Person inputs described the individual's demographic variables. These variables included factors that are unchangeable by the individual. These variables of origin interacted with background contextual affordances in that experiences the individual had before entering the VR system were more than likely influenced by the person inputs. However, unlike the person inputs, background contextual affordances can be changed to improve the individual's circumstances. These factors can be improved upon while in the VR system using contextual influences.

Contextual influences were the subjective variables that individuals in the VR system experienced. Vocational rehabilitation counselors have been taught to consider person inputs and background contextual affordances when deciding which VR services will be included in the employment plan. This decision-making process resulted in the culmination of contextual influences. Lastly, the contextual influences often determined the outcome expectations of the individual. If the VR services were geared toward education or a specific type of employment, the outcome expectations were altered to accommodate the contextual influences.

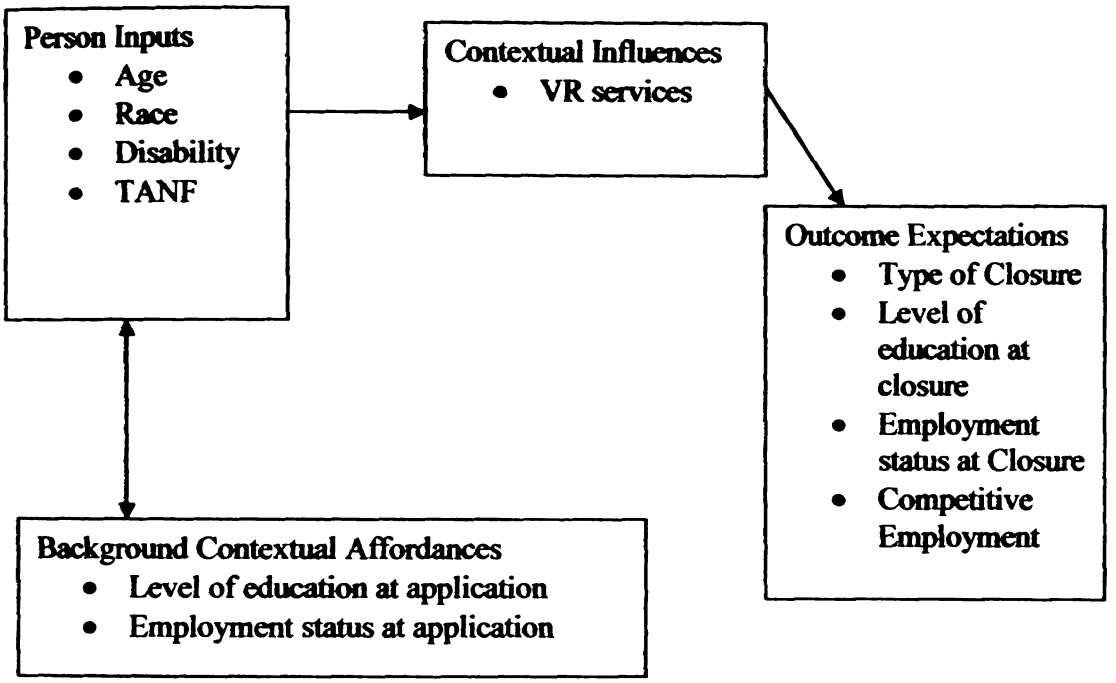

Figure 1. The variables from the SCCT model investigated in the present study. Person inputs and background contextual affordances impact each other to influence the affect of contextual influences which determine the outcome expectations.

The SCCT influences investigated in this study were (1) person inputs, (2) background contextual affordances, (3) contextual influences, and (4) outcome expectations, all of which were accessed through the RSA 911 data. The *person inputs* were extracted from the demographic variables (date of birth, gender, race, disability status, and TANF receipt), the *background contextual affordances* were taken from employment status at application and level of education at application, *contextual influences* were represented by the VR services received, and the *outcome expectations* were used to measure employment outcome status, changes in level of education and employment status, and status of competitive employment for those that achieved a successful employment outcome.

Table 1: Variables in the RSA 911 Data (Bruyere & Houtenville, 2006)

At Application	During Services	At Closure
Date of application	Date eligibility determine.	Date of closure
Source of referral	Date of IPE	Type of closure
Previous closure	Cost of purchased services	Reason for closure
Date of birth	Assessment	Level of education attained
Gender	Diagnosis and treatment	Occupation
Race and ethnicity	VR counseling/guidance	Employment status
IEP	College/university training	Competitive employment
Level of education attained	Occ/vocational training	Weekly earnings
Living arrangement	On-the-job-training	Hours worked
Primary disability	Basic academic/literacy	Medical insurance coverage
Secondary disability	Job readiness training	Mo. public support amount
Employment status	Augmentative skills	Primary source of support
Weekly earnings	Miscellaneous training	Supported employment
Hours worked in week	Job search assistance	Significant disability
Type of public support	On-the-job supports	Migrant/seasonal farm work
Mo. public support amount	Transportation	Veteran status
Primary source of support	Maintenance	Projects with industry
Medical insurance coverage	Rehab technology reader	Type of public support
	Interpreter	
	Personal attendant	
	Technological assistance	
	Information and referral	
	Other services provided	

Rational for Inclusionary RSA Variables

The process for selecting which RSA variables represented person inputs, background contextual affordances, contextual influences, and outcome expectations was based on past researchers' definition of the variables and what the RSA data set had to offer. Chronister and McWhirter (2003) defined person inputs as "socioeconomic status, gender, ethnicity, and innate abilities." Therefore, *TANF receipt* was chosen to represent socioeconomic status, *gender* and *race* were chosen to specify the target population, and *disability status* was chosen to represent innate abilities. Lent, Brown, and Hackett (1994)

defined person inputs as predispositions, gender, race/ethnicity, TANF receipt, and disability/health status.

Lent, Brown, and Hackett (2000) described background contextual affordances as environmental features and learning experiences. Thus, from the list of RSA variables, employment status at application and educational level at application were chosen to represent the environmental factors regarding each woman before she received VR services. Chronister and McWhirter (2003) posited that background contextual influences "help explain the discrepancies among women's career interests, choice goals, and actions."

Other variables were omitted due the limited nature of secondary data collection procedures. Contextual influences are "career-relevant learning experiences and opportunities for skill development" according to Lent, Brown, and Hackett (2000). To illustrate these concepts through the RSA data, VR services were used to represent the career learning experiences. Finally, the construct of outcome expectations deviated from the original definition slightly due to RSA data limitations. A secondary data set cannot speak to beliefs regarding consequences of performing specific behaviors such as VR service participation. However, *type of closure, level of education at closure, employment status at closure, and competitive employment status* are possible indicants of the consequences of action or inaction. Level of education attained at closure appeared to be a result of receiving VR services pertaining to college or university training. Employment status appeared to be the result of job readiness services from the VR counselor. Competitive employment appeared was used as a descriptor of the type of employment with which the women exited the VR system. These variables under the heading of

outcome expectations helped to illustrate how combinations of person inputs, background contextual affordances, and contextual influences appear to impact the employment outcomes for the women in this study.

Research Questions

The following research questions were examined in this study:

1. Will person inputs, background contextual affordances, and contextual influences predict employment outcomes for women of color with psychiatric disabilities in the state-federal vocational rehabilitation system?

2. Will person inputs, background contextual affordances, and contextual influences among women who receive TANF predict employment outcomes for women of color with psychiatric disabilities in the state-federal vocational rehabilitation system?

3. Regarding person inputs, background contextual affordances, contextual influences, and outcome expectations are there significant differences among women who achieved a successful employment outcome versus women who did not achieve a successful employment outcome?

4. Regarding person inputs, background contextual affordances, contextual influences, and outcome expectation are there significant differences among TANF recipients who achieved a successful employment outcome versus TANF recipients who did not achieve a successful employment outcome?

Assumptions

A major assumption of this study was that the category of psychiatric disabilities or mental illness in the RSA 911 data sufficiently represents the DSM-IV category for psychiatric disorders. Another assumption was that the person inputs, background

contextual affordances, contextual influences, and outcome expectations are comprehensively and appropriately measured in the RSA 911 database. These assumptions are based on policy directives for the RSA 911 data.

Definition of Terms

The Personal Responsibility and Work Opportunity Reconciliation Act: The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 radically changed the welfare system in the United States into one that requires work in exchange for time-limited assistance (McAlees, 2003).

Temporary Assistance for Needy Families: The Temporary Assistance for Needy Families program replaced the Aid to Families with Dependent Children (AFDC) which terminated the federal entitlement to cash assistance. The goals of TANF include: providing assistance to needy families so that children can be cared for in their own homes, promoting job preparation, and employment (McAlees, 2003).

Vocational Rehabilitation: Under the amended Rehabilitation Act of 1973 states received federal grants to operate comprehensive vocational rehabilitation programs. The VR program enables individuals with disabilities to obtain and maintain employment opportunities (McAlees, 2003). The VR process consists of three service phases: (1) referral, (2) diagnostic evaluation and vocational rehabilitation planning, and (3) service provision (Bolton, Bellini, & Brookings, 2000). All three phases lead to some type of vocational outcome at case closure (2000). This investigation will include the following data elements: (a) personal history information collected during the referral phase, (b) diagnostic information from the evaluation and planning phase, and (c) rehabilitation services provided during the service provision phase

Rehabilitation Services Administration 911 Data (RSA-911): The RSA-911 data covers all closed state VR cases annually, as reported by the state VR agencies. The data includes extensive information collected at application, during services, and at closure regarding demographics, disability, employment, public assistance, health insurance, and VR services provided (Bruyere & Houtenville, 2006).

Employment Outcomes: According to the Rehabilitation Services Administration, a successful employment outcome includes entering or retaining full-time employment, part-time competitive employment, supported employment, self-employment, telecommuting, and business ownership (McAlees, 2003). Unsuccessful employment outcomes are those consumers who had a closed case but did not achieve an employment outcome. RSA cases are closed in two categories: Rehabilitated or Other than Rehabilitated. For the purposes of this study, the category 'Type of Closure' was used to measure the employment outcome.

Psychiatric Disabilities: According to RSA, mental illness includes people with psychotic disorders, neurotic disorders, and other affective disorders. Psychiatric disabilities are determined based on the DSM-IV-TR (2000) and may include any cognitive disorder, delusional thought process, hallucinations, depression, loss of concentration, loss of memory, or anxiety disorder. Permission to use the data will be sought before analyzing the variables. RSA cases have two disability categories, primary and secondary. For the purpose of this study, women with a psychiatric disorder as a primary or secondary disability will be included in the sample.

Summary

What made this study unique was the examination of the relationship between TANF receipt *and* being a woman of color *and* having a mental illness and the impact of these three factors on employment outcomes based on four social cognitive constructs (person inputs, background contextual affordances, contextual influences, outcome expectations). The aforementioned factors (TANF, minority status, psychiatric disability) represented the category of person inputs. The influence of these factors along with background contextual affordances determined the contextual influences which in turn, determined the outcome expectations.

CHAPTER 2

Literature Review

This chapter provides a review of the literature addressing the impact of psychiatric disabilities, gender, race, and TANF receipt on employment outcomes among former VR female consumers with psychiatric disabilities. First, the review begins by presenting background information regarding the federal and state VR system, order of selection, RSA, and TANF. Second, the literature related to psychiatric disabilities is addressed. This includes the prevalence of psychiatric disabilities and women, a review of previous studies regarding employment outcomes for women with psychiatric disabilities is presented, and other studies using SCCT are explored and described.

State-Federal Vocational Rehabilitation Program

The state-federal VR program started with the Smith-Fess Act of 1920, with an emphasis on providing vocational education to individuals with physical disabilities and helping these individuals achieve community integration and economic self-sufficiency (Kosciulek, 2004; Lee, Chronister, Tsang, Ingraham, & Oulvey, 2005). In 1943, the provision of rehabilitation services was expanded to include individuals with mental retardation and mental illnesses via the Barden-Lafollette Act (Lee, Chronister, Tsang, Ingraham, & Oulvey, 2005). Under the Rehabilitation Act of 1973, states receive federal grants to operate comprehensive VR programs designed to assess, plan, develop, and provide VR services to eligible individuals with disabilities, consistent with their strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice (McAlees, 2005). To be eligible for VR services, an individual must:

(1) Have a disability diagnosed by a licensed health care professional,

(2) Have a disability that is a barrier to employment, and

(3) Have a disability that requires VR services to prepare for, retain, or regain employment (McAlees, 2005).

The VR process consists of three service phases: (1) referral phase, (2) diagnostic evaluation and rehabilitation planning phase, and (3) service provision phase (Bolton, Bellini, & Brookings, 2000). In this study, phases two and three will be analyzed regarding their predictive value in determining successful employment outcomes. All three phases result in some type of case closure (Bolton, Bellini, & Brookings, 2000). It is important to note that not all VR programs are created equal. For example, some women in this study were impacted if their state participated in order of selection.

Order of Selection (OOS).

At the onset of the implementation of VR services, state VR programs attempted to serve *all* individuals with disabilities who applied, and as a result, some states experienced budget problems (DLACT, 2008). An order of selection is required under Section 101(a)(5) of the amended Rehabilitation Act, if a VR agency determines that it is unable to provide services to all eligible individuals who apply for services (Rothrock, 2008). Within the OOS, the VR agency must establish criteria for choosing which individuals they will serve (DLACT, 2008).

Essentially, the OOS established a waiting list to determine which consumers will receive services first and which consumers will have to wait until funding is available to serve them (Hagger, 2004). States that have long waiting lists often had higher percentages of VR consumers with severe disabilities in their caseload than do states that

do not operate under OOS (Frazier, 1991). Often this implies that people with mild to moderate disabilities, who may not need extensive VR services, will most likely no longer be served (Hagger, 2004).

The criteria used for determining the OOS for VR services is the category of significance of the disability and the application date for VR services (labor.state.ak.us/dvr/policy/Section-17-Order-of-Selection.doc). When a VR counselor determines an individual eligible, the counselor also establishes the level of significance of disability based upon the OOS criteria:

(1) The individual must have a severe physical or mental impairment that limits one or more functional capacities regarding a successful employment outcome,

(2) The individual's VR service needs require multiple VR services over an extended period of time, and

(3) The individual has one or more physical or mental disabilities resulting from another disability (Hager, 2004).

Likewise, the level of significance of the individual's disability is identified with one of the following three priority categories: (a) individuals with the most significant disabilities, (b) individuals with significant disabilities, and (c) individuals with disabilities (labor.state.ak.us/dvr/policy/Section-17-Order-of-Selection.doc). When a VR counselor completes the eligibility process and the determination of the significance of the disability determination, the individual is added to the respective statewide OOS waitlist in the appropriate category by date of application (labor.state.ak.us/dvr/policy/Section-17-Order-of-Selection.doc). This date, by definition, is either the date the application was signed in the presence of the VR counselor or the

date the application is stamped in the VR office (labor.state.ak.us/dvr/policy/Section-17-Order-of-Selection.doc). Figure 2 details which states participate in OOS. One hundred twenty-six women in this study were in a state that participated in OOS.

States with OOS	States without OOS
Alabama	*Delaware
Alaska	Hawaii
Arizona	Idaho
Arkansas	Iowa
California	Michigan
Colorado	Minnesota
Connecticut	Montana
District of Columbia	Nevada
Florida	New Hampshire
Georgia	New Mexico
Illinois	Pennsylvania
Indiana	South Carolina
Kansas	Utah
Kentucky	
Louisiana	
Maine	
Maryland	
Massachusetts	
Mississippi	
Missouri	
Nebraska	
New Jersey	
New York	
North Carolina	
North Dakota	
Ohio	
Oklahoma	
Oregon	
Rhode Island	
South Dakota	
Tennessee	
Texas	
Vermont	
Virginia	
Washington	
West Virginia	
Wisconsin	
Wyoming	

Figure 2: States and order of selection status. States with an asterisk indicates states who switched to order of selection after the 2007 fiscal year. This information was gathered using a variety of sources due to the changing nature of the economy (United States Department of Education, 1993).

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA)

Around the same time that the Smith-Fess Act was implemented, the Mother's Pension, an income alternative to a living wage reserved for widows with young children (McAlees, 2005) was also enacted. The Mother's Pension was replaced by Aid to Dependent Children in 1935, which eventually became Aid to Families with Dependent Children (AFDC). AFDC was presumed to encourage joblessness and out-of-wedlock pregnancies, thus introducing new legislation (Corcoran, Danziger, Kalil, & Seefeldt, 2000). The PRWORA Act of 1996 replaced AFDC and was administered by each state through TANF block grants (Hildebrandt, 2006; McAlees, 2005). The passage of the PRWORA Act resulted in millions of welfare recipients being permanently denied public cash assistance (Duncan, Harris, & Boisjoly). This was a major shift because AFDC was a guarantee of cash welfare to *all* qualified families; whereas TANF block grants are fixed, guaranteed level of funding to states (Hildebrandt, 2006). The PRWORA Act gives states and tribes flexibility to design state-by-state TANF programs to promote work, responsibility, and self-sufficiency while at the same time strengthening families (McAlees, 2005).

When PRWORA was passed, it was assumed that former AFDC recipients would be able to obtain and maintain employment and provide financial support for their families without considering the complex issues that limited their ability to find and keep jobs (Taylor and Barusch, 2004). Furthermore, this work first ideology posits that any job is a good job and efforts should be geared toward helping welfare recipients enter the paid labor force as quickly as possible (McAlees, 2005). Whereas some welfare recipients established ties to the workforce, other recipients found it more difficult to

obtain employment (Lennon, Blome, & English, 2001). It is this group of women that are of interest in the present study.

Temporary Assistance for Needy Families (TANF)

The TANF program mandates adults with dependent children to work in order to receive cash welfare benefits and has a five-year lifetime limit for cash assistance (Hildebrandt, 2006). The focus of TANF shifted from the AFDC permanent assistance program for those who cannot work to a temporary safety net for poor families, with re-entry into the labor market as the primary goal (Mayo, 2006). TANF goals are as follows:

(a) Provide assistance to needy families so that children can be cared for in their own homes,

(b) Reduce dependency by promoting job preparation, work, and marriage,

(c) Prevent out-of-wedlock births, and

(d) Encourage the formation and maintenance of two-parent families (McAlees, 2005).

States, territories, and tribes each receive a block grant allocation with a requirement on states to maintain a historical level of state spending known as maintenance of effort (McAlees, 2005). The amount of the block grants are based upon spending in the years prior to 1996 (Corcoran, Danziger, Kalil, & Seefeldt, 2000). Additionally, half of all families receiving TANF must be engaged in obtaining or maintaining employment (McAlees, 2005). This requirement signals the congressional presumption that most adults receiving TANF benefits can work and should be expected to do so (Nadel, Wamhoff, & Wiseman, 2003). The block grant covers benefits, administrative expenses, and services allowing states territories, and tribes to determine eligibility and benefit

levels and services provided to needy families (McAlees, 2005). Eligibility requirements for TANF demand that adults who are seeking cash assistance must (a) be caring for children, (b) have few resources, (c) have little or no income, and (d) be willing to participate immediately in a job search (Nadel, Wamhoff, & Wiseman, 2003).

Employment strategies in TANF programs help women get a general equivalency diploma (GED) and learn basic job skills to obtain employment, with little provision for education or training beyond that (Hildebrandt, 2006). For the women in the current study, referrals made to VR ensured that this group of TANF recipients would receive education beyond the GED and/or training for additional job skills. There are six important TANF concepts that all states and tribes must adhere to: (1) work requirements, (2) work activities, (3) five-year time limit, (4) state maintenance of effort requirements, (5) personal employability plans, and (6) job subsidies:

Work Requirements. With few exceptions, TANF recipients must work after two years of assistance. Single parents must work 30 hours per week and two-parent families must work 35 hours per week. Failure to participate in work requirements can result in either a reduction or termination of TANF benefits.

Work Activities. If a TANF recipient is unemployed or works less than 30 – 35 hours per week, the recipient is required to participate in on-the-job training, community service, vocational training, or provide child care for TANF recipients who participate in community service. Other activities that are acceptable work activities include job search with a 6-week limit, vocational training with 12-month limit, or full-time secondary school attendance if the individual is an adolescent parent.

Five-year Time Limit. Each state/territory/tribe can shorten or lengthen the five-year time limit at their discretion. Also, each state or tribe is also allowed to exempt 20% of their TANF caseload from the time limit or provide non-cash assistance and vouchers to other families that reach the time limit using state or tribal funds.

State Maintenance of Effort Requirement. States or tribes must maintain their own spending at 80% or more of the levels reached in the fiscal year 1994 (before PRWORA). To receive full TANF allocation, states or tribes must spend 80% of their non-federal funds on activities related to TANF. These percentages are measured using the financial figures from FY 1994.

Personal Employability Plans. States and tribes are required to make an initial assessment of each TANF recipient's job skills. States/tribes can also develop personal responsibility plans for recipients that identify the education, training, and job placement services needed to move into the workforce.

Job Subsidies. States/tribes can create jobs by using TANF funds to create community service jobs or to provide income subsidies or hiring incentives for potential employers.

State Flexibility. Unless a state opts out, adults who are not working must participate in community service two months after they start receiving benefits, unless they are single parents with one child under age one or single parents with one child under age six whom cannot find child care (McAlees, 2005).

A large percentage of TANF recipients have had difficulty achieving economic independence within the five-year limit set by the federal government for the TANF program as personal and family characteristics clearly affect the likelihood that a family

will remain on public cash assistance (Taylor & Barusch, 2004). Women in the current study were not among the individuals exempt from employment by their individual state. Additionally, the TANF and VR system work together to increase the employment rate of welfare recipients exiting the cash assistance programs.

Women and Disabilities

A substantial percentage of the population has a mental illness diagnosis (Baumeister & Harter, 2007). According to the 2004 U.S. Census, the percentage has increased to around 58 million (NIMH, 2008). Mental disorders are common in the United States, an estimated 26% of Americans ages 18 and older suffer from a psychiatric disability in a given year (NIMH, 2008). In addition, psychiatric disorders are the leading cause of disability in the U.S. and Canada for individual ages 15-44 (NIMH, 2008). Forty-five percent of people with any mental illness meet the criteria for two or more disorders, with severity strongly related to co-morbidity (NIMH, 2008).

Depression is considered a leading cause of disability worldwide (Krupa & Reg, 2007). Fifty-two million women reported having a mental illness per results from the National Co-morbidity Survey Replication (Kessler, Berglund, Demler, Jin, Kortez, Merikangas, Rush, Walters, & Wang, 2003). The most frequent disorders reported in the National Co morbidity Survey Replication were mood disorders, anxiety disorders, and substance abuse disorders (Baumeister & Harter, 2007). Risk factors for mental illness are being female, being unmarried, being unemployed, and having a low social status (Baumesiter & Harter, 2007). This is consistent with vulnerable populations such as women of color, single mothers, and TANF recipients (Fryers, Melzer, & Jenkins, 2003).

Employment Barriers for Individuals with Psychiatric Disabilities in the VR System

According to the survey from the National Alliance for Mental Illness, the barriers to employment for people with psychiatric disabilities were reported to be stigma, discrimination, and fear of losing benefits, transportation, and lack of vocational services (Hall, Graf, Fitzpatrick, Lane, & Birkel, 2003). Other barriers to employment include the nature of the disability, lack of vocational support methods, negative attitudes toward people with mental illness, stereotypes, rejection by family, friends, neighbor, and employers, and the effects of bias, stigma, and discrimination (McReynolds & Garske, 2003). Furthermore, Marrone and Golowka (2000) described barriers to employment for people with mental illness as lack of medical insurance, lack of meaningful career opportunities, fear of the unknown, history of failed employment attempts, and loss of food stamps, Section 8 housing subsidies, and special program supports due to increase in earnings. These barriers are particularly linked to women of color with mental illness.

Employment Barriers for Women with Psychiatric Disabilities who Receive TANF

Most studies reported different combinations of barriers to employment for TANF recipients. Goldberg (2002) concluded that physical and mental health conditions, low education levels, and domestic violence make TANF recipients less likely to secure employment than their counterparts. Taylor and Barusch (2004) reported barriers such as substance abuse, learning disabilities, child behavior problems, and mental illness.

Barriers found by Gutman, McKay, Ketterlinus, and McLellan (2003) and Danziger et al. (2000) were low educational level, low work experience, low job skills, poor work norms, literacy, discrimination, transportation, child care, unmet basic needs, psychiatric disorders, substance abuse, physical health problems, and domestic violence.

Specifically, women of color report barriers to work such as mental health problems, low employment skills, and transportation (Corcoran, Danziger, Kalil, & Seefeldt, 2000). Other barriers discovered by Cook (2006) included:

- Low educational attainment
- Lowered productivity and high absenteeism
- Unfavorable labor market dynamics toward people with disabilities
- Lack of effective vocational services
- Lack of effective clinical services
- Labor force discrimination
- Failure of protective legislation such as the American Disabilities Act
- Poverty-level income
- Linkage of health care to disability beneficiary status
- Disadvantages upon labor force entry
- Employment disincentives, and
- Ineffective work incentive legislations.

Hildebrandt (2006) investigated the health status and subjective well-being of women who were unable to meet TANF employment requirements. These participants reported (1) system barriers (limited flexibility and scope, caseworker unresponsiveness or insensitivity), (2) personal barriers (significant responsibilities, personal and family health problems, substance misuse), and (3) psychosocial barriers such as physical and mental health limitations with the mothers and their children, lack of social support systems, unstable relationships/domestic violence, limited education, and limited resources and strengths.

Lastly, Taylor and Barusch (2004) interviewed TANF recipients about employment barriers. Five percent of the women with no employment barriers were working 20 or more hours each week at the time of the study, 6% of the women with only one employment barrier was working, 20% of the women with two, three, or four barriers were employed, and 5% of the women with five or more employment barriers were working. This implies that despite employment barriers, some TANF recipient achieve successful employment outcomes.

Mental Illness, Vocational Rehabilitation, and Employment Outcomes

Since the 1960s, there have been numerous studies on the prediction of vocational outcome for people with mental illness (Tsang, Lam, Ng, and Leung, 2000). Tsang et al conducted a literature review regarding predictors of employment outcome for individuals with psychiatric disabilities. After reviewing 35 prediction studies, these were some of the predictors discovered: gender, age, race, living arrangement, previous employment, job interview skills, severity of illness, and substance abuse. They found that psychiatric symptomology, diagnostic category, and functional or environmental limitations are poor predictors of successful employment outcomes. Thus, the current investigation will use the diagnostic category for inclusion purposes only. In this examination, the aforementioned variables: referral source, previous closure, IEP, educational level and employment status will be labeled as background contextual affordances.

There are several articles aimed at the relationship between psychiatric disorders, the VR system, and employment outcomes (Dew & Alan, 2005; Lee, Chronister, Tsang, Ingraham, & Oulvey, 2005; Marrone & Golowka, 2000; McReynolds & Garske, 2003).

The consistently low rates of employment among individuals with psychiatric disabilities make it difficult to envision vocational recovery (Dew & Alan, 2005). Compared to individuals with other types of disabilities whose unemployment rate is around 67%, the employment rate for individuals with psychiatric disabilities is 85% (Anthony, Cohen, Farkas, & Gagne, 2002).

These statistics are more pertinent to women as more women as compared to men are accepted for VR services, although more men apply for services (Capella, 2002). Despite more women gaining acceptance for VR services and more women exiting the VR system with a successful employment outcome, women are more likely to be placed in jobs with lower pay or non-paying successful employment outcomes (Capella, 2002). This study will focus on women because they are more at risk for mental illness, poverty, despite employment outcome.

Other key factors related to employment outcomes were reviewed by Crisp (2005). Crisp noted that the five key factors that were most consistently elated to employment outcomes were severity of disability, socio-demographic factors, psychosocial factors, psychological factors, and long-term employment status. He also posited that the key predictors of employment outcome were age, education, race, coping strategies, social support, and depressive symptoms. Some of these factors will be included in the current analysis under person inputs and background contextual affordances.

Mueser et al (2004) "compared three approaches [individual placement and support (IPS), supported employment, psychosocial rehabilitation programs to vocational rehabilitation (p.480)" for individuals with psychiatric disabilities. They discovered that

individuals with IPS had significantly better employment outcomes than individuals with psychosocial rehabilitation programs. Mueser et al concluded that IPS is more effective than psychosocial rehabilitation programs or standard VR services.

Likewise, Lehman, Goldberg, Dixon, McNary, Postrado, et al. (2002) revealed that participants in the IPS were more likely to have success employment outcomes than in psychosocial rehabilitation programs. However in Lehman et al.'s study, both groups experienced difficulties with job retention. In addition to IPS and psychosocial rehabilitation programs, some researchers argue that supported employment is an evidence-based practice that helps individuals with psychiatric disabilities obtain employment (Bond, 2004; Bond, Resnick, Drake, Xie, McHugo, et al., 2001; Crowther, Marshall, Bond, & Huxley, 2001).

Crowther et al (2001) compared supported employment to prevocational training to determine which approach led to higher rates of successful employment outcomes. Individuals in supported employment programs earned more income and worked more hours than the individuals who had prevocational training (Crowther et al., 2001). Thus, Crowther et al., concluded that supported employment is more effective than prevocational training at helping individuals with psychiatric disabilities obtain competitive employment.

Cook, Leff, Blyer, Gold, Goldberg, Mueser, et al (2005) tested the effectiveness of supported employment versus tailored supported employment, clinical, and VR services to establish successful employment outcomes for people with psychiatric disabilities. Cook et al discovered that the participants who received tailored services were more likely to achieve a successful employment outcome than the participants who

received supported employment. Below are other studies which investigated the link between VR services and employment outcomes.

Ukasoanya (2006) explored the relationship between employment outcomes and psychiatric disabilities in the state VR program. The Ukasoanya study included consumers diagnosed a variety of psychiatric disorders, such as depression, schizophrenia, eating disorders, anxiety, and personality disorders. Employment outcomes of the participants Ukasoanya's study are related to the background contextual affordances which the consumers bring into the VR system, 45% of the participants achieved a successful outcome.

In 2005, Bromet investigated the relationship between vocational rehabilitation services, demographic variables and outcomes among individuals with severe mental illness. In her study, Bromet reported 51% of the 2002 VR cases closed with a successful employment outcome. The employment predictors Bromet found for individuals with psychiatric disabilities were educational level, supported employment services, and eight VR services (counseling and guidance, occupational and vocational training, on-the-job training, job search assistance, job placement assistance, on-the-job supports, maintenance, and technical assistance).

Rogers, Anthony, Lyass, and Penk (2006) examined the effectiveness of psychiatric vocational rehabilitation services as compared to VR services. Rogers et al. tested whether participants differed in vocational outcomes at three follow-up points in time (9 months, 18 months, and 24 months). At the nine month follow-up, more participants in the psychiatric VR group were employed than those in the VR group. At 18 months, more participants in the VR group were employed than those in the

psychiatric VR group, and at 24 months, there was no significant difference between the number of participants employed in either VR group (Rogers, Anthony, Lyass, & Penk, 2006).

In yet another study, Beveridge and Fabian (2007) examined the relationship between obtaining employment congruent with the consumer's IEP and VR employment outcomes. Beveridge and Fabian's results yielded that the IEP goal and the employment outcome were positively linked. In this study, the IEP will serve as a variable for background contextual affordances.

Mental Illness, Temporary Assistance for Needy Families, and Employment Outcomes

TANF recipients with disabilities are less likely to be employed than TANF recipients without disabilities (Nadel, Wamhoff, & Wiseman, 2003). Over 40% of the TANF recipients have a disability (Hartnett, Sweeney, & Collins, 2004). Jayakody and Stauffer (2000) noted that 17% of all single mothers, 22% of women receiving TANF, and 20% of unemployed single mothers had experienced a psychiatric disorder within a 12 month period. Having a psychiatric disorder is associated with 25% lower likelihood of obtaining and maintaining employment (Jayakody & Stauffer, 2000).

Corcoran, Danziger, and Tolman (2003) used the Women's Employment Study to estimate the prevalence and persistence of health problems in the welfare population and women's employment. Over 60% of the women met the criteria for a mental illness. Corcoran et al. examined health problems over five years and in the context of a broad array of other contextual influences that co-occur at high rates among TANF recipients and may impede employment. This was the first study to explore the relationship between women's mental health and time employed after PRWORA finding that psychiatric

disorders are associated with fewer months of employment over approximately 60 months (the TANF time limit).

Lennon, Blome, and English (2001) highlighted the relationship of depression to TANF, employment and job retention and described findings on the relation of unemployment and poor quality jobs to depression. Mayo (2006) analyzed data from the 2003 National Survey on Drug Use and Health for low-income, unmarried women with children. These groups of women were 79% less likely to be employed than individuals with no mental illness.

It appears as though mental health problems may prevent women from undertaking the tasks necessary to find and obtain employment and women with mental illness lack the self-confidence needed to take on new challenges (Jayakody & Stauffer, 2000). They argued that mental health problems among single mothers deserve greater attention as a barrier to self-sufficiency, and highlights the need for more effective intervention and treatment efforts to improve economic and social outcomes.

Mental Health and Employment

Having symptoms of mental illness is associated with a lower probability of employment and reductions in earnings (White, 2004). Symptoms of depression may impede stability in employment by increasing the likelihood of job separation (White, 2004). Among women ages 30 and older, having more symptoms of depression was significantly associated with an increased chance of exit (White, 2004). Depression is associated with a lower probability of labor force participation; and that among the employed, depression is associated with significant reductions in earnings, especially for women (White, 2004). For many low-income women, mental health problems pose a

significant obstacle to securing employment (White, 2004). A history of poor quality jobs and unemployment may induce or exacerbate symptoms of depression (White, 2004).

Marcotte, Wilcox-Gok, and Redmon (2000) used data from the National Co-morbidity Survey to examine the effects of affective mental illness on the income and employment of women and men. They found evidence that some affective disorders result in earnings losses for both men and women. For women, depression is associated with substantial earning losses for employed women. They also found evidence that depression also had substantial negative employment effects for women. For men, there was income loss associated with depression, but not significant impact on employment status (Marcotte, Wilcox-Gok, & Redmon, 2000). For women, they found that with each passing year, an employed woman with a history of depression recouped a portion of the income losses associated with her psychiatric disorder. However, they concluded that income losses were increased by recurring bouts of depression.

Bromberger and Matthews (1994) investigated the psychological effects of employment and unemployment in women. Women were interviewed at baseline and three years later. At the baseline interview, unemployed women reported higher levels of depressive symptoms, had less education, and had less support from family and friends than employed women. Symptoms from depression decreased after three years for the unemployed women who were employed at the three-year interview. Women who experience depression may continue to manage employment because of familiarity with the job tasks, a flexible work schedule, natural supports from co-workers, and social support from family and friends (Krupa, 2007).

Social Cognitive Theory

The social cognitive theory of career development includes person, contextual, and experiential factors that affect career-related choice behavior (Lent, Brown, & Hackett, 1994). Lent, Brown, and Hackett (1994) presented a cognitive framework for understanding three aspects of career development: (1) the formation and elaboration of career-relevant interests, (2) selection of academic and career choice options, and (3) performance and persistence in educational and occupational pursuits. This theory will be utilized in the current study to explore possible predictors of employment outcomes that may have been overlooked in previous research studies.

In 1998, Byars and Hackett provided a literature review on the educational and career development of women of color within the context of social cognitive career theory. In 2000, Fabian described the usefulness and application of a unified theory of careers, social cognitive career theory, as a framework for understanding and improving vocational services for individuals with mental health disorders. Fabian related the various constructs of social cognitive theory, such as self-efficacy beliefs and outcome expectations, to vocational rehabilitation of adults with mental illness.

Lent, Brown, and Hackett (2000) described contextual supports and barriers to career choices using a social cognitive analysis. They posited that social cognitive career theory emphasizes cognitive person variables that enable people to influence their own career development, as well as contextual variables that enhance or constrain personal agency. Perrone, Sedlacek, and Alexander (2001) examined barriers to and facilitators of career goals among college students in the framework of the social cognitive career theory. They found gender and ethnic differences in perceptions of barriers to career

goals. Differences were found by ethnicity but not gender for the latter construct – perceptions of facilitators of career goals (Perrone, Sedlacek, & Alexander, 2001).

In 2003, Chronister and McWhirter applied the social cognitive career theory to the empowerment of battered women. They highlighted the effects on women's career and educational well-being. Social cognitive career theory was described and applied to the experiences of women living in domestic violence situations. A framework for empowering battered women and using the social cognitive career theory to promote their career development and attainment was provided (Chronister & McWhirter, 2003).

Ochs and Roessler (2004) predicted the career exploration intentions of people with disabilities using a social cognitive career theory perspective. They examined the two constructs (task performance and career constructs) within the model and discovered instead that self-efficacy and outcome expectations were key predictors of career exploratory intentions. In 2005, Bright, Pryor, Wilkenfield, and Earl explored the role of contextual and unplanned factors on career decision-making. They discovered that the participants perceived family and teachers to be significant influences on career decision-making.

Based on the review of the literature (Capella, 2002; Corcoran, Danziger, Kalil, & Seefeldt, 2000; Hildebrandt, 2006; Tsang, Lam, Ng, and Leung, 2000), several broad conclusions can be made regarding employment and mental illness. First, unemployment problems still remain one of the most undeniable challenges for women of color with psychiatric disabilities. Second, previous research examining employment outcomes for women has focused on demographic variables omitting ethnicity, gender, and other cultural variables. Third, there is a need to examine whether broader, multidimensional

constructs (person inputs, background contextual affordance, contextual influences, and outcome expectations) contribute to differences in employment outcomes for former VR consumers with psychiatric disabilities who receive TANF benefits. The uniqueness of this study is the use of constructs from the social cognitive theory for career development to possibly predict employment outcomes for women in this population.

CHAPTER 3

Methodology

The purpose of this study was to examine employment predictors and employment barriers for women of color with psychiatric disabilities using the Rehabilitation Services Administration (RSA) dataset, which contains employment outcome information for all individuals with closed cases.

Research Questions

The following research questions were examined in this study:

1. Will person inputs, background contextual affordances, and contextual influences predict employment outcomes for women of color with psychiatric disabilities in the state vocational rehabilitation system?
2. Will person inputs, background contextual affordances, and contextual influences among women who receive TANF predict employment outcomes for women of color with psychiatric disabilities in the state vocational rehabilitation system?
3. Regarding person inputs, background contextual affordances, contextual influences, and outcome expectations are there significant differences among women who achieved a successful employment outcome versus women who did not achieve a successful employment outcome?
4. Regarding person inputs, background contextual affordances, contextual influences, and outcome expectation are there significant differences among TANF recipients who achieved a successful employment outcome versus TANF recipients who did not achieve a successful employment outcome?

Participants

The populations of interest in this study were women of color with psychiatric disabilities in the state VR system. The sample for this study was drawn from the national RSA database for federal fiscal year 2007. The national database is compiled from data submitted by the state VR agencies each year and includes only cases that were closed during the federal fiscal year. For the purpose of the present analysis, only cases that were (a) female consumers; (b) cases with a mental illness diagnosis; and (c) cases who selected a racial category other than white were investigated.

The qualifications for the study (gender, mental illness, and race) as well as the constructs of interest (person inputs, background contextual affordance, contextual influences, and outcome expectation) were of great interest because these constructs were used to predict successful employment outcomes. Several questions were answered using logistic regression analysis. What predictor variables lead to a successful outcome? What was the difference between the groups of women regarding constructs from the SCCT model?

Instrument

RSA requires each state to submit data annually for each consumer case closure in each fiscal year (Schonbrun, Sales, & Kampfe, 2007). Data are collected in a specific format and each record entry must be unique. Those consumers with duplicate records are systematically rejected (2007). For this study, each record represented a consumer whose case was closed during the fiscal year of 2007. According to the United States Department of Education (1993), each VR record has 213 characters and each set of

characters represents one of the 43 VR elements. Variables include the state where the consumer was served, date of application and closure, referral source, gender, race, primary and secondary disabilities, employment status, services provided, and type and reasons for closure (2007).

RSA data are collected in a specific format and coded according to the Reporting Manual for the Case Service Report (RSA, 1995). RSA data are collected for each of the 43 variables and each variable is assigned a numeric code. There were six specific categories regarding employment status at case closure (competitive employment, extended employment, self-employment, homemaker, unpaid family worker, and employment with support in an integrated setting). For the purposes of this study, two employment outcomes from type of closure were used: Employment Outcome and No Employment Outcome.

Variables

The four variable categories that will be explored in this study are person inputs, background contextual affordances, contextual influences, and outcomes expectations. For the purposes of this study, Table 2 shows the variables as they appear in the RSA data set.

Table 2: RSA 911 Variables Categorized According to SCCT Model

Person Inputs	Background Contextual Affordances	Contextual Influences	Outcome Expectations
Date of birth (Age)	Level of education at application	VR services	Type of Closure
Race	Employment status at application		Level of education at closure
Primary/Secondary disability (Disability status)			Employment status at closure
Public Supports at application (TANF)			Competitive Employment

Definition of Variables

Constructs of Focus.

1) Person Inputs: Person inputs include age, gender, race, ethnicity, and disability or health status (Lent, Brown, & Hackett, 1994). Person inputs can also be defined as career-related help seeking behavior and academic resilience (Perrone, Sedlacek, & Alexander, 2001). For the purposes of this study, person inputs were operationalized as age, gender, race, primary/secondary disability, and public support.

Date of Birth (age). The date of birth variable is an eight-digit field with common numeric values for year, month, and day, in that order (Schwanke & Smith, 2004). For the purposes of this study, date of birth was calculated as the age of the consumer at the time of application.

Gender. The independent variable of gender is a dichotomous variable (Wilson, Alston, Harley, & Mitchell, 2002). Gender is coded as 1 for male and 2 for female in the RSA data set. Women served as the determining factor for study inclusion.

Race. The independent variable of race is a polytomous variable with eight levels (African American or Black, White, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, Asian, Latina, and Multiracial). Race and ethnicity were defined as the race reported by consumers on their application for VR services (Wilson, Alston, Harley, & Mitchell, 2002). All races other than White were used for study inclusion.

Primary Disability. The primary disability variable describes the individual's primary physical or mental impairment that causes or results in a substantial impediment to employment. If this disability was a mental illness, the woman was included in the study.

If the disability was another diagnosis, the secondary disability was explored to determine mental illness status.

Secondary Disability. The secondary disability variable describes the individual's secondary physical or mental impairment that causes or results in an impediment to employment. If this disability was a mental illness, the woman was included in the study. Dual diagnosis was not used in this study as VR counselors listed the diagnoses in no particular order, indicating that some women may have a dual diagnosis but it did not get coded for primary or secondary disability.

Public Support at Application. The independent variable of public support at application was used only to determine if the consumer received TANF benefits for the comparison group.

2) Background Contextual Affordances: Lent, Brown, and Hackett (2000) used background contextual affordances to refer to "opportunities, resources, and barriers... presented by a particular environment that is subject to individual interpretation". Environmental and contextual variables are synonymous in the SCCT theory for career development (Lent, Brown, & Hackett, 2000). Other researchers defined background contextual affordances as opportunities for job skill development, emotional and financial support for selecting a particular career or employment option, job availability in the desired field, climate, and prestige (Bright, Pryor, Wilkenfeld, & Earl, 2004). For the purposes of this study, background contextual affordances were defined as educational level at application and employment status at application.

Level of Education at Application. Similar to the race category, the independent variable level of education at application was also a polytomous variable with seven levels: (1) no formal schooling, (2) elementary education (grades 1-8), (3) secondary education, no high school diploma (grades 9-12), (4) special education certificate of completion/attendance, (5) high school graduate or equivalency certificate (regular education students), (6) post-secondary education, no degree, (7) associate degree or vocational/technical certificate, and (8) bachelor's degree, and (9) master's degree of higher (Schwanke & Smith, 2004). For the purposes of this study, the eight education categories were collapsed into four new categories:

- No High School Diploma (no formal schooling, elementary education, secondary education, special education certificate)
- High School Diploma
- Post-Secondary Education or 2 year-degree (post-secondary education, associate degree, vocational certificate)
- Bachelor's degree or higher

Employment Status at Application. RSA defines employment status at application as the work activity consumers performed one week prior to application for VR services (Wilson, Alston, Harley, & Mitchell, 2002). The independent variable of employment status at application was a polytomous variable with nine levels:

- Competitive labor market,
- Sheltered workshop,
- Self-employed,
- State agency-managed business enterprise,

- Homemaker,
- Unpaid family worker,
- Not working – student,
- Not working – other, and
- Not working – trainee or worker in noncompetitive employment (Wilson, Alston, Harley, & Mitchell, 2002).

For the purposes of this study, the nine employment categories were collapsed into three categories: paid employment (competitive labor market, sheltered workshop, self-employed, state agency-managed business enterprise), unpaid employment (homemaker, unpaid family worker), and student (all *not working* categories).

3) Contextual Influences: Contextual influences represent career and employment factors such as discrimination, the influence of peers, family member attitudes, and income level (Fabian, 2000). Contextual influences can act as either an employment barrier or source of support, which include activities related to career search, job education, and goal planning (McChronister & McWhirter, 2003). Therefore, for the purposes of this study VR services were used to measure contextual influences.

VR Services.

Assessment. Services provided and activities performed to determine an individual's eligibility for VR services, to assign an individual to a priority category of a state VR agency that operates under an order of selection, and/or to determine the nature

and scope of VR services to be included in the IPE such as trial work experiences and extended evaluations. This service was provided to 62% (n=6,353) of the women.

Diagnosis and Treatment of Impairments. Includes services provided such as diagnosis and treatment for mental and emotional disorders by qualified personnel who meet state licensure laws, medications, and mental health services. This service was provided to 35% (n=3,3613) of the women.

Vocational Rehabilitation Counseling and Guidance. Includes the discrete therapeutic counseling and guidance services that are necessary for an individual to achieve an employment outcome, including personal adjustment counseling, counseling that addresses medical, family, or social issues, vocational counseling, and any other form of counseling and guidance that is necessary for an individual with a disability to achieve an employment outcome. This service was provided to 52% (n=5,297) of the women.

College or University Training. Refers to full-time or part-time academic training above the high school level leading to a degree (associate, baccalaureate, graduate, or professional), a certificate or other recognized educational credential. This service was provided to 7% (n=733) of the women.

Occupational or Vocational Training. Describes training provided by a community college or a business, vocational, trade, or technical school to prepare students for gainful employment in a recognized occupation, not leading to an academic degree or certification. This service was provided to 10% (n=981) of the women.

Job Search Assistance. Includes activities to support and assist a consumer in searching for an appropriate job, help in resume preparation, identifying appropriate job

opportunities, developing interview skills, and making contacts with companies on behalf of the consumer. This service was provided to 18% (n=1,792) of the women.

Job Placement Assistance. Referral to a specific job resulting in an interview, whether or not the individual obtained the job. This service was provided to 22% (n=2,269) of the women.

On-the-job Supports. Maintenance services provided to an individual who has been placed in employment in order to stabilize the placement and enhance job retention via job coaching, follow-up and follow-along, and job retention services. This support was provided to 12% (n=1,256) of the women.

Transportation Services. Transportation, including adequate training in the use of public transportation vehicles and systems, means travel and related expenses that are necessary to enable an applicant or eligible individual to participate in a VR service. This service was provided to 29% (n=2,966) of the women.

Maintenance. Maintenance means financial support provided for those expenses such as food, shelter and clothing that are in excess of the normal expenses of the individual, and that are necessitated by the individual's participation in an assessment for determining eligibility and VR needs or while receiving services under an IPE. Maintenance was provided to 12% (n=1,215) of the women.

Information and Referral Services. Information and referral services are provided to individuals who need services from other agencies not available through the VR program. These services were provided to 14% (n=1,429) of the women.

Job Readiness Training. This includes training to prepare an individual for the world of work (e.g., appropriate work behaviors, getting to work on time, appropriate

dress and grooming, increasing productivity). This training was provided to 9% (n=909) of the women.

Miscellaneous Training. This described obtaining a GED or high school training leading to a diploma. This training was provided to 8% (n=858) of the women.

Other Services. This category represented all other VR services that were not recorded elsewhere, including but not limited to occupational licenses, tools and equipment, initial stocks and supplies, and medical care for acute conditions that arose during rehabilitation and constituted a barrier to the achievement of an employment outcome. This training was provided to 21% (n=2,164) of the women.

4) Outcome Expectations: Outcome expectations involve the anticipated consequences of performing particular behaviors ("if I do this, what will happen?"). Outcome expectations affect choice goals and actions both directly and indirectly (Chronister & McWhirter, 2003; Lent, Brown, & Hackett, 1994; Ochs & Roessler, 2004). For the purposes of this study, type for closure, level of education at closure, employment status, and competitive employment will measure outcome expectations. Although expectations cannot be derived from secondary data sets, the actions were reflected though end results and used to imply that an increase in the level of education, a positive change in employment status, and/or the participation in competitive employment indicates was the potential expectations *might have been* for that particular woman.

Level of education attained at closure. This variable was recorded as the level of education the woman had attained when the service record was closed. The following codes were used:

0 No formal schooling

1 Elementary education (grades 1-8)

2 Secondary education, no high school diploma (grades 9-12)

3 Special education certificate of completion/diploma or in attendance. This code refers to women who are current special education students, women who received special education but did not receive a certificate or diploma, or women who received special education and earned a certificate of completion or high school diploma.

4 High school graduate or equivalency certificate (regular education students)

5 Post-secondary education, no degree

6 Associate degree or Vocational/Technical Certificate

7 Bachelor's degree

8 Master's degree or higher (RSA, 2008).

For the purposes of this study, codes 0, 1, 2, and 3 were collapsed into one category, code 4 remained a distinct category, codes 5 and 6 were collapsed into one category, and codes 7 and 8 were collapsed into one category.

Employment status at closure. This variable described only those women who achieved an employment outcome when her service record was closed. Codes 1, 3, 4, 5, 6, and 7 refer to women who achieved an employment outcome. Code 2 applied to the women who received VR services and was placed in extended employment. At the time of this study, extended employment was considered an employment outcome. As of December 1, 2008, RSA no longer considered this code an employment outcome. Extended

employment closures are now included in Code 4. Some women had more than one employment outcome, but since RSA mandates the code designating the principal status, the primary code was the only used in the data analysis. The following codes were used to describe the employment outcome at closure:

(1) *Employment without Supports in Integrated Setting* is full-time or part-time employment in an integrated setting without ongoing support services. For purposes of the RSA data, this was work performed for wages, salary, commissions, tips, or piece-rates, below, at, or above the minimum wage. This did not include self-employed women.

(2) *Extended Employment* refers to work for wages or salary in a non-integrated setting for a public or nonprofit organization, such as community rehabilitation programs, or sheltered, industrial, or occupational workshops.

(3) *Self-employment* is work for profit or fees including operating one's own business, farm, shop or office. "Self-employment" includes sharecroppers, but not wage earners on farms.

(4) *State Agency-managed Business Enterprise Program (BEP)* refers to Randolph-Sheppard vending facilities and other small businesses operated by women with significant disabilities under the management and supervision of a State VR agency. This included home industry where the work was done under the management and supervision of a state VR agency in the woman's own home or residence for wages, salary, or a piece-rate. Women capable of activity outside the home, as well as by homebound women, engaged in such employment.

(5) *Homemaker* referred to women whose activity is keeping house for persons in their households or for themselves if they live alone.

(6) *Unpaid Family Worker* referred to women who worked without pay on a family farm or in a family business.

(7) *Employment with Supports in Integrated Setting* is full-time or part-time employment in an integrated setting with ongoing support services for women with significant disabilities. For purposes of the RSA data, compensation for such employment was below, at, or above the minimum wage (RSA, 2008).

For the purposes of this study, this category was collapsed into two categories: paid employment and unpaid employment.

Competitive employment. This variable was used to indicate whether a woman achieved competitive employment at the time her service record was closed. For the purposes of the RSA data, competitive employment is defined as employment in an integrated setting, self-employment or a state-managed Business Enterprise Program that was performed on a full-time or part-time basis for which the woman was compensated at or above the minimum wage. Minimum wage is considered the federal or state minimum age, whichever is higher. Women with employment codes for Employment without support in an integrated setting, self-employed women, women operating a state-managed business enterprise program, and women employed with support in an integrated setting were placed into this category if their wages met the definition for competitive employment. Thus, women who were closed with codes for extended employment, as a homemaker, or an unpaid family worker were not considered to be participants in competitive

employment. A "0" indicated the woman was not competitively employed and "1" indicated the woman was competitive employed (RSA, 2008).

Type of Closure. This variable was used to describe the circumstance surround the closure of the VR case. There are seven types of closure in the RSA 911 data: (1) case was closed while participant was in the application phase, (2) case closed during or after a trial work evaluation, (3) case closed due to employment outcome, (4) case closed without an employment outcome but after receiving VR services, (5) case closed without an employment outcome after signing an individualized employment plan but before VR services were provided, (6) case closed due to order of selection waiting list, and (7) case closed without an employment outcome but before an individualized employment plan was signed. For this purposes of this study, type of closure was used as an outcome measure. The seven categories were collapsed into two groups: Employment Outcome (group 3) and No Employment Outcome (all other groups).

Data Collection Procedure

The Rehabilitation Services Administration (RSA) provides annual closure records on all participants of that fiscal year (September 1st to October 31st). The RSA closure records are also known as RSA-911 data. These data cover all closed state VR cases as reported by the state VR agencies to the RSA (Bruyere & Houtenville, 2006). However, errors may exist in the data due to inaccuracy of data entry or coding errors (Wilson, 2000). To overcome these errors, RSA has developed 18 crosschecks (RSA, 1995).

In the RSA data, all personal identifications were deleted to protect confidentiality. This data is publically available. As the primary source of information on

VR clients, the RSA-911 data set has played and will continue to play an important role in rehabilitation research and program evaluation (Bruyere & Houtenville, 2006). The data was obtained from a state VR program evaluation research center located at a Midwestern university. After selecting women of color and women with a psychiatric disability, the sample selection of cases was guided by the research questions.

Data Analysis

SPSS statistical software was used for all analyses. As Saunders, Morrow-Howell, Spitznagel, Dore, Proctor, and Pescarino (2006) pointed out choosing the most appropriate way to handle missing data during analyses is one of the most challenging decisions confronting researchers. In this study, listwise deletion was used. Listwise deletion is the default method for SPSS and widely used in social science research when the computer program automatically deletes any case that has missing data for any multivariate analysis (Saunders et al., 2006). Even though each variable was missing only a small percentage of responses, collectively a large portion of the data was not be used as cases are deleted. This reduction in sample size translated into reduced statistical power and brought into question how representative the sample of women is of the population studied. The remaining cases are more likely to be representative if only a few cases are discarded from the analysis. Because of this systematic loss of data with listwise deletion, there is an increased risk of bias if there is a pattern to the missing data (Saunders et al., 2006). Despite these limitations, a large sample with a small amount of missing data may not lose as much explanatory power as a smaller data set (Saunders et al., 2006).

Logistic regression analysis was used to analyze employment predictors for this population of women. Logistic regression brings one or more predictor variables to bear in predicting outcomes on a given variable (Williams & Monge, 2001). In this study the three constructs (person inputs, background contextual affordances, contextual influences) from the social cognitive model predicted the employment outcomes. Logistic regression analysis was used to answer the following research questions and accept or reject the hypotheses:

1. Will person inputs, background contextual affordances, and contextual influences predict employment outcomes for women of color with psychiatric disabilities in the state vocational rehabilitation system?

$$PI + BCA + CI = OE$$

Hypothesis: Person inputs will not predict employment outcomes, however, background contextual affordances and contextual influences will predict employment outcomes.

2. Will person inputs, background contextual affordances, and contextual influences among women who receive TANF predict employment outcomes for women of color with psychiatric disabilities in the state vocational rehabilitation system?

$$TANF + PI + BCA + CI = OE$$

Hypothesis: Person inputs will not predict employment outcomes among TANF recipients, however, background contextual affordances and contextual influences will predict employment outcomes among this group of women.

3. Regarding person inputs, background contextual affordances, contextual influences, and outcome expectations are there significant differences among women who achieved a

successful employment outcome versus women who did not achieve a successful employment outcome?

Hypothesis: Women with an employment outcome will differ significantly from women without employment outcomes on all variables except person inputs.

4. Regarding person inputs, background contextual affordances, contextual influences, and outcome expectation are there significant differences among TANF recipients who achieved a successful employment outcome versus TANF recipients who did not achieve a successful employment outcome?

Hypothesis: TANF recipients with an employment outcome will differ significantly from TANF recipients without employment outcomes on all variables except person inputs.

To reiterate, the purpose of this study was to examine employment predictors and employment barriers for women of color with psychiatric disabilities. Past studies indicated that women with these characteristics had unsuccessful employment outcomes due to employment barriers specific to this population. However, since some of the women were able to achieve a successful employment outcome, this study asked, did certain constructs predict an employment outcome while others did not? Additionally, what was the difference between women who achieve a successful employment outcome and women who do not? This researcher hypothesized that background contextual affordances, contextual influences, and outcome expectations predict employment outcomes.

CHAPTER 4

Results

The purpose of this study was to examine employment predictors for women of color with psychiatric disabilities. Past studies indicated that women with these characteristics had unsuccessful employment outcomes due to employment barriers specific to this population. These studies noted common barriers to employment such as transportation, child care, work history, and education (Danziger & Seefeldt, 2002; Jayakody & Stauffer, 2000; Taylor & Barusch, 2004). However, since a third of the women in past studies (Danziger & Seefeldt, 2002; Jayakody & Stauffer, 2000; Taylor & Barusch, 2004) were able to achieve a successful employment outcome, the current study explored the following inquiries: (1) *will person inputs, background contextual affordances, and contextual influences predict employment outcomes*, (2) *will person inputs, background contextual affordances, and contextual influences predict employment outcomes among TANF recipients*, (3) *are there significant differences among women who achieved a successful employment outcome versus women who did not achieve a successful employment outcome*, and (4) *are there significant differences among TANF recipients who achieved a successful employment outcome versus TANF recipients who did not achieve a successful employment outcome*? It was hypothesized that background contextual affordances, and contextual influences predicted employment outcomes.

Data were obtained from the Rehabilitation Services Administration (RSA) 911 dataset on women of color with primary and secondary psychiatric disabilities whose cases were closed during the federal fiscal year 2007 (FY October, 2006 to September,

2007). The FY 2007 RSA 911 database included over 600,000 VR consumers with closed cases. Consumers who were of working age, female, diagnosed with a psychiatric disability and a person of color were selected for inclusion in the final sample of 10,238 women.

To introduce the sample of women included in the analysis, the person inputs, background contextual affordances, contextual influences, and outcome expectations were described. For the data analysis, descriptive statistics and binary logistic regression was used. Descriptive statistics summarize predictor variables such as age, type of mental illness, racial category, educational levels at application and at closure, employment status at application, VR services received, and competitive employment status. Binary logistic multiple regression models uncover ways in which these predictors are related to employment outcomes.

Research question 1 asked if person inputs, background contextual affordances, contextual influences, and outcome expectations predicted an employment outcome, which is specified using the following model:

Employment Outcome (all women) = β_0 + β_1 Person Inputs + β_2 Background Contextual Affordances + β_3 Contextual Influences + β_4 Outcome Expectations + ε

Research question 2 asked if person inputs, background contextual affordances, contextual influences, and outcome expectations predicted an employment outcome, which is specified using the following model:

Employment Outcome (for TANF recipients) = β_0 + β_1 Person Inputs + β_2 Background Contextual Affordances + β_3 Contextual Influences + β_4 Outcome Expectations + ε

Review of variables in the analyses

Person Inputs – age, race, primary disability, secondary disability, TANF receipt. As stated in the previous chapter, age, race, and disability were categorical variables, while TANF receipt was dichotomous. The women's ages were divided into six groups: 18-20, 21-29, 30-39, 40-49, 50-59, and 60-64 years of age. Only women of working age (18-64) were included in the analyses.

Background Contextual Affordances – educational level at application and employment status at application. There were four educational levels: women with less than a high school diploma, women with a high school diploma, women with some post-secondary education or a 2 – year degree, and women with a bachelor's, master's, or doctoral degree. Both the educational level and the employment status were categorical variables. The employment categories were divided in four groups: unpaid employment, paid employment, student, or unemployed.

Contextual Influences – VR services. VR provided 22 services, but only 13 of the services were provided to the women in this sample at a significant rate. VR services that were provided to 7% or more of the sample were included in the final analyses. The VR services included in the logistic regression analyses were assessment, diagnosis/treatment, VR counseling/guidance, college/university training, occupational/vocational training, job search assistance, job placement assistance, job readiness training, on-the-job supports, transportation services, information/referral services, maintenance, miscellaneous training, and other services.

Outcome Expectations – type of closure, competitive employment, employment status at closure, and educational level at closure. Type of closure was divided into two

categories to indicate employment outcome. Women that exited VR with a job were placed into Employment Outcome category, while women that exited without a job were placed into the No Employment Outcome category. This was the dependent variable. Among the women who exited VR with a job, the women with paid positions were placed into the Competitive Employment category, while women who exited VR with a job that did not pay or paid less than minimum wage was placed into the No Competitive Employment category. This was used as a descriptive statistic, as it describes the type of closure and therefore cannot be used to also for predictive value.

Employment status at closure was divided into two groups: paid employment and unpaid employment. This variable was also used as descriptive and not in logistic regression for same aforementioned reason. Lastly, the same four categories were used to describe the educational levels at closure: less than high school diploma, high school diploma, post-secondary education or 2 – year degree, and bachelor's degree or higher. This variable was the only outcome expectation used as in the descriptive analysis as well as in the regression analysis.

Characteristics of the Sample

Person Inputs.

As illustrated in Table 3, person inputs were represented by demographic variables regarding the women in the current study. The person inputs are summarized regarding age, race, disability status, and TANF receipt. The number of responses was included and the valid percentage was used to avoid inclusion of missing data.

Most of the women (29%) were between the ages of 40-49. The average age for this group of women was 39 years. Regarding race, the majority of the women (66.1%) were African American. Latina women represented 22% of the sample.

The most common primary psychiatric disability among the women in the current study was depression (61.8%). Almost 18% (17.8%) of the women had schizophrenia as a primary disability. Some women in this study (31.1%, n=7,054) did have a psychiatric disability as a primary disability.

For secondary disabilities, 30.1% had a personality disorder as a secondary disability. Over 40% had depression (23.4%) and schizophrenia (21.2%) as a secondary disability. Although 31.1% of the women did not have a psychiatric disability as a primary disorder, all of the women had a psychiatric disability as a secondary disability. In Table 3, this category is marked with an asterisk. Lastly, out of the sample population of 10,238 women, only 8% received TANF benefits at the time of application. To summarize, most of the women in this study have depression as a primary mental illness and a personality disorder as a secondary mental illness, and the average age for women in the current study is 39 years.

Table 3: Descriptive Statistics Regarding Person Inputs

Variable	N	Valid %
Age		
18-20	1,299	12.7
21-29	1,577	15.4
30-39	1,858	18.1
40-49	2,966	29.0
50-59	2,151	21.0
60-64	387	3.8
Race		
African American	6,766	66.1
Native American/Alaska Native	369	3.6
Asian	260	2.5
Native Hawaiian/Other Pacific Islander	77	0.8
Latina	2,252	22.0
Multiracial	514	5.0
*Primary Disability Status (n=3,184)		
Anxiety	256	8.0
Depression	1,969	61.8
Personality Disorder	148	4.6
Schizophrenia	567	17.8
Other Psychiatric Disability	244	7.7
*Primary Disability not Mental Illness	7,054	31.1
Secondary Disability Status		
Anxiety	1,266	12.4
Depression	2,397	23.4
Personality Disorder	3,086	30.1
Schizophrenia	2,175	21.2
Other Psychiatric Disability	1,314	12.8
TANF Receipt (n=10,072)	820	8.1

*Note: This group of women did not report a mental illness as a primary disability. This number of women (n=7,054) were not included in the percentages presented.

Background Contextual Affordances.

In Table 4, the background contextual affordances were represented by *employment status at application* and *level of education at application.* The majority of the women (37%) had less than a high school education, and 34.5% had received a high school diploma. Out of over 10,000 women 23.2% of them had obtained a two-year degree or attended (but did not graduate from) post-secondary educational institutions.

The employment status at time of application was missing for six women (0.1%). These women were included in the descriptive analyses, but omitted for the regression analysis. Most of the women (74.1%) were unemployed, 15.3% were engaged in paid employment, and 8.4% were attending school at the time of application. It is safe to say that most of the women entering the VR system did not hold a high school diploma and were not participating in employment.

Contextual Influences.

In Table 4, VR services received by the women in the current study accounted for contextual influences. Regarding the frequency of VR services provided to this group of women, the most commonly provided service was assessment (62%). Half of the women (52%) received VR counseling and guidance, 35% received diagnosis and treatment services, 29% of the women received transportation services, and 22% of the women received job placement services. These services will not equal 100% as some women received multiple services.

Table 4: Descriptive Statistics Regarding Background Contextual Affordances and Contextual Influences

	N	Valid %
Background Contextual Affordances		
Education at Application (n=10,233)		
Less than HS Diploma	3,791	37.0
HS Diploma	3,532	34.5
Post secondary education/Two-yr degree	2,370	23.2
BA or higher	540	5.3
Employment at Application (n=10,232)		
Unpaid Employment	227	2.2
Paid Employment	1,564	15.3
Student	856	8.4
Unemployment	7,585	74.1
Contextual Influences		
VR Services*		
Assessment	6,353	62.1
Diagnosis/Treatment	3,613	35.3
VR Counseling/Guidance	5,297	51.7
College/University Training	733	7.2
Occupational/Vocational Training	981	9.6
Job Search Assistance	1,792	17.5
Job Placement Assistance	2,269	22.2
Job Readiness Training	909	8.9
OTJ Supports	1,256	12.3
Transportation Services	2,966	29.0
Information/Referral Services	1,429	14.0
Maintenance	1,215	11.9
Miscellaneous Training	858	8.4
Other Services	2,164	21.1

*Note: Some women received 2 or more services

Outcome Expectations.

In Table 5, the outcome expectations were used to measure employment outcome status, changes in level of education and employment status, and status of competitive employment for those that achieved a successful employment outcome. The outcome measured used to predict employment outcomes in the current study was *type of closure*. Level of education at closure, employment status at closure, and competitive employment status were used as descriptive variables and not included in the regression analysis due to their redundant nature. For the current study, the original seven categories of types of closure were collapsed into two categories: no employment outcome and employment outcome.

As illustrated in Table 5, over 65% of the women closed with no employment outcome. Thirty-four percent of the women closed with an employment outcome. Out of the 34% (n=3,489) of the women that closed with an employment outcome, 32% (n=10.238) of the women closed with a competitive employment outcome (employment in an integrated setting, self-employment or a state-managed Business Enterprise Program (BEP) performed on a full-time or part-time basis with a salary at or above minimum wage). The outcome expectation, ***employment status at the time of closure***, was also collapsed into two distinct groups: women who exited VR participating in unpaid employment (homemaker or unpaid family worker) and women who exited VR participating in paid employment (employment without supports in an integrated setting, self employment, state agency managed BEP, employment with supports in an integrated

setting). Of the women who achieved a successful employment outcome (n=3,489) 95% had an employment status of paid employment at closure.

Additionally, women in this study experienced significant changes in level of education at time of application versus at time of closure. At the time of application, data was missing for five women regarding level of education. When performing logistic regression, this group of women was omitted from the analyses. However, at the time of closure, data regarding level of application was missing for 111 (1.1%) women. Five percent more women had a high school diploma at closure. Four percent more women obtain two-year degrees, and 1% more women had a bachelor's degree at the time of closure. This may indicate that women improved their level of education while receiving VR services.

Table 5: Descriptive Statistics Regarding Outcome Expectations

Variable	N	Valid %
Type of Closure (n=10,238)		
No Employment Outcome	6,749	65.9
Employment Outcome	3,489	34.1
Competitive Employment (n=3,489)		
Competitively Employed	3,243	31.7
Not Competitively Employed	246	2.4
Education at Closure (n=10,127)		
Less than HS Diploma	3,240	32.0
HS Diploma	3,464	34.2
Post secondary education/Two-yr degree	2,749	27.1
BA or higher	674	6.7
Employment at Closure (n=3,489)		
Unpaid Employment	187	5.4
Paid Employment	3,302	94.6

*Note: The Ns do not sum to 10,238 due to missing data.

Review of Methodology.

Descriptive and logistic regression analyses were employed as the statistical means with which to assess the relationships between predictors (person inputs, background contextual affordances, and contextual influences) and criterion variable (employment outcome). Logistic regression analyses involved selection of significant variables, model building, and assessment of goodness of fit for the final model. The variables that were entered into the logistic regression equation were age (6 levels), primary psychiatric disability (5 levels), secondary psychiatric disability (5 levels), TANF receipt (2 levels), level of education at application and closure (4 levels), employment status at application (4 levels) and employment status at closure (2 levels), and competitive employment (2 levels). The VR services included were assessment, diagnosis/treatment, VR counseling/guidance, college/university training, occupational/vocational training, job search assistance, job placement assistance, on-the-job supports, transportation services, maintenance, information/referral services, job readiness training, miscellaneous training, and other services.

Although VR services total 22 services that were offered to VR consumers, 14 services were chosen for the frequency of use. The following VR services were omitted due to infrequent usage of the service by women in the current study. Only 0.2% (n=22) of the women received personal attendant services, 0.2% (n=22) received reader services, 0.8% (n=81) received interpreter services, 1.3% (n=133) received literary services, 1.5% (n=154) received on-the-job training, 3.1% (n=318) received technical assistance, 4.1% (n=421) received augmentative skills training, and 6% (n=612) received rehabilitation technology services.

Odds ratios and their 95% confidence intervals based on final models were computed. The reported confidence intervals have been noted as an effective way of reporting results because they combine information on precision and can often be used to infer significance levels (APA Manual, 2001, p. 22). When confidence intervals around the odds ratio include the value of 1.0, this indicates that a change in the value of the predictor variable is not associated with a change in the odds ratio of the criterion variable (Hosmer & Lemeshow, 2000). For the current study, variables that included an odds ratio of 1.0 were not considered a useful predictor in the logistic regression model.

Presentation of Results

To review, research question 1 asked if person inputs, background contextual affordances, contextual influences, and outcome expectations predicted an employment outcome, which is specified using the following model:

Employment Outcome (all women) = β_0 + β_1 Person Inputs + β_2 Background Contextual Affordances + β_3 Contextual Influences + β_4 Outcome Expectations + ε

Research question 2 asked if person inputs, background contextual affordances, contextual influences, and outcome expectations predicted an employment outcome, which is specified using the following model:

Employment Outcome (for TANF recipients) = β_0 + β_1 Person Inputs + β_2 Background Contextual Affordances + β_3 Contextual Influences + β_4 Outcome Expectations + ε

Two separate regression analysis were ran to include: employment outcomes for all women and for women who received TANF. The results are presented below

organized via variable group (person inputs, background contextual affordances, contextual influences, outcome expectations).

Predictor variables for all women.

In Table 6, the final model included a Hosmer-Lemeshow (H-L) goodness-of-fit chi-square (8, N = 10,008) = 304.451, p = .000. The R-square was .374. Intercepts were chosen using the variable with the highest frequency regarding a positive employment outcome. In Table 7, the person inputs (age, race, disability status, and TANF receipt) were analyzed using logistic regression. Gender was excluded from this analysis due to homogeneity of the sample. African American women (n=2,281) were the largest racial group and thus, used as the constant. The largest age group was 40-49 years (n = 1,006). The primary disability category that corresponded with a positive employment outcome was Other Mental Illness (n = 2,627), while for secondary disability it was Personality Disorder (n = 1,054).

Regarding background contextual affordances such as educational level and employment status at application, the groups that corresponded to the highest number of women of color achieving a positive employment outcome was high school diploma (n = 1,233) and unemployment (n = 2,316). Contextual influences were dichotomous variables, but were used in regression indicating which services corresponded to a positive employment outcome.

Person inputs included age, disability status, and TANF receipt. In Table 7, the β values calculated the probability of a person input variable leading to a successful employment outcome. Positive β values indicate the likelihood of that particular variable leading to a successful employment outcome, while negative β values indicate a

likelihood of predicting an unsuccessful employment outcome. To calculate the likelihood of a particular variable predicting an employment outcome, an odds ratio was calculated (Table 7). Odds ratios greater than one increase the likelihood of a particular variable predicting an employment outcome, whereas odds ratios less than one predict that the odds of a person input leading to an employment outcome is less likely.

Regarding person inputs, age did not appear to predict an employment outcome. Compared to African American women, the racial category Native American or Alaska Native appeared to have a negative association with en employment outcome (β = .-46, p = .002). Compared to other mental illness, primary psychiatric disabilities such as depression (β = .-26, p = .000) and schizophrenia (β = .-74, p = .000) appeared to be association with a negative employment outcome. The type of secondary disability appeared to have no relationship with the employment outcome. Lastly, TANF recipient seemed to have a negative association with the employment outcome (β = .-20, p = .044). These are significant results as none of the confidence intervals (CI) included 1. Since none of the CI included the value of 1, the odds ratio is statistically significant indicating higher probability of depression and schizophrenia leading to an unsuccessful employment outcome.

Regarding background contextual affordances, having less than a high school diploma was the most common level of education attained at application and was used as intercept. When compared to having less than a high school diploma, having a bachelor's degree or higher (β = .39, p = .001) seemed to be associated with a positive employment outcome.

For the employment status at time of application, the women who were unemployed at the time of application were the largest group. When compared to being unemployed at the time of application, engaging in either paid employment ($\beta = 1.17$, $p = .000$) or engaging in unpaid employment ($\beta = .49$, $p = .003$) appeared to be a good predictor of a positive employment outcome.

Regarding contextual influences, services that seemed to lead to a positive employment outcome were compared to the VR services received that appeared to lead to a negative employment outcome. As illustrated in Table 7, 11 of the 14 VR services seemed to predict a positive employment outcome. Some services were two or three times more likely to be associated with a positive employment outcome such as on-the-job support ($\beta = 1.13$, $p = .000$), job placement ($\beta = 1.31$, $p = .000$), and maintenance services ($\beta = .79$, $p = .000$).

Table 6: Hosmer-Lemeshow Goodness-of-fit Statistic for Person Inputs, Background Contextual Affordances, and Contextual Influences and Employment Outcomes among All Women (N = 10,008)

Group	*N*	Employed Observed	Expected	Not Employed Observed	Expected	Chi-square
1	1001	16	68.89	985	932.11	304.451
2	1001	21	94.05	980	906.95	
3	1001	74	119.56	927	881.44	
4	1002	180	163.38	822	839.62	
5	1001	265	223.46	736	777.54	
6	1001	357	303.57	644	697.43	
7	1001	514	413.77	487	587.23	
8	1001	597	535.86	404	465.14	
9	1001	689	684.70	312	316.30	
10	998	754	860.77	244	137.23	

Table 7: Regression Analysis Regarding Person Inputs, Background Contextual Affordances, and Contextual Influences Associated with an Employment Outcome for All Women (N = 10,008)

Variable	B	SE	p-value*	Exp (B)
Person Inputs				
Age (compared with the age group 40-49)				
18-20	-.107	.111	.335	.898
21-29	-.073	.093	.429	.929
30-39	.000	.084	.997	1.000
50-59	.164	.133	.220	1.178
60-64	-.028	.073	.701	.972
Race (compared with African American women of color)				
Native American or Alaska Native	-.464	.150	.002	.629
Asian	.013	.166	.935	1.014
Native Hawaiian or Other Pacific Islander	.057	.293	.845	1.059
Latina	.119	.063	.061	1.126
Multiracial	.035	.118	.769	1.035
Primary Mental Illness (compared with other mental illness)				
Anxiety Disorder	-.150	.166	.365	.861
Depression	-.258	.069	.000	.772
Personality Disorder	-.039	.210	.853	.962
Schizophrenia	-.738	.125	.000	.478
Secondary Mental Illness (compared with personality disorder)				
Anxiety Disorder	-.142	100	.155	.867
Depression	.081	.087	.352	1.084
Schizophrenia	-.012	.093	.901	.989
Other Mental Illness	-.005	.079	.952	.995
TANF Receipt (compared to women who did not receive TANF)				
Received TANF	-.203	.101	.044	.816
Background Contextual Affordances				
Education at Application (compared with less than high school diploma)				
High School Diploma	.100	.062	.108	1.105
Some Post Secondary Education or 2-year degree	-.006	.073	.936	.994
BA or higher	.389	.118	.001	1.476
Employment at Application (compared with unemployed women)				
Paid Employment	1.174	.069	.000	3.236
Unpaid Employment	.489	.166	.003	1.631
Student	.093	.106	.382	1.097
Contextual Influences (compared to women without service and without employment outcome)				
VR Services (compared to women who did not receive the service)				
Assessment Services	.029	.056	.602	1.029
Diagnosis/Treatment	.506	.053	.000	1.658
VR Counseling/Guidance	.373	.058	.000	1.452
College/University Training	.440	.095	.000	1.553
Occupational/Vocational Training	.463	.082	.000	1.589
Job Search Assistance	.493	.077	.000	1.637
Job Placement Assistance	1.305	.068	.000	3.687
Job Readiness Training	.006	.092	.950	1.006
On-the-job Supports	1.129	.076	.000	3.093
Transportation Services	.321	.060	.000	1.378
Information/Referral Services	-.051	.076	.504	.951
Maintenance	.790	.078	.000	2.203
Miscellaneous Training	.225	.089	.011	1.253
Other Services	.365	.062	.000	1.440

*Note: p-value $\leq .05$ was considered significant.

In Table 8, the contextual variables were also analyzed using cross tabulation to demonstrate a relationship between VR services and employment outcomes. Crosstabs between employment outcome and services was used to determine how many people receiving a specific service achieved a successful employment outcome. Table 8 summarizes the crosstabs. The most significant relationship was found between employment and job services. Of the 2, 269 women that received job placement services, 65.5% achieved a successful employment outcome. Second to job placement services, 1,256 (64.7%) women who received on-the-job supports also achieved a successful employment outcome. Third, 1,792 (63.9%) women who received job search assistance closed with VR due to an employment outcome. Lastly, 1,215 (60.2%) of the women who received maintenance services also achieved a successful employment outcome.

Table 8: Crosstabulation Analysis Regarding Percentages of VR Services that Increased the Likelihood of a Successful Employment Outcome

VR Service	N	%
Job Placement Services	2,269	65.5
On-the-job Supports	1,256	64.7
Job Search Assistance	1,792	63.9
Maintenance	1,215	60.2
Job Readiness	909	58.1
Miscellaneous Training	858	56.1
Occupational/Vocational Training	981	53.6
Transportation	2,966	51.1
College/University Training	733	50.6
Diagnosis/Treatment	3,613	49.8
Information/Referral Services	1,429	45.4
VR Counseling/Guidance	5,297	45.0
Assessment Services	6,353	37.7

Note: Percentages will not sum to 100% due to multiple services being provided.

Research Question 1

The variables which predicted a positive employment outcome were the mental illness depression (PI), having less than a high school diploma (BCA), having a bachelor's degree or higher (BCA), diagnosis/treatment, VR counseling/guidance, college/university training, occupational/vocational training, job search assistance, job placement, on-the-job supports, transportation services, maintenance, information and referral, and miscellaneous training (CI). The variables which predicted a negative employment outcome were depression and schizophrenia (PI) and having less than a high school diploma (BCA). Overall, the person inputs, background contextual affordances, and contextual influences from the SCCT constructs appeared to influence the employment outcome.

Predictor variables for TANF recipients.

The person inputs for TANF recipients (age and disability status), background contextual affordances (education and employment status at time of application), and contextual influences (VR services) were analyzed using logistic regression. In Table 9, the inferential goodness-of-fit test is the Hosmer-Lemeshow (H-L) test that yielded a chi-square (8, $N = 811$) of 30.403, $p = .000$. The R-square was .403.

Intercepts were chosen using the variable with the highest frequency regarding a positive employment outcome. In Table 7, the person inputs (age, race, and disability status) were analyzed using logistic regression. Gender was excluded from this analysis due to homogeneity of the sample. African American women (n=157) were the largest racial group and thus, used as the constant. The largest age group was 30-39 years (n = 70). The primary disability category that corresponded with a positive employment

outcome was Other Mental Illness (n = 147), while for secondary disability it was Schizophrenia (n = 71).

Regarding background contextual affordances such as educational level and employment status at application, the groups that corresponded to the highest number of women of color achieving a positive employment outcome was high school diploma (n = 81) and unemployment (n = 183). Contextual influences were dichotomous variables, but were used in regression indicating which services corresponded to a positive employment outcome.

As illustrated in Table 10, age, primary disability, and secondary disability did not appear to have a relationship with employment outcome. Regarding background contextual affordances, most of the TANF recipients had a high school diploma at the time of application and most was unemployed at the time of application. The level of education did not appear to be related to the employment outcome. When comparing unemployment status to engaging in paid employment, paid employment seemed to have a positive relationship with employment outcome ($\beta = 1.46, p = .000$).

Lastly, four of the fourteen VR services most commonly provided were associated with a positive employment outcome. The following VR services appeared to be associated with an employment outcome: job placement assistance ($\beta = 1.55, p = .000$), on-the-job supports ($\beta = 1.23, p = .000$), miscellaneous training ($\beta = .67, p = .054$), and other services ($\beta = .88, p = .000$).

In Table 11, crosstabulation was used to determine contextual influences seemed to predict a successful employment outcome. For TANF recipients, however, the number of women in this group was significantly less than the non-TANF recipients (n=820). Out

of the 820 women that received TANF, 231 achieved a successful employment outcome. The VR services that led to a successful employment outcome with highest percentages were assessment services (n=168, 72.7%), VR counseling/guidance (n=164, 71.0%), transportation services (n=123, 53.2%), and job placement services (n=117, 50.6%).

Table 9: Hosmer-Lemeshow Goodness-of-fit Statistics for Person Inputs, Background Contextual Affordances, and Contextual Influences and Employment Outcomes among TANF Recipients (N = 811)

Group	N	Employed Observed	Expected	Not Employed Observed	Expected	Chi-square
1	81	1	3.71	80	77.29	30.403
2	81	1	5.68	80	75.32	
3	81	6	7.09	75	73.91	
4	81	6	8.86	75	72.14	
5	82	13	11.60	69	70.41	
6	82	25	15.94	57	66.06	
7	81	22	22.68	59	58.32	
8	81	37	33.67	44	47.33	
9	81	60	50.93	21	30.07	
10	80	57	67.85	23	12.15	

Table 10: Regression Analysis Regarding Person Inputs, Background Contextual Affordances, and Contextual Influences Associated with an Employment Outcome for TANF Recipients ($N = 811$)

Variable	B	SE	p-value*	Exp (B)
Person Inputs				
Age (compared with ages 30-39)				
18-20	.130	.453	.774	1.139
21-29	.026	.272	.923	1.027
40-49	.159	.257	.537	1.172
50-59	.467	.360	.195	1.595
60-64	1.487	.956	.120	4.424
Race (compared to African American women of color)				
Native American or Alaska Native	.084	.453	.853	1.087
Asian	1.220	.725	.092	3.386
Native Hawaiian or Other Pacific Islander	-18.588	23,137.7	.999	.000
Latina	.469	.259	.071	1.598
Multiracial	.356	.410	.385	1.427
Primary Mental Illness (compared with other mental illness)				
Anxiety Disorder	-.766	.607	.201	.460
Depression	-.116	.227	.609	.891
Personality Disorder	-1.081	.903	.231	.339
Schizophrenia	-.538	.595	.366	.584
Secondary Mental Illness (compared with schizophrenia)				
Anxiety Disorder	.029	.345	.934	1.029
Depression	-.364	.336	.278	.695
Personality Disorder	-.408	.271	.132	.665
Other Mental Illness	.032	.327	.922	1.032
Background Contextual Affordances				
Education at Application (compared to those with a high school diploma)				
Less than High School Diploma	-.293	.282	.298	.746
Some Post Secondary Ed or 2-year degree	.620	.756	.412	1.859
BA or higher	.135	.270	.618	1.144
Employment at Application (compared with unemployed)				
Paid Employment	1.456	.395	.000	4.290
Unpaid Employment	.817	.465	.079	2.263
Student	.143	.461	.756	1.154
Contextual Influences				
VR Services (compared to women who did not receive the service)				
Assessment Services	.160	.221	.468	1.174
Diagnosis/Treatment	-.068	.238	.776	.935
VR Counseling/Guidance	.366	.232	.114	1.442
College/University Training	.143	.373	.700	1.154
Occupational/Vocational Training	.235	.302	.438	1.264
Job Search Assistance	.486	.294	.099	1.625
Job Placement Assistance	1.554	.249	.000	4.732
Job Readiness Training	.044	.326	.892	1.045
On-the-job Supports	1.234	.294	.000	3.437
Transportation Services	.370	.232	.111	1.447
Information/Referral Services	-.292	.284	.305	.747
Maintenance	.337	.267	.207	1.401
Miscellaneous Training	.671	.349	.054	1.957
Other Services	.877	.236	.000	2.405

*Note: p-value $\leq .05$ was considered significant.

Table 11: Crosstabulation Regarding Percentages of VR Services Received by TANF Recipients that Increased the Likelihood of a Successful Employment Outcome (N=820)

VR Services	N	%
Assessment Services	168	72.7
VR Counseling/Guidance	164	71.0
Transportation Services	123	53.2
Job Placement	117	50.6
Diagnosis/Treatment	94	40.7
Job Search	92	39.8
Maintenance Services	70	30.3
On-the-job Supports	64	27.7
Information/Referral Services	54	23.4
Job Readiness	47	20.3
Occupational/Vocational	37	16.0
Miscellaneous Services	35	15.2
College/University	21	9.1

Note: Percentages will not sum to 100% due to multiple services being provided.

Research Question 2

As noted in Table 10, regarding TANF recipients, person inputs did not appear to be associated with an employment outcome. However, some background contextual affordances and contextual influences were associated with a positive employment outcome. The variables that seemed to predict a positive employment outcome were engaging in paid employment, receipt of job placement assistance, receipt of on-the-job supports, other services, and receipt of miscellaneous training. Overall, when looking only at the TANF recipients, it appeared that background contextual affordances and contextual influences provided the most significant associations between SCCT constructs and employment outcomes.

Women with Employment Outcomes

As illustrated in Table 12, of 10,238 women in the present study, 3,489 exited VR with a positive employment outcome. The majority of the women with an employment outcome were between the ages of 40-59 (40-49, 29%; 50-59, 22%). The majority of the women were African American (65%) or Latina (24%). The most common primary mental illness was depression (65%), and the most common secondary mental illness were personality disorder (30%), depression (26%), and schizophrenia (21%). The majority of the women either had less than a high school diploma at application (35%), or a high school diploma (35%). At the time of closure, the women were almost equally divided regarding education at time of closure: high school diploma (33%), less than a high school degree (29%), and engaging in post-secondary education or obtaining a 2-year degree (29%). Regarding VR services, most of the women who exited with an

employment outcome also received assessment services (69%), VR counseling/guidance (68%), diagnosis/treatment (52%), transportation services (44%), job placement assistance (43%), and job search assistance (33%).

Women without Employment Outcomes

As noted in Table 12, regarding person inputs, out of 10, 238 women, 6,749 of them exited VR without an employment outcome. The ages are similar to the group of women who exited with an employment outcome. Most of the unemployed women were between the ages 40-59 (40-49, 29%; 50-59, 21%). The racial groups were also similar to the women who exited with an employment outcome: 67% were African American and 21% were Latina. Also, similar to women who exited with an employment outcome, most of the women who exited without an employment outcome had depression (61%) and/or a personality disorder (30%).

For background contextual affordances, almost 40% (38.4%) of the women who exited without an employment outcome had less than a high school diploma. Thirty-four percent of the women without an employment outcome had a high school diploma. These percentages were relatively unchanged at the time of closure: 35% had a high school diploma and 34% had less than a high school diploma. The most obvious difference between women who exited with an employment outcome and those that exited without an employment outcome was the rates at which they received VR services.

Women without an employment outcome received assessment services (59%), VR counseling/guidance (43%), diagnosis/treatment (27%), transportation services (22%), job placement assistance (12%), and job search assistance (10%). Overall, despite the larger number of women exiting VR without a job, a larger percentage of the women

who exited with an employment outcome received more VR services. This indicates that perhaps there is an association between number of VR services provided and employment outcomes.

Significant Differences among Women with Employment Outcomes and Women without Employment Outcomes.

Significant differences between women with and without employment outcomes are summarized in Tables 14 and 15. The major differences in person inputs were the age group 18-20, 2% more women in this age group were in the group without an employment outcome. Although depression was the most common primary mental illness, 4% more of the women with depression were in the group with an employment outcome. This was similar to secondary mental illness, whereas 3% more of the women with depression were in the group with an employment outcome.

Regarding background contextual affordances, there were more women (38%) with less than a high school diploma in the group without an employment outcome. The most significant difference, therefore, was this group of unemployed women. There were 4% more women with less than a high school diploma in the group without an employment outcome. The groups with the most significant difference regarding employment status at application were the women who started VR without a job and women who participated in paid employment at time of application. Approximately 12% more women without an employment outcome reported being unemployed at the time of application. Twelve percent more women with an employment outcome reported engaging in paid employment at the time of application.

The most significant differences were found in contextual influences. All of the VR services led to more women achieving a successful outcome. The greatest difference

was noted among job placement services. Significantly more women that received job placement (31%), VR counseling (25.3%), diagnosis and treatment (24.7%), job search assistance (23.3%) and transportation services (22%) were in the employment outcome group.

The group of women who exited VR without an employment outcome had similar characteristics as compared to the women who exited with an employment outcome. For example, almost 30% (n=6,749) of the women without an employment outcome were between the ages of 40-49. Sixty-one percent (n=2,255) of these women had depression and 30% (n=6,749) had a personality disorder. Thirty-eight percent (n=6,744) had less than a high school diploma at the time of application and 80% (n=6,743) were engaged in unpaid employment at the time of application. At the time of closure, 35% (n=6,638) of these women had a high school diploma, while 34% had less than a high school diploma. Similar to the group of women with an employment outcome, the women who exited without an employment outcome (n=6,749) received assessment services (59%), diagnosis and treatment (27%), VR counseling (43%), job placement (12%), transportation (22%), and information and referral services (12%).

Research Question 3

As noted in Table 12, the most significant differences among women with an employment outcome and without an employment outcome were found in all three SCCT constructs: person inputs (primary mental illness), background contextual affordances (employment and education), and contextual influences (VR services). More women with no employment outcome were diagnosed with schizophrenia, unemployed at the time of application, and had less than a high school diploma at time of application. Overall, a

higher percentage of women with an employment outcome received proportionally more VR services that women who did not achieve an employment outcome.

Table 12: Crosstabulation Regarding Percentage Differences between Women with Employment Outcome (EO) and Women without an Employment Outcome (EO) Regarding Person Inputs, Background Contextual Affordances, and Outcome Expectations (N=10,238)

Variable	EO (n=3,489)	No EO (n=6,749)	Difference
	Age		
18-20	11.2	13.5	+2.3
21-29	15.6	15.3	-0.3
30-39	18.1	18.2	+0.1
40-49	28.8	29.0	+0.2
50-59	21.7	20.7	-1.0
60-64	4.5	3.4	-1.1
	Primary Mental Illness		
Anxiety Disorder	9.1	7.6	-1.5
Depression	64.7	60.7	-4.0
Personality Disorder	5.6	4.3	-1.3
Schizophrenia	13.3	19.6	+6.3
Other Mental Illness	7.2	7.8	+0.6
	Secondary Mental Illness		
Anxiety Disorder	11.3	12.9	+1.6
Depression	25.6	22.3	-3.3
Personality Disorder	30.2	30.1	-0.1
Schizophrenia	20.6	21.6	+1.0
Other Mental Illness	12.4	13.1	+0.7
	Level of Education at Application		
Less than HS	34.5	38.4	+3.9
HS	35.3	34.1	-1.2
Post Secondary/2yr degree	23.4	23.0	-0.4
BA or higher	6.7	4.5	-2.2
	Employment Status at Application		
Unemployed	66.4	78.1	+11.7
Unpaid Employment	2.1	1.4	-0.7
Paid Employment	23.2	11.2	-12.0
Student	8.3	9.2	+0.9
	Level of Education at Close		
Less than HS	28.5	33.8	+5.3
HS	33.2	34.7	+1.5
Post Secondary/2yr degree	28.6	26.4	-2.2
BA or higher	9.7	5.0	-4.7

Note: All sums do not total 100% due to missing data.

Table 13: Crosstabulation Regarding Percentage Differences between Women with Employment Outcome (EO) and Women without an Employment Outcome (EO) Regarding Contextual Influences (N=10,238)

Variable	EO (n=3,489)	No EO (n=6,749)	Difference
Assessment	68.7	58.6	-10.1
Diagnosis/Treatment	51.6	26.9	-24.7
VR Counseling/Guidance	68.4	43.1	-25.3
College/University	10.6	5.4	-5.2
Occupational/Vocational	15.1	6.7	-8.4
Job Readiness	15.1	5.6	-9.5
Job Search Assistance	32.8	9.6	-23.3
Job Placement	42.6	11.6	-31.0
On-the-job supports	23.3	16.7	-16.7
Transportation	43.5	21.5	-22.0
Maintenance	21.0	7.2	-13.8
Information/Referral	18.6	11.6	-7.0
Miscellaneous	13.8	5.6	-8.2
Other Services	17.3	14.7	-2.6

Note: All sums do not total 100% due to provision of multiple services.

TANF Recipients with an Employment Outcome

As illustrated in Table 13, of the 820 women that received TANF at the time of application, 231 exited with an employment outcome. The women who received TANF and exited with an employment outcome fell into three main age groups: 21-29 (26%), 30-39 (30%), and 40-49 (25%). The racial groups were mainly African American (68%) and Latina (20%). Depression (31%) and schizophrenia (31%) were the most common mental illnesses among the TANF recipients. Regarding educational level, most of the women had less than a high school diploma at application (43%) and at closure (36%). The VR services received by TANF recipients with an employment outcome most frequently were assessment (73%), VR counseling/guidance (71%), transportation services (53%), job placement assistance (51%), diagnosis/treatment (41%), and job search assistance (39%).

TANF Recipients without an Employment Outcome

Out of the 820 TANF recipients, 589 exited VR without an employment outcome. Most of the women were between the ages of 30-39 (35%). Sixty-eight percent of the women were African American and 18% were Latina. Most of the women had depression (70%) and/or a personality disorder (31%). Similar to the women who exited with an employment outcome TANF recipients without an employment outcome also exited VR with less than a high school diploma. At application, 45% had less than a high school diploma. At closure, 41% had less than a high school diploma. Among TANF recipients who were unemployed at the time of closure, the following VR services were provided: assessment (62%), VR counseling/guidance (46%), transportation services (23%),

diagnosis/treatment (22%), job placement service (11%), and maintenance services (10%).

Significant Differences among TANF Recipients with Employment Outcomes and TANF Recipients without Employment Outcomes.

Overall, the differences between TANF recipients who achieved a successful employment outcome were minimal. Regarding person inputs, for example, the most common age group among both those with an employment outcome and those women without an employment outcome was ages 30-39. The most common primary mental illness for both groups was depression, while the secondary mental illness was schizophrenia. The most background contextual affordances were level of education (less than a high school diploma) and employment status at application (unemployed). The most common VR services provided to these groups were assessment services (n=533, 65%), VR counseling/guidance (n=433, 53%), transportation services (n=258, 32%), and job placement (n=184, 22%).

Despite the similarities between the TANF recipients with an employment outcome and those without and employment outcome, there were some marked differences between the groups. Among the age categories, there were 5% more women without an employment outcome ages 30-39. Women with an employment outcome were 10% more likely to have depression and 7% more likely to have a personality disorder. When compared to women who did not receive TANF, 2% more TANF recipients without an employment outcome had less than a high school diploma at time of application. When compared to the general group of women, 9% more TANF recipients were unemployed at the time of application. Compared to TANF recipients, 9% more non-TANF recipients received diagnosis/treatment services, but 4% more TANF

recipients received maintenance services than non-TANF recipients, 3% more TANF recipients received information and referral services, than non-TANF recipients and 2% more TANF recipients received transportation services than non-TANF recipients.

The TANF recipients without a successful employment outcome had similar characteristics when compared to non-TANF recipients. The TANF recipients without a job were between the ages of 30-49 (30-39, 35%; 40-49, 27%). Seventy percent of the TANF recipients without an employment outcome had depression as a primary disability and 30% had personality disorders as a secondary disability. Forty-five percent of the women had less than a high school diploma at the time of application and 41% had less than a high school diploma at the time of closure. Also, 87% of these women were unemployed at the time of closure.

Overall, the TANF recipients were a homogenous group of women when looking at person inputs, background contextual affordances, and contextual influences. Despite the significant increases and decreases between the groups, the change was minimal. Actually, quite similar to the larger VR group, TANF recipients with an unsuccessful employment outcome (n=589) outweighed the TANF recipients with a successful employment outcome (n=231).

Research Question 4

Regarding person inputs, TANF recipients with and without an employment outcome were mostly between the ages of 30-39. The majority primary mental illness reported by both groups was depression. However, TANF recipients with an employment outcome reported schizophrenia as a secondary mental illness at higher percentage than

those without, whereas TANF recipients with an employment outcome mostly reported personality disorder as a secondary mental illness.

There were no significant differences between TANF recipients regarding background contextual affordances. Both groups had a higher percentage of women entering and exiting the VR with less than a high school diploma, and starting VR services unemployed. Likewise, there was also little difference between both groups regarding the most common VR services received.

Table 14: Crosstabulation Regarding Percentage Differences between TANF recipients with Employment Outcome (EO) and TANF recipients without an Employment Outcome (EO) Regarding Person Inputs, Background Contextual Affordances, and Outcome Expectations (N=820)

Variable	TANF w/EO (n=231)	TANF w/No EO (n=589)	Difference
	Age		
18-20	5.6	6.1	-0.5
21-29	26.4	22.4	-4.0
30-39	30.3	35.0	+4.7
40-49	25.1	27.0	+1.9
50-59	11.3	9.0	-2.3
60-64	1.3	0.5	-0.8
	Primary Mental Illness		
Anxiety Disorder	5.6	10.5	+4.9
Depression	79.8	70.0	-9.8
Personality Disorder	2.2	4.2	+2.0
Schizophrenia	6.7	8.0	+1.3
Other Mental Illness	5.6	7.2	-1.6
	Secondary Mental Illness		
Anxiety Disorder	12.6	12.6	No change
Depression	14.3	16.1	+1.8
Personality Disorder	24.2	31.1	+6.9
Schizophrenia	30.7	27.3	-3.4
Other Mental Illness	18.2	12.9	-5.3
	Level of Education at Application		
Less than HS	42.9	45.3	+2.4
HS	35.1	33.6	-1.5
Post Secondary/2yr degree	20.3	19.5	-0.8
BA or higher	1.7	1.5	-0.2
	Employment Status at Application		
Unemployed	79.2	88.6	+9.4
Unpaid Employment	3.9	3.7	-0.2
Paid Employment	10.0	3.1	-6.9
Student	6.9	4.6	-2.3
	Level of Education at Close		
Less than HS	35.9	41.1	+5.2
HS	30.3	33.4	+3.1
Post Secondary/2yr degree	31.2	24.0	-1.2
BA or higher	2.6	1.5	-1.1

Note: All sums do not total 100% due to missing data.

Table 15: Crosstabulation Regarding Percentage Differences between TANF Recipients with Employment Outcome (EO) and TANF Recipients without an Employment Outcome (EO) Regarding Contextual Influences (N=820)

Variable	TANF w/EO (n=231)	TANF w/No EO (n=589)	Difference
Assessment	72.7	62.0	-10.7
Diagnosis/Treatment	40.7	22.1	-18.6
VR Counseling/Guidance	71.0	45.7	-25.3
College/University	9.1	5.4	-3.7
Occupational/Vocational	16.0	8.2	-7.8
Job Readiness	20.3	6.0	-14.3
Job Search Assistance	39.8	8.7	-31.1
Job Placement	50.6	11.4	-39.2
On-the-job supports	27.7	5.4	-22.3
Transportation	53.2	23.0	-30.2
Maintenance	30.3	10.0	-20.3
Information/Referral	23.4	14.3	-9.1
Miscellaneous	15.2	4.2	-11.0

Note: All sums do not total 100% due to provision of multiple services.

CHAPTER 5

Discussion

The purpose of this study was to examine employment predictors and barriers for women of color with psychiatric disabilities. The employment predictors were represented in the social cognitive career theory (SCCT): person inputs, background contextual affordances, contextual influences, and outcome expectations. Through statistical analysis of employment predictors, employment barriers were also revisited such as: low educational attainment, poverty-level income (Cook, 2006; Hildebrandt, 2006), mental health (Danziger & Seefeldt, 2002; Goldberg, 2002; Hildebrandt, 2006; Taylor & Barusch, 2004), and transportation (Danziger & Seefeldt, 2002; Goldberg, 2002). Low educational attainment was represented by *level of education at application and at closure* (background contextual affordance), poverty-level income was represented by TANF receipt (person input), mental health was indicated by psychiatric disability as a primary and/or *secondary disability* (person input), and transportation was a VR service (contextual influence) provided to some of the women of color in the current study. In addition, this study explored the differences between women with and without a successful employment outcome, TANF recipients with and without an employment outcome, and VR female consumers with and without TANF benefits.

Logistic regression was used to determine if person inputs or background contextual affordances predicted employment outcomes for women of color with a mental illness in the VR system. Crosstabs were utilized to determine to what extent contextual influences (VR services) predicted a successful employment outcome. Descriptive statistics were used to investigate the frequency of outcome expectations with

regard to employment outcome. The four SCCT constructs offered a functional perspective from which to view the development of basic employment variables in terms of their applicability to assist [women of color] in improving employment outcomes (Fabian, 2000). Overall, results were congruent with original hypotheses and are described below.

Person Inputs

Person inputs describe the demographic variables (gender, race, disability status, age) of the women of color in the current study. Almost a third of the women in the overall study ranged in age from 40-49. The majority of women were African American. This particular racial group is also represented by the majority of women of color receiving TANF (Corcoran, Danziger, & Tolman, 2003).

Most of the women were diagnosed with depression and/or personality disorders. Depression lowers the probability a woman is employed by almost 30% (Marcotte, Wilcox-Gok, & Redmon, 2000). Overall, mood disorders are often associated with absence from work, having a negative impact on employment (el-Guebaly, Currie, Williams, Wang, Beck, Maxwell, & Patten, 2007). Eight percent of the women were receiving TANF at the time of application. Receipt of TANF appeared to have a negative association with employment outcomes, thus, it appears that receiving TANF overall lowered likelihood of achieving a successful employment outcome. This may mean that perhaps long-term receipt of TANF is a barrier for employment due to work disincentives, poverty-level income, labor force discrimination, and/or lack of effective VR services (Cook, 2006).

Although type of mental illness did not appear to be associated with employment outcomes, mental health problems still pose a significant obstacle to achieving a successful employment outcome (White, 2004). It is unclear if the TANF recipients' income status is not a predictor for employment because their disability status is the predictor. Otherwise, as stated before, TANF recipients have a larger number of barriers than other VR consumers including variables that could not be measured using this data set such as: low job skills, discrimination, child care, and domestic violence (Gutman, McKay, Ketterlinus, & McLellan, 2003).

Background Contextual Affordances

Background contextual affordances describe the contextual factors that the women of color in the current study held at the time of application. At the time of application, most of the women did not have a high school diploma and were unemployed. This is congruent with the barriers found by Corcoran, Danziger, and Tolman (2003). Some of these factors appeared to predict an employment outcome. Specifically, having a bachelor's degree or higher increased the chance that the women would achieve successful employment outcomes.

However, Mechanic, Bilder, and McAlpine (2002) reported that people with psychiatric disabilities with a bachelor's degree or an advanced degree may be frustrated regarding the difficulty of identifying employment services relevant to their needs and capacities. Thus, inappropriate job placement for women of color with an advanced degree may contribute to boredom, absenteeism, and job failure.

Engaging in paid or unpaid employment at the time of application seemed to be associated with successful employment outcomes. One implication is that women who

were in school may have remained in school at the close of VR services; therefore their closure status would be closed without an employment outcome. This was also the case when looking at TANF recipients' background contextual affordances. Among TANF recipients, level of education did not appear to be linked to employment, but employment status, such as engaging in paid employment seemed to predict successful employment outcomes. This is also in line with the findings from Corcoran, Danziger, and Tolman (2003) which concluded that TANF recipients entered VR services with less education proportionally than other women of color who did not receive TANF benefits.

TANF recipients who engaged in paid employment at time of application were more likely to achieve a successful employment outcome. This indicates that overall, TANF recipients with a work history may have been more likely to achieve an employment outcome than the TANF recipients engaging in unpaid employment or attending school at the time of application. Taylor and Barusch (2004) indicated that lack of education and mental health problems were common barriers to employment for TANF recipients. Additionally, human capital variables such as not having a high school diploma and having low work experience may decrease the likelihood of a successful employment outcome among TANF recipients (Corcoran, Danziger, & Tolman, 2003). This explains why the overall employment outcomes were proportionally lower among TANF recipients (n=820) than the overall population sample (n=10,238).

Corcoran, Danziger, Kalil, & Seefeldt (2000) stated that several studies regarding TANF recipients without high school diplomas maintain steady employment if they have supports at their disposal. One suggestion is the public VR system can provide this support via attitude change. For example, Dew and Allen (2005) recommended that VR

counselors gain an understanding of the discrimination faced by this triple minority group (race, low-income, and mental illness) and that VR counselors explore the way stigma has affected how counselors' beliefs regarding women of color receiving welfare and having a psychiatric disability. One theory is that perhaps VR counselors may be biased against this particular group of women and may inadvertently provide fewer services to this group, spend fewer funds on this group, and interact with this group in a negative fashion. This attitude may impact how or if VR services are provided, thus, impacting contextual influences.

Contextual Influences

Contextual influences were described as the interventions received by women of color with psychiatric disabilities. Vocational rehabilitation service agencies offer 22 VR services. According to Rogers, Bishop, and Crystal (2005), the most commonly provided VR services among VR consumers were assessment, counseling, job-search assistance, job placement, and transportation. Additionally, job placement and maintenance increased the chances of VR consumers exiting VR with a successful employment outcome that included competitive employment (U.S. Dept. of Education, 1993). Schonbrun, Sales, and Kampfe (2007) discovered four VR services that led to successful employment outcomes: diagnosis/treatment, job placement, job search assistance, counseling, and assessment.

However, when reviewing the frequency with which these services were provided to the current sample, 14 VR services were frequently provided. Of the 14 services, 13 services may have indicated a relationship between service provision and a successful employment outcome. For example, 65.5% of the women that received job placement

had a successful employment outcome. Job placement services were also associated with a positive employment outcome.

Of the 1,256 women that were given on-the-job supports, 64.7% had a successful employment outcome. This VR service was also linked to positive employment outcomes. It appeared that these two services may be the key to helping women of color with psychiatric disorders obtain employment. Job placement services involved VR counselors referring the women to a specific job that may have resulted in an interview. This could be a positive sign that the counselor may have known what job opportunities may be a good fit for the VR participant. Job placement also may indicate that half the effort was from the VR counselor (referral) and the other half was from the women (successful interviewing). After obtaining a job, the women in this study also needed help maintaining employment, which was where on-the-job supports appeared to be relevant to their outcomes. On-the-job supports are services provided to women to stabilize the job placement and improve job retention.

Table 11 summarized these VR services along with the percentage of women who received this service and achieved a successful employment outcome. However, Table 16 illustrates those VR services that led to at least half of the women that received the service to achieve a successful employment outcome. For example, 60% of the women who received maintenance services also achieved a successful employment outcome. These findings suggest that maintenance services are vital for obtaining and maintaining employment as it covers basic expenses such as food, shelter and clothing necessitated by the individual's participation in employment.

Ensuring that basic needs were met so that employment could be achieved by women of color may lead to self-sufficiency. TANF recipients, therefore, may benefit more than other women of color from VR services such as transportation and maintenance as those services are designed to decrease financial stressors in order to obtain and retain employment. Marrone and Golowka (2000) supplied several benefits of employment for people with mental illness:

(1) unemployment has a more negative impact of mental illness than employment,

(2) employment increases the choices a person with mental illness can make,

(3) employment will not immediately improve the quality of life for people with mental illness, but it is closer to improving quality of life than unemployment and poverty,

(4) immediate job placement may lead to a career more than simply planning to look for employment,

(5) employment is a more dependable and less stressful way of life than TANF benefits,

(6) it gives VR consumers more status than the *consumer role*, which implies that the person is taking, rather than giving,

(7) employment decreases the limited vision of what people with mental illness can and cannot do because of their disability,

(8) employment provides a distraction from the mental illness symptoms, and

(9) employment helps make each day more interesting and recreational time has more meaning.

Table 15 illustrated the VR services that correlated to TANF recipients achieving successful employment. The VR services that led to a high rate of successful outcomes were assessment (72.2%), counseling (71%), transportation (52.2%), and job placement (50.6%). This may indicate that TANF recipients have different service needs than the typical women of color with psychiatric disorders. Although both groups seem to have benefited from job placement services, TANF recipients benefited more than other women from assessment, counseling, and transportation. One theory regarding the success of these particular VR services leading to a successful employment outcome is a combination of these types of services. For example, assessing a woman of color for VR services, providing vocational counseling as to the best career path for the individual, and placing a woman of color in a job that is aligned with the assessment results and impressions by the counselor via counseling. Furthermore, providing transportation assistance at the same rate as job placement might ensure that women of color who receive TANF have transportation to and from a new job, thus, increasing the likelihood of job retention.

Assessment services included services to determine the women's eligibility for VR services and place the woman on the waiting list for an order of selection state. TANF recipients are often referred to VR from a TANF caseworker than acknowledges additional services may lead to an employment outcome. Counseling included therapeutic counseling, personal adjustment counseling, counseling that addressed medical, mental health, family, or social issues, and vocational counseling. Assessment and counseling services were the most common VR services most VR participants received; however,

TANF recipients seemed to have garnered increased benefits from these services such as assessment, counseling, transportation, and job placement than the typical VR participant.

Corcoran, Danziger, and Tolman (2003) found that transportation was a noted common barrier among TANF recipients. Transportation services provided by VR constitute training in the use of public transportation and financial means to travel. Obtaining employment increases the need for daily transportation for TANF recipients, and receipt of this service appears to have increased the number of successful employment outcomes.

Goldberg (2002) discussed ways to improve employment outcomes for women who receive TANF – one of the suggestions being transportation. Almost half the women in Goldberg's study (47.1%) did not have access to a car or they did not have a drivers' license. Additionally, Kalil et al.'s (1998) study regarding the Women's Employment Study (WES) listed transportation as one the barriers preventing women from obtaining employment. In the WES study, 47.1% of the women receiving TANF benefits reported having transportation problems, whereas the general population of women that reported the same transportation problems was only 7.6%. Also in the WES, 60% of the women who were employed had a car or a drivers' license, whereas only 37% of the TANF recipients had a car or a drivers' license. Other studies found transportation to be a particular problem for women of color, individuals with mental illness, and TANF recipients (Cook, 2006; Danziger & Seefeldt, 2002; Goldberg, 2002; Hildebrandt, 2006; Taylor & Barusch, 2004).

Per the results of the current study, contextual influences may decrease or increase a woman's chances for a successful employment outcome. Regarding SCCT,

Bright, Pryor, Wilkenfield, and Earl (2005) concluded that VR consumers who learn how contextual influences/factors (background contextual affordances as well) influences their employment decision-making are more likely to capitalize on or counter these influences to make better career decisions. VR counselors can facilitate this behavior by helping women of color use VR services to increase human capital (increasing education and job placement).

Table 16: VR Services with 50% or Higher Success Rate

VR Service	N	%
Job Placement Services	2,269	65.5
On-the-job Supports	1,256	64.7
Job Search Assistance	1,792	63.9
Maintenance	1,215	60.2
Job Readiness	909	58.1
Miscellaneous Training	858	56.1
Occupational/Vocational Training	981	53.6
Transportation	2,966	51.1
College/University Training	733	50.6

Outcome Expectations

Outcome expectations are defined by SCCT as an individual's belief about the likelihood of achieving a successful employment outcome as a result of engaging in specific behaviors are also critical factors in shaping choice and performance (Fabian, 2000). Hackett and Byars (1996) also pointed out that outcome expectations have a stronger influence on the career development of African American women because of the employment discrimination this group of women encounter. Although beliefs and discrimination are not measurable using the RSA 911 dataset, this additional information regarding outcome expectations may explain the results presented in this section regarding women of color.

This section details the findings related to competitive employment, education, and employment status at the time of closure. Most of the women exited VR without a job, but had obtained a high school diploma. In social cognitive theory, employment discrimination may affect a person's likelihood of obtaining employment, and resulting behavior such as the willingness to apply for employment (Fabian, 2000). The number of VR participants exiting the system is always higher for the unemployed group. Additionally, a typical VR counselor may help a participant achieve a high school diploma to increase employment opportunities, which may or may not lead to a successful employment outcome.

Thirty-four percent (n=10,238) of the women exited with an employment outcome. Over 30% (n=3,489) were competitively employed and 95% (n=3,489) of the women were engaged in paid employment. Competitive, paid employment may decrease

the need for external financial resources for women of color with mental illness. Baumister and Harter (2007) cited that being female and being unemployed were risk factors for mental illness. Women of color cannot control gender, but improving employment status might decrease their chances of having more severe mental illness symptoms. Employment could possibly provide access to more resources to help manage symptomology and their recovery efforts. Additionally, Cook (2006) discovered that poverty-level income was actually a barrier to employment.

Women of Color and Employment Outcomes

For person inputs, women of color with mental illness were a homogenous group when controlling for employment outcome. For both employed and unemployed women, the age most frequently reported was 40-49, the most common racial group was African American, the most common primary psychiatric disorder type was depression and the most common secondary disorder type was personality disorders. There was a difference between these two groups regarding background contextual influences and contextual influences. The following paragraphs detail the observed differences in the data regarding both constructs.

Among the women who exited with an employment outcome, 35.3% (n=3,489) had a high school diploma at application, while 38.4% of the women who exited without an employment outcome had less than a high school diploma. This finding may have indicated that having a high school diploma at application increased chances for obtaining employment. Additionally, more women exiting with an employment outcome received VR services. This finding is significant.

The implication here may be that if VR counselors can assist women of color to secure a high school diploma before exiting VR services, the probability increases regarding a successful employment outcome. A suggestion would be that all women who enter VR services without a high school diploma should automatically receive the appropriate services to obtain that level of education. This may improve employment outcomes for women of color with psychiatric disabilities. The findings also suggest that women who exit the system with a successful employment outcome may have received more VR services than women who exit the system without a successful employment outcome. VR counselors may want to provide more VR services to this group of women to increase their employment status. Obtaining a degree higher than a high school diploma at closure did not seem to impact the type of employment outcome. A suggestion could be that instead of spending money on advanced degrees, the funding could be used to provide more direct-employment services such as job search assistance or job placement. Once employed, women of color interested in obtaining a higher level of education can utilize other government sources for funding.

One of the research questions asked what the difference was between two groups of women facing the same employment barriers and the answer is that the group achieving a successful employment outcome received VR services at a much larger rate than women who exited VR without an employment outcome. One-third more employed women received job placement services, and 25% more of the women who exited with an employment outcome received counseling and diagnosis/ treatment. As previously discussed, these were key services in determining a successful employment outcome.

TANF and Employment Outcomes

Twenty-eight percent of the TANF recipients exited VR with an employment outcome. The women who remained unemployed at the end of VR services also continued to receive TANF benefits due to sanction exceptions for women with disabilities. The age groups, racial category, primary disability type, educational and employment status between the TANF recipients were similar. The marked difference between employed and unemployed TANF recipients was type of secondary disability. While 30.7% of the employed TANF recipients reported schizophrenia as the most common secondary mental illness type, 45.3% of the unemployed TANF recipients reported personality disorder as a secondary mental illness type. This indicated a 14.6% difference between secondary psychiatric disability types. Employed TANF recipients received VR services at a more frequent rate than unemployed TANF recipients. Lennon, Blome, and English (2001) posited that programs providing job search assistance and job-seeking tools were shown to be effective in achieving more rapid employment. Thus, the more job-related services provided to TANF recipients, the higher the rate of successful employment outcomes.

Limitations

There were a few limitations accompanied by this secondary data analysis. One limitation was the ex post facto analysis of previously existing data (Fraenkel & Wallen, 2006). As a result, manipulation of the independent variables, or the random assignment of participants was not be feasible. Thus, participants in the study represented consumers who sought out VR services. This characteristic regarding the women of color with

psychiatric disabilities cannot be generalized to include women of color who are TANF recipients and recovering from mental illness, but do not have a diagnosis.

Additionally, ex post facto designs made it difficult to determine a causal link between variables (Lustig, Strauser, & Donnell, 2003), and the use of convenience sampling in ex post facto research designs lead to biased results (Fraenkel & Wallen, 2006, p.100). For example, some participants who are women of color with a mental illness and received TANF benefits were not included because their case was closed before they were determined eligible for VR services.

A second limitation was the variability within psychiatric disabilities. RSA assigned codes regarding mental illness that best described the individual's primary mental impairment that causes or results in a substantial impediment to employment (RSA, 2008). These codes do not correspond to the DSM-IV criteria listed for each mental illness diagnosis. For example, codes 500 and over represent mental disorders that may or may not include mental illness, whereas in the DSM-IV, disorders are coded according to disorder category (mood disorder vs. schizophrenia). Some of the women had the same psychiatric diagnosis, but the functional abilities differed. This may have had a confounding impact on employment outcomes. For example, women with depression who received mental health services and had social support networks may function at a different level than other women diagnosed with depression that did not have mental health services in place and lacked a social support network. Additionally, both women may vary in the severity of the symptoms experienced from depression.

A third limitation was the VR closure codes. Women were closed with an employment outcome without competitive employment. For example, one participant

might be closed with an employment outcome and work as a homemaker and yet another might be closed with an employment outcome with a full-time job outside the home (competitive employment). Both women had the same employment outcome coding even though one employment outcome is more successful financially.

Fourth, RSA data was designed to track employment trends for people with disabilities who access VR services and thus it is not generalizable to the entire population of women of color with psychiatric disabilities. Additionally, because RSA data was developed to assess employment trends, the data do not fully allow for a thorough examination of other factors that might affect employment opportunities for the women investigated for the purposes of the current study.

Fifth, all of the RSA data is mostly self-reported by the VR consumers to the rehabilitation counselor. The rehabilitation counselors enter the information into the data base along with additional information from eligibility paperwork. There is not a verification process to ensure that self-report information and the paperwork are synonymous.

Additionally, some of the data used to analyze the employment outcomes in this current study could have been erroneously entered and therefore, errors may exist in the data due to inaccuracy of data entry or coding errors (Wilson, 2000). To overcome these errors, RSA has developed 18 crosschecks (RSA, 1995).

Despite these limitations, this study yielded results indicating what variables or VR services lead to more successful employment outcomes for this group of women. Armed with this information, rehabilitation counselors can avoid wasting financial

resources on services that have little or no impact on employment outcomes, and use the funding to support more evidence-based practices.

Additional limitations include factors that may impact women with mental illness within both TANF and VR service systems. For example, the national Medicaid Buy-In program was designed to promote employment and financial self-sufficiency for individuals with disabilities. Affordable MBIs enabled people with disabilities to obtain coverage for basic medical care and for special services that can help them participate in employment (Ireys, White, & Thornton, 2003). This program can assist women of color with psychiatric disabilities seek counseling and purchase medication needed to manage symptoms of mental illness. Other services covered by MBI for employed individuals with disabilities include regular check-ups, hospital in-patient and outpatient services, emergency room care, prescription drugs, and specialist care. Unfortunately, the MBI is only available in 39 states (Ireys, White, & Thornton, 2003). The lack of MBI in a particular state may prove to be a work disincentive for women of color who cannot afford to surrender Medicaid benefits in exchange for employment, especially in the present economic climate.

Another limitation stems from the differences in service provision for both TANF and VR service systems. According to McAlees (2003), state VR agencies collaborate and coordinate with TANF agencies to assist TANF recipients with disabilities to become self-sufficient. Both programs operate under different statutory requirements that each state must meet. As this is a national sample, TANF/VR collaborative efforts may differ in quality of service provision.

Finally, some women in the study reside in state with an Order of Selection (OOS) process that provides services to individuals based on significance of disability. Within the scope of disabilities, women of color with moderate to severe mental illnesses may be placed on a waitlist, thereby having an impact on service delivery among people with psychiatric disabilities in those women in states without OOS may have moderate psychiatric symptoms that impede employment and women in OOS states may have more severe symptoms. This discrepancy may confound some results presented earlier in this document.

Implications

Implications for Rehabilitation Counselors

For rehabilitation counselors, this study suggested that for women of color with mental illness, VR counselors need to provide services that lead to a successful employment outcome at a greater rate. For example, if 65% of the women who received job placement services exited VR with an employment outcome, perhaps this service should be enhanced for women of color with a mental illness. VR counselors, who provide a myriad of services, can start building profiles of services that have been successful in the past based on research outcomes. In this economy where all state agencies may decrease funding, it is imperative to use resources on services that may lead directly to an employment outcome.

Another implication for rehabilitation counselors is helping this group of women obtain a high school diploma. Improving level of education led to a higher percentage of women obtaining a successful employment outcome. The same results did not occur with college/university training. A possible reason that women of color who receive

college/university training do not exit VR with an employment outcome might be because a degree from a college or university can take up to five years, whereas VR service provisions usually terminate at the end of two years. As the VR service provision time is limited, there should be a more immediate focus on helping women obtain employment as quickly as possible and providing vocational counseling that helps each woman decide when and if advanced education is an option for her particular situation. Women of color with mental illness may need to see immediate positive outcomes before trying something more overwhelming (promotions, entrance to college, learning additional job skills).

Helping women of color with mental illness overcome poverty may improve their outlook enough to encourage them to strive for more ways to improve their quality of life. College generally takes several years until degree completion and is costly. Women in this category need to first improve finances, and secondly pursue career or advanced educational interests. Lee, Chronister, Tsang, Ingraham, and Oulvey (2005) surveyed VR counselors who reported feeling unprepared in the area of psychiatric rehabilitation and multicultural issues. At both the pre-service level and service level, counselors need to be more knowledgeable about the needs of the current sample.

Implications for Rehabilitation Education

Graduate programs that matriculate future rehabilitation counselors need to teach students more job coaching skills. For example, in each program, there should be time or a class set aside to teach how to deliver the most commonly provided VR services. Although every student will not work for the state VR system, knowing the skills will help them help others obtain and maintain employment, regardless of setting. Leahy,

Muezen, Saunders, and Strauser (2009) indicated that vocational knowledge (career counseling, job development and placement services, vocational consultation) was a important and frequently used knowledge domain.

Another potential solution for improving graduate programs regarding women of color with psychiatric disabilities is to add a psychiatric section to courses in job development and job placement (McReynolds & Garske, 2003).Regarding TANF recipients, specifically, VR counselors must learn about the characteristics of women who receive welfare and the personal and familial challenges they face that differ from non-TANF recipients in the VR system (Derr, Hill, & Pavetti, 2000). This implication is illustrated in the literature described below.

Women of color who are listened to and respected by rehabilitation counselors are likely to trust the counselors and develop a positive working alliance (Mpofu & Conyers, 2004). If women of color trust rehabilitation counselors, the women are more likely to be open about their outcome expectations and actively participate in the VR process. This implication would impact contextual influences as well as outcome expectations. Women of color who can express outcome expectations may be in a better position to also negotiate discrimination faced while seeking employment (Mpofu & Conyers, 2004). Thus, achieving a successful employment outcome will aid in removing previous employment barriers such as transportation while enhancing quality of life via recreational activities, housing, and social experiences with other individuals who participate in employment activities (Mpofu & Conyers, 2004).

Additionally, rehabilitation counselor educators can help VR systems by encouraging students to practice these skills in-vitro. Having students practice and

provide crucial services to women of color with mental illness accomplishes two things: the women get a service and the student learns to interact with someone with a different background (most women in VR have less education, less work experience, and less income than rehabilitation counseling students).

In a research study by Kiener (2008), graduate students reported that service learning enhanced their reflective practices regarding people with disabilities. As women of color are a marginalized population and face stigma attached to people with low education, little work experiences, and low-income, it is important that students learn how to interact in a positive manner to avoid practicing discrimination regarding VR services toward this group of women. For example, in Kiener's study, one student stated, "...I thought about what we've been learning about the social and cultural marginalization of people with disabilities (p.56)." Ensuring that each student spends reflective time pondering how employment outcomes are negatively impacted by attitudes of society toward this group of women allows students to enlarge their scope of practice and offers a positive interaction between counselors and women with psychiatric disabilities in the field.

Implications for Research

For future research investigations, this study demonstrated the need for four additional avenues of research. The first type of research study that could expand what was learned by this study is a longitudinal study regarding women of color with mental illness over time to decipher if the economy, welfare reform, and/or society values alter the results. A longitudinal study could provide more information regarding the relationship between mental illness, VR, and employment.

Second, using a mixed-method approach whereby focus groups are used to determine if the statistics tell the accurate story. Focus groups may not only provide a fuller picture of the employment outcomes, but help counselors, educators, and researchers know how employment outcomes impact the quality of life of individuals. The quality of life is more important than a numerical employment outcome and worth researching further. This was also reported by Kiener (2008).

According to Kiener, one of the benefits of qualitative research is the rich description the data provides. It is evident via limitations regarding the current study that using secondary data only provides basic descriptions of the data. Qualitative research helps rehabilitation educators gain a deeper understanding of results as well as provide awareness to unexpected results (Kiener, 2008). Again, the current study explains results on a surface level, whereas interviews with these women may have yielded a better explanation for same results. The most important point Kiener made was "students' ability to develop and participate in service learning increased their ability to become scientist and reflective practitioners".

Third, exploring interventions to improve the level of education and employment status of women of color with mental illness in the VR system would be worthwhile. Upon entering the VR system, if a woman does not have a GED, obtaining one should be the first order of business. Due to the limitations of the VR system to provide unlimited services, vocational counselors can aid women in increasing educational attainment, while referring the women to a vendor that specializes in employment.

For example, Waynor (2008) stated that employment specialists can provide career planning, help consumers maintain employment and assist women with accessing

reasonable accommodations. Thus, if a VR consumer wants to find employment quickly, but also lacks a high school diploma or other degree required for improving employment outcome, the counselor can help with education and delegate the employment assistance to an outside vendor. This increases the chances that a woman of color with a psychiatric disability will exit VR with more education *and* a successful employment outcome. Improving the basic educational level can improve other facets of the woman's life, thus improving the ability to obtain and maintain employment. Without a high school diploma, women of color with a mental illness stand no chance of obtaining a job that can lift them out of poverty and help them to become self-sufficient.

Fourth, women of color face stigma and discrimination in the VR system. White are more likely to be accepted for VR services than people of color (Rosenthal, Ferrin, Wilson, & Frain, 2005; Wilson, 2002). It would benefit the field of rehabilitation to help decrease this stigma and address the discrimination by observing the practices of VR counselors and responses from women of color. This stigma and discrimination also occurs in the world of work but if the individuals responsible for helping women of color obtain employment share the same prejudicial views as the employer, women of color may continue to not find success in VR and state/federal funds will be wasted time and again.

Conclusions

The purpose of this study was to examine the predictors and barriers for employment faced by women of color with mental illness regarding person inputs, background contextual affordances, and contextual influences from the social cognitive theory. This study also explored the differences among the four constructs among women

with and without employment outcomes and TANF recipients versus women who did not receive TANF.

Person inputs did not predict employment outcomes. Since the study controlled for gender, race, and psychiatric disability the remaining person inputs was type of mental illness, age, and TANF receipt. Person inputs were analyzed three times: for the group of women as a whole, to compare the group of women by employment outcome, and to compare the group of women by TANF recipient. Not only did person inputs not predict employment outcomes, the person inputs among all three groups were similar.

Regarding background contextual affordances, certain levels of education and specific types of employment status at time of application predicted employment outcomes. Among all three groups, most of the women entered VR with less than a high school diploma. Women without a high school diploma or women with a two-year degree showed better promise in obtaining employment than any other group. Unfortunately, the opposite held true for employment status. Women who entered VR as a student or engaging in unpaid employment were more likely to exit without an employment outcome than women who entered VR unemployed. This was also true for the group of women receiving TANF benefits.

VR services were provided to women with an employment outcome at a much higher rate than women who exited without an employment outcome. The most commonly provided services to this group of women were assessment, diagnosis/treatment, counseling/guidance, college/university, occupational/vocational, job readiness, job search, job placement, on-the-job supports, transportation, maintenance, information/referral, and miscellaneous training. However, the most

commonly provided services that led to a successful employment outcome were job placement, on-the-job supports, job search, maintenance, job readiness, miscellaneous training, occupational/vocational, transportation, and college/university. For TANF recipients, the most commonly provided VR services that led to a successful employment outcome were assessment, counseling/guidance, transportation, and job placement. As hypothesized, contextual influences predicted employment outcomes.

Overall, the social cognitive theory model changed throughout the analysis of the 10,238 women. Initially, it was believed that person inputs + background contextual affordances + contextual influences + outcome expectations led to an employment outcome. However, at the end of the analysis, it was evident that background contextual affordances and contextual influences impacted the outcome expectations. Thus, the employment outcome became the outcome expectation.

It appeared that person inputs interacted with background contextual affordances but not contextual influences. For example, most of the women who received TANF had less educational resources than women who did not receive TANF. There was an insignificant relationship or interaction between person inputs and contextual influences or person inputs and outcome expectations. However, employment status at application (background contextual affordances) had an impact on outcome expectations. There was an insignificant interaction between level of application and employment outcome. This relationship should be further researched using a longitudinal study with same variables.

Although not discovered in the current study, it is hypothesized that VR counselors may provide VR services based on background contextual affordances. For example, if a VR consumer has an advanced degree, the counselor will not provide

college/university services. Likewise, if the VR consumer reported student status with financial problems at the start on VR process, the counselor may provide maintenance services and job search assistance. It is hypothesized that contextual influences are provided in relation to background contextual affordances.

How can SCCT improve service provision to women of color diagnosed with mental illness? Improving background contextual affordances (increased level of education, work experience) and providing contextual influences (evidenced-based VR services) in direct relation to outcome expectations increasing the chance that women who arrive *without employment*, should leave the state VR system *with employment*.

APPENDIX A

Rehabilitation Service Administration Data-Use Agreement Form

RSA Data-Use Agreement Form

Signed Form Rec'd _____

Name of Dataset: **RSA-911 Data**

Public- and/or restricted-use data collected and distributed by the Rehabilitation Services Administration may be used for statistical purposes only.

RSA does all it can to assure that the identity of data subjects cannot be disclosed. All direct identifiers, as well as any characteristics that might lead to identification, are omitted or modified in the dataset to protect the true characteristics of individuals. Any intentional identification or disclosure of a person violates the assurances of confidentiality given to the providers of the information. Therefore, users shall:

- Before accessing the data, read carefully and utilize the data-use documentation provided on the CD containing the dataset.
- Use the data in this dataset for statistical purposes only.
- Make no effort to determine the identity of any case reported through this database
- Make no use of the identity of any person or institution discovered inadvertently, and advise RSA of any such discovery.
- Not link this dataset with individually identifiable data from other RSA or non-RSA datasets.
- Notify RSA of errors you identify in the course of using the dataset and/or documentation.
- Not allow data CD to be duplicated for use by others who have not filed a Data-Use Agreement with RSA.
- Return the CD and data to RSA by (*specify date*): 12/1/2009

To proceed, you must signify that you understand and agree to comply with the above-stated requirements, by signing and dating this form, below.

Data-user's Signature Shemya Vaughn *Date* **11/06/08**

Shemya Vaughn
Print Name Here

Mailing Address **1612 Spartan Village, Apt. K**

East Lansing, MI 48823

Phone Number **(517) 355-9754**

Email Address **vaughns5@msu.edu**

For Office Use Only --> Data CD sent on

_____ by ____

APPENDIX B

2008 Rehabilitation Services Administration 911 Policy Directive
Note: Only contains variables used in the current study.

2008 Rehabilitation Services Administration 911 Policy Directive
Note: Only contains variables used in the current study.

Date of Birth

Record date (year, month, and day) of birth using the eight-digit protocol:

6(a) Year of Birth
Record Positions: 23-26

6(b) Month of Birth
Record Positions: 27-28

6(c) Day of Birth
Record Positions: 29-30

Gender

Code as follows:

1 Male
2 Female

Race and Ethnicity

Race and ethnicity information should be recorded for all individuals whose service records were closed in the FY. Use Code 0 if the individual is not of that race/ethnicity and Code 1 if the person is of that race/ethnicity.

RSA continues to require self-identification to the greatest extent possible. It is generally expected that the information recorded will reflect the individual's own identification of race and ethnicity from the categories provided. However, if a customer truly refuses to identify his/her race or Hispanic ethnicity status, the counselor should, at a minimum, notify respondents that if they fail to self-identify that observer-identification method would be used. The counselor or interviewer would then provide the best assessment of the customer's race and Hispanic ethnicity. This guidance follows OMB standards for collecting race/ethnicity data. OMB prefers self-identification methods, but allows for observer-identification methods when necessary.

Both race and ethnicity should be reported. The ethnic category Hispanic or Latino (RP 37) should have a code of 0 or 1 and at least one of the race categories (RP 32 through

36) must be coded as 1 (is this race). Remaining categories should have codes of 0 (not this race). Since a person can have more than one race, more than one race variable can contain a code of 1 for an individual.

NOTE: It is known that some Hispanic people treat Hispanic ethnicity like a race. Since they cannot relate to race categories, they may refuse or be unable to respond to the race question. In such a case code the person as Hispanic and follow the same procedure for race as the one for individuals who refuse to identify both race and Hispanic ethnicity: notify respondents that if they fail to self-identify then observer-identification methods will be used. The interviewer or counselor should make the best possible judgment and enter a 1 in the race field that best reflects that judgment and enter a 0 in the other race variables. Hispanics may belong to any race group.

Use Code * only if the information is not available due to circumstances beyond the agency's control for closure type 1. Such cases will be few in number. For example, if the customer is never seen, such as an applicant who mails a letter and is then closed without any further contact, one probably would use a code of * because race and ethnicity is not known. This is the type of case for which the asterisk (*) is intended. No blanks are permitted in any category. Remember: race and ethnicity is one of the 9 essential variables in which data is required for all closure types 1 through 7.

White
Record Position: 32

Black or African American
Record Position: 33

American Indian or Alaska Native
Record Position: 34

Asian
Record Position: 35

Native Hawaiian or Other Pacific Islander
Record Position: 36

Hispanic or Latino
Record Position: 37

Level of Education Attained at Application

Record the level of education the individual has attained at the time of application. If an actual educational level is not documented, record an estimated level.

Use the following codes:

0	No formal schooling
1	Elementary education (grades 1-8)
2	Secondary education, no high school diploma (grades 9-12)
3	Special education certificate of completion/diploma or in attendance
4	High school graduate or equivalency certificate (regular education students)
5	Post-secondary education, no degree
6	Associate degree or Vocational/Technical Certificate
7	Bachelor's degree
8	Master's degree or higher
*	Information is not available for Closure Code 1

NOTE: Code 3 is intended to capture individuals whose highest level of education is special education. This includes various situations. Use code 3 "Special education certificate of completion/diploma or in attendance": 1) if the individual is currently a special education student, 2) if the individual received special education and earned a certificate of completion or high school diploma, or 3) if the individual received special education but did not receive a certificate/diploma.

Primary Disability

Enter the four-digit code that best describes the individual's primary physical or mental impairment that causes or results in a substantial impediment to employment. The number reported is a combination of the impairment code and cause/source code. The first two digits designate the impairment (sensory, physical or mental), and the last two digits indicate the cause or source of the impairment.

If the person is found not to have a disability, this item should be coded 0000. Use Code **** if the information is not available for Closure Code 1.

Secondary Disability

Enter the four-digit code that best describes the secondary disability. This is the physical or mental impairment that contributes to, but is not the primary basis of, the impediment to employment. The number reported is a combination of the impairment code and cause/source code. Enter Code 0000 to indicate that the individual does not have a secondary disability. Use Code **** if the information is not available for Closure Code 1.

CODES FOR IMPAIRMENTS

00 No impairment

SENSORY/COMMUNICATIVE IMPAIRMENTS:

01 Blindness
02 Other Visual Impairments
03 Deafness, Primary Communication Visual
04 Deafness, Primary Communication Auditory
05 Hearing Loss, Primary Communication Visual
06 Hearing Loss, Primary Communication Auditory
07 Other Hearing Impairments (Tinnitus, Meniere's Disease, hyperacusis, etc.)
08 Deaf-Blindness
09 Communicative Impairments (expressive/receptive)

PHYSICAL IMPAIRMENTS:

10 Mobility Orthopedic/Neurological Impairments
11 Manipulation/Dexterity Orthopedic/Neurological Impairments
12 Both mobility and Manipulation/Dexterity Orthopedic/Neurological Impairments
13 Other Orthopedic Impairments (e.g., limited range of motion)
14 Respiratory Impairments
15 General Physical Debilitation (fatigue, weakness, pain, etc.)
16 Other Physical Impairments (not listed above)

MENTAL IMPAIRMENTS:

17 Cognitive Impairments (impairments involving learning, thinking, processing information and concentration)
18 Psychosocial Impairments (interpersonal and behavioral impairments, difficulty coping)
19 Other Mental Impairments

CODES FOR CAUSES/SOURCES OF IMPAIRMENTS

00 Cause unknown
01 Accident/Injury (other than TBI or SCI)
02 Alcohol Abuse or Dependence
03 Amputations
04 Anxiety Disorders
05 Arthritis and Rheumatism
06 Asthma and other Allergies
07 Attention-Deficit Hyperactivity Disorder (ADHD)
08 Autism
09 Blood Disorders
10 Cancer

11 Cardiac and other Conditions of the Circulatory System
12 Cerebral Palsy
13 Congenital Condition or Birth Injury
14 Cystic Fibrosis
15 Depressive and other Mood Disorders
16 Diabetes Mellitus
17 Digestive
18 Drug Abuse or Dependence (other than alcohol)
19 Eating Disorders (e.g., anorexia, bulimia, or compulsive overeating)
20 End-Stage Renal Disease and other Genitourinary System Disorders
21 Epilepsy
22 HIV and AIDS
23 Immune Deficiencies excluding HIV/AIDS
24 Mental Illness (not listed elsewhere)
25 Mental Retardation
26 Multiple Sclerosis
27 Muscular Dystrophy
28 Parkinson's Disease and other Neurological Disorders
29 Personality Disorders
30 Physical Disorders/Conditions (not listed elsewhere)
31 Polio
32 Respiratory Disorders other than Cystic Fibrosis or Asthma
33 Schizophrenia and other Psychotic Disorders
34 Specific Learning Disabilities
35 Spinal Cord Injury (SCI)
36 Stroke
37 Traumatic Brain Injury (TBI)

Employment Status at Application

Enter the two-digit code which best describes the employment status of the individual at application from the following. Fill in leading zero when it applies.

01 Employment without Supports in Integrated Setting
02 Extended Employment
03 Self-employment (except BEP)
04 State Agency-managed Business Enterprise Program (BEP)
05 Homemaker
06 Unpaid Family Worker
07 Employment with Supports in Integrated Setting
08 Not employed: Student in Secondary Education
09 Not employed: All other Students
10 Not employed: Trainee, Intern or Volunteer
11 Not employed: Other
** Information is not available for Closure Code 1

The first seven codes are considered "employment" for purposes of this item. Individuals not meeting the definitions for Codes 01 to 07 below would be classified as "not employed" (Codes 08 to 11) at the time of application for services.

Employment Codes (Codes 01-07)

01 - Employment without Supports in Integrated Setting is full-time or part-time employment in an integrated setting without ongoing support services. For purposes of this report, this is work performed for wages, salary, commissions, tips, or piece-rates, below, at, or above the minimum wage. Do not include self-employed individuals.

02 - Extended Employment refers to work for wages or salary in a non-integrated setting for a public or nonprofit organization. Such settings are variously referred to as community rehabilitation programs, or sheltered, industrial, or occupational workshops. Individuals are compensated according to the Fair Labor Standards Act and the organization provides any needed support services that enable the individual to train or prepare for competitive employment.

03 - Self-employment (except BEP) refers to work for profit or fees including operating one's own business, farm, shop, or office. "Self-employment" includes sharecroppers, but not wage earners on farms.

04 - State Agency-managed Business Enterprise Program (BEP) refers to Randolph-Sheppard vending facilities and other small businesses operated by individuals with significant disabilities under the management and supervision of a State VR agency. Include home industry where the work is done under the management and supervision of a State VR agency in the individual's own home or residence for wages, salary, or on a piece-rate. Individuals capable of activity outside the home, as well as homebound individuals, may engage in such employment.

05 - Homemaker refers to men and women whose activity is keeping house for persons in their households or for themselves if they live alone.

06 - Unpaid Family Worker is an individual who works without pay on a family farm or in a family business.

07 - Employment with Supports in Integrated Setting is full time or part-time employment in an integrated setting with ongoing support services for individuals with significant disabilities. For purposes of this report, compensation for such employment may be below, at, or above the minimum wage.

Not employed (Codes 08-11)

08 - Student in Secondary Education

09 - All other Students are persons attending school full or part-time other than students in secondary education.

10 - Trainee, Intern or Volunteer refers to persons engaging in unpaid work experiences, internships or volunteer work for purposes of increasing their employability. Such individuals may receive a stipend to defray the cost of transportation or other incidental expenses.

11 - Other refers to persons not in any of the other categories (e.g., persons just out of school who are not yet employed; persons unable to retain or obtain work; and persons who have recently left specialized medical facilities).

When an individual's work activity overlaps into two different employment categories, select the code more descriptive of the individual's employment activity at application.

Type of Public Support at Application

Enter a Code 0 or a Code 1 in each of the following seven record positions to indicate whether the individual was receiving that type of public support at application. Use Code 0 to indicate that the person did not receive public support from the source cited and Code 1 to indicate receipt of support payment from the source cited. One payment is sufficient to establish "receipt". Use Code * in the position if the information is not available for Closure Code 1 or the information is not available for all other closure codes due to circumstances beyond the agency's control.

Public support refers to cash payments made by Federal, State and/or local governments for any reason, including an individual's disability, age, economic, retirement and survivor status. Include payments to a family unit precipitated by the individual's disability or when the individual's presence is taken into account in the computation of the family benefit. Also include any payments that are sent directly to the individual in an institution or to dependents on his/her behalf. Exclude any non-cash support payments such as Medicaid, Medicare, food stamps and rental subsidies. Categories of public support are as follows:

Supplemental Security Income (SSI) for the Aged, Blind or Disabled
Record Position: 59

Temporary Assistance for Needy Families (TANF)
Record Position: 60

General Assistance (State or local government)
Record Position: 61

Social Security Disability Insurance (SSDI)

Record Position: 62

Veterans' Disability Benefits
Record Position: 63

Workers' Compensation
Record Position: 64

Other Public Support
Record Position: 65

Services Provided

Enter the appropriate two-digit code to indicate the vendor and source of funding for each service listed. Services must have been provided to the individual in determining eligibility and/or in developing and carrying out the IPE.

Include all services furnished over the life of the current service record whether paid for with VR funds or from other sources (comparable services). If an individual received the same service from more than one provider, record only the major provider.

The first digit identifies the vendor or provider of the service. The second digit indicates the source of funding. Use Code 00 if a service was not provided to an individual. Funding Code 0 should only be used if the service was not provided to an individual. If a service was provided directly by the State VR agency without a direct cost use Code 11.

Codes for Vendors/Providers:

0 Not provided
1 Provided directly by State VR agency
2 Provided by Community Rehabilitation Programs in the Public Sector (owned and managed by Federal, State, or local government, such as those run by State VR agencies).
3 Provided by Community Rehabilitation Programs in the Private Sector (owned and managed by non-governmental entities, such as individuals, associations, corporations, etc.)
4 Provided by One-stop Employment/Training Centers
5 Provided by other Public Sources
6 Provided by other Private Sources

Assessment

Assessment means services provided and activities performed to determine an individual's eligibility for VR services, to assign an individual to a priority category of a State VR agency that operates under an order of selection, and/or to

determine the nature and scope of VR services to be included in the IPE. Include here trial work experiences and extended evaluation.

Diagnosis and Treatment of Impairments

Diagnosis and treatment of impairments means:

a) Corrective surgery or therapeutic treatment that is likely, within a reasonable period of time, to correct or modify substantially a physical or mental impairment that constitutes a substantial impediment to employment;

b) Diagnosis and treatment for mental and emotional disorders by qualified personnel who meet State licensure laws;

c) Dentistry;

d) Nursing services;

e) Necessary hospitalization (either inpatient or outpatient care) in connection with surgery or treatment;

f) Drugs and supplies;

g) Prosthetic, orthotic, or other assistive devices, including hearing aids;

h) Eyeglasses and visual services, including visual training, and the examination and services necessary for the prescription and provision of eyeglasses, contact lenses, microscopic lenses, telescopic lenses, and other visual aids prescribed by personnel who meet State licensure laws and are selected by the individual;

i) Podiatry;

j) Physical therapy;

k) Occupational therapy;

l) Speech or hearing therapy;

m) Mental health services;

n) Treatment of either acute or chronic medical complications and emergencies that are associated with or arise out of the provision of physical and mental restoration services or that are inherent in the condition under treatment;

o) Special services for the treatment of individuals with end-stage renal disease, including transplantation, dialysis, artificial kidneys, and supplies; and

p) Other medical or medically related rehabilitation services.

Vocational Rehabilitation Counseling and Guidance

Vocational rehabilitation counseling and guidance means discrete therapeutic counseling and guidance services that are necessary for an individual to achieve an employment outcome, including personal adjustment counseling, counseling that addresses medical, family, or social issues, vocational counseling, and any other form of counseling and guidance that is necessary for an individual with a disability to achieve an employment outcome. This service is distinct from the general counseling and guidance relationship that exists between the counselor and the individual during the entire rehabilitation process.

Training

General note: Training services are designed to help the individual improve educationally or vocationally or to adjust to the functional limitations of his or her impairment. If the individual receives more than one type of training, each type should be recorded.

College or University Training

Full-time or part-time academic training above the high school level leading to a degree (associate, baccalaureate, graduate, or professional), a certificate or other recognized educational credential. Such training may be provided by a four-year college or university, community college, junior college, or technical college.

Occupational/Vocational Training

Occupational, vocational, or job skill training provided by a community college and/or business, vocational/trade or technical school to prepare students for gainful employment in a recognized occupation, not leading to an academic degree or certification.

Job Readiness Training
Training to prepare an individual for the world of work (e.g., appropriate work behaviors, getting to work on time, appropriate dress and grooming, increasing productivity).

Miscellaneous Training

Any training not recorded in one of the other categories listed, including GED or high school training leading to a diploma.

Job-Related Services
General note: Job-related services include job search assistance, job placement assistance, and on-the-job support services.

Job Search Assistance
Job search activities support and assist a consumer in searching for an appropriate job. Job search assistance may include help in resume preparation, identifying appropriate job opportunities, developing interview skills, and making contacts with companies on behalf of the consumer.

Job Placement Assistance
Job placement assistance is a referral to a specific job resulting in an interview, whether or not the individual obtained the job.

On-the-job Supports
Support services provided to an individual who has been placed in employment in order to stabilize the placement and enhance job retention. Such services include job coaching, follow-up and follow-along, and job retention services.

Transportation Services
Transportation, including adequate training in the use of public transportation vehicles and systems, means travel and related expenses that are necessary to enable an applicant or eligible individual to participate in a VR service. Examples of transportation services/expenses include, but are not limited to:

a) Travel and related expenses for a personal care attendant or aide if the services of that person are necessary to enable the individual to travel to participate in any VR service;

b) Relocation expenses incurred by the individual in connection with a job placement that is a significant distance from the individual's current residence;

c) The purchase and repair of vehicles, including vans, but not the modification of these vehicles; and

d) Training in the use of public transportation vehicles and systems.

Maintenance

Maintenance means monetary support provided for those expenses such as food, shelter and clothing that are in excess of the normal expenses of the individual, and that are necessitated by the individual's participation in an assessment for determining eligibility and VR needs or while receiving services under an IPE. Examples of maintenance expenses include, but are not limited to:

a) cost of uniforms or other suitable clothing required for an individual's job placement or job seeking activities;

b) cost of short-term expenses, such as food and shelter, that are required in order for an individual to participate in assessment or vocational training at a site that is not within commuting distance of an individual's home;

c) initial one-time costs, such as security deposits or charges for the initiation of utilities, that are required in order for an individual to relocate for a job placement; and

d) costs of an individual's participation in enrichment activities related to that individual's training program.

Information and Referral Services

Information and referral services are provided to individuals who need services from other agencies (through cooperative agreements) not available through the VR program.

Level of Education Attained At Closure

Record the level of education the individual had attained when the service record was closed. If an actual educational level is not documented, record an estimated level.

Use the following codes:

0 No formal schooling
1 Elementary education (grades 1-8)
2 Secondary education, no high school diploma (grades 9-12)
3 Special education certificate of completion/diploma or in attendance
4 High school graduate or equivalency certificate
5 Post-secondary education, no degree
6 Associate degree or Vocational/Technical Certificate
7 Bachelor's degree
8 Master's degree or higher

NOTE: Code 3 is intended to capture individuals whose highest level of education is special education. This includes various situations. Use code 3 "Special education certificate of completion/diploma or in attendance": 1) if the individual is currently a

special education student, 2) if the individual received special education and earned a certificate of completion or high school diploma, or 3) if the individual received special education but did not receive a certificate/diploma.

Employment Status at Closure

For an individual who achieved an employment outcome, enter the applicable one-digit code that describes the employment outcome of the individual when his or her service record was closed. Codes 1 and 3 through 7 are applicable for individuals who achieved an employment outcome (closure type 3). Code 2 applies only to an individual who received services and was placed in extended employment, which is no longer an employment outcome. Such an individual would have a closure type of 4. Use Code * for all closure types other than 3 and for closure type 4 cases not placed in extended employment. If classifying the individual into two different employment statuses from Codes 1-7 is possible, select a code designating the principal status.

1 Employment without Supports in Integrated Setting
2 Extended Employment (Applies only to closure type 4 with a reason for closure of 14.)
3 Self-employment (except BEP)
4 State Agency-managed Business Enterprise Program (BEP)
5 Homemaker
6 Unpaid Family Worker
7 Employment with Supports in Integrated Setting

1 - Employment without Supports in Integrated Setting is full-time or part-time employment in an integrated setting without ongoing support services. For purposes of this report, this is work performed for wages, salary, commissions, tips, or piece-rates, below, at, or above the minimum wage. Do not include self-employed individuals.

2 - Extended Employment refers to work for wages or salary in a non-integrated setting for a public or nonprofit organization. Such settings are variously referred to as community rehabilitation programs, or sheltered, industrial, or occupational workshops. Individuals are compensated according to the Fair Labor Standards Act and the organization provides any needed support services that enable the individual to train or prepare for competitive employment. This code applies only to an individual who received services and was placed in extended employment, which is no longer an employment outcome. The appropriate closure type for such placements is 4 with a reason for closure of 14.

3 - Self-employment (except BEP) is work for profit or fees including operating one's own business, farm, shop or office. "Self-employment" includes sharecroppers, but not wage earners on farms.

4 - State Agency-managed Business Enterprise Program (BEP) refers to Randolph-Sheppard vending facilities and other small businesses operated by individuals with significant disabilities under the management and supervision of a State VR agency. Include home industry where the work is done under the management and supervision of a State VR agency in the individual's own home or residence for wages, salary, or a piece-rate. Individuals capable of activity outside the home, as well as by homebound individuals, may engage in such employment.

5 - Homemaker refers to men and women whose activity is keeping house for persons in their households or for themselves if they live alone.

6 - Unpaid Family Worker refers to persons who work without pay on a family farm or in a family business.

7 - Employment with Supports in Integrated Setting is full-time or part-time employment in an integrated setting with ongoing support services for individuals with significant disabilities. For purposes of this report, compensation for such employment may be below, at, or above the minimum wage.

Competitive Employment

Enter a one-digit code to indicate whether the individual achieved competitive employment at the time the service record was closed. For purposes of this report, competitive employment is employment in an integrated setting, self-employment or a state-managed Business Enterprise Program (BEP) that is performed on a full-time or part-time basis for which an individual is compensated at or above the minimum wage. Minimum wage is the Federal or State minimum wage, whichever is higher.

Coding this item requires accurately applying several criteria to each individual. Specifically, item #36, type of closure, has a code of 3; item #28, employment status at closure, has a code of 1, 3, 4 or 7; the hourly wage (weekly earnings, item #30/hours worked, item #31) is at least equal to the higher of the federal or state minimum wage. Therefore, Code 1 in this item will be a subset of the total number of individuals coded 1, 3, 4 or 7 in Item #28. Use Code 0 in this item for individuals in Item #28, Codes 1, 3, 4 or 7, who did not meet the definition of competitive employment. Also use Code 0 for individuals whose service records were closed as homemakers, or unpaid family workers (Codes 5 or 6 in Item #28). Use Code * for closure types other than 3.

0 Not competitively employed
1 Competitively employed

Type of Closure

Enter a one-digit code from the following list to indicate when in the VR process an individual exited the program:

1 Exited as an applicant
2 Exited during or after a trial work experience/extended evaluation
3 Exited with an employment outcome
4 Exited without an employment outcome, after receiving services
5 Exited without an employment outcome, after a signed IPE, but before receiving services
6 Exited from an order of selection waiting list
7 Exited without an employment outcome, after eligibility, but before an IPE was signed

Counts of each code 1 through 7 must equal comparable figures reported in Section D of the agency's 4th quarter RSA-113 (Quarterly Cumulative Caseload Report). Agencies may be required to resubmit data if there are discrepancies in closure counts between these two systems.

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