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Entitled Employment specialists' competencies as predictors of employment outcomes.

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EMPLOYMENT SPECIALISTS' COMPETENCIES AS PREDICTORS OF

EMPLOYMENT OUTCOMES

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To my wonderful family and loving fiancé.

Without their love, support, and sacrifices this never would have been possible.

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ABSTRACT

Taylor, Amanda Christine. Ph.D., Purdue University, August 2010. Employment specialists' competencies as predictors of employment outcomes. Major Professor: Gary R. Bond, Ph.D.

Employment specialist competencies were examined as predictors of employment outcomes for consumers with severe mental illness participating in supported employment. Using a cross-sectional correlational design a variety of self-report and supervisor-rated performance measures were examined for their association with three consumer employment outcomes (e.g., the percentage of consumers on their caseload competitively employed, the percentage of consumers on their caseload employed 90 consecutive days, and the rate in which consumers dropped out of employment services). Six mental health agencies with a total of 57 employment specialists and 14 supervisors from across the nation participated in the study. Competitive employment rates ranged among employment specialists from 0% to 80%. Higher supervisor-rated job performance, supervisor-rated employment specialist efficacy, percentage of work time spent in the community during the past month, and number of contacts with consumers during the past month were related to improved consumer employment outcomes. However, employment specialist attitudes, knowledge of supported employment, conscientiousness, and self-efficacy were unrelated to employment outcomes. This study

is one of the first of its kind to examine employment specialist competencies as they relate to supported employment for consumers with severe mental illness. While supported employment is a great improvement over traditional vocational programs, further examination of employment specialist competencies could hold the key to unlocking employment success for many more consumers.

INTRODUCTION

Supported employment is a well established evidence-based practice that has

helped thousands of consumers with severe mental illness (SMI) obtain gainful

employment. In fact, supported employment has demonstrated through at least 14

randomized controlled trials its success in helping consumers with SMI gain employment

as compared to other approaches, such as prevocational training (Bond, Becker et al.,

2001; Bond, Drake, & Becker, 2008; Twamley, Jeste, & Lehman, 2003). As successful

as supported employment has been, many consumers remain unable to fulfill their

vocational goals with one-third or more not securing a competitive job (Bond, 2004). As

a result, researchers have focused their efforts on an examination of program and

individual client factors in an attempt to explain the varying levels of success achieved by

consumers. These efforts have illustrated that program factors, such as fidelity, and client

factors such as prior work history, and community factors, such as general unemployment

rate, account for a moderate portion of the variance in consumer outcomes, leaving one to

wonder what other factors hold the key to improved consumer outcomes. In order to

continue moving forward in helping consumers with SMI achieve the best employment

outcomes possible, research needs to explore other facets of supported employment that

hold the potential to boost consumer outcomes. Intuitively, it seems that employment

specialists would play an important role in determining the level of success consumers

have in obtaining competitive employment; however, to date there has been no research exploring the role of employment specialists' competencies and their influence on consumer outcomes. Consequently, this proposal seeks to explore this untapped area of research in an effort to determine the role employment specialists' competencies play in consumer employment outcomes.

Overview

Dismal employment rates are a chronic problem for people with severe mental illness. In fact, research has suggested that 75% to 90% of people with a severe psychiatric disability served in the mental health system in the United States are unemployed (Anthony & Blanch, 1987; Mueser, Salyers, & Mueser, 2001; National Organization on Disability, 1998; Rosenheck et al., 2006; Salkever et al., 2007) even though as many as two-thirds of unemployed consumers state a desire for competitive employment (McQuilken et al., 2003). However, as schizophrenia and other severe mental illnesses are such debilitating disorders, people with SMI often require a great deal of support to achieve their goal of competitive employment. Even though employment has been found to reduce poverty (Polak & Warner, 1996), improve functioning (Anthony, Rogers, Cohen, & Davies, 1995; Bond, Becker et al., 2001; Lehman, 1995) and improve quality of life (Arns & Linney, 1995) for people with SMI, many consumers remain unemployed.

<u>Supported Employment</u>

Over time many vocational programs have been developed in an attempt to build vocational functioning for people with SMI who lack the necessary skills to obtain gainful employment independently. Often, people with SMI struggle to achieve competitive employment, defined as work settings integrated in a community's economy, where any person can apply for the job, and paying at least minimum wage (Becker & Drake, 2003). While there have been many different approaches to vocational rehabilitation, supported employment is the only vocational model with evidence for effectiveness in helping people with psychiatric disabilities attain competitive employment. The Individual Placement and Support (IPS) model of supported employment is not considered a distinct supported employment model, but a manualized approach to evidence-based supported employment (Becker & Drake, 2003). In the most recent review of 11 randomized controlled trials of the IPS, researchers found a 38% increase in competitive employment rates for those in IPS as compared to the controls, and of those who obtained a competitive job, those in IPS obtained their first job almost 10 weeks faster than controls (Bond et al., 2008). This review also revealed that IPS participants who obtained competitive employment worked 47% of the year on average. These findings are quite remarkable given the dismal employment rates for people with severe psychiatric disorders. Beyond employment success, competitive employment associated with supported employment has also been linked to other positive outcomes such as increased pay rates for consumers (Crowther, Marshall, Bond, & Huxley, 2001; Gold et al., 2006), reduction in psychiatric symptoms (Bond, 2004; Bond, Resnick et al.,

2001), improved quality of life (Fabian, 1992), and increased self-esteem (Bond, 2004; Bond, Resnick et al., 2001). Given the wealth of empirical support for supported employment, it is considered an evidence-based practice.

Becker and Drake (2003) have outlined the IPS model of supported employment as a consumer-oriented approach consisting of eight key principles: (1) rehabilitation is considered an integral component of mental health treatment, rather than a separate service; (2) the goal of IPS is competitive employment in integrated work settings, rather than prevocational, sheltered, or segregated work experiences; (3) people with severe mental illness can obtain and succeed in competitive jobs directly, without preemployment training; (4) vocational assessment is continuous and based in competitive work experiences, rather than in artificial or sheltered settings; (5) follow-along supports continue for a time that fits the individual, rather than terminating at a set point after starting a job; (6) job finding, disclosure, and job supports are based on clients' preferences and choices rather than on providers' judgments; (7) services are provided in the community, rather than in mental health treatment or rehabilitation settings; (8) a multidisciplinary team approach, rather than parallel interventions in separate agencies or systems, promotes the integration of vocational, clinical, and support services. IPS rejects a gradual job training approach that some other vocational models endorse. Instead IPS offers rapid assistance in finding competitive jobs for persons who are motivated to work, while offering adequate ongoing support from a multidisciplinary mental health team (Becker & Drake, 2003; Bond, 1998). Additional distinctive IPS model factors include: benefits counseling; individualized job supports; attention to

consumer preferences; a recovery emphasis; continuous assessment and outcomes collected as part of an ongoing feedback mechanism; options for competitive jobs; integration with mental health; a non-exclusionary policy; focus on competitive employment; outreach; and unlimited job support (L. J. Evans & Bond, 2008). Also in contrast to other vocational models, the IPS model is exclusively vocationally focused and the vocational staff do not provide case management services (Koop et al., 2004). The employment specialists in the IPS model actively participate in decision-making in mental health case management teams (Becker & Drake, 2003) and these vocational specialists provide job development, placement, and follow-along supports to individual clients.

As successful as supported employment has been in helping consumers with SMI achieve competitive employment, not all consumers achieve their goal of employment and of those who do, many obtain jobs that end disappointingly (i.e., consumers end up quitting the job without having another job lined up or getting fired(Becker et al., 1998). Additionally, research has shown variability in the success rates of employment outcomes at both the client level (Razzano et al., 2005) and the program level (Becker, Xie, McHugo, Halliday, & Martinez, 2006; Gowdy, Carlson, & Rapp, 2004). For example, at the program level, organizational culture (Gowdy et al., 2004) and fidelity (Becker, Smith, Tanzman, Drake, & Tremblay, 2001; Becker et al., 2006; McGrew & Griss, 2005) have been shown to differentiate high and low-performing supported employment programs. At the individual level, consumers with a more recent work history (Burke-Miller et al., 2006), better self-rated functioning, and fewer negative symptoms (Razzano

et al., 2005) have been found to have better work outcomes. Consequently, a variety of factors have been examined for their potential roles in accounting for the variability in consumer employment outcomes. While there are many factors influencing why some consumers achieve better employment outcomes than others, this proposal will discuss three factors: program, individual, and practitioner, as they relate to employment outcomes for consumers with SMI participating in supported employment.

<div align="center">Program Factors</div>

Fidelity

Fidelity refers to how well a program adheres to the guidelines and standards espoused by the specified model and fidelity scales are instruments used to measure adherence to such evidence-based practice standards (Bond, Evans, Salyers, Williams, & Kim, 2000). Fidelity to the evidence-based practice, supported employment, is an important program-level factor that has been shown to explain between 22% and 58% of the variance in employment outcomes for consumers (Becker et al., 2001; Becker et al., 2006; Drake, Bond, & Rapp, 2006; McGrew & Griss, 2005). However, fidelity does not explain variance in employment outcomes within the same program (Drake, Bond et al., 2006) and although it has shown to account for a significant portion of the variance in employment outcomes in some studies, there remains a sizeable portion of the variance in employment outcomes unexplained. As a result, researchers have continued to search for

additional factors to explain the differing levels of employment success for consumers who participate in supported employment.

Organizational Culture

Organizational culture is another program-level factor thought to influence performance or work outcomes through the attitudes and values of the organizational members. Research within the context of supported employment has found systematic differences in the organizational culture between high performing (HP) and low performing (LP) supported employment programs (Gowdy, 2000; Gowdy et al., 2004). Through interviews with directors and staff, researchers found that program leaders in HP supported employment programs emphasized the belief that consumers can work and stressed the value of work in consumers' lives. Supervisors in these HP programs also worked to reinforce these beliefs by discussing employment as a way to integrate consumers into their communities, by sending staff and consumers consistent messages about the value of work and consumers' ability to work if they choose to, and by informing staff and consumers about the benefits of working. Consequently, this overall philosophy and these organizational members' values seemed to permeate the organization, creating an organizational culture which supports and promotes employment for consumers.

Consumer Factors

Throughout the years there have been a multitude of client-level factors studied for their potential role in consumer employment outcomes. For example, demographic characteristics, prior work history, cognitive functioning, diagnosis and symptoms have all received a great deal of attention (Anthony & Jansen, 1984; Anthony et al., 1995; Burke-Miller et al., 2006; J. Evans et al., 2004; Hoffmann, Kupper, Zbinden, & Hirsbrunner, 2003; MacDonald-Wilson, Rogers, & Anthony, 2001; McGurk, Mueser, Harvey, LaPuglia, & Marder, 2003; Michon, van Weeghel, Kroon, & Schene, 2005; Razzano et al., 2005; Rosenheck et al., 2006; Tsang, Lam, Ng, & Leung, 2000). While some of these individual consumer characteristics have proven to be more consistent predictors of employment, others have received mixed support. For example, demographic characteristics such as age, race, and gender have failed to consistently predict employment outcomes (Marwaha & Johnson, 2004; Michon et al., 2005) and few studies have found gender to be associated with improved employment outcomes (Beiser et al., 1994; McCreadie, 1982). Additionally, symptoms, including negative and positive symptoms, delusions, thought disorders, cognitive functioning, and bizarre behaviors have received mixed support as predictors of employment outcomes for people with SMI (Anthony & Jansen, 1984; Bell, Lysaker, Beam-Goulet, Milstein, & Lindenmayer, 1994; Coryell, Keller, Lavori, & Endicott, 1990; Lysaker & Bell, 1995; Rosenheck et al., 2006; Tsang et al., 2000). However, some of the most consistent predictors of employment functioning are prior work history and measures of work adjustment (Anthony & Jansen, 1984; Marwaha & Johnson, 2004; Tsang et al., 2000). Work adjustment measures have

indicated that consumers who have never been employed were unable to draw on relevant life experiences (Anthony & Jansen, 1984; Tsang et al., 2000). Thus providing them with fewer chances to learn about the work world and adjust to the demands of work.

In summary, individual consumer factors have received a great deal of examination for their potential role as predictors of employment for people with SMI, but account for only a small amount of the variance. While we acknowledge the importance of consumer factors, we believe it is time for additional factors beyond the individual to be examined, such as factors at the level of the employment specialist. A further investigation beyond the traditionally studied individual factors has the potential to help further explain the varying degrees of employment success for those participating in supported employment.

<div align="center">Practitioner Factors</div>

Recently, researchers have begun to recognize the importance of the role of the employment specialist in engaging and helping consumers find and maintain employment (Catty et al., 2008). Additionally, research has shown that some employment specialists help less than 25% of their clientele achieve competitive employment while others have over 75% success rates (Drake, Bond et al., 2006). By working directly with consumers, employment specialists play a prominent role in assisting consumers to obtain and maintain employment and their actions and characteristics directly impact consumer outcomes. Furthermore, practitioner *competencies* (i.e., knowledge, skills, abilities, and other personal characteristics; KSAOs) may be one way that employment specialists

influence consumer employment outcomes, as researchers have suggested that competencies are the building blocks of job performance (Marrelli, Tondora, & Hoge, 2005). Competency has been defined as a measurable capability that is required for effective performance and is thought to be comprised of knowledge, a skill or ability, a personal characteristic, or a cluster of two or more of these attributes (Marrelli et al., 2005). While it is thought that practitioner competencies likely play a role in consumer outcomes, research specifically examining employment specialists' competencies and consumer employment outcomes has yet to be conducted.

Competency

      Within the field of mental health, there is a growing interest in the development of competency-based approaches to training, assessment, and development of the workforce (Aubry, Flynn, Gerber, & Dostaler, 2005; Chinman et al., 2003; Coursey et al., 2000a, 2000b; Marrelli et al., 2005; Rubin et al., 2007; Young, Forquer, Tran, Starzynski, & Shatkin, 2000). Some have suggested that investing resources in the development and application of a competency framework is a useful approach to help improve the productivity and effectiveness of the labor force within mental health (Marrelli et al., 2005). Moreover, competency principles help dictate how providers should conduct assessments, interact, and provide treatment for the consumers they work with. As such, competencies have the potential to improve consumer outcomes through training and supervision of direct care staff, informing the design of treatment protocols/programs, and shaping provider recruitment (Young et al., 2000).

This growing interest in competency within mental health has been explored extensively in the counseling setting, from marriage and family counseling to multicultural counseling (Constantine, 2007; Foud, 2007; Nelson et al., 2007; Worthington, Soth-McNett, & Moreno, 2007), and even more broadly as competency applies to the field of psychiatric rehabilitation. For example, some have developed lists that assert the specific competencies needed to successfully work in the field of psychiatric rehabilitation (Aubry et al., 2005; Coursey et al., 2000a, 2000b; Hughes & Weinstein, 2000; Young et al., 2000). Others have developed instruments to assess these specific competencies (Casper & Oursler, 2003; Casper, Oursler, Schmidt, & Gill, 2002; Chinman et al., 2003), and some have even assessed training needs for psychiatric rehabilitation workers (Shafer, Pardee, & Stewart, 1999). However, few have actually linked these competencies to specific consumer outcomes (Casper & Oursler, 2003).

While these lists of competencies developed by Coursey et al. (2000a, 2000b), Young et al. (2000) and Aubry et al. (2005) and the assessment of training needs by Shafer (1999) are general enough to encompass a wide variety of service providers, they lack specificity for more complex and specialized roles, such as the role of an employment specialist. These guidelines do not address the specific attitudes, values, knowledge, and skills that would be needed or expected to provide exceptional employment services for consumers. Additionally, the instruments designed to assess competencies within the field of psychiatric rehabilitation are not specific to any particular domain, such as employment. Rather these instruments assess the more general knowledge, skills, attitudes and abilities that those working in the psychiatric

rehabilitation field are recommended to have. While it is possible that these more "generic" lists of identified competencies in the field of psychiatric rehabilitation could predict employment outcomes, there is some evidence to suggest more "domain specific" knowledge is linked with higher validity (Schmidt & Hunter, 1998). Moreover, it has been suggested that specific competencies will differ according to the specific needs of the individual organization and specific setting and that no one approach will fit all employers or organizations (Marrelli et al., 2005).

Within the context of employment in psychosocial rehabilitation, some have attempted to identify specific domains of vocational competency (Baron, 2000). Three broad domains -- *encouragement, assistance,* and *ongoing support* -- have been identified as competency domains that support best practices in psychosocial rehabilitation. Within these domains Baron outlined the specific sub-competencies that relate to the three overarching domains. Under the domain of encouragement, Baron outlined seven related competencies which focus on developing a working alliance with consumers and building upon consumers' interest in working. *Engagement, encouragement,* and *empowerment* are all identified as encouragement sub-competencies thought to help providers develop a positive working relationship with consumers. Also listed under the broad domain of encouragement are *educating and providing consumers with a description about the features and options within the employment programs* as well as *assessing consumers' strengths and weaknesses, providing benefits counseling*, and *helping consumers navigate the complicated vocational rehabilitation system*.

Moreover, Baron articulates eight assistance-related competencies. These assistance-related competencies for service providers include: *(1) teaching consumers job-related or interpersonal skills necessary to succeed in the workplace; (2) observing and monitoring how consumers utilize these skills while on the job; (3) working to develop job opportunities for consumers* (i.e., job development); *(4) placing consumers in appropriate job sites* (i.e., job finding); *(5) helping to negotiate reasonable accommodations; (6) assisting with transportation if necessary; (7) coordinating services;* and *(8) ensuring consumers are stable on the job.*

For the last domain of ongoing support, Baron (2000) identified six related provider competencies. This area of competencies focuses on providing support for not only the initial job, but on developing strategies and ways to help consumers maintain employment. This includes: *(1) managing crises; (2) helping consumers develop relationships with co-workers; (3) help developing natural supports in the workplace; (4) helping with changes that occur on the job; (5) job transitions and loss;* and *(6) supporting consumers to achieve vocational independence.* These recommended provider competencies are some of the early efforts of researchers to articulate vocationally specific competencies thought to lead to high quality employment services. Although these competencies were identified based on a review of the previous literature, they have yet to be empirically tested for their relationship with consumer employment outcomes.

Fabian and Coppola (2001) identify a set of core vocational competencies for psychiatric rehabilitation personnel in an attempt to promote training and education

programs for psychiatric rehabilitation staff. These researchers base their assertion of

four vocational core competencies on a review of the literature in conjunction with their

own experiences in developing and conducting training and education program for

psychiatric rehabilitation staff. These competencies outline the *knowledge required for*

career development across the lifespan, knowledge of the best methods for securing and

maintaining employment for consumers, the ability to help consumers and family

members work within the vocational rehabilitation system, an awareness of the stigma

consumers face, and *the ability to maintain a respectful and empowering attitude for*

consumers. Their emphasis on using effective job search and job development

approaches, knowledge regarding consumers' benefits, understanding the vocational

rehabilitation system, and using non-stigmatizing language are similar to other

researchers' suggested psychiatric rehabilitation provider competencies. However, these

vocational competencies differ from other stated competencies in their specification that

providers have knowledge and understanding of how factors such as age, race, culture

and gender influence employment, knowledge of career development theories, theories of

work adjustment, and knowledge of how systems changes could influence service

delivery. While the identification of these core vocational competencies is helpful in

pushing the field toward the development of specific competencies needed to help

consumers find and maintain employment, they have not been linked to vocational

outcomes.

Further work in determining competencies includes that of Danley and Mellen

(1987) who provided several lists of the attitudes, knowledge, and skills that personnel

working distinctively in supported employment programs ought to possess based on a review of the literature on supported employment and within the field of psychiatric rehabilitation, and on personal contacts with experts in the field of mental health and rehabilitation. Although not sufficient to achieve outcomes, they view the inherent set of philosophical assumptions and beliefs (i.e., attitudes) possessed by service staff as essential for influencing how, where, and when staff choose to utilize their knowledge and skills. These attitudes pertain to the consumer's support system and employer as well as the consumers they are working with and include beliefs such as all individuals with mental illness *"should have the opportunity to interact freely with non-disabled workers in the work setting,"* and those with mental illness should be given the chance to *"work in settings that are compatible with their values and strengths."* The lists of knowledge requirements they provide specify the body of information providers should possess in order to effectively manage their clients and their client's support systems. The knowledge specifications include knowing the *"requirements and values of the local business community"* and even the *"personnel policies and procedures of specific employers."* The list of identified skills for employment specialists is the most comprehensive of their stated competencies. This list identifies 14 tasks and their associated skills such as coaching which requires the *skills of acknowledging, praising, and giving feedback and conducting a job/work site analysis which involves operationalizing and determining the work requirements.* The lists of the knowledge, skills, and attitudes Danley and Mellen (1987) consider necessary to ensure effective delivery of supported employment services are some of the most specific and concrete

examples that have been identified in the vocational realm. While these lists are helpful in articulating the necessary competency components for employment specialists within the context of supported employment, they too lack empirical validation.

Even more narrowly, experts in the field of supported employment have articulated the skills and characteristics that employment specialists practicing the IPS model of supported employment should possess: *(1) the ability to establish a working alliance with consumers; (2) the knowledge and ability to assist consumers with information about their benefits and the impact of employment on their benefit; (3) the skill of assessing consumers' vocational functioning on an ongoing basis; (4) the ability to provide individualized job development; (5) job searching; (6) follow-along support; (7) education and support to employers; (8) ability to maintain consumer engagement through outreach services; (9) ability to provide integrated vocational services through participation in regular team meetings; (10) ability to develop individualized employment plans; (11) providing the majority of direct services in the community;* and *(12) the necessary knowledge to effectively provide supported education* (Becker & Drake, 2003). However, these identified skills, abilities and characteristics also await empirical validation.

Although these published studies of competencies within the field of psychiatric rehabilitation and supported employment have yet to be empirically validated, there is surprising overlap among the identified knowledge, skills, abilities, and other personal characteristics thought to ensure competent practitioners. While each study may use different terminology, the basic underlying themes are fairly synonymous throughout the

various studies. For instance, most of the aforementioned studies identified engagement, assessment, benefits counseling, job development, job placement, coordination of services, accommodation negotiation, ongoing supports, and recovery-oriented and hopeful attitudes as critical areas of employment specialists' competency. Even though we await the link to consumer outcomes, the repeated identification of these competencies by different groups of researchers suggests the field is approaching some consensus on the KSAOs thought to lead to superior employment services.

Moreover, despite the lack of empirical validation of many of the aforementioned studies, there is some support for the potential benefits of increased employment specialist competency. For example, one study found improved job performance for employment specialists who participated in training targeted at improving the knowledge and skills of service providers working with consumers with severe developmental disabilities (Van Gelder, Gold, & Schalock, 1996). This competency-based supported employment staff training model consisted of 24-30 hours of classroom-based instruction, field-based work assignments, follow-up sessions on specific topical areas identified by participants, and limited on-site programmatic technical assistance. A core job skills assessment was then made by the employment specialist's supervisor based on a three point Likert-scale six months after completion of the training. This 20-item assessment included an examination of things like conducting individual career planning, networking for job developments, developing and creating jobs based on consumer interests and skills, developing and maintaining employer relationships, and the provision of ongoing support. The results of this examination showed significant increases in

several core job skills for employment specialists who participated in the training over matched controls. This study illustrates the potential for improved consumer outcomes if employment specialists' competency can improve their job performance.

Casper and Oursler (2003) found support for the link between practitioner competency and consumer empowerment and quality of life. Using hierarchical multiple regression, these researchers found that the Psychiatric Rehabilitation Beliefs, Goals, and Practices Scale (PRBGP) which measures practitioners' knowledge of beliefs, goals and practices, predicted consumer empowerment and quality of life outcomes even after controlling for consumer age, sex, and ethnicity and practitioners' professional backgrounds (e.g., the number of years in mental health and academic degree). Although this study comes from the broader field of psychiatric rehabilitation, it does lend support to the influence of practitioner competency on consumer outcomes.

Although scarce, there have been a few studies that have specifically examined employment specialists' behaviors as they relate to consumer outcomes (Gowdy, 2000; J. E. Larson, Barr, & Kuwabara, 2007; McGurk & Mueser, 2006). For instance, a study by Larson and colleagues (2007) found evidence linking specific employment specialists' behaviors to consumer outcomes. Their study examined the impact of IPS augmented with Motivational Interviewing on process and outcome variables. These researchers found that the number of job interviews conducted and number of job offers received were both positively associated with the number of job leads from employment specialists and consumers telephoning employers. Consequently, consumers using job

leads from employment specialists to call employers resulted in more job interviews and job offers for consumers (J. E. Larson et al., 2007).

Another study examining employment specialist behavior was conducted by McGurk and Mueser (2006). This study investigated the strategies that employment specialists used to help consumers in supported employment cope with cognitive impairments as well as how effective they believed the identified strategies were. These researchers discovered that the number of coping strategies used by employment specialists was correlated with perceived effectiveness of the strategies and the percentage of clients on their caseloads who were working, even after controlling for the employment specialists' education levels. This study suggests that employment specialists' strategies for helping consumers cope with cognitive impairments was effective in helping consumers obtain competitive employment.

As mentioned previously, research by Gowdy (2000) has also examined supported employment providers' behaviors as part of a study investigating the differences among five high-performing (HP) and four low-performing (LP) supported employment programs. One of the findings from this study revealed that certain attitudes and supported employment provider practices systematically differentiate between HP and LP supported employment programs. Some of the positive supported employment workers' behaviors found in the HP programs but not in the LP programs were regular meetings between supported employment workers and case managers in group supervision or team meetings, frequent contact with vocational rehabilitation staff, and an excellent, good or improving relationship with vocational rehabilitation.

Critical Competencies of Employment Specialists

In the process of outlining job descriptions, training, and personnel issues, experts have articulated the specific responsibilities and required duties for employment specialists (Becker & Drake, 2003; Danley & Mellen, 1987; Swanson, Becker, Drake, & Merrens, 2007). These identified responsibilities require employment specialists to possess certain skills and abilities, knowledge of key employment aspects, and an overall recovery focused attitude to help them deliver successful employment services to consumers. Outlined below are the recommended employment specialists' KSAOs suggested by supported employment experts.

Knowledge

Employment specialists working within supported employment should be knowledgeable in many areas of employment, beginning with efforts aimed at engaging consumers and continuing throughout consumers' job tenures. Crucial to all aspects of supported employment is a sound working knowledge of the principles of IPS. These principles act as a guide, underlying employment specialists' actions and attitudes throughout every phase of the vocational model. As outlined previously, the IPS model endorses a rapid job search over extensive prevocational training; a focus on individualized, competitive employment rather than volunteer jobs, sheltered work, transitional employment, or work enclaves; time unlimited follow-along supports that do not end when the consumer obtains a job; employment services integrated with mental health services; and zero exclusion criteria. In order to act in accordance with the

evidence-based practice of supported employment and to provide the most optimal employment services, employment specialists must utilize the IPS principles to tailor their services. Employment specialists who fully understand and endorse the IPS principles are likely to see greater vocational success for consumers.

Beginning with the first phase of supported employment, known as engagement, employment specialists need to know the eligibility requirements for supported employment as well as the referral process so that they can educate others on how to make referrals to the supported employment program (Becker & Drake, 2003). While the guidelines for consumer eligibility in the IPS program are inclusionary rather than exclusionary, consumers with severe disabilities, co-occurring substance abuse disorders, legal problems or poor work histories may be pre-screened by unknowledgeable staff, thus excluding consumers who could likely benefit from the supported employment program. Consequently, in order to improve the referral base, employment specialists should seek to advertise and inform as many people as possible about the supported employment program and how the program works.

Moreover, employment specialists working within the IPS model should have knowledge of the major mental illnesses including: (1) psychotic disorders of schizophrenia and schizoaffective disorder; (2) mood disorders of recurring major depression and bipolar disorder; (3) severe personality disorders, such as borderline personality disorder; (4) anxiety disorders of obsessive compulsive disorder and posttraumatic stress disorder; and (5) alcohol and drug use disorders (Becker & Drake, 2003). Specifically, employment specialists should have a good understanding of the

corresponding psychiatric symptoms that occur with these disorders, medications used to treat these disorders and their side effects, and various coping strategies used to deal with the symptoms and side effects of medications. A sound understanding of these factors can allow employment specialists to help consumers identify work settings and situations that are not likely to exacerbate their symptoms and allow employment specialists to provide educational support to employers should consumers develop any problems related to their illness.

Furthermore, one of the most important knowledge domains for employment specialists to be well-versed in is the area of disability benefits (Becker & Drake, 2003; Swanson et al., 2007). Consumer benefits such as Medicaid/Medicare, Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), and Section 8 housing among others, are all subject to a consumer's employment status and earned income. Consumers may be reluctant to engage in employment services at all if they fear they will lose their benefits. An employment specialist is likely to engage more consumers into supported employment services if they have a good working knowledge of these benefits and can help consumers determine how their benefits may be affected by employment. Employment specialists should be equipped to write out examples of how different hourly wages and different amounts of time will influence consumer benefits in order to help consumers make informed decisions about how much they want to work (Becker & Drake, 2003).

The employment specialist role also includes gathering information about the individual consumer's strengths, interests, past experiences, goals, coping strategies,

symptoms, treatment and concerns regarding employment, with a focus on developing a vocational profile and employment plan during the assessment phase. In order for employment specialists to conduct a well-informed vocational assessment they must first have knowledge of the necessary components of the vocational profile in order to ask the appropriate questions. This assessment process is considered ongoing as consumers change and their employment situation, needs, and desires change over time (Becker & Drake, 2003; Swanson et al., 2007).

Additional knowledge of incentives for employers to hire is also helpful when working to educate employers about the benefits of an supported employment program and its clientele. For example, some employers are able to write off employee wages if the employee has a disability and is hired permanently using the work opportunities tax credit (Becker & Drake, 2003). Employment specialists who come armed with knowledge of these types of incentives are likely to have more luck establishing relationships and connections with local employers.

Skills/Abilities

Employment specialists should also to possess certain skills and abilities in order to provide employment services in accordance with evidence-based practices. For example, employment specialists need to foster a strong working alliance with consumers to help them feel comfortable, welcomed, and earn their trust so that they can begin to collaborate on the consumer's goals (Becker & Drake, 2003; Swanson et al., 2007). Conducting a strengths assessment, using motivational interviewing, and making positive

statements about the person are all useful in helping to create this positive relationship with consumers (Becker & Drake, 2003). The maintenance of this working alliance is key to helping consumers maintain their engagement in supported employment (Becker & Drake, 2003; Swanson et al., 2007).

In addition, if a consumer disengages from employment services or misses appointments, the employment specialist will work collaboratively with the team to try to figure out why the consumer is disengaging. Employment specialists may need to be persistent and develop an outreach plan that includes making phone calls, making visits to the consumer's home, coordinating with other team member appointments, contacting friends or family members if the consumer has given permission, and sending letters (Swanson et al., 2007). Moreover, when contact with the consumer does occur, the employment specialist needs to maintain a hopeful attitude and express their pleasure at seeing the client rather than showing frustration at the missed appointments (Swanson et al., 2007).

Furthermore, possession of good interviewing skills (e.g., active listening, asking open-ended questions, reflecting back, re-framing, and emphasizing strengths) is key to helping employment specialists gather the necessary information needed to create an individualized vocational profile and employment plan while at the same time continuing to strengthen the working alliance (Becker & Drake, 2003; Swanson et al., 2007). Conducting this individualized assessment is critical to helping match consumers to their desired job, ensuring consumers are satisfied with their job, determining whether or not consumers wish to disclose their mental illness to employers and to what extent, and

whether or not they would like to include a friend or family member in their employment plan as a part of their support team. For instance, when consumers are matched to jobs within their preferences they end up more satisfied and their job tenure is twice as long as compared to consumers who have jobs inconsistent with their preferences (Becker, Drake, Farabaugh, & Bond, 1996).

After gathering the necessary information and creating the vocational profile, employment specialists use this information to develop an individualized employment plan. The employment plan lays out the consumer's goals, the steps needed to achieve the goals, the person responsible for each step, and the timing of each step (Becker & Drake, 2003). Although the format of the employment plan will vary from agency to agency, it typically consists of a statement of the consumer's vocational goals, a list of behavioral objectives, the specific names of the people and services and supports that will assist the client in achieving these objectives, and then the plan is signed and dated by the consumer, employment specialist, case manager, psychiatrist and any others that are involved in the employment plan. (Becker & Drake, 2003).

After gathering the necessary information and developing an individualized vocational profile and employment plan, employment specialists are in a good position to help consumers construct a well-polished résumé. Résumé writing can be difficult for consumers who have been out of work for a significant period of time or who have large gaps in their employment history. Employment specialists should be knowledgeable about what employers are looking for in a résumé as well as skilled in playing up consumers' strengths and abilities when constructing a résumé.

Interview preparation is another key aspect required of employment specialists. They should be good teachers who can help consumers gain the right interviewing skills before they meet with an employer. Examples of interview preparation techniques include role playing, conducting mock interviews, picking out the proper attire, and rehearsing answers to difficult interview questions, among others (Becker, Bond, Mueser, & Torrey, 2003). Interview preparation can help consumers feel more confident and help present themselves in the best light possible.

It is also strongly recommended that employment specialists spend a significant amount of time developing jobs by spending time in the community establishing partnerships with local businesses (Baker, Becker, Drake, Lynde, & Oulvey, 2007; Becker & Drake, 2003; Swanson et al., 2007). Employment specialists are also advised to spend time tapping into additional resources such as the mental health agency's board of directors and their networks and contacts, the Chamber of Commerce, Rotary Club, other business and community service groups, and even job fairs. This requires the employment specialist to: (1) have good organizational and preparatory skills so that they can call employers and contacts ahead of time to arrange appointments to meet with them; (2) investigate the business or group before they meet with them; (3) have specific consumers in mind in case the employer is ready to hire someone soon; (4) possess a sound knowledge of the workings of the supported employment program in order to provide contacts and employers with information about how the program operates; (5) promote the benefits of the supported employment program; (6) have superior interpersonal skills to establish strong working alliances with community partners; and

(7) good interviewing skills to determine what employers want, what their needs are, and what their concerns are (Baker et al., 2007).

Not only are open and positive working relationships with consumers invaluable to the employment specialists, but also to employers. Strong working alliances with employers can help employment specialists place more consumers in desired locations and help keep the lines of communication open so that employment specialists are notified and available to facilitate problem-solving when difficulties arise for consumers. As a result, consumers should benefit from employment specialists who are devoted to the job development phase due to the potential for increased job possibilities and longer job tenures.

Employment specialists must use the individualized vocational profile and employment plan as their roadmap when working to place a consumer in a particular job that is a good fit for the consumer's strengths, abilities, experiences, and interests. Consideration of job setting factors will also help employment specialists find the right employment fit for consumers. Employment specialists must consider factors such as: (1) co-workers, the number of co-workers and location to one another, whether the consumer will be required to interact with others; (2) supervision, the nature of the supervision, how much and how often, the gender of the supervisor, and personality style of the supervisor; (3) the work environment, the setting of the work environment (e.g., inside/outside, noisy/quiet, crowded/isolated), the types of job stress workers may experience there; (4) wages, the pay rate and pay schedule, and the affect on benefits; and

finally (5) transportation, whether it is necessary, the options, availability during the consumer's work schedule, and the safety of the route (Swanson et al., 2007).

A job/work-site analysis is also important when employment specialists are considering whether or not the consumer and a potential job are a good match (Danley & Mellen, 1987; Swanson et al., 2007). This involves determining the work requirements (e.g., physical demands, cognitive requirements, technical skills, social interactions) and operationalizing these requirements in relation to the consumer's disability (Becker & Drake, 2003; Danley & Mellen, 1987; Swanson et al., 2007). Sometimes it is helpful for a consumer or employment specialist to shadow another employee so they can see first-hand what a typical day is like for someone in a specific position.

After conducting the job analysis the employment specialist may determine that the consumer is a good match for the job, but may need some accommodations. Here it is important that employment specialists have the proper knowledge of the Americans with Disabilities Act (ADA) which requires employers with more than 15 employees to make reasonable accommodations to employ people who would otherwise be qualified for the job (Becker & Drake, 2003). Employment specialists should be creative and capable of negotiating reasonable accommodations for consumers so that both the employer and the consumer are satisfied.

Employment specialists working within the IPS model of supported employment also understand that getting a job is only a piece of the larger puzzle. Consequently, they strive to develop individualized plans to help consumers maintain their job once they've achieved employment. These follow-along supports are tailored to the needs of the

individual consumer and are provided on an ongoing and as needed basis (Becker &

Drake, 2003). The work within the multi-disciplinary team is important as other team

members can offer knowledge and suggestions for problems within their area of

expertise. Employment specialists are always there to assist consumers when difficulties

on the job arise, but are also working toward helping consumers achieve as much

independence as possible. This may include the development natural supports such as,

friends, family members, co-workers, or other community members. Other examples of

support may include negotiating accommodations or re-negotiating if they were

implemented previously, social skills training, adjusting medications, counseling to

address work-related issues, dual diagnosis treatment, money management, ongoing

benefits counseling (as benefits may change over time as will the number of hours

consumers work and their rate of pay), assistance with transportation, and leisure

activities (Becker & Drake, 2003). Keeping in regular contact with employers allows

employment specialists to ensure that consumers are fitting in well and things are

developing smoothly. This helps keep the lines of communication between employers

and the employment specialist open and prevents the employer from feeling abandoned

once they have hired a consumer. Moreover, if the employment specialist keeps in

frequent contact with employers they can continue to develop their relationship which

could lead to further job opportunities.

    Another important aspect of this maintenance phase is to help consumers make

the transition when they decide to switch jobs, move up, quit a job they do not like, get

laid off, or get fired. These transitions are not always negative experiences, as some

consumers may choose a job as an intermediate step towards achieving a different, long-term career-oriented goal. Whether moving up or getting fired, transitions are a stressful time and employment specialists need to be available to help consumers navigate their next steps. Employment specialists need to able to help frame the experience in a positive manner and help consumers reflect on what they have learned and gained from each particular job. Here the employment specialist and team members will help the consumer identify what aspects of the work experience they liked and what went well in addition to determining what aspects were not as enjoyable and what the consumer wants in the future (Becker & Drake, 2003). The employment specialist is also available to help consumers find a new job if they decide they would like to look for another job, or help them pursue educational opportunities if they so choose. Here the employment specialist and consumer can build on their previous experiences and use this knowledge to help secure another, potentially more suitable, job or obtain access to the education the consumer desires.

Other Personal Characteristics

In order to provide optimal services, employment specialists must first have the attitudes that any consumer can work and that consumers should have the opportunity to work in integrated settings in the community (Becker & Drake, 2003; Danley & Mellen, 1987). These recovery-focused attitudes are necessary for employment specialists to reach out to potential consumers and engage them in supported employment services as well as to reinforce and motivate employment specialists' efforts to help consumers find

employment. Without this type of positive attitude it is difficult to envision much success for employment specialists.

Employment specialists may also benefit from being creative thinkers and good problem-solvers. These personal characteristics have the potential to assist employment specialists in helping consumers find ways to overcome obstacles. An employment specialist who is a creative thinker and good problem-solver has the potential to help more consumers find and maintain jobs congruent with their needs and desires.

As one can see the role of the employment specialist is complex and varying, depending on the individual needs of each consumer and what vocational stage they are in and there are numerous different skills employment specialists must possess in order to deliver exceptional employment services. In addition, employment specialists must have knowledge of specific employment aspects while at the same time maintaining an overall hopeful, recovery-oriented attitude. These outlined KSAOs are thought to be the components necessary for employment specialists to provide superior vocational services for consumers.

Present Study

Methodological Strategies

Assessing employee competency is of key importance to nearly every employer. Most often these measurements are used for promoting employees, identifying areas of deficiency, assessing training needs, or even to adopt personnel selection procedures.

Some of the more traditional methods of assessing employee KSAOs have been through

supervisor ratings, peer ratings, measurements of quantity/quality of output, or even work

sample tests. However, many of these assessment strategies come with high response

burdens, expensive costs, or excessive time demands, further contributing to the lack of

formal data in the area of supported employment. As noted earlier, the field of

psychiatric rehabilitation has developed broad inventories to measure practitioner

competency, but with the exception of a few burgeoning efforts (Dreher, Bond, &

Becker, 2010; J. E. Larson et al., 2007; McGurk & Mueser, 2006) none have been

specifically designed with the intent of measuring employment specialists' KSAOs.

While these aforementioned studies aimed at measuring some aspects of employment

specialists' KSAOs are promising, the field is far from having a clear understanding of

the impact of employment specialists' competencies on consumer employment outcomes.

Methodological Pragmatism

We hypothesize that the complexity of measuring employment specialists'

competencies combined with time and resource constraints has likely contributed to the

limited research in this area. Adding to this complexity is the fact that employment

specialists are nested within each agency, and within different teams (see Figure 3).

Thus, trying to parcel out the unique contributions of each employment specialist can be

difficult. Moreover, how to best measure employment specialists' competencies poses a

problem. While knowledge and attitudes can be captured more easily using self-report

surveys and measures, assessing employment specialists' skills poses more of a

challenge. One option is to use observational methods to assess skills. However, direct observation can be time consuming, labor intensive, costly, and not to mention intrusive to those who are being observed. Determining the frequency of observations, the duration, the level of detail the observer is required to capture, and observer error are all additional problems researchers face when using observational methods. Moreover, observer(s) could even interfere with employers' level of comfort when meeting with the employment specialist.

Due to the complexity of measuring and assessing practitioner competencies, we had to utilize more rudimentary methods to assess employment specialists' competencies. This study utilized behavioral process measures as indicators of employment specialist job performance in conjunction with measures of supported employment knowledge, optimism, conscientiousness, and self-efficacy. Supervisor-rated job performance evaluations of employment specialists and employment specialist efficacy were also utilized as predictors of employment outcomes. The behavioral indicators of job performance allowed us to capture specific employment specialists' behaviors quantitatively and to test whether these are related to specific consumer outcomes. For example, we measured employment specialists' percentage of time spent in the community, the number of contacts the employment specialist has with employers (phone and face-to-face), and number of contacts the employment specialist has with consumers (phone and face-to-face) as behavioral indicators of employment specialists' job performance. One of these behavioral indicators is captured routinely through agency progress/contact notes (e.g., employment specialists' percentage of time spent in the

community) and the others can be collected through self-report. These proxies allowed us to measure employment specialists' behaviors in a fairly quick, unobtrusive and inexpensive manner, thus circumventing the typical research constraints.

In sum, this study drew upon previous research in an attempt to highlight employment specialists' competencies as they relate specifically to the supported employment context. Then we examined the influence of these competencies on consumer employment outcomes. Specifically, this cross-sectional, correlational study investigated how employment specialist competencies influence employment outcomes for consumers with SMI participating in supported employment. We utilized several measures in an effort to examine employment specialists' competencies hypothesized to play a role in consumer employment outcomes. With feasibility and ease of data collection in mind, we capitalized on previous efforts and made use of measures with minimal response demands, costs, and time constraints as will be outlined in the methods.

We hypothesized that higher levels of employment specialist knowledge, skills, abilities, and other personal characteristics would be associated with better employment outcomes. We hypothesized that higher levels of employment specialist optimism, conscientiousness, efficacy (self-rated and supervisor rated), knowledge regarding supported employment, and supervisor-rated job evaluations would be associated with better employment outcomes and lower dropout rates. Although we speculated that all of these factors play a role in consumer employment outcomes and their level of engagement and satisfaction, we recognized that these are only pieces of a larger puzzle (see Figure 1).

<u>Primary Hypotheses</u>

Hypothesis 1: Employment specialists with more optimistic attitudes towards consumers will have consumer caseloads with more positive consumer employment outcomes.

Hypothesis 2: Greater employment specialist knowledge will be positively associated with improved consumer employment outcomes.

Hypothesis 3: Higher levels of employment specialist job development and support behaviors will be positively associated with improved consumer employment outcomes.

Hypothesis 4: Higher supervisor-rated job performance evaluations of employment specialists will be positively associated with improved consumer employment outcomes.

Hypothesis 5: Higher employment specialist self-efficacy will be positively associated with improved consumer employer outcomes.

Hypothesis 6: Higher employment specialist conscientiousness will be positively associated with improved consumer employer outcomes.

Hypothesis 7: Higher supervisor-rated job efficacy of employment specialists will be positively associated with improved consumer employment outcomes.

<u>Secondary Hypotheses</u>

Hypothesis 8: Higher program fidelity will be positively associated with improved consumer employment outcomes.

Hypothesis 9: Smaller caseloads will be associated with more positive employment outcomes.

Hypothesis10: Employment specialist caseload mix will not be associated with consumer employment outcomes.

Hypothesis 11: Employment specialists with more education will have consumer

caseloads with more positive employment outcomes.

Hypothesis 12: Employment specialists with more experience will have consumer

caseloads with more positive employment outcomes.

Hypothesis 13: High fidelity programs will be associated with employment specialists

who score higher on performance indicators.

METHODS

Design

This observational study used a one-time, cross-sectional, correlational design to examine the relationship between employment specialist competencies and employment outcomes for consumers with SMI participating in supported employment.

Sampling

Sampling Inclusion Criteria

Employment specialists who had worked in their current position for at least three months and who had completed all of the mandatory trainings for their respective mental health agency were eligible for the study.

Recruitment

Our recruitment began at the agency level. Specifically, we were looking for high fidelity evidence-based supported employment sites. We looked for collaboration with a network of sites, such as a statewide dissemination of supported employment, and the Johnson & Johnson (J & J)-Dartmouth Community Mental Health Program. The J & J-Dartmouth project consists of a private-public-academic collaboration across ten states

and the District of Columbia (Dartmouth Psychiatric Research Center, 2008). This program is designed to encourage more collaboration between state departments of mental health and vocational rehabilitation in providing evidence-based supported employment services for people with psychiatric disabilities (Drake, Becker, Goldman, & Martinez, 2006) and had previously participated in one other graduate student study (Dreher et al., 2010). Agency level commitment was vital in helping to ensure this study received full participation from employment specialists and their supervisors.

We went through several chains of communication to recruit study sites (see Figure 2). First, we had conversations with directors of vocational services to inform them about the study and enlist their participation. When a vocational director agreed to commit to the study, we then began conversations with team leaders to inform them about the study and study requirements. Once we identified teams that served primarily consumers with SMI, we contacted team leaders to identify eligible employment specialists. Survey letters were emailed to employment specialists and their supervisors to help engage them in the study and inform them of their participation requirements (see Appendix A and B).

We also agreed to provide each agency with feedback about their employment services as an incentive to engage agencies. When feasible, we tailored feedback to specific requests from each site. For example, if sites articulated specific areas in which they would like targeted feedback, we attempted to accommodate these requests. In addition to tailored feedback, we offered to provide sites with normative data on the total sample's performance on the various indicators as well as site specific data so that they could compare their data to the total sample on specified indicators. After holding these

initial conversations with contacts at each site, we began developing plans for introducing

the study to the employment specialists and their supervisors.

Sample

Site Level

We contacted eight sites from the network of J & J-Dartmouth sites, and seven

sites agreed to participate. However, one of the seven sites was excluded due to lengthy

IRB requirements and time constraints. Therefore, six sites total from across the United

States participated in the study.

Team Level

In the preliminary conversations with team leaders and vocational directors we

inquired about the consumer characteristics that each team served to determine which

teams were appropriate for inclusion in the study. We indicated in these conversations

that we were interested in teams that served primarily people with SMI. We sought to

recruit teams where at least 70% of the team's caseload was SMI consumers. Non-SMI

consumers included welfare consumers, consumers with substance abuse as a primary

diagnosis and no psychiatric diagnosis, transition-aged youth without a psychiatric

diagnosis and other disability groups.

Employment Specialist Level

Fifty-seven employment specialists who met the study inclusion criteria completed the study.

<u>Supervisor Level</u>

Fourteen supervisors from the various six sites completed surveys for employment specialists on their respective teams.

In summary, the sample consisted of 57 employment specialists, along with ratings from 14 supervisors, in six high fidelity IPS sites in the J&J network.

Procedures

<u>Data Collection</u>

Objective data pertaining to the process variables and the main dependent variables, employment outcomes, were collected through the use of electronic records and employment specialist self-report measures, which were made available online thru SurveyMonkey, a web-based survey tool. The surveys were designed so that employment specialists and their supervisors could complete the measures during one online session, lasting anywhere from 25 minutes to 45 minutes. Data pertaining to the predictor variables related to employment specialists' competencies were collected through online participant surveys completed by employment specialists and their supervisors.

An email was sent to employment specialists and their supervisors containing a hyperlink so that participants were able to click on the link and be taken to the login page. Once at the login page, participants were invited to give consent to participate in the

study and proceed from there. The consent form informed participants about the study purpose, the number of people participating in the research, the study procedures, risks and benefits, alternatives to participating in the study, confidentiality, costs and compensation, and contacts for questions or problems. Respondents who agreed to participate in the study had to click "I agree to participate" in order to proceed to the surveys. If they did not agree to the informed consent, they were not able to proceed to the surveys.

Employment Specialists

Employment specialists who consented to be in the study first answered questions pertaining to their background by clicking on the bubble next to the choice that best described him/her. These demographics included items such as: age, gender, number of years of provider experience, number of months at their current position, educational background, and caseload size (see Appendix C). Next, employment specialists answered questions pertaining to their beliefs regarding the consumers they work with using the Employment Specialist Attitudes Scale (see Appendix D). Then, employment specialists filled out two short measures assessing their level of self-efficacy (see Appendix E) and conscientiousness (see Appendix F). This was followed by the Individual Placement and Support Quiz (IPS-Q; see Appendix G), and then the brief Employment Process Measure (see Appendix H). Some sites were able to collect employment specialists' work-related behaviors (see Appendix H) and/or consumer caseload demographics (see Appendix I) using their electronic records while other sites had to rely on employment specialist self-

report for these data (see Tables 1-2). Participants were given the option to exit the survey at any time, without penalty.

Employment Specialists' Supervisors

Employment specialists' supervisors who agreed to participate in the survey first filled out the Kansas Employment Specialist Job Performance Evaluation (see Appendix J) for each employment specialist they supervised. They then completed a brief efficacy measure (see Appendix K) for each employment specialist they supervised which paralleled the one completed by employment specialists. Both surveys were completed online through SurveyMonkey.

Potential participants who did not respond to the first email invitation were sent a reminder email within 10 days of the initial invitation. All participants completed the surveys within this time frame.

Employment specialists and employment specialists' supervisors were asked to enter their names electronically for the forms they completed. Their names were only used to link employment specialists' data with respective consumer and supervisor data. Only the researchers had access to any individually identifying information. Any data presented as feedback to the agency were aggregated to help protect individual employment specialists' confidentiality. In addition, the project coordinator's email and phone number were made available to all employment specialists and supervisors to field study-related questions.

Fidelity

We also obtained fidelity to the IPS model of supported employment, using assessments that were collected as part of routine program evaluation at the participating sites.

Community Characteristics

Community characteristics such as regional unemployment rate and community size were obtained online from the U.S. Department of Labor (http://www.bls.gov/) and the most recent U.S. Census (http://www.census.gov/).

Measures

Predictor Variables

We utilized several measures to assess employment specialists' competencies and to characterize the programs and the agency communities (see Table 3).

Employment Specialist Attitudes Scale

The Clinician Optimism Scale (Fiorentine & Grusky, 1990) was adapted for the purposes of this study. The original scale consisted of seven items that assess the degree to which practitioners believe their clients will improve and live independently. This study utilized the original seven items with the addition of several items to help increase the scales' relevance to the supported employment context (see Appendix D). Each item asks the employment specialist to rate their opinions and expectations of the clients

whom they treat on a 5-point Likert scale (1 = almost all and 5 = none) with a range of possible scores from 16 to 80. The original scale has been found to have moderate to high reliability (internal consistency = .58 to .83) (Fiorentine & Grusky, 1990; Salyers, Tsai, & Stultz, 2007), significant positive correlations with other scales of assessing individual optimism and pessimism and agency level of recovery orientation (.21 and .39 respectively; (Salyers et al., 2007), and significant positive correlations with practitioner competency scales (Chinman et al., 2003). Internal consistency of the adapted scale used in the current study was also high (Cronbach's alpha = .92).

<center>Employment Specialist Self-efficacy Scale (Self-Rated)</center>

The Employment Specialist Self-efficacy Scale is a brief 10-item scale developed for this study to assess employment specialists' level of self-efficacy regarding 10 important areas of supported employment (see Appendix E). Each item asks the employment specialist to rate their belief in their ability to perform the stated function based on a 5-point Likert scale (1 = not at all confident and 5 = highly confident) with a range of possible scores from 10 to 50. Internal consistency for this scale was moderate (Cronbach's alpha = .78).

<center>IPIP Conscientiousness Scale</center>

The IPIP Conscientiousness Scale (see Appendix F) is a subscale designed to measure conscientiousness created through the use of 10 items of the International Personality Item Pool (IPIP) (Goldberg, 1999; Goldberg et al., 2006). These 10 items were developed to measure the same conscientiousness construct as the conscientiousness

subscale of the NEO Personality Inventory (PI)-Revised (R) developed by Costa and

McCrae (1992). Participants are asked to rate the 10 items on a 5-point Likert scale (1 =

very inaccurate and 5 = very accurate) with a range of possible scores from 10 to 50. In a

comparison of the 30 facet scales of the NEO-PI-R and the corresponding 30 preliminary

IPIP scales, Goldberg et al. (1999) found good internal consistency for the IPIP scale

(alpha = .80) and a strong correlation with the NEO-PI-R scale (r = .73), based on a

community sample of 501 adult subjects. More specifically, the 10 item IPIP

conscientiousness subscale was found to have a high internal consistency as well

(Cronbach's alpha = .81). Internal consistency for the IPIP scale in the current study was

similar to the published research (alpha = .76).

<div align="center">Individual Placement and Support Quiz (IPS-Q)</div>

The IPS-Q is a 30 item, multiple-choice quiz used to measure employment

specialists' knowledge regarding the IPS model of supported employment (Dreher et al.,

2010). In a sample of 182 employment specialists, this measure demonstrated good

construct validity by discriminating between employment specialists working in a

supported employment setting and those in a non-supported employment setting (t(180) =

11.9, p < .001) as well as high internal consistency (Cronbach's alpha = .90). Internal

consistency for the IPS-Q in the current study was moderate (Cronbach's alpha = .76).

Employment specialists in the current study (M = 23.58, SD = 4.05) also scored similarly

to employment specialists in IPS programs in the previous study (M = 23.40, SD = 4.68).

Employment Process Measure

The Employment Process Measure developed for this study is a 6-item self-report questionnaire that asks about employment specialists' behaviors and performance (see Appendix H). The items inquire about the number of contacts the employment specialist has with employers (phone and face-to-face), the number of contacts the employment specialist has with consumers (phone and face-to-face) over the period of the last month, and the percentage of time an employment specialist has spent in the community during the past month.

Consumer Caseload Demographics Measure

The Consumer Caseload Demographics Measure is an 11-item measure developed for this study that measures consumer demographics and characteristics and consumers' employment status. The data necessary to complete this measure were obtained through electronic records or employment specialist self-report (see Appendix I). As part of this measure, demographics for consumers (age, race, sex, marital status, educational level, psychiatric diagnosis, homelessness, hospitalizations, substance abuse diagnosis, and criminal justice involvement) were also obtained and coded as the caseload mix for each employment specialist (see Table 4).

Kansas Employment Specialist Job Performance Evaluation (Supervisor-Rated)

The Kansas Employment Specialist Job Performance Evaluation (KES-JPE) was developed in the state of Kansas (Carlson, 2008) as a practical tool used by supervisors to evaluate the competency of their employment specialists (see Appendix J). The KES-

JPE consists of 19 items closely aligned with the supported employment Fidelity Scale. Items are rated on a 5-point behaviorally anchored format, ranging from 1 = unsatisfactory performance to 5 = exceptional performance with a range of possible scores from 49 to 245. Currently this tool is being piloted among supervisors in Kansas, but no psychometric data on the scale were available prior to the current study. Internal consistency for this scale in the current study was very high (Cronbach's alpha = .98).

Employment Specialist Efficacy Scale (Supervisor-Rated)

The Employment Specialist Efficacy Scale (Supervisor-Rated; see Appendix K) is a parallel scale to the Employment Specialist Self-efficacy Scale. This scale was developed for this study and consists of the same 10 items as the self-report scale, but is instead rated by the employment specialists' supervisors. Each item asks the employment specialist's supervisor to rate their belief in the ability of the identified employment specialist to perform a certain stated function. Items are rated on a 5-point Likert scale (1 = not at all confident and 5 = highly confident) with a range of possible scores from 10 to 50. Internal consistency for this scale in the current study was high (Cronbach's alpha = .92).

Supported Employment Fidelity Scale

The Supported Employment Fidelity Scale is a 15-item scale that assesses the critical components of supported employment to differentiate between programs that follow the model and those that do not (Becker, Swanson, Bond, & Merrens, 2008). This scale measures three main areas of staffing, organization, and services and was used to

measure how well the employment program(s) adhere to the principles of supported employment. Each item is rated on a 5-point behaviorally anchored format, ranging from 1 = no implementation to 5 = full implementation. This scale has shown to have satisfactory inter-rater reliability (mean intraclass correlation = .90 for the total scale), good internal consistency (Cronbach's alpha = .92), construct validity, discriminating between programs adhering to evidence-based supported employment and other vocational models (Bond, Becker, Drake, & Volger, 1997), and good predictive validity with fidelity accounting for 22%-58% of the variability in competitive employment rates (Becker et al., 2001; Becker et al., 2006; McGrew & Griss, 2005). Fidelity was either collected by the agency as part of their own routine program evaluation, by independent assessors contracted by the state mental health authority, or by a quality improvement team conducting the assessment as part of a research project.

Fidelity to the supported employment model was originally intended to be included as a confound and as a secondary hypotheses. However, three reasons led to the decision not to include it as a predictor: 1) the fidelity assessments were not contemporaneous with the assessment of employment specialists. The time lag between the collection of outcome variables and fidelity ratings was up to six months; 2) One site included employment specialists from different IPS programs in different parts of the city, and there was variability in fidelity across these programs; 3) There was a restriction in range in the fidelity ratings (scores in this sample ranged from 67 to 70). The range of possible scores is from 15 to 75.

<center>Outcome Variables</center>

Three outcome measures were collected to assess the relationship between employment specialists' competencies and their level of success in helping consumers obtain competitive employment (see Table 3). Although we collected three different outcome variables, the primary outcome of interest was the competitive employment rate for employment specialists. These employment outcomes were collected through electronic records or employment specialist self-report using the Consumer Caseload Demographics Measure and the Employment Process Measure, which was made available online through the use of SurveyMonkey. We limited assessment of outcomes to consumers who had been enrolled in supported employment for at least the past three months as it was assumed to be unrealistic to expect clients newly enrolled in IPS to have a high rate of competitive employment.

<center>Competitive Employment Rate</center>

An index for employment specialists' competitive employment rate was assessed by taking the number of consumers on an employment specialists' caseload who were currently employed and dividing it by employment specialist's total "eligible" caseload size (total number of consumers assigned to their caseload for a minimum of three months). This number was then multiplied by 100 to obtain a percentage of success. These data were collected through electronic records or employment specialist self-report using the Consumer Caseload Demographics Measure.

90-Day Employment Rate

An additional index for employment specialists' job placement success rate was calculated as the number of consumers on an employment specialist's caseload who had worked for at least 90 consecutive days in competitive employment and dividing it by employment specialist's total "eligible" caseload size (total number of consumers assigned to their caseload for a minimum of three months). This number was then multiplied by 100 to obtain a percentage of consumers who had been employed 90 days.

Dropout Rate

Dropout rate was calculated by taking the number of consumers on an employment specialists' caseload who were formally enrolled in vocational services but dropped out over the period of the last three months and dividing it by the employment specialists' total "eligible" caseload size total number of consumers assigned to their caseload for a minimum of three months).

Data Analysis

Data Cleaning

The data were entered into SPSS 16.0 (SPSS, 2007), a statistical software program, and double-checked for accuracy. The data were monitored by the author as they became available through SurveyMonkey and the electronic records. Any missing data were addressed at this time as the data became available through SurveyMonkey. One of the researchers emailed participants directly to obtain any missing data or clarify

any data related questions. Consequently, there were no missing data from individual participants. However, there were some "missing data" when data elements such caseload demographics were provided directly by the study sites rather than by individual employment specialists, as some sites were simply unable to obtain all of the requested data. Data cleaning was conducted, with reverse scoring of items completed when necessary. The method of pairwise deletion of missing data was used.

Covariates

Consumer background and employment specialist background demographics were examined as confounding variables. Pearson correlations with the outcome measures were examined for consumer demographics (e.g., age, gender, race, educational level) and employment specialist demographics (age, gender, and educational background). Correlations significant at the .05 level (two-tailed) were included in the covariance analyses described below. In addition, the local unemployment rate and the size of the community were also examined as possible confounds. Correlations were examined between these variables and consumer employment outcomes. When significant correlations were found, covariates were controlled for using partial correlations.

Power Analysis

Cohen's (1988) statistical power estimation charts were consulted to compute the power for this study. For Hypotheses 1-10, with alpha set at .05 (two-tailed) and power set at .80, 85 subjects would be needed to detect a medium effect (.30) and 28 subjects to

detect a large effect (.50). With a sample size of 57 there was sufficient power to detect medium/large effect sizes.

<div align="center">Analyses</div>

Means and standard deviations for employment specialist demographics were calculated to characterize and determine the degree of representativeness of the sample. Means, standard deviations, and the range of values were also calculated to characterize consumer demographics, the scales, the quiz, process measures and consumer employment outcomes.

One statistical concern was that employment specialists were nested within teams that were nested within sites (see Figure 3). Data were examined descriptively to determine if there were any major differences in employment rates at the site level. Site differences were assessed using one-way analyses of variance on the three outcome measures. There were no significant differences in dropout rate among the six sites, F (5, 51) = 1.98, p = .10. There were, however, significant differences among the six sites in the 90-day employment rate, F (4, 46) = 4.73, p = .00 and the competitive employment rate, F (5, 51) = 2.47, p = .04. Tukey post-hoc analysis revealed a significantly higher 90-day employment rate for Site 4 (M = 47.78) versus Site 1 (M = 17.75) and Site 3 (M = 21.70). Tukey post-hoc comparisons found no significant differences among the sites in the competitive employment rate. It was hypothesized that these site differences were likely due to differences in unemployment rates and community size. Therefore, unemployment rate and community size were used as covariates in later partial correlation analyses to help control for their influences.

Bivariate Pearson correlations (alpha set at .05, two-tailed) were used to examine the relationship between the employment specialists' competencies and consumer employment outcomes. Specifically, a series of bivariate correlations were calculated between employment specialists' knowledge (as assessed through the BPES-Q), attitudes (as assessed through the Employment Specialist Attitudes Scale), efficacy (as assessed through the Employment Specialist Self-efficacy Scale-Self Rated and the Employment Specialist Efficacy Scale-Supervisor Rated), level of conscientiousness (as assessed through the IPIP Conscientiousness Scale), performance indicators (as assessed through the Employment Process Measure), supervisor-rated job performance evaluations and three consumer employment outcomes (the competitive employment rate, 90-day employment rate, and dropout rate). Additional correlations were calculated between employment specialists' caseload mix, caseload size, education, years of experience, and consumer employment outcomes. Partial correlation analyses were also calculated to control for covariates.

<u>Preliminary Analysis</u>

Descriptive statistics including frequency distributions, histograms, scatterplots, homogeneity tests, and residual plots were produced to explore the data and evaluate the adherence to the assumptions of parametric tests. Normality of distributions was also examined. A visual inspection of boxplots, histograms, and scatterplots in conjunction with the values of skewness, kurtosis, and Kolmogorov-Smirnov statistics, revealed that some of the data were non-normally distributed. Outliers (more than two standard deviations above the mean) were deleted or winsorized when the normality of the

distributions was violated. Variables were then again assessed for normal distribution after deleting and winsorizing outliers. Any variables that remained skewed were transformed using natural log transformations. After cleaning the data and testing for confounds, study questions and hypotheses were tested.

The data were examined using both parametric (i.e., Pearson correlations) and nonparametric tests (Spearman correlations) due to the violation of some of the assumptions noted above. All of the Pearson correlations were examined both with the untransformed and transformed data. Minimal differences were found between the transformed and untransformed data. Therefore, the results below are reported for only the Pearson correlations using the untransformed data.

RESULTS

<u>Sample Descriptive Statistics</u>

Community Sample Characteristics

The study sample consisted of six sites, with an average community population of 1,175,034 (range = 5,294,664-114,748), an average county unemployment rate of 7% (range = 4%-9%), and an average Supported Employment Fidelity score of 69 (range = 66-70; see Table 5).

Consumer Caseload Demographics

Table 5 illustrates that consumers on employment specialists' caseloads had a mean age of 45, were primarily Caucasian (58%), male (60%), unmarried (90%), carried a diagnosis of a schizophrenia spectrum disorder (39%), and had at least a high school education or higher (69%).

Employment Specialist Demographics

As displayed in Table 6, demographic data indicate that out of the sample of 57 employment specialists, the majority were Caucasian (65%), men (65%), had completed a bachelor's degree (46%), and had a background in psychology (35%).

Pearson Correlations

Community Characteristics

As shown in Table 7, four correlations were significant: the higher the unemployment rate, the lower both the competitive employment rate and the 90-day employment rate. Similarly, the less urban the community, the lower both the competitive employment rate and the 90-day employment rate.

Employment Specialist Demographics

Several significant correlations were found between employment specialists' demographics and the outcome variables, as shown in Table 8: the lower the dropout rate, the older the employment specialist, and the lower the employment specialists' level of education the greater the 90-day employment rate.

Consumer Caseload Demographics

There was only one significant correlation between employment specialists' caseload mix and any of the three outcome variables. The percentage of consumers who were homeless within the past six months was positively the 90-day employment rate

(see Table 9). As shown in Table 10, the higher the average consumer age, percentage of Caucasian clients, and percentage of consumers on an employment specialist's caseload who graduated high school, the higher the 90-day employment rate. In addition, the greater the percentage of consumers on an employment specialist's caseload who only completed *some* high school and the greater the percentage of male clients, the lower the 90-day employment rate. Having fewer consumers on a caseload who had never reached high school was also associated with a higher competitive employment rate.

Employment Specialist Competencies

As shown in Table 11, the more time employment specialists spent in the community, the more contacts they had with consumers, and the higher the supervisor rating of their job performance and their efficacy, the greater the 90-day employment rate. The more time employment specialists spent in the community and the more contacts they had with consumers were also related to a higher competitive employment rate. For the secondary hypotheses, Table 12 shows that the greater the employment specialist's caseload size the higher their competitive employment rate.

Summary of Findings

Employment specialists also showed great variability in employment outcomes across the six sites, thus illustrating that employment specialists did differ in terms of job performance. On average employment specialists had 32% ($SD = 20$) of their caseload competitively employed with a range of 0%-80% (median = 33%, skewness = .43, kurtosis = -.18; see Figure 4) which reflects previously cited benchmarks for employment

rates (Drake, Becker et al., 2006; Gold, Macias, Barreira, Tepper , & Frey, 2009). The largest variation in employment outcomes was seen for the 90-day employment rate. Employment specialists had 27% ($SD = 22$) of consumers on their caseload employed for 90 consecutive days on average, with a range of 0%-81% (median = 25%, skewness = .71, kurtosis = -.16). In addition, employment specialists in the current study had an average of three ($SD = 2$) consumers dropout of employment services during the previous three months with a range of 0-10 (median = 3, skewness = 1.02, kurtosis = 1.73). The variation in employment outcomes found for employment specialists in this study further underscores the importance of studying predictors of employment outcomes by employment specialist.

With regard to the 7 primary hypotheses, three were partially supported, and four were not supported. Specifically, in support of Hypothesis 3, a greater number of consumer contacts and more time in the community were related to both competitive employment rate and 90-day employment rate. In support of Hypotheses 4 and 7, supervisor-rated job performance and supervisor-rated employment specialist efficacy were both strongly associated with 90-day employment rate. However, there was no support for Hypotheses 1-2 or 5-6 (optimistic attitudes, knowledge, number of employer contacts, conscientiousness, and employment specialist self- efficacy as predictors of employment outcomes).

None of the secondary hypotheses were supported. In fact, three of the hypotheses were in the opposite direction of the prediction. For example, a larger caseload size, a lower percentage of homeless consumers, and employment specialists with more education were all associated with a lower 90-day employment rate

(Hypotheses 9-11). It was also determined that fidelity was an inappropriate predictor, therefore, Hypotheses 8 and 13 were eliminated from the proposal. There was no support for employment specialist experience (Hypothesis 12) as a predictor of employment outcomes.

Multiple Regression Analyses

To examine the percentage of variance in consumer employment outcomes accounted for by the various classes of predictors, we ran a series of standard multiple regression analyses. These analyses were conducted to determine which classes of independent variables (employment specialist demographics, caseload mix, consumer demographics, and employment specialist competencies) were most predictive of consumer employment outcomes (90-day employment rate, competitive employment rate, and consumer dropout rate). As this study is one of the first to examine employment specialist competencies as predictors, determining which set of predictors accounted for the largest amount of variance in employment outcomes allowed us to provide guidance for future research.

Separate regression analyses were conducted for each class of independent variables and each outcome variable. First, all employment specialist demographics (i.e., race, gender, age, highest education level) were entered simultaneously into the regression equation for the outcome variable, 90-day employment rate. Next, all employment specialist demographics were entered simultaneously into the regression model for the outcome variable, competitive employment rate. Lastly, all employment specialist demographics were entered into the regression model for the outcome variable,

dropout rate. This process was repeated for each class of predictor variables and outcome variables, resulting in 12 multiple regression analyses. Regression results indicated only one set of predictors, consumer demographics, were significantly predictive of the 90-day employment rate (see Tables 13-20). Moreover, consumer demographics, employment specialist demographics, and caseload mix respectively, accounted for the largest percentage of variance in 90-day employment rate. The hypothesized employment specialist competencies were not found to account for a large percentage of variance nor were they predictive of the 90-day employment rate.

Of all the predictive variables entered into the regression, none were found to be predictive of the competitive employment rate (see Tables 21-28). Employment specialist demographics, caseload mix, and consumer demographics respectively were found to account for the greatest percentage of variance in the competitive employment rate. The hypothesized employment specialist competencies were also not found to account for a large percentage of variance nor were they predictive of the competitive employment rates.

For the outcome variable, dropout rate, only employment specialist demographics were found to be predictive (see Tables 29-36). Employment specialist demographics, employment specialist competencies, and consumer demographics respectively were found to account for the greatest percentage of variance in the dropout rate.

Partial Correlations

While multiple regression analyses allowed for an examination of the combination of a set of predictor variables, it was decided to examine the influence of

each predictor variable *separately* while controlling for covariates using a series of partial correlations. For example, partial correlations were conducted between the nine predictor variables (optimism, self-efficacy, conscientiousness, percentage of time in community, employer contacts, consumer contacts, knowledge, supervisor-rated job performance evaluation, and supervisor-rated efficacy) and the outcome variable, dropout rate, controlling for employment specialist age. Next, partial correlations were conducted between the nine predictor variables and the outcome variable, competitive employment, controlling for covariates (i.e., unemployment rate and community size). Finally, nine partial correlations were conducted between each predictor variable and the outcome variable, 90-day employment rate, controlling for covariates (i.e., unemployment rate, community population, employment specialists' highest level of education, percentage of homeless consumers, average consumer age, percentage of male consumers, percentage of Caucasian consumers, percentage of consumers with more than a high school education). Employment specialist efficacy (supervisor-rated) and the 90-day employment rate remained significantly correlated $r(35) = .34$, $p = .04$, and supervisor-rated job performance and 90-day employment rate also remained significantly correlated $r(35) = .38$, $p = .02$, even after controlling for covariates. None of the partial correlations between the predictor variables and the competitive employment rate and dropout rate were significant after controlling for covariates.

DISCUSSION

This study is one of the first of its kind to examine employment specialist competencies as they relate to supported employment for consumers with severe mental illness. We are aware of only one published quantitative study touches on *any* aspect of the individual employment specialist as a predictor for employment outcomes (Catty et al., 2008). To our knowledge, no one has comprehensively examined practitioner competencies as predictors of employment outcomes, even though clinical impressions are that practitioners do account for a substantial amount of the variance in client outcome. In support of the view that practitioners do make a difference, the current study found that competitive employment rates ranged among employment specialists from 0% to 80% (see Figure 4). Many factors influence the success rate of any clinician, but it appears improbable that this variation is not at least partially attributable to practitioner competence.

The difficulty of measuring employment specialist competencies has likely contributed to the paucity of research in this area. Although previous studies have given attention to how program factors and individual consumer factors influence consumer employment outcomes, much less attention has been given to the influence of practitioner factors on employment outcomes. For example, fidelity and organizational culture consistently have been found to explain a significant proportion of the variance in

 consumer employment outcomes (Becker et al., 2001; Becker et al., 2006; Gowdy, 2000; Gowdy et al., 2004) while the research on the influence of consumer characteristics has been mixed (Beiser et al., 1994; Marwaha & Johnson, 2004; McCreadie, 1982; Michon et al., 2005). Consequently, this study sought to explore the role employment specialists play in helping consumers obtain and maintain employment. Specifically, this study investigated the influence of employment specialist knowledge, attitudes, conscientiousness, efficacy, job performance, and job development behaviors on employment outcomes for consumers with SMI participating in supported employment.

In regards to the primary hypotheses, statistically significant correlations were found for four measures related to employment specialist competence/performance: higher supervisor-rated job performance, higher supervisor-rated employment specialist efficacy, a greater number of consumer contacts, and more time spent in the community were associated with improved consumer employment outcomes. On the other hand, employment specialists' attitudes, knowledge, self-rated efficacy, conscientiousness, and number of employer contacts were not related to employment outcomes. Moreover, none of the secondary *a priori* hypotheses (related to community and caseload characteristics as well as employment specialist background characteristics) were confirmed. In fact, several of the secondary hypotheses were found in the opposite direction of the predicted relationship. For example, larger caseload size, employment specialists with less education, and caseloads with a higher proportion of homeless consumers were all related to improved employment outcomes. These findings were surprising, as one would assume that employment specialists with more education, a smaller caseload size, and fewer homeless consumers would have better employment outcomes. One possible

explanation for the findings that employment specialists with larger caseloads and more homeless consumers have improved consumer employment outcomes could be that high performing employment specialists are assigned not only more consumers, but also more "challenging" consumers. In other words, it is possible that supervisors recognize who the top performers are and thus assign them both a larger caseload and more difficult to place clientele. It is also possible that a larger caseload was related to improved employment outcomes due to employment specialists keeping employed consumers on their caseload longer, thus inflating their caseload. In this study, the variation in caseload size was from 2 to 33, suggesting that caseload size is by no means uniform across staff.

The lack of impact of employment specialist attitudes, knowledge, self-efficacy, conscientiousness on consumer employment outcomes was also unexpected given clinical opinions and theoretical formulations. However, none of the previously cited literature on these topics was based on actual research, further emphasizing the need for more empirical studies. For example, a recovery-oriented attitude has been frequently mentioned as a critical provider competency in the vocational literature (Baron, 2000; Danley & Mellen, 1987; Fabian & Coppola, 2001) although it was not found to be related to improved consumer outcomes in the current study. Previous researchers postulated that a recovery-oriented attitude is essential in influencing how, where, and when providers choose to utilize their knowledge and skills. Moreover, a recovery-oriented attitude has been speculated to play a critical role in helping providers to develop a positive working relationship with consumers as well as helping to empower consumers. Fiorentine and Grusky (1990) found that case managers who were more optimistic about their clients' chances for recovery were more likely to engage in the following behaviors:

advocacy work, treatment planning, helping consumers stay out of the hospital, linking consumers with community resources, providing transportation, and assisting consumers with employment. While case manager attitude was not directly linked to consumer outcomes in that study, one could make the leap that such behaviors have the potential to lead to improved consumer outcomes. However, no such relationship was found in the current investigation and restriction of range was ruled out as a possible explanation as scores ranged from 40-74. It may be that the adapted version of the Clinician Optimism Scale (Fiorentine & Grusky, 1990) used in the current study did not accurately capture employment specialists' recovery-oriented attitudes. Or it may be that, because of social desirability, this checklist, like other self-report checklists, is an inadequate way to assess employment specialist attitudes.

Additionally, knowledge has been frequently mentioned as a critical provider competency in the vocational literature (Baron, 2000; Becker & Drake, 2003; Danley & Mellen, 1987; Fabian & Coppola, 2001), but was not found to result in improved consumer employment outcomes in this study. In fact, in the industrial/organizational literature, "domain specific" knowledge has been linked to improved job performance (Schmidt & Hunter, 1998). While it appears that knowledge may be a critical competency in more technical fields (e.g., engineering) where knowledge is directly applied to the execution of the job, it may not be critical to human service related jobs, such as an employment specialist (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). For instance, in the human services field, "book" knowledge does not translate directly into performance in the work place. Furthermore, restriction of range was also ruled out as an explanation since IPS Knowledge scores ranged from 12-30 on a scale of 0-30.

Consequently, it is possible that *knowledge* of supported employment does not necessarily translate into superior skills and/or abilities. Employment specialists may *know* the IPS model, but may still be unable to apply the IPS principles with success.

It was also hypothesized that if employment specialists had strong beliefs in their ability to perform the complex array of skills needed to be an effective employment specialist, this would predict better consumer employment outcomes. However, employment specialist self-efficacy was not found to be related to employment specialist performance in the current study. One possible explanation for the lack of findings could be related to the measure used to study employment specialist efficacy in the current study. The Employment Specialist Self-Efficacy Scale was created specifically for the current investigation. It is possible that the scale created did not accurately capture employment specialist efficacy. Moreover, the research has been mixed on whether counselor self-efficacy is predictive of performance. Some researchers have found a positive relationship between counselor self-efficacy and performance (L. M. Larson & Daniels, 1998), and some researchers have found no relationship between counselor self-efficacy and performance (Johnson, Baker, Kopala, Kiselica, & Thompson, 1989; Ridgway & Sharpley, 1990; Sharpley & Ridgway, 1993). Studies such as the current one that found no relationship between provider self-efficacy and outcomes call into question the assumption that "more self-efficacy is better" (Heppner, Multon, Gysbers, Ellis, & Zook, 1998). Some researchers such as Hepner et al. (1998) have suggested that new counselors just starting out may underestimate the complexity of their job, and thus "may exhibit strong, albeit unrealistic, ratings of their self-efficacy for the task." This possibility could also explain why there was a significant relationship between

employment specialist efficacy when assessed by the supervisor and no relationship when efficacy was assessed by the individual. It may be that supervisors are more dispassionate in assessing employment specialist efficacy than employment specialists themselves.

Surprisingly, conscientiousness was also not found to be related to consumer employment outcomes in the current study, even though a meta-analysis of the Big Five personality dimensions as predictors of job performance found conscientiousness to be a consistently valid predictor for all occupational groups studied and for all criterion types (Barrick & Mount, 1991). However, a similar construct, integrity, has been found to have even higher validity than conscientiousness. While integrity tests primarily measure conscientiousness, they also take into consideration some components of agreeableness and emotional stability (Schmidt & Hunter, 1998). It is possible that conscientiousness alone was not enough to predict consumer employment outcomes in the current study, but assessing integrity may prove predictive in future research.

Although conscientiousness and knowledge are considered highly valid predictors in business-oriented job fields (Schmidt & Hunter, 1998), it is possible that they are not suitable for employment specialists who work in the human services field. It may be that human service related jobs require employees to utilize different KSAOs than those in business-oriented fields. In fact, emerging research has suggested the importance of eight characteristics and competencies as influential to employment specialist performance: (1) initiative; (2) outreach; (3) persistence; (4) hardiness; (5) empathy; (6) passion; (7) team orientation; and (8) professionalism (Whitley, Kostick, & Bush, 2010). These eight characteristics and competencies include more interpersonal factors than those

traditionally named as predictors of job performance in the industrial/organizational literature. Consequently, future research may benefit from investigating more interpersonal factors as predictors of job performance for employment specialists.

Study Limitations

As with any study there were several limitations to this study. As mentioned previously, the ability to accurately capture employment specialists' skills poses many challenges. As a result, we utilized behavioral process measures as proxies of employment specialists' skills. However, there is the possibility that these proxies may not be the best representatives of employment specialists' skills.

Secondly, we used some employment specialist self-report measures. Self-report measures have a variety of problems, including response biases and concerns with the accuracy of retrospective report (Kazdin, 2003). One concern in relation to response biases is the issue of social desirability. Employment specialists may have wanted to portray themselves in an overly positive manner and thus could have distorted their answers. Employment specialists could have also responded to items in a particular direction due to their tendencies, such as acquiescence, extreme and central tendency responding. This may have led to a failure to capture "true" data from individuals using self-report measures due to their tendency to respond in a certain manner, regardless of the content of self-report items. Answering retrospectively also poses a threat to the accuracy of the data (Kazdin, 2003). Employment specialists may have had a difficult time recalling their work-related behaviors. To help combat recall bias, the majority of the data was collected using electronic records. However, electronic records can also

provide a source of error. Moreover, employment specialists were only asked to report on the previous month in an attempt to lessen their response burden and ensure more accurate data. While objective measures or archival records are preferred over self-report measures, self-report measures were chosen to supplement electronic records where data were not available electronically.

Another study limitation was the use of a correlational design; correlations do not establish causality. Although we proposed that employment specialist competencies would predict employment outcomes, we cannot rule out the possibility that the direction may be reversed. For example, it may be that employment specialists who have higher competitive employment rates in turn have more positive attitudes of consumers and vice versa.

As mentioned previously, there were several problems with the fidelity measure. An additional limitation is that we were unable to examine fidelity at the level of the individual teams. Fidelity was only collected at the site level. It is possible that there may have been increased variability in fidelity scores had fidelity been examined at the team level.

An additional concern is criterion contamination for the Kansas Employment Specialist Job Performance Evaluation. Supervisors' knowledge of their employment specialists' employment outcomes could have influenced the ratings they assigned to employment specialists on their team. For example, a supervisor who knows that an employment specialist has superior employment outcomes could have given high job performance ratings to that employment specialist without actually rating the employment specialist according to the measure.

Finally, data were collected at several levels. Employment specialist-level data were nested within teams which were nested within each site. There was also a small sample size limiting statistical power to detect small and medium effect sizes. Lastly, in addition to the concern of Type II errors, we examined a large number of correlations, which increased the Type I error rate.

<u>Future Directions</u>

The examination of employment specialist competencies as predictors of consumer employment outcomes is a virtually untapped area of research. The current study found several significant predictors, but there is still much needed to be done to fully understand what aspects of the employment specialist predict consumer employment outcomes. Employment specialists are a relatively new area of investigation in supported employment and we believe that further exploration will find that they explain a significant portion of the variance in consumer employment outcomes. This study has only begun to scratch the surface of employment specialists' influences and was limited methodologically. In addition to the previously mentioned recommendations, future research could benefit from exploring other possible employment specialist competencies, using a variety of different methodologies. For instance, a more ideal study would utilize the following: a larger sample of employment specialists, a variety of measures and methods to assess attitudes, knowledge, self-efficacy, and conscientiousness, as well as a longitudinal study design to better help ascertain causality of predictor variables. Interestingly, objective measures (i.e., supervisor-rated job performance, supervisor-rated efficacy, and number of consumer

contacts and percentage of time in the community) were predictive of consumer employment outcomes, while the self-report measures of conscientiousness, optimism, and self-efficacy were not. The aforementioned limitations of self-report measures combined with these findings leads us to conclude that employment specialist self-report measures may not be the best source of assessment. Supervisors may be more accurate at providing information about employment specialists' competencies than the employment specialists themselves.

Furthermore, using qualitative direct observation may also be useful in helping researchers capture which specific employment specialist skills relate to consumer outcomes. In fact, Whitley and colleagues (2010) have already utilized observational methods in their recent qualitative study. Researchers in this study observed three employment specialists in their everyday work activities to help them identify desirable employment specialist characteristics and competencies. We believe such improvements in the research methods will reveal the significance of employment specialists in consumer employment outcomes.

Once these specific employment specialist skills have been identified, using direct (quantitative) observation of employment specialists or viewing videotapes of employment specialists while engaged in their work may also offer an even more valid means of assessment than self-report or even supervisor report. Using observational methods would allow researchers to better capture employment specialists' skills, which proved more difficult to measure in the current study. Previous research by Whitley and colleagues (2010) suggests it is possible to use direct observation to capture and quantify other employment specialist competencies.

In addition, although interpersonal factors were previously suggested as potential predictors for employment specialist competencies, one should not rule out other predictors identified in the industrial/organizational literature. For instance, general mental ability, integrity, and work sample tests have been offered in the industrial/organizational literature as highly valid predictors of work performance that may be worth investigating in the supported employment context as well. More recently, burgeoning research has also suggested the therapeutic relationship as a predictor of employment outcomes (Catty et al., 2008). This is another valuable area of investigation that warrants further investigation as a possible predictor of employment outcomes.

In sum, understanding the impact that employment specialists have in the supported employment context is critical to improving employment outcomes for consumers. Although supported employment has proven to be successful in helping increase employment rates for consumers with SMI, there remains much to be desired in terms of helping individuals with SMI actualize their full working potential. The average number of consumers working competitively at some time across the 11 randomized controlled trials of supported employment was 62%. While this is a great improvement over traditional vocational programs, there remain many more consumers who were still unable to achieve competitive employment. Still many more consumers with SMI find it difficult to maintain a job. An examination of employment specialist competencies could hold the key to unlocking employment success for many more consumers.

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TABLES

Table 1

Data Source for Consumer Caseload Characteristics Measure

Variable	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Mean age of consumers for each employment specialist's caseload	X	X	X	O	O	O
The percentage of consumers on each employment specialist's caseload that are married	X	X	X	O	O	O
The percentages of consumers on each employment specialist's caseload that are a) African-American, b) American Indian/Native American, c) Asian/Pacific Islander, d) Caucasian, e) Hispanic/Latino, f) Other	X	X	X	O	O	O
The percentage of consumers on each employment specialist's caseload that have completed a) Some high school, b) High school or GED, c) Some college, d) Bachelor's Degree, e) Master's Degree, f) Doctoral Degree	X	O	X	O	O	O
Percentage of consumers on the employment specialist's caseload that have a primary diagnosis of a schizophrenia spectrum disorder based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)	X	X	X	O	O	O
Percentage of consumers on the employment specialist's caseload that have a substance abuse disorder based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), please do not include caffeine and nicotine use.	X	X	X	O	O	O
Percentage of consumers on the employment specialist's caseload that have been involved in the criminal justice system (spent time in jails, prisons, or other criminal justice lock-ups, even if incarceration does not result in formal arrest, indictment, or conviction) over the past 6 months.	X	X	X	O	O	O
Percentage of consumers on the employment specialist's caseload that have been homeless (lacked fixed, regular, and adequate nighttime residence) over the past 6 months (including stays in emergency shelters or brief stays with relatives).	X	O	X	O	O	O
Percentage of consumers on the employment specialist's caseload that have been hospitalized in either a private or state institution for either a psychiatric or substance use disorder over the past 6 months.	X	O	X	O	O	O
The percentage of consumers on each employment specialists' caseload that are currently employed in a competitive job (defined as work settings integrated in a community's economy, where any person can apply for the job, and paying at least minimum wage) as of today.	X	X	X	O	O	O

Note: X = electronic records, O = employment specialist self-report

Table 2

Data Source for Employment Process Measure

Variable	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Percentage of time an employment specialist has spent in the community over the past month.	X	X	X	O	X	O
Number of consumers on an employment specialist's caseload that have dropped out of employment services over the past 3 months	O	X	O	O	O	O
Number of contacts with consumers on caseload during the past month	X	X	X	O	O	O
Number of employer contacts during the past month	X	O	O	O	O	O
90-day employment rate	X	N/A	X	O	O	O

Note: X = electronic records, O = employment specialist self-report

Table 3

Constructs, Measures, and Data Sources

Construct	Measures	Source	Time Estimate (in minutes)
Employment Specialist Competencies as Predictor Variables (Self-Rated):			
Knowledge of Supported Employment	Individual Placement and Support Quiz	30 item, multiple choice quiz to be filled out electronically by each employment specialist	20
Job Performance Indicators	Employment Process Measure	5 item measure assessing employment specialists' behaviors and their work outcomes to be filled out electronically by each employment specialist	30
Optimism	Employment Specialist Attitudes Scale	16 item measure assessing employment specialists' attitudes toward consumers to be filled out electronically by each employment specialist	5
Conscientiousness	International Personality Item Pool-Conscientiousness Scale	10 item measure assessing employment specialists' conscientiousness to be filled out electronically by each employment specialist	5
Self-Efficacy	Employment Specialist Self-Efficacy Scale (Self Rated)	10 item measure assessing employment specialists' self-efficacy to be filled out electronically by each employment specialist	5

Employment Specialist Competencies as Predictor Variables (Supervisor Rated):

Job Performance	Kansas Employment Specialist Job Performance Evaluation	18 item measure assessing employment specialists' competency to be filled out electronically by employment specialists' supervisors	20
Employment Specialist Efficacy	Employment Specialist Self-Efficacy Scale (Supervisor Rated)	parallel 10 item measure assessing supervisors' beliefs regarding the efficacy of their employment specialists to be filled out electronically by supervisors for each employment specialist	5

Other Predictor Variables:

Consumer Demographics	Consumer Caseload Demographics	11 item measure assessing the consumer demographics/characteristics for each employment specialists' caseload to be collected through electronic records	--
Program Adherence to Supported Employment Model	Supported Employment Fidelity Scale	25 item scale that assesses each program's adherence to the supported employment model already collected routinely by each program	--
Community Characteristics	County Unemployment Rate	The most recent local unemployment rate for each site obtained from U.S. Dept. of Labor, Bureau of Labor Statistics, http://stats.bls.gov	--
Community Characteristics	Community Size	The county population size of which the agency resides obtained from the most recent U.S. Census, www.census.gov	--

Outcome Variables:

Competitive Employment Rate	Consumer Caseload Demographics Measure	The number of consumers on an employment specialist's caseload who are actively employed (as of today's date) divided by the employment specialist's total "eligible" caseload size to be collected through electronic records	
			Variable
Dropout Rate	Employment Process Measure	The number of consumers on an employment specialist's caseload who were formally enrolled in vocational services but dropped out over the period of the last three months divided by the employment specialist's total "eligible" caseload size to be collected through electronic records	
			Variable
90-Day Employment Rate	Employment Process Measure	The number of consumers on an employment specialist's caseload who have been competitively employed for 90 consecutive days divided by the employment specialist's total "eligible" caseload size to be collected through employment specialist self-report	
			Variable

Table 4

Employment Specialists' Caseload Mix

Characteristics
1 The percentage of consumers on an employment specialist's caseload who are diagnosed with a schizophrenia spectrum disorder
2 The percentage of consumers on an employment specialist's caseload who are diagnosed with a substance abuse disorder
3 The percentage of consumers on an employment specialist's caseload who have been homeless within the past six months
4 The percentage of consumers on an employment specialist's caseload who have been hospitalized within the past six months
5 The percentage of consumers on an employment specialist's caseload who have been involved with the criminal justice system within the past six months

Table 5

Descriptive Statistics

Variable	Site 1 (N = 24) Mean (SD)	Site 2 (N = 6) Mean (SD)	Site 3 (N = 10) Mean (SD)	Site 4 (N = 9) Mean (SD)	Site 5 (N = 3) Mean (SD)	Site 6 (N = 5) Mean (SD)	Total Mean (SD)
Community Characteristics:							
County unemployment rate (%)	9	4	8	8	8	5	7 (2)
County population	5294664	402042	598707	234030	406012	114748	1175034
Supported employment fidelity	69	69	70	68	66	67	69 (1)
Employment Specialist Competencies:							
Optimism	57 (8)	57 (13)	60 (9)	52 (9)	63 (9)	63 (4)	58 (9)
Self-efficacy scale (self-rated)	43 (5)	45 (5)	43 (4)	43 (5)	42 (8)	43 (4)	43 (4)
Conscientiousness	44 (4)	45 (7)	43 (4)	46 (2)	42 (8)	44 (3)	44 (5)
Knowledge	24 (4)	24 (4)	24 (5)	25 (3)	17 (2)	24 (2)	24 (4)
Supervisor evaluation	166 (24)	187 (22)	196 (36)	200 (34)	193 (42)	230 (4)	186 (33)
Self-efficacy (supervisor-rated)	36 (7)	42 (5)	41 (8)	45 (5)	41 (6)	46 (1)	40 (7)
Employment Specialist Job-Related Behaviors:							
Percentage time in community in past month	65 (8)	63 (3)	41 (20)	70 (22)	87 (6)	66 (12)	62 (16)
Employer contacts in past 1 month	10 (8)	19 (25)	33 (28)	20 (10)	46 (49)	12 (8)	19 (21)
Consumer contacts in past 1 month	34 (15)	N/A	61 (30)	64 (19)	26 (21)	160 (86)	57 (48)
Consumer Demographics:							
Average consumer age	42 (5)	43 (5)	42 (2)	42 (2)	43 (1)	40 (4)	42 (4)
% Males	68 (14)	62 (27)	53 (20)	52 (17)	44 (16)	58 (15)	60 (18)
% Married	10 (9)	15 (10)	4 (5)	16 (13)	3 (6)	12 (16)	10 (11)

Consumer Race:

% African-American	43 (33)	4 (4)	19 (13)	5 (5)	39 (9)	9 (10)	26 (28)
% American Indian/Native American	0 (0)	1 (1)	6 (10)	0 (0)	0 (0)	2 (4)	1 (5)
% Asian/Pacific Islander	2 (5)	1 (3)	1 (2)	0 (0)	0 (0)	5 (4)	2 (4)
% Caucasian	48 (30)	82 (4)	44 (14)	78 (32)	57 (9)	82 (8)	58 (28)
% Hispanic/Latino	1 (3)	0 (0)	11 (7)	0 (0)	0 (0)	3 (5)	3 (5)
% Other	5 (7)	2 (2)	1 (3)	14 (34)	0 (0)	0 (0)	5 (14)
% Unknown	1 (3)	11 (4)	N/A	N/A	N/A	N/A	3 (5)

Consumer Highest Level of Education:

% No high school	2 (4)	N/A	N/A	N/A	N/A	N/A	2 (4)
% Some High School	20 (18)	29 (21)	77 (22)	5 (5)	34 (40)	18 (29)	29 (30)
% High School or GED	31 (18)	37 (7)	3 (9)	55 (27)	42 (28)	70 (20)	34 (26)
% Some College	27 (15)	16 (11)	4 (11)	27 (34)	28 (25)	33 (13)	23 (20)
% Bachelor's Degree	12 (13)	5 (6)	16 (7)	7 (7)	5 (9)	6 (7)	10 (10)
% Master's Degree	3 (5)	2 (3)	0 (0)	0 (0)	0 (0)	1 (3)	2 (4)
% Doctoral Degree	0 (0)	0 (0)	0 (1)	0 (0)	0 (0)	1 (3)	0 (1)
% Unknown Education	5 (8)	15 (18)	0 (0)	3 (9)	0 (0)	0 (0)	4 (8)

Caseload Mix:

Schizophrenia spectrum disorder	43% (21)	41% (22)	34% (10)	24% (14)	72%(49)	40% (37)	39% (24)
Substance abuse disorder	27% (22)	54% (15)	41% (14)	33% (28)	27 % (20)	31% (22)	33% (22)
Criminal justice involvement in past 6 months	0% (2)	23% (15)	5% (13)	9 %(10)	27 % (20)	33% (21)	9% (15)
Homelessness within past 6 months	1% (3)	4% (5)	1% (3)	7% (7)	20% (26)	20% (12)	5% (10)
Hospitalized within past 6 months	10% (16)	15% (17)	2% (4)	8% (9)	3% (6)	24 %(13)	10% (14)

Outcome Variables:

90-day employment rate (%)	18 (16)	N/A	22 (16)	48 (24)	30 (20)	40 (30)	27 (22)
Competitive employment rate (%)	25 (17)	44 (19)	27 (12)	39 (21)	28 (24)	49 (26)	32 (20)
Average dropout rate	3 (3)	5 (2)	2 (2)	3 (2)	1 (2)	2 (2)	3 (2)

Table 6

Employment Specialist Descriptive Statistics

Employment Specialist Demographics	Site 1 (N = 24) Mean (n)	Site 2 (N = 6) Mean (n)	Site 3 (N = 10) Mean (n)	Site 4 (N = 9) Mean (n)	Site 5 (N = 3) Mean (n)	Site 6 (N = 5) Mean (n)	Total (N = 57) Mean (n)
Gender:							
Male	67% (16)	67% (4)	50% (5)	89% (8)	67% (2)	40% (2)	65% (37)
Female	33% (8)	33% (2)	50% (5)	11% (1)	33% (1)	60% (3)	35% (20)
Race/Ethnicity:							
African-American	38% (9)	0% (0)	40% (4)	22% (2)	100% (3)	0% (0)	32% (18)
American Indian/Native American	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Asian/Pacific Islander	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Caucasian	63% (15)	83% (5)	60% (6)	67% (6)	0% (0)	100% (5)	65% (37)
Hispanic/Latino	0% (0)	17% (1)	0% (0)	11% (1)	0% (0)	0% (0)	4% (2)
Average Age:	42 (11)	35 (10)	46 (13)	41 (10)	53 (1)	30 (9)	42 (12)
Where You Work:							
Mental Health Center	13% (3)	0% (0)	80% (8)	100% (9)	67% (2)	100% (5)	58% (33)
Psychiatric rehabilitation agency	88% (21)	100% (6)	0% (0)	0% (0)	0% (0)	0% (0)	37% (21)
Comprehensive rehabilitation agency	0% (0)	0% (0)	20% (2)	0% (0)	33% (1)	0% (0)	5% (3)
Describes Current Position:							
Job Coach/ES/Voc rehab specialist	92% (22)	83% (5)	70% (7)	100% (9)	67% (2)	100% (5)	88% (50)
Job Developer/Follow-Along Specialist	4% (1)	17% (1)	30% (3)	0% (0)	33% (1)	0% (0)	11% (6)
Voc Rehab Counselor	4% (1)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	2% (1)

Primary Area of Training:							
Social Work	21% (5)	33% (2)	50% (5)	33% (3)	33% (1)	0% (0)	28% (16)
Sociology	17% (4)	0% (0)	0% (0)	22% (2)	0% (0)	40% (2)	14% (8)
Nursing	0% (0)	0% (0)	0% (0)	11% (1)	0% (0)	0% (0)	2% (1)
Psychology	25% (6)	67% (4)	50% (5)	22% (2)	33% (1)	40% (2)	35% (20)
Business	38% (9)	0% (0)	0% (0)	11% (1)	33% (1)	20% (1)	21% (12)
Business Background:							
Worked in a Business Related Field	67% (16)	33% (2)	70% (7)	67% (6)	0% (0)	80% (4)	61% (35)
Average number of months in business related field	132 (97)	14 (14)	62 (91)	88 (64)	0% (0)	21 (7)	91 (90)
Highest Level of Education Completed:							
Some High School	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
High School or GED	0% (0)	0% (0)	10% (1)	0% (0)	33% (1)	0% (0)	4% (2)
Some College	17% (4)	0% (0)	10% (1)	56% (5)	67% (2)	0% (0)	21% (12)
Bachelor's Degree	33% (8)	83% (5)	50% (5)	44% (4)	0% (0)	80% (4)	46% (26)
Master's Degree	50% (12)	17% (1)	30% (3)	0% (0)	0% (0)	20% (1)	30% (17)
Doctoral Degree	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Employment Specialist Background Characteristics:							
Total months worked in this position	19 (11)	47 (41)	79 (72)	29 (29)	100 (90)	8 (2)	37 (47)
Total months worked in mental health field	78 (100)	67 (50)	163 (115)	140 (138)	72 (104)	29 (34)	97 (107)
Average caseload size	17 (3)	25 (3)	21 (7)	23 (5)	10 (9)	17 (5)	19 (6)

Table 7

Pearson Correlations between Community Characteristics and Dependent Variables (N = 6)

Predictor Variable	1	2	3	4
1. County Unemployment Rate				
2. County Population	.49			
3. Percentage of consumers employed 90 consecutive days	-.46	-.67		
4. Percentage competitively employed	-.85*	-.56	.06	
5. Dropout rate	-.50	.12	.11	.39

*p < .05 (2-tailed)
**p < .01 (2-tailed)

Table 8

Pearson Correlations between Employment Specialist Demographics and Dependent Variables (N = 57)						
Predictor Variable	**1**	**2**	**3**	**4**	**5**	**6**
1. ES race						
2. ES gender	.11					
3. ES age	-.32*	.07				
4. ES highest education level achieved	.36**	.08	-.28*			
5. Percentage of consumers employed 90 consecutive days	.09	-.13	-.07	-.29*		
6. Percentage competitively employed	.19	.02	-.19	-.13	.66**	
7. Dropout rate	-.09	-.08	-.31*	-.01	.06	.21

*$p < .05$ (2-tailed)

**$p < .01$ (2-tailed)

Table 9

Pearson Correlations between Caseload Mix and Dependent Variables (N = 57)

Predictor Variable		1	2	3	4	5	6	7
1. Percentage with schizophrenia spectrum disorder								
2. Percentage with substance abuse disorder		.00						
	N	57						
3. Percentage with criminal justice involvement within past 6 months		.27*	.11					
	N	57	57					
4. Percentage homeless within past 6 months		.14	.05	.71**				
	N	57	57	57				
5. Percentage hospitalized within past 6 months		-.06	.01	.50**	.33*			
	N	57	57	57	57			
6. Percentage of consumers employed 90 consecutive days		-.24	-.07	.32	.32*	.13		
	N	51	51	51	51	51		
7. Percentage competitively employed		-.19	-.13	.16	.09	.21	.66**	
	N	57	57	57	57	57	51	
8. Dropout rate		-.10	-.10	-.03	-.14	-.03	.06	.21
	N	57	57	57	57	57	51	57

*p < .05 (2-tailed)
**p < .01 (2-tailed)

Table 10

Pearson Correlations between Consumer Demographics and Dependent Variables (N = 57)

Predictor Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Average consumer age													
2. Percentage of consumers male	-.15												
3. Percentage of consumers married	.33*	-.17											
4. Percentage of consumers African-American	-.37**	.28*	-.03										
5. Percentage of consumers American Indian	-.14	-.21	-.17	-.20									
6. Percentage of consumers Asian	-.13	-.04	.21	-.16	-.09								
7. Percentage of consumers Caucasian	.36**	-.09	.05	-.76**	-.19	.05							
8. Percentage of consumers Hispanic	-.32*	-.18	-.25	-.06	.60**	.01	-.31*						
9. Less than HS education	-.45**	-.11	-.19	.02	.41**	-.05	-.32*	.66**					
10. HS diploma or GED	.35*	.07	.08	.04	-.29*	-.16	.28*	-.45**	-.69**				
11. Greater than HS education	.15	.09	.14	-.01	-.22	.22	.16	-.38**	-.48**	-.21			
12. Percentage of consumers employed 90 consecutive days	.29*	-.34*	.06	-.26	-.10	.03	.34*	-.05	-.26	.33*	-.04		
13. Percentage competitively employed	.02	-.10	.15	-.16	-.14	.14	.23	-.09	.05	.07	-.07	.66**	
14. Dropout rate	.06	.06	.08	-.04	-.14	-.05	.11	-.17	-.24	.11	.21	.06	.21

*$p < .05$ (2-tailed)
**$p < .01$ (2-tailed)

Table 11

Pearson Correlations between Employment Specialists' Characteristics and Dependent Variables (N = 57)

Predictor Variable	1	2	3	4	5	6	7	8	9	10	11
1. ES optimistic attitudes											
2. ES knowledge of supported employment	.26										
3. ES Percentage of time in community	-.02	-.09									
4. Number of employer contacts within past month	.03	-.01	.00								
5. Number of client contacts within past month	.21	.16	.02	-.06							
6. Supervisor-rated job performance	.30*	.06	.02	-.03	.54**						
7. ES self-efficacy	.31**	.09	-.14	.08	.12	.14					
8. ES conscientiousness	.09	.10	.21	-.17	.14	.16	.19				
9. ES efficacy supervisor-rated	.14	.00	.00	.03	.42**	.84**	.20	.16			
10. Percentage of consumers employed 90 consecutive days	.14	-.02	.31*	.04	.41**	.36**	.25	.09	.35*		
11. Percentage competitively employed	-.07	-.21	.27*	.18	.37**	.19	.03	-.12	.23	.66**	
12. Dropout rate	-.18	-.01	.03	-.05	-.03	-.13	.19	.10	-.06	.06	.21

*$p < .05$ (2-tailed)
**$p < .01$ (2-tailed)

Table 12

Pearson Correlations between Secondary Hypotheses and Dependent Variables (N = 57)

Predictor Variable	1	2	3	4	5
1. ES caseload size					
2. ES months of experience in this position	.20				
3. ES months of experience in mental health field	.31*	.41**			
4. Percentage of consumers employed 90 consecutive days	.16	.03	.20		
5. Percentage competitively employed	.29*	.01	.21	.66**	
6. Dropout rate	.13	-.09	-.21	.06	.21

*p < .05 (2-tailed)
**p < .01 (2-tailed)

Table 13

Model Summary for Employment Specialist Demographics and 90-Day Employment Rate

Model	*R*	R square	R square adjusted	Fchg	*p*	df1	df2
Employment Specialist Demographics	.50	.25	.08	1.47	.21	8	36

Table 14

Coefficients for Employment Specialist Demographics and 90-Day Employment Rate

Predictor Variable	*B*	**Beta**	*t*	*p*	Bivariate *r*	**Partial *r***
Race	3.25	.21	1.30	.20	.11	.21
Gender	-4.50	-.10	-.64	.53	-.14	-.11
Age	-.82	-.42	-1.77	.09	-.13	-.28
Years since achieving highest degree	.79	.40	1.36	.18	.06	.22
Caseload size	.11	.03	.16	.87	.12	.03
Highest level of education completed	-10.59	-.36	-2.35	.02	-.35	-.36
Total time worked in MH field	1.13	.03	.13	.90	.11	.02
Total time worked in this position	-4.41	-.07	-.40	.69	.05	-.07

Table 15

Model Summary for Caseload Mix and 90-Day Employment Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Caseload Mix	.45	.21	.02	1.09	.39	5	21

Table 16

Coefficients for Caseload Mix and 90-Day Employment Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
Percentage with schizophrenia spectrum disorder	-.33	-.36	-1.47	.16	-.08	-.30
Percentage with substance abuse disorder	-.25	-.22	-.98	.34	-.17	-.21
Percentage involved in criminal justice system within past 6 months	.76	.56	1.33	.20	.32	.28
Percentage homeless within past 6 months	-.15	-.08	-.24	.82	.21	-.05
Percentage hospitalized within past 6 months	-.18	-.08	-.29	.77	.28	-.06

Table 17

Model Summary for Consumer Demographics and 90-Day Employment Rate

Model	*R*	R square	R square adjusted	Fchg	*p*	df1	df2
Consumer Demographics	.57	.32	.20	2.58	.03	7	38

Table 18

Coefficients for Consumer Demographics and 90-Day Employment Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
Average consumer age	-.26	-.10	-.60	.55	.24	-.10
Percentage of male consumers	-.39	-.38	-2.65	.01	-.38	-.39
Percentage of married consumers	.26	.14	.94	.35	.17	.15
Percentage of Caucasian consumers	.13	.21	1.27	.21	.30	.20
Percentage of consumers with less than HS education	-.29	-.48	-.92	.36	-.26	-.15
Percentage of consumers with HS diploma or GED	-.05	-.07	-.15	.88	.33	-.02
Percentage of consumers greater than HS diploma	-.29	-.32	-.83	.41	-.04	-.13

Table 19

Model Summary for Employment Specialist Competencies and 90-Day Employment Rate

Model	*R*	R square	R square adjusted	Fchg	*p*	df1	df2
Employment Specialist Competencies	.50	.25	-.01	.95	.50	9	26

Table 20

Coefficients for Employment Specialist Competencies and 90-Day Employment Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
ES optimism	.06	.03	.16	.88	.17	.03
ES self-efficacy	1.21	.28	1.46	.16	.35	.28
ES conscientiousness	.27	.05	.24	.81	.12	.05
ES Percentage of time spent in community	.31	.16	.82	.42	.03	.16
ES number of employer contacts	-1.43	-.12	-.54	.59	.05	-.11
ES number of client contacts	.04	.06	.22	.83	.25	.04
ES knowledge of IPS	.23	.04	.21	.84	.14	.04
Supervisor rated job performance	.12	.23	.62	.54	.36	.12
Supervisor rated ES efficacy	.25	.11	.34	.74	.34	.07

Table 21

Model Summary for Employment Specialist Demographics and Competitive Employment Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Employment Specialist Demographics	.50	.25	.10	1.73	.12	8	42

Table 22

Coefficients for Employment Specialist Demographics and Competitive Employment Rate

Predictor Variable	*B*	Beta	*t*	*p*	Bivariate *r*	Partial *r*
Race	2.28	.16	1.07	.29	.18	.16
Gender	1.52	.04	.261707625304862	.79	.01	.04
Age	-.86	-.48	-2.12	.04	-.19	-.31
Years since achieving highest degree	.52	.28	1.04	.30	.00	.16
Caseload size	.54	.14	.99	.33	.24	.15
Highest level of education completed	-5.78	-.21	-1.48	.15	-.19	-.22
Total time worked in MH field	11.28	.28	1.47	.15	.20	.22
Total time worked in this position	-9.57	-.18	-1.07	.29	.01	-.16

Table 23

Model Summary for Caseload Mix and Competitive Employment Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Caseload Mix	.48	.23	.08	1.59	.20	5	27

Table 24

Coefficients for Caseload Mix and Competitive Employment Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
Percentage with schizophrenia spectrum disorder	.00	.00	.02	.98	.01	.00
Percentage with substance abuse disorder	-.13	-.14	-.78	.44	-.17	-.15
Percentage involved in criminal justice system within past 6 months	.29	.25	.85	.40	.16	.16
Percentage homeless within past 6 months	-.70	-.41	-1.69	.10	-.07	-.31
Percentage hospitalized within past 6 months	.61	.37	1.71	.10	.36	.31

Table 25

Model Summary for Consumer Demographics and Competitive Employment Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Consumer Demographics	.43	.18	.05	1.34	.26	7	42

Table 26

Coefficients for Consumer Demographics and Competitive Employment Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
Average consumer age	-.68	-.29	-1.61	.12	-.10	-.24
Percentage of male consumers	-.02	-.02	-.12	.91	-.03	-.02
Percentage of married consumers	.61	.35	2.26	.03	.22	.33
Percentage of Caucasian consumers	.6	.26	1.64	.11	.16	.25
Percentage of consumers with less than HS education	.23	.40	.93	.36	.04	.14
Percentage of consumers with HS diploma or GED	.28	.39	1.01	.32	.07	.15
Percentage of consumers greater than HS diploma	.13	.16	.49	.63	-.07	.08

Table 27

Model Summary for Employment Specialist Competencies and Competitive Employment Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Employment Specialist Competencies	.41	.17	-.12	.58	.80	9	26

Table 28

Coefficients for Employment Specialist Competencies and Competitive Employment Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
ES optimism	.27	.15	.77	.45	.16	.15
ES self-efficacy	-.34	-.10	-.47	.64	.01	-.09
ES conscientiousness	-.06	-.01	-.06	.95	.05	-.01
ES Percentage of time spent in community	.31	.19	.94	.36	.04	.18
ES number of employer contacts	-.04	.00	-.02	.99	.13	.00
ES number of client contacts	.14	.25	.87	.39	.25	.17
ES knowledge of IPS	-1.13	-.22	-1.14	.26	-.09	-.22
Supervisor rated job performance	.10	.21	.55	.59	.29	.11
Supervisor rated ES efficacy	-.03	-.01	-.04	.97	.21	-.01

Table 29

Model Summary for Employment Specialist Demographics and Dropout Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Employment Specialist Demographics	.54	.29	.16	2.16	.05	8	42

Table 30

Coefficients for Employment Specialist Demographics and Dropout Rate

Predictor Variable	*B*	**Beta**	*t*	*p*	Bivariate *r*	Partial *r*
Race	-.52	-.34	-2.34	.02	-.20	-.34
Gender	.21	.05	.35	.73	-.09	.05
Age	.00	-.01	-.04	.97	-.28	-.01
Years since achieving highest degree	-.10	-.52	-1.96	.06	-.30	-.29
Caseload size	.08	.21	1.48	.15	.11	.22
Highest level of education completed	-.54	-.18	-1.34	.19	-.17	-.20
Total time worked in MH field	-.33	-.08	-.41	.68	-.16	-.06
Total time worked in this position	1.30	.23	1.41	.17	.03	.21

Table 31

Model Summary for Caseload Mix and Dropout Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Caseload Mix	.28	.08	-.09	.45	.81	5	27

Table 32

Coefficients for Caseload Mix and Dropout Rate

Predictor Variable	*B*	Beta	*t*	*p*	Bivariate *r*	Partial *r*
Percentage with schizophrenia spectrum disorder	-.00	-.02	-.08	.94	-.08	-.02
Percentage with substance abuse disorder	.01	.07	.36	.72	.08	.07
Percentage involved in criminal justice system within past 6 months	.02	.16	.49	.63	-.03	.09
Percentage homeless within past 6 months	-.05	-.34	-1.31	.2	-.19	-.24
Percentage hospitalized within past 6 months	.02	.14	.57	.58	.07	.11

Table 33

Model Summary for Consumer Demographics and Dropout Rate

Model	*R*	R square	R square adjusted	Fchg	*p*	df1	df2
Consumer Demographics	.27	.07	-.08	0.47	.85	7	42

Table 34

Coefficients for Consumer Demographics and Dropout Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
Average consumer age	-.02	-.06	-.32	.75	.05	-.05
Percentage of male consumers	-.00	-.03	-.18	.86	.03	-.03
Percentage of married consumers	-.00	-.02	-.11	.91	.02	-.02
Percentage of Caucasian consumers	-.00	-.03	-.19	.85	.05	-.03
Percentage of consumers with less than HS education	-.01	-.14	-.31	.76	-.24	-.05
Percentage of consumers with HS diploma or GED	.01	.08	.20	.85	.11	.03
Percentage of consumers greater than HS diploma	.02	.18	.52	.61	.21	.08

Table 35

Model Summary for Employment Specialist Competencies and Dropout Rate

Model	R	R square	R square adjusted	Fchg	p	df1	df2
Employment Specialist Competencies	.52	.27	.01	1.06	.43	9	26

Table 36

Coefficients for Employment Specialist Competencies and Dropout Rate

Predictor Variable	B	Beta	t	p	Bivariate r	Partial r
ES optimism	-.02	-.08	-.41	.68	-.09	-.08
ES self-efficacy	.16	.31	1.64	.11	.16	.31
ES conscientiousness	.06	.09	.43	.67	.01	.08
ES Percentage of time spent in community	-.00	-.02	-.09	.93	.09	-.02
ES number of employer contacts	-.35	-.24	-1.13	.27	-.29	-.22
ES number of client contacts	-.03	-.40	-1.47	.15	-.32	-.28
ES knowledge of IPS	-.07	-.10	-.53	.60	-.18	-.10
Supervisor rated job performance	.02	.37	1.05	.30	-.14	.20
Supervisor rated ES efficacy	-.08	-.29	-.93	.36	-.17	-.18

FIGURES

| Predictors | Process Variables | Outcomes |

Employment Specialist Variables (Self-Rated):

Background Variables
Caseload Size
Supported Employment Knowledge
Optimism
Self-efficacy
Conscientiousness

Employment Specialist Variables (Supervisor-Rated):

Employment Specialist Efficacy
Job Performance

Other Predictor Variables:

Consumer Characteristics
Community Characteristics

Program Fidelity

Job Performance Indicators:

Percentage of time spent in community
Frequency of contacts with employers
Frequency of contacts with consumers

Competitive Employment Rate

90-Day Employment Rate

Dropout Rate

Consumer Factors

Economic Factors
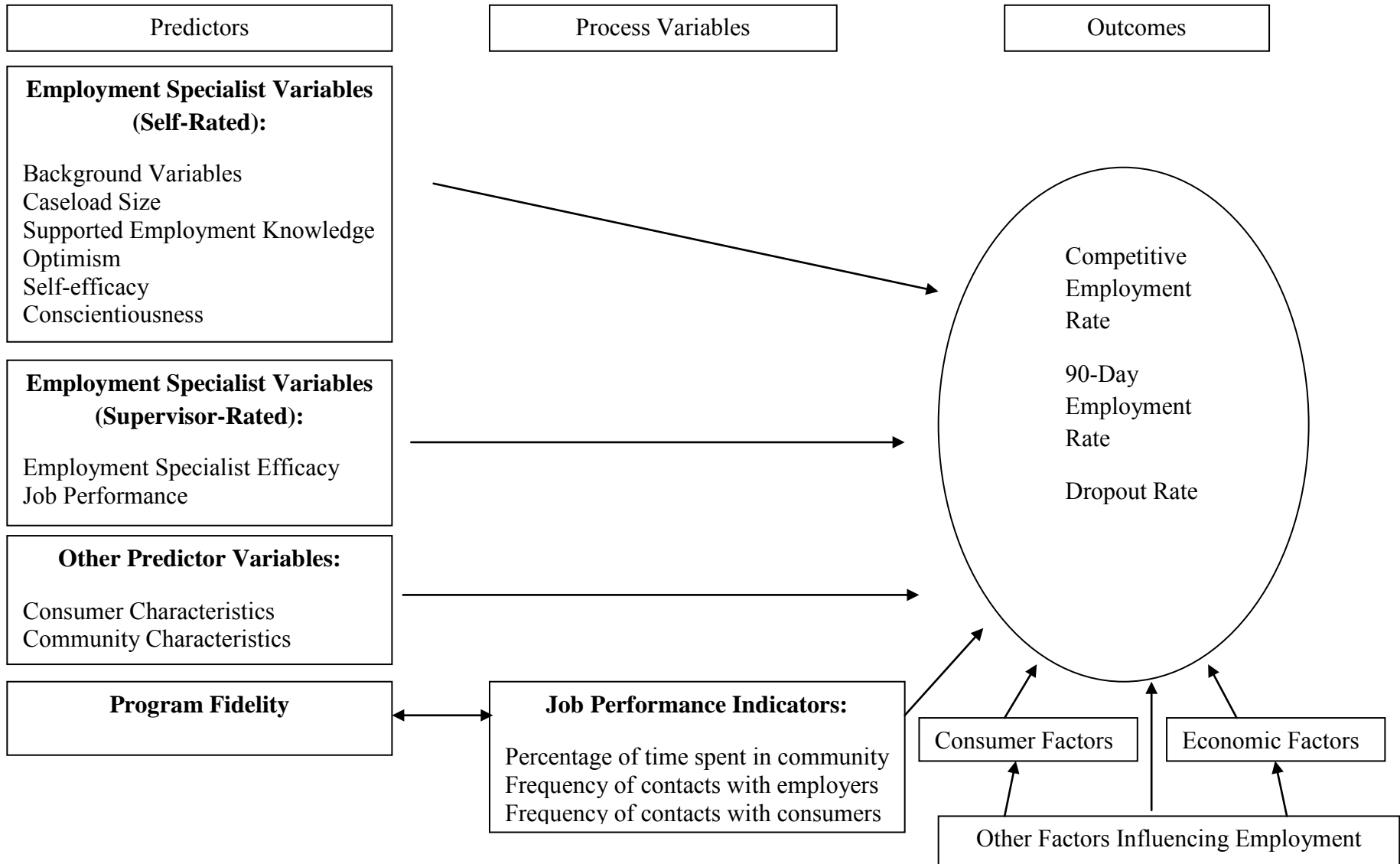
Other Factors Influencing Employment

Figure 1. Hypothesized factors that account for variability in consumer employment outcomes
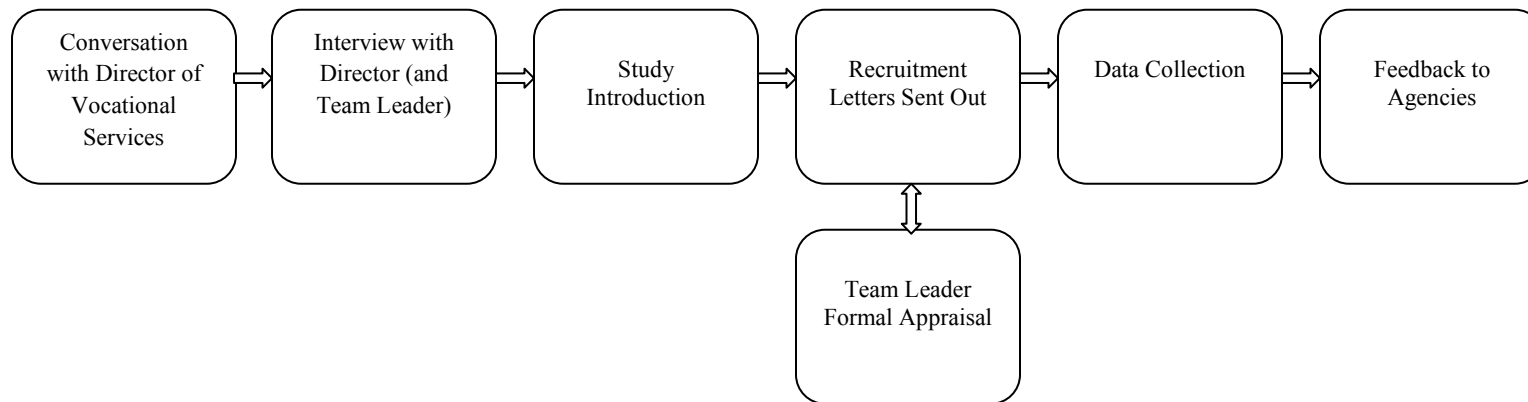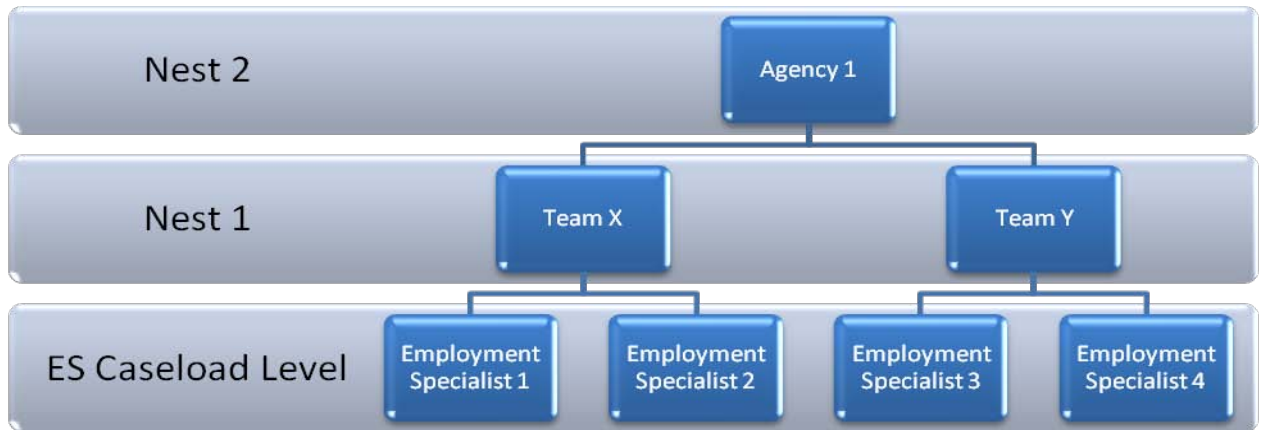
126

Figure 2. Study progression flow.
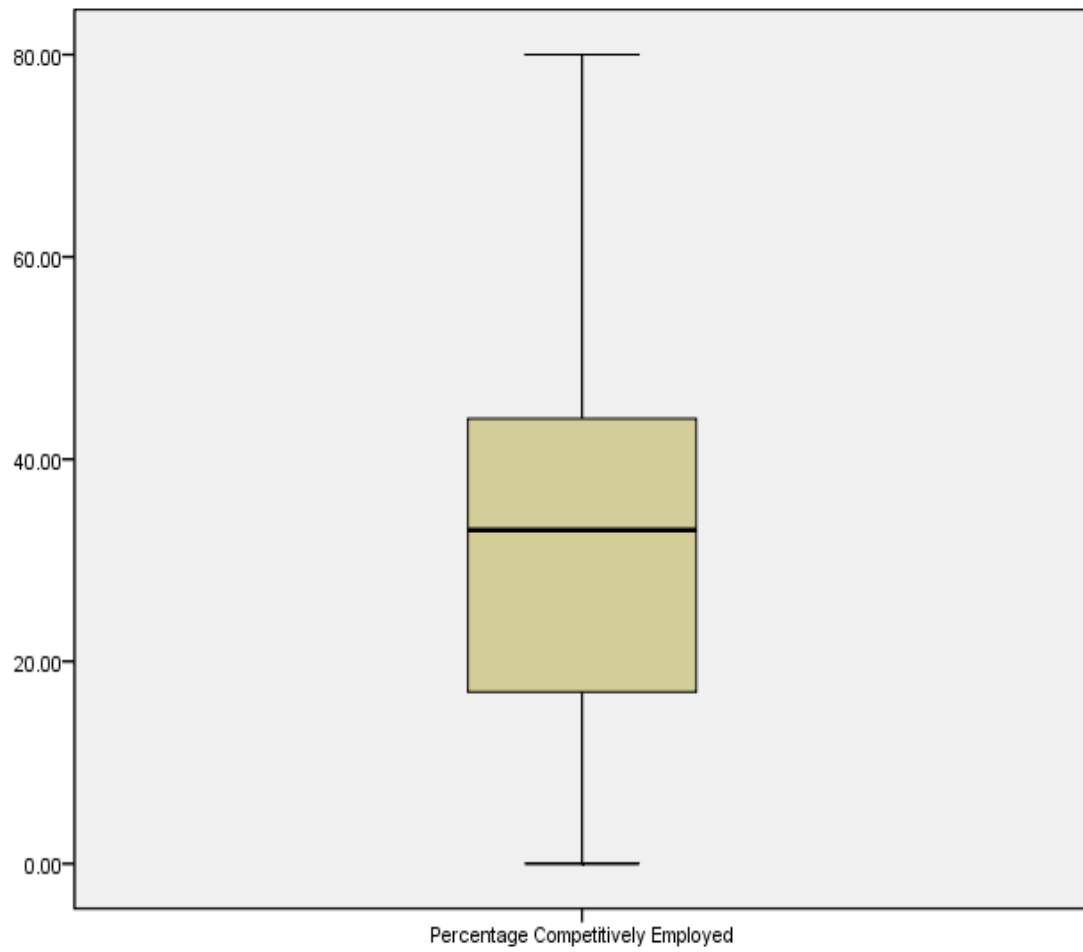
Figure 3. Illustration of nested design.

Figure 4. Box plot illustrating variability of competitive employment rates.

APPENDICES

Appendix A. Recruitment Letter for Employment Specialists

July 15, 2008

Dear Employment Specialist:
You have been invited to participate in a study regarding your beliefs and behaviors as an employment specialist. Surprisingly, there is very little research examining the important role employment specialists play in helping our consumers achieve their vocational goals. Consequently, this study is being conducted in an effort to develop more effective employment services for consumers with SMI by exploring the part employment specialists play in helping consumers find employment.

This study will require you to complete an online survey packet, and will include a brief demographics questionnaire, an attitudes measure, two personality questionnaires, a questionnaire regarding evidence-based employment practices, and questions regarding your work-related behaviors and consumer caseload characteristics. It is estimated that this survey packet can be completed in 60-120 minutes.

We will protect your confidentiality by storing and analyzing the data without any personally identifying information. Only the researchers will have access to any personally identifying information. Moreover, feedback will be aggregated and only given at the team-level to help protect individual confidentiality.

We know your time is valuable and we appreciate your participation. While there is no monetary compensation for your participation we are offering to provide aggregated data and feedback for your agency and team to use as a quality improvement tool. Your participation will help further research efforts to assist our consumers fulfill their vocational dreams and live more fulfilling lives!

If you would like to participate in this survey please click on the following link to be taken to the login page (http://_____).

Sincerely,

Amanda C. Taylor, M.S.
Indiana University-Purdue University, Indianapolis
acatylor@iupui.edu
317.605.3986

Appendix B. Recruitment Letter for Employment Specialists' Supervisors

July 15, 2008

Dear Team Leader:
You have been invited to participate in a study regarding the beliefs and behaviors of employment specialists. Surprisingly, there is very little research examining the important role employment specialists play in helping our consumers achieve their vocational goals.   Consequently, this study is being conducted in an effort to develop more effective employment services for consumers with SMI by exploring the part employment specialists play in helping consumers find employment.

This study will require you to complete a job performance evaluation and a brief efficacy measure regarding each eligible employment specialist on your team using a web-based survey tool. It is estimated that each evaluation can be completed in 15 minutes.

We will protect your confidentiality by storing and analyzing the data without any personally identifying information. Only the researchers will have access to any personally identifying information. Moreover, feedback will be aggregated and only given at the team-level to help protect individual confidentiality.

We know your time is valuable and we appreciate your participation. While there is no monetary compensation for your participation we are offering to provide aggregated data and feedback for your agency and team to use as a quality improvement tool. Your participation will help further research efforts to assist our consumers fulfill their vocational dreams and live more fulfilling lives!

If you would like to participate in this survey please click on the following link to be taken to the login page (http://_____).

Sincerely,

Amanda C. Taylor, M.S.
Indiana University-Purdue University, Indianapolis
acatylor@iupui.edu
317.605.3986

Employment Specialist Demographics/Background Information

Directions: Please *circle* the letter of the answer that best describes you and/or fill in the blank. Do **NOT** circle more than one letter.

1. **Which of the following best describes where you work?**
   A. Mental health center
   B. Veterans Administration
   C. State office of vocational rehabilitation
   D. Psychiatric rehabilitation agency
   E. Comprehensive rehabilitation agency
   F. Other (please specify)
      _____

2. **Which of the following best describes your current position?**
   A. Job coach/employment specialist/vocational rehabilitation specialist
   B. Job developer/follow-along specialist
   C. Case manager/service coordinator
   D. Vocational rehabilitation counselor
   E. Mental health clinician
   F. Other (please
      specify)_____

3. **How long have you worked in this position? _____month(s) _____year(s)**

4. **What is your primary area of training?**
   A. Social work
   B. Sociology
   C. Nursing
   D. Psychology
   E. Psychiatry
   F. Business
   G. Other (please specify): _____

5. **Have you ever worked in a business related field?**

    a. **If yes, how long did you work in this field? _____month(s)-_____year(s)**

6. **How long have you worked in the mental health field? _____month(s)_____year(s)**

7. **Which of the following best describes the program model in which you are currently working?**

    a. Supported employment, Individual Placement and Support model (Evidence-based supported employment)

    b. Supported employment, non-Individual Placement and Support model

    c. Transitional employment

    d. Sheltered workshop

    e. Clubhouse model

    f. Psychiatric rehabilitation

    g. Day treatment program

    h. Other (please specify)_____

8. **What is the highest level of education you completed?**

    a. Some high school

    b. High school or GED

    c. Some college

    d. Bachelor's degree

    e. Master's degree

    f. Doctoral degree

    g. Other (please specify)_____

9. **How many years ago did you receive your highest degree? _____years**

10. **Which of the following best describes you?**

    a. African American

    b. American Indian/Native American

    c. Asian/Pacific Islander

d. Caucasian

e. Hispanic/Latino

f. Other (please specify) _____

11. What is your gender?

a. Female

b. Male

12. What is your age? _____years

13. What is your current caseload size (i.e., number of clients for whom you have primary responsibility)? _____clients

<u>Appendix D. Employment Specialist Attitudes Scale</u>
Staff Expectation Scale

This is a survey of your opinions and expectations of the clients with whom you currently treat. Please read each statement, and decide if the statement is a rather accurate description for almost all, most, some, few, or none of the clients you currently work with. It is important that you answer these based on YOUR current belief and opinion. The information you provide is strictly confidential.

	Almost All	Most	Some	Few	None
1. Will remain in the mental health system for the rest of their lives.	1 Almost All	2 Most	3 Some	4 Few	5 None
2. Will be able to greatly increase their level of involvement in the community.	1 Almost All	2 Most	3 Some	4 Few	5 None
3. Will be able to function very well in the community.	1 Almost All	2 Most	3 Some	4 Few	5 None
4. Will be able to avoid returning to the hospital.	1 Almost All	2 Most	3 Some	4 Few	5 None
5. Will remain pretty much as they are now.	1 Almost All	2 Most	3 Some	4 Few	5 None
6. Will find work that enables them to be economically self-sufficient.	1 Almost All	2 Most	3 Some	4 Few	5 None
7. Will continue to be dependent upon their families.	1 Almost All	2 Most	3 Some	4 Few	5 None
8. Will be able to work in a competitive job (integrated in the community, for real wages).	1 Almost All	2 Most	3 Some	4 Few	5 None

9.	Will be able to achieve their vocational goals.	1 Almost All	2 Most	3 Some	4 Few	5 None

10.	Will be able to obtain a job that matches their preferences.	1 Almost All	2 Most	3 Some	4 Few	5 None

11.	Are truly motivated to work.	1 Almost All	2 Most	3 Some	4 Few	5 None

12.	Have too many barriers (disability, disincentives, lack of motivation) in their way to achieve a competitive job.	1 Almost All	2 Most	3 Some	4 Few	5 None

13.	Will find work too stressful.	1 Almost All	2 Most	3 Some	4 Few	5 None

14	Are too symptomatic to work.	1 Almost All	2 Most	3 Some	4 Few	5 None

15	Will not be able to find a job because the stigma is too great and employers won't hire them.	1 Almost All	2 Most	3 Some	4 Few	5 None

16.	Will not be able to find a job because the economy is bad.	1 Almost All	2 Most	3 Some	4 Few	5 None

Appendix E. Employment Specialist Self-Efficacy Scale

Self-Efficacy Scale

This is a survey of your beliefs regarding your ability to perform certain aspects of your job. Please read each statement describing the various job functions of an employment specialist, and decide if you are highly confident, mostly confident, moderately confident, somewhat confident, or not confident at all in your ability to perform the stated function. It is important that you answer these based on YOUR current belief and opinion. The information you provide is strictly confidential.

	Not Confident	Somewhat Confident	Moderately Confident	Mostly Confident	Highly Confident
1. Able to actively engage clients in vocational services.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident
2. Understand the supported employment vocational model.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident
3. Understand the major mental illnesses such as mood disorders, psychotic disorders, personality disorders, anxiety disorders, and alcohol and drug use disorders.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident
4. Conduct an individualized vocational assessment tailored to the needs and preferences of each individual client.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

5.	Develop meaningful relationships and partnerships in the community with local businesses in an effort to create employment opportunities for clients.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

6.	Find clients jobs that match their preferences.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

7.	Find solutions to problems that arise once a consumer is employed.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

8.	Negotiate job accommodations for clients so that both client and employer are satisfied.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

9.	Maintain open and ongoing communication with employers once a consumer has been placed in a job.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

10.	Understand disability benefits enough to accurately assist clients in determining how employment will affect their benefits.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

Appendix F. International Personality Item Pool (IPIP) Conscientiousness Scale

IPIP Conscientiousness Scale

On the following page, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes *you*. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept confidential. Please read each statement carefully, and then click the bubble next to the response that best describes you.

Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate

1. Am always prepared.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate
2. Do just enough work to get by.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate
3. Waste my time.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate
4. Carry out my plans.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate
5. Find it difficult to get down to work.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate
6. Make plans and stick to them.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate

7.	Don't see things through.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate

8.	Shirk my duties.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate

9.	Pay attention to details.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate

10.	Get chores done right away.	1 Very Inaccurate	2 Moderately Inaccurate	3 Neither Inaccurate nor Accurate	4 Moderately Accurate	5 Very Accurate

<u>Appendix G. Individual Placement and Support Quiz</u>
IPS-Q

Directions: The Individual Placement and Support (IPS) model of supported employment is a program that provides employment services to persons with a mental illness. For each question, please select the answer that is most consistent with the practices and principles of IPS. <u>If you are unfamiliar with the IPS model that's **OK,** please answer each question based on your knowledge of how employment services should be provided.</u>

1. **Employment specialists may have caseloads:**
    A. Of up to 50 clients
    B. Of up to 20 clients
    C. Of up to 10 clients
    D. Of any size; it will vary depending on how much service the different clients on the caseload need

2. **Employment specialists:**
    A. Should only provide employment services
    B. Should provide both employment and case management services
    C. May have a small case management caseload in addition to their employment duties
    D. May provide other services (e.g., assisting with an illness management and recovery group) in addition to employment services, depending on the needs of the agency

3. **In the IPS model, benefits counseling is considered:**
    A. An integral part of employment services that should be provided to every client
    B. A supplemental service that should be provided to clients who request it
    C. Important, but beyond the scope of services provided by the employment program
    D. Important only for clients who are working

4. **Employment specialists:**
    A. Should specialize in one or two specific employment program areas, such as job developing or job coaching
    B. Should not specialize in a particular employment area, but instead should provide all phases of employment services
    C. Are hired to carry out several job functions, but do not necessarily do the entire employment process
    D. Will have varying responsibilities depending on the structure of the agency

5. **Susan was recently fired from her job for repeatedly showing up late. According to the IPS model, this:**
    A. Indicates that Susan is not ready to go back to work yet

    B. Demonstrates Susan's unwillingness to return to work
    C. Is viewed as a positive learning experience
    D. Is a good time to refer Susan to a training program that will teach her the skills she needs to succeed in the future

6. **Employment specialists:**
    A. Work completely independently of the mental health treatment team
    B. Function independently of the mental health treatment team and attend treatment team meetings on an as-needed basis
    C. Serve as consultants to mental health treatment teams and occasionally provide input in treatment team meetings
    D. Are full members of the mental health treatment team and attend all of the treatment team meetings

7. **Clients who have co-occurring disorders (a mental illness and substance use disorder):**
    A. Are eligible for employment services if they show some willingness to be abstinent
    B. Are eligible after 90 days of abstinence
    C. Are eligible for employment services even if they are unwilling to be abstinent
    D. Are not eligible for employment services

8. **Given the following scenario, please select the best answer from below:**
April is a 42-year old woman with bipolar disorder who hasn't worked for several years. She was recently referred to an employment program and says that she would like to try working as a flight attendant, even though all of her previous job experience has been as a mechanic. Her employment specialist should:
    A. Help her find a job as a flight attendant because that is what she wants to do
    B. Encourage her to look for a job as a mechanic because of her prior work history
    C. Get her a job in the local factory because several clients have already been successfully placed there
    D. Start her out in a transitional job to help her get back into the workforce

9. **Research has found that approximately what percentage of people with a mental illness say that they want to work?**
    A. Less than 25%
    B. 25%-50%
    C. 51% -75%
    D. 76%-100%

10. **A vocational profile can be helpful in finding a good job match for the client. Which of the following best describes the initial vocational profile process?**
    A. A simple battery of paper and pencil tests along with information from the clinical chart

    B. Placing the client in a sheltered setting or in a volunteer job for a brief period of time to find out about their work habits

    C. Gathering information from the client, the clinical chart, previous employers, and other staff

    D. It is best to skip an initial assessment and get the client working because the first job is likely to be brief

11. As a general rule of thumb, employment specialists should have:

    A. No more than 15% of their clients employed in the same type of job

    B. No more than 30% of their clients employed in the same type of job

    C. Over 50% of their clients employed in the same type of job

    D. None of the above, the percentage depends on the job market

12. Employment specialists help clients begin a job search:

    A. Within one month of starting the employment program, after gathering initial assessment information

    B. After the client's psychiatrist or other mental health providers decide that a client can work

    C. After a thorough assessment has been completed, using both standardized instruments and work samples

    D. After VR provides authorization

13. Employment specialists conduct job searches <u>primarily</u> by:

    A. Searching on the internet and in newspapers because this is an efficient way to find a variety of jobs

    B. Going out in the community and meeting employers to develop a large job network so there are available jobs for clients

    C. Meeting face to face with employers to learn about jobs in the community that reflect the individual preferences of clients

    D. Employment specialists usually do not conduct job searches, the agency supplies the jobs

14. Which of the following best characterizes an <u>early</u> employment program goal? The client is:

    A. Regularly attending skills training classes

    B. Working in a competitive job placement

    C. In a transitional job placement

    D. Working in a volunteer job

15. In the employment program:

    A. If a client has difficulty finding a job opening, the employment specialist should wait patiently until the client is able to locate one in order to give the client a sense of empowerment when a job is finally secured

B. Employment specialists should take as much of the lead in the job search as is necessary to help the client secure a job
C. Employment specialists should play a supportive role as clients carry out the different steps of getting employed (e.g., finding job openings, contacting employers, submitting resumes, filling out applications, going to job interviews, and negotiating employment)
D. Employment specialists should provide clients with job leads, but then it is up to the client to take the initiative and contact employers

16. **In the IPS program, a vocational evaluation:**
   A. Occurs prior to job placement and consists of a wide variety of assessment batteries
   B. Is conducted by watching the client perform various simulated job tasks
   C. Is a stepwise process that includes standardized testing, followed by transitional employment
   D. Occurs over a few initial appointments and is updated with information from competitive job experiences

17. **Tyrone was fired for using alcohol on the job. His employment specialist should:**
   A. Help him identify ways to prevent alcohol use from interfering with future jobs and help him to find another job
   B. Help him identify ways to prevent alcohol use from interfering with future jobs and tell him that they will help him obtain another job after a reasonable period of sobriety, such as 90 days
   C. Notify the referring agency and let them know that the employment program can no longer work with Tyrone because of his alcohol use, which precipitated the job termination
   D. Refer Tyrone to a chemical dependency/substance abuse program and resume work with him after he completes the program and is sober

18. **Of the following, which is the best way for benefits counselors to provide beneficiaries with information?**
   A. Give beneficiaries a link to an informational website in order to foster their autonomy
   B. Hold group meetings so that beneficiaries have the opportunity to learn from questions asked by others in the group
   C. Mail beneficiaries a package of information about their benefits so that they always have something to refer back to
   D. Meet with beneficiaries individually because each person has a unique situation

19. **After a client secures a job, s/he should continue to receive support:**
   A. For as long as s/he wants
   B. Until s/he is stable on the job
   C. For about 90 days, with occasional phone calls thereafter

D. For up to six months or until s/he is stable on the job, depending on which occurs first

20. Ideally, employment specialists should be out of the office and in the community:
   A. Less than 15% of the time
   B. 15 - 40% of the time
   C. 41 - 65% of the time
   D. More than 65% of the time

21. If a client misses several appointments with the employment specialist, the employment specialist should:
   A. Recommend that the client return to the employment program when s/he is ready to keep appointments and be an active participant
   B. Continue to try to engage the client
   C. Contact the case manager and ask that a referral be resubmitted when the client demonstrates an interest in work
   D. Recommend that the client attend a prevocational program to become work ready

22. Given the following scenario, please select the best answer from below:
Jackie has worked as a courtesy clerk in a local grocery store for several months. She had a very tough time adjusting to the job, but she is now doing quite well. Last week, Jackie noticed that another grocery store a few miles away is looking to hire a cashier, and she would like to apply for the position. Her employment specialist should:
   A. Tell Jackie that this isn't a good idea, and that it would be better for her to continue her job as a courtesy clerk because she is finally stable and doing well
   B. Make a referral to Jackie's psychiatrist because he will need to determine if she is ready to make such a change
   C. Congratulate Jackie because this demonstrates that she is now ready to graduate from the program
   D. Support Jackie's interest in applying for the new job, and encourage her to continue working at her current job until she learns more about the cashier position

23. A primary purpose of vocational unit team meetings is to:
   A. Take care of administrative business
   B. Share job leads
   C. Discuss program development
   D. Update clients' treatment plans

24. Which of the following is an example of competitive employment?
   A. Working for a mental health agency in a position that is reserved for people receiving services from the agency
   B. A temporary job as a sales clerk that pays $12.00 an hour and is set up by an agency as a short-term work experience

C. Working indefinitely as a janitor making minimum wage

D. Occasionally babysitting for one's family and friends

25. The IPS coordinator and employment specialists from the agency meet as a group at least:

A. Once a week

B. Once a month

C. Once a quarter

D. Once a year

26. Given the following scenario, please select the best answer from below:

Marco would like to get a job as a cook at a diner located just a few blocks from his home. He is happy about the location and feels comfortable in the diner having eaten there frequently. However, when Marco and his employment specialist meet with the employer, they learn that in addition to cooking, the position consists of taking customers' orders and waiting on tables. Knowing that Marco is very uncomfortable interacting with strangers, the employment specialist should:

A. Talk to the client about looking for another job because the job at the diner turned out to be a bad fit

B. Talk to the client about trying the job in spite of his discomfort because jobs are hard to find and the location of this job will be tough to beat

C. Talk to the client and employer about the possibility of shifting the customer service responsibilities to another position in exchange for duties with which the client is more comfortable

D. Ask VR to pay for a work adjustment program so that the client can build customer service skills

27. Which of the following is <u>NOT</u> an employment specialist responsibility?

A. Ensuring that a client has information about his/her benefits

B. Helping a client apply for housing assistance

C. Assisting a client with filling out a financial aid application for college

D. Communicating with the client's treatment team

28. In the IPS model, assessment is best thought of as:

A. A task that is completed when a client first enters the program, and is referred back to in order to determine if the client is achieving his/her goals

B. A battery of several vocational interest inventories that help the client determine what kind of work s/he wants to do

C. An unnecessary step that wastes both the client's and employment specialist's time

D. An ongoing process based on the client's employment successes and failures

29. At a minimum, an employment specialist should meet with the client's other providers (e.g., case managers, nurses, clinicians):
A. Once a week
B. Once a month
C. Once a quarter
D. Once a year

30. It's best for employment specialists to:
A. Place several clients with a single employer because this is most time efficient
B. Place several clients at the same job site so that they can provide support for one another
C. Make decisions about what employers to contact based on client preferences
D. Establish a strong working relationship with the major employers in the community so that clients will be able to choose between a few different job options

Appendix H. Employment Process Measure

1.   Thinking back over the past month, please indicate what percentage of your total scheduled work hours you have spent out in the community away from the office (e.g., job developing, meeting with clients, meeting with employers, etc.). (you may want to use your planner to help you recall) _____%

2.   How many contacts (face-to-face or phone) have you had with employers during the past month? (you may want to use your planner to help you recall) _____contacts

3.   How many contacts (face-to-face or phone) have you had with clients on your caseload during the past month? (you may want to use your planner to help you recall) _____contacts

4. How many clients on your caseload (who were officially enrolled in employment services) have dropped out (i.e., decided to quit pursuing employment and are no longer on your caseload) over the past three months? _____clients

5.   Thinking back over the past three months, how many clients on your caseload have been Vocational Rehabilitation (VR) clients?

a.   Of only those VR clients you've worked with for the past three months, how many have been deemed by Vocational Rehabilitation to be successful VR closures (i.e., Status 26)? _____clients

6.   Of only the Non-VR clients you've worked with for the past three months, how many have been successfully employed for at least 90 consecutive days?

Appendix I. Consumer Caseload Demographics Measure

	Consumer 1	Consumer 2	Consumer 3	Consumer 4	Consumer 5
Consumer ID Number					
Consumer's age					
Male/Female					
Race					
Married (yes/no)					
Highest Level of Education Completed					
Does this consumer have a primary diagnosis of a schizophrenia spectrum disorder based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)? (yes/no)					
Does this consumer have a substance abuse disorder based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)? Caffeine and nicotine use are not included. (yes/no)					
Has this consumer been involved in the criminal justice system (spent time in jails, prisons, or other criminal justice lock-ups, even if incarceration does not result in formal arrest, indictment, or conviction) over the past six months? (yes/no)					
Has this consumer been homeless (lacked fixed, regular, and adequate nighttime residence) over the past six months (including stays in emergency shelters or brief stays with relatives)? (yes/no)					
Has this consumer been hospitalized in either a private or state institution for either a psychiatric or substance use disorder over the past six months? (yes/no)					
Is this consumer currently employed in a competitive job (defined as work settings integrated in a community's economy, where any person can apply for the job, and paying at least minimum wage) as of today? (yes/no)					

Appendix J. Kansas Employment Specialist Job Performance Evaluation

Competency Area	Evidenced By	Rating
A. Values		
1. Belief that the clients they work with can work.	❏ Convey excitement about their work ❏ View obstacles as challenges rather than blaming the clients. ❏ Convey a positive attitude toward clients' goals for employment as evidenced by their words and actions.	1 2 3 4 5
2. Belief that no person with a psychiatric disability should be excluded from employment services based on job readiness, substance abuse, history of violent behavior, intellectual functioning, or symptoms.	❏ Conveys positive attitude toward referrals. ❏ Encourages referrals in CM team meetings for clients who have significant challenges. ❏ Conveys a positive attitude toward working with people who have significant challenges.	1 2 3 4 5
B. Engagement		
3. Makes multiple, ongoing attempts to engage or reengage with clients referred and there are difficulties in connecting with the client.	❏ Uses multiple strategies for engaging including phone calls, home visits, and contacting case manager. ❏ Contacts clients multiple time per month	1 2 3 4 5
4. Ability to effectively build rapport and trust and ability to relate to a wide variety of people.	❏ Projects warmth and interest ❏ Changes their engagement style depending on the nature of the person they are working with ❏ Tolerant of different levels of readiness to work using gentle encouragement when a client appears unsure of working	1 2 3 4 5
Competency Area	**Evidenced By**	**Rating**
C. Assessment/Vocational Profile/Planning		
5. The ES is able to use a vocational profile to gather relevant information about the client in order to begin identifying a good job match.	❏ The information in the VP is thorough, detailed and specific ❏ ES gathers info over 2-3 weeks ❏ ES uses VP as a tool to engage and get to know the client ❏ ES adds information through time, when the client obtains a job and new information is learned	1 2 3 4 5

			Rating
6. Ability to take information obtained in the assessment and assists client in finding employment situations in the community that match the desires and needs of the program participant.	☐ Clients' job preferences, needs, experience, ability, symptoms, etc. match jobs applied for or discussed. ☐ Clients' job preferences, etc. match job development contacts on behalf of client.	1 2 3 4 5
7. The ES clearly identifies an employment goal and job options that include clients' needs and preferences.	☐ Employment goal is written down in records. ☐ Employment goal logically follows the information obtained in the vocational profile.	1 2 3 4 5
8. The ES discusses disclosure with the client.	☐ Talks about pros and cons with the consumer. ☐ Discusses specific information to be disclosed or not to be disclosed – degree of information rather than all or nothing. ☐ Discusses on more than one occasion. ☐ Does not require disclosure, but talks about it as a choice.	1 2 3 4 5
Competency Area	**Evidenced By**	**Rating**
D. Integration of Rehabilitation Mental Health Treatment		
9. ES regularly attends treatment team meetings.	☐ Attends their assigned team meeting every week ☐ Attends the whole meeting	1 2 3 4 5
10. The ES is an active participant in team meetings, participating throughout the whole meeting.	☐ Updates team on client progress, including identifying client goals and ES interventions/tasks toward those goals ☐ Discusses challenges, asks for ideas, and comes up with shared plan of action. ☐ Brings up possibility of work for clients who are not on ES case load.	1 2 3 4 5
11. The ES meets with case managers and other treatment providers regularly regarding needed services to assist clients' achieve their employment goals.	☐ Has frequent contact with case managers or other providers ☐ Discusses updates, barriers, and plans for assisting clients to achieve their employment goals.	1 2 3 4 5
E. Job Development:		
12. The ES is able to introduce themselves stating clearly:	☐ who they are, ☐ what they do, and ☐ what they want from the employer.	1 2 3 4 5

Competency Area	Evidenced By	Rating
13. The ES is able to obtain critical information about the employer's business.	Information includes: ☐ General info about the company ☐ Positions hired for and details of the job(s) ☐ Hiring process ☐ Qualities of good, qualified applicants	1 2 3 4 5

Competency Area	Evidenced By	Rating
E. Job Development (continued):		
14. The ES is able to present information to the employer about the program or client that matches the information obtained from the employer about their needs and desires.	☐ the benefits of the agency's supported employment program ☐ a potential job candidate describing how the job candidate meets the needs of the employer, their motivation, and their potential accommodation and support needs in order to be a successful employee.	1 2 3 4 5
15. The ES is able to end the job development call with clearly stating the next steps or getting commitment from the employer to move the process forward.	1. There is a clear next step for the ES and/or employer that is measurable, specific and unambiguous.	1 2 3 4 5
F. Follow-Along Supports:		
16. Meets regularly with clients who are working to assess how the client is doing (work performance and job satisfaction) in the job.	2. Able to ask questions of the client and probe areas that elicit areas of strengths and problem in work performance. 3. Identifies and implements strategies to improve work performance/satisfaction. 4. Provides tangible supports or assists clients in accessing resources to be able to work (e.g. childcare resources, transportation, work clothes, etc.)	1 2 3 4 5

Competency Area	Evidenced By	Rating
F. Follow-Along Supports:		
17. Is able to individualize types and frequency of supports depending on the needs of the client and the newness of the job.	5. Provides more intensive supports more frequently with clients who have just started jobs/have changes in their jobs and/or have more challenges working 6. Provides less intensive supports less frequently with clients who have been stable in their job or have fewer challenges working	1 2 3 4 5

	7. Decreases frequency and intensiveness of supports through time as client's performance meets expectations consistently and client is comfortable with the job.	
18. Ability to provide individual follow-along supports to the employer. (When client is OK with disclosure)	8. Identifies with employer areas of strengths, weaknesses, and barriers in good work performance 9. Identifies and implements with the employer strategies to improving work performance/satisfaction such as accommodations, changes or modifications in work environment to enhance performance. 10. Education and guidance about symptoms that relate to work performance.	1 2 3 4 5

Appendix K. Employment Specialist Efficacy Scale (Supervisor-Rated)
Employment Specialist Efficacy Scale

This is a survey of your beliefs regarding the ability of employment specialists to perform certain aspects of their job. First, please identify the employment specialist you are rating by entering their name in the "Employment Specialist Name" box. Then, read each statement describing the various job functions of an employment specialist while thinking of the identified employment specialist and decide if you are highly confident, mostly confident, moderately confident, somewhat confident, or not confident at all in their ability to perform the stated function.   It is important that you answer these based on YOUR current belief and opinion. The information you provide is strictly confidential and employment specialists will not have access to your individual data.

	Not Confident	Somewhat Confident	Moderately Confident	Mostly Confident	Highly Confident
1. Able to actively engage clients in vocational services.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident
2. Understand the supported employment vocational model.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident
3. Understand the major mental illnesses such as mood disorders, psychotic disorders, personality disorders, anxiety disorders, and alcohol and drug use disorders.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident
4. Conduct an individualized vocational assessment tailored to the needs and preferences of each individual client.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

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5.	Develop meaningful relationships and partnerships in the community with local businesses in an effort to create employment opportunities for clients.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

6.	Find clients jobs that match their preferences.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

7.	Find solutions to problems that arise once a consumer is employed.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

8.	Negotiate job accommodations for clients so that both client and employer are satisfied.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

9.	Maintain open and ongoing communication with employers once a consumer has been placed in a job.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

10.	Understand disability benefits enough to accurately assist clients in determining how employment will affect their benefits.	1 Not Confident	2 Somewhat Confident	3 Moderately Confident	4 Mostly Confident	5 Highly Confident

VITA

VITA

Amanda Christine Taylor

EDUCATION

August- 2010	**Doctor of Philosophy** Clinical Rehabilitation Psychology (APA Accredited) Indiana University Purdue University Indianapolis (IUPUI) **Dissertation:** Employment Specialists' Competencies as Predictors of Employment Outcomes
December- 2007	**Master of Science** Clinical Rehabilitation Psychology Indiana University Purdue University Indianapolis (IUPUI) **Thesis:** Exploratory Study of Consumer Perceptions of Two Employment Models for People with Severe Mental Illness
May- 2002	**Bachelor of Science** Psychology University of Illinois, Urbana-Champaign

CLINICAL EXPERIENCE

Position: **Pre-doctoral Psychology Intern**
Site: Jesse Brown VA Medical Center, Chicago, IL
Dates: July 2009-June 2010
Supervisors: Eric Van Denburg, Ph.D.; Mark Zerwic, Ph.D.; Mark Schneider, Ph.D.; Sarah Catanese, Ph.D.; Susan Payvar, Ph.D.; Jeff Albaugh, R.N., Ph.D.; Leah Paskar, Ph.D.; Joseph Yount, Ph.D.
Experience: Responsible for providing individual and group cognitive-behavioral and psycho-educational psychotherapy to veterans with a wide range of psychiatric diagnoses; Rotations include: Psychosocial Rehabilitation and Recovery Center, Outpatient Mental Health, Health Psychology, Mental

Health Leadership and Administration, Psychological Assessment, Sexual Health Clinic, Biofeedback, Posttraumatic Stress Disorders Clinic, Research and Program Evaluation, and Supervision of Externs; Participate in weekly supervision for a minimum of four hours per week.

Position:	**Practicum Student**
Site:	Adult and Child Community Mental Health Center, Assertive Community Treatment Team
Dates:	October 2007-October 2008
Supervisors:	John Guare, Ph.D., HSPP; Evette Blackman, M.S.
Experience:	Provided individual outpatient therapy, crisis counseling, and case management services to adults with serious mental illness as a member of a multidisciplinary team; Participated in daily multidisciplinary treatment team meetings, focusing on the rehabilitation of individuals with serious mental illness; Provided psycho-educational training on cognitive-behavioral therapy for team members; Received training in Dialectical Behavior Therapy (DBT) and Assertive Community Treatment (ACT); Participated in community outreach and weekly individual supervision.

Position:	**Practicum Student**
Site:	Alzheimer's Research and Training Center, Department of Psychiatry, Indiana University School of Medicine
Dates:	July 2006-January 2007
Supervisor:	Daniel Rexroth, Psy.D.
Experience:	Conducted neuropsychological evaluations using a variety of tests, including the Wechsler Adult Intelligence Scale – III, Wechsler Memory Scale-Revised, Wide Range Achievement Test – III, Minnesota Multiphasic Personality Inventory-2, Boston Naming Test, Trail Making Test Parts A & B, Geriatric Depression Scale, Rey Auditory Verbal Learning Test, American National Adult Reading Test, Animal Fluency, Constructional Praxis, Indiana University's Token Test, and the Mini-Mental Status Examination with culturally and economically diverse adult outpatients suffering neurological and cognitive deficits resulting from dementia, traumatic brain injury, stroke, and other disease; Wrote 29 comprehensive, integrated reports of psychological, neurological, and cognitive findings for referring physicians; Participated in weekly individual supervision.

Position:	**Practicum Student**
Site:	LaRue Carter Memorial Hospital
Dates:	January 2006-May 2006
Supervisor:	Melissa Butler, Ph.D., HSPP
Experience:	Provided individual, milieu, group and family therapy for adolescent females and their families at an inpatient, state psychiatric hospital;

Adolescents presented with a range of severe mood, behavior, and anxiety disorders; Provided weekly supervision for one undergraduate student; Designed and implemented a group focused on self-esteem and positive body image and co-led a coping skills group; Participated in monthly multidisciplinary case presentations and treatment planning with a multidisciplinary team; Received weekly individual supervision.

Position: **Practicum Student**
Site: Roudebush Veterans Administration Medical Center
Dates: May 2005-December 2005
Supervisor: Paul Lysaker, Ph.D.
Experience: Provided weekly individual counseling and group therapy for veterans with serious mental illness; Independently led two process-oriented groups, an art therapy group, and stress management group; Co-led one Integrated Dual Disorders Treatment Group focusing on the treatment of co-occurring mental illness and substance abuse; Participated in daily multidisciplinary treatment team meetings; Received weekly group and individual supervision.

Position: **Practicum Student**
Site: IUPUI Counseling and Psychological Services
Dates: October 2004-June 2005
Supervisors: John McGrew, Ph.D.; John Sharp, Ed.D., HSPP
Experience: Provided individual counseling and intake assessments for college students who presented with a range of mood and anxiety disorders, as well as relational problems; Received live supervision; Participated in weekly group and individual supervision.

Position: **Counselor**
Site: Cunningham Children's Home
Dates: September 2002-May 2003
Supervisors: Poppy Ann Grahm, M.S.; Marie Duffin, B.S.
Experience: Full-time cottage counselor for ten adolescent males, ages ten to sixteen who resided at a group home; Assisted with informal treatment for a variety of disorders, including Autism Spectrum Disorders, severe mood, behavior, and anxiety disorders; Collaborated with therapy team to generate Individual Crisis Management Interventions (ICMP) and Individual Education Plans (IEP) for clients; Taught youth life skills with the goal of integration into the community.

RESEARCH EXPERIENCE

Position:	**Research Assistant**
Site:	Regenstrief Institute
Dates:	September 2006-June 2009
Supervisor:	Richard Frankel, Ph.D.
Experience:	Responsible for developing a coding system for qualitative interviews of hospital employees inquiring about organizational values; Responsible for all aspects of recruiting participants, conducting interviews, facilitating focus groups, managing and analyzing data.

Position:	**Research Assistant**
Site:	Indiana University Purdue University Indianapolis
Dates:	August 2004-September 2006
Supervisor:	Gary R. Bond, Ph.D.
Experience:	Worked on a project titled, *Medication Management Approaches in Psychiatry (MedMAP),* to evaluate medication prescribing practices among organizations and prescribers who treat people with schizophrenia; Participated in creating medication management fidelity scales to assess the organizational and prescriber level of fidelity to medication guidelines; Trained others on fidelity scales; Responsible for all aspects of data collection, maintenance, and analyses; Integrated information into reports.

Position:	**Research Assistant**
Site:	Roudebush Veterans Administration Medical Center
Dates:	May 2005-May 2006
Supervisor:	Paul Lysaker, Ph.D.
Experience:	Responsible for coding qualitative interviews of individuals with serious mental illness using the Scale to Assess Narrative Development (STAND) which is designed to quantitatively measure the quality of a person's sense of self as articulated within their narrative.

Position:	**Full-Time Research Assistant/Community Coordinator**
Site:	DePaul University Center for Community Research
Dates:	May 2003-June 2004
Supervisors:	Principal Investigator, Leonard Jason, Ph.D; Project Director, Steven Pokorny, Ph.D.; Community Relations Manager, Peter Ji, Ph.D.
Experience:	Responsible for maintaining a database of 8,135 students enrolled in eight middle and high schools regarding the effects of enforcement and possession laws on smoking prevalence among adolescents; Sustained positive relationships with community members; Collected active consent at schools and through mass mailings; Assisted in administering surveys in 41 schools to 20,000 students; Conducted an independent research

project assessing the relationship between the quality of school-based tobacco prevention programs and youth tobacco use.

Position: **Research Assistant**
Site: University of Illinois, Urbana-Champaign
Dates: October 2002-May 2003
Supervisor: Patrick Palmieri, Ph.D.
Experience: Administered the Life Events Checklist to research participants regarding histories of sexual assault; Managed data in SPSS.

Position: **Research Assistant**
Site: University of Illinois, Urbana-Champaign
Dates: June 2002-August 2002
Supervisor: Howard Berenbaum, Ph.D.
Experience: Assisted in the design of a coding system regarding anxiety and depression for victims of sexual abuse; Managed data in SPSS.

Position: **Research Assistant**
Site: University of Illinois, Urbana-Champaign
Dates: August 2001-December 2001
Supervisor: Dorothy Espelage, Ph.D.
Experience: Managed data regarding bullying and body image; Attended weekly lab meetings.

Position: **Research Assistant**
Site: Infant Cognition Lab, University of Illinois, Urbana-Champaign
Dates: January 2001-May 2002
Supervisor: Renee Baillargeon, Ph.D.
Experience: Conducted controlled experiments studying infants' understanding of the physical world; Observed infant participants; Assisted in general lab maintenance; Prepared paperwork for review and statistical analysis.

PUBLICATIONS

Taylor, A.C., Karnieli-Miller, O., Inui, T.S., Ivy, S.S., & Frankel, R. (*in press*). Appreciating the power of narratives in healthcare: A tool for understanding organizational complexity and values. In Sarangi, S. & Candlin, C. (Eds.), *Handbook of applied linguistics: Communication in professions and organizations.*

Taylor, A.C., Bond, G.R., Tsai, J., Howard, P.B., El-Mallakh, P., Finnerty, M., Keaely, E., Myrhol, B., Kalk, K., Adams, N., Miller, A.L. (2009). Scales to evaluate quality of medication management: Development and psychometric properties.

Administration and Policy in Mental Health and Mental Health Services Research, 36(4,) 247-254.

Lysaker, P.H., Buck, K.D., **Taylor, A.C.**, & Roe, D. (2008). Associations of metacognition, self stigma and insight with qualities of self experience in schizophrenia. *Psychiatry Research, 157,* 31-38.

Bond, G. R., Miller, A. L., **Taylor, A.C.**, Tsai, J., Howard, P. B., El-Mallakh, P., Finnerty, M., Kealey, E., Myrhol, B., Kalk, K., & Adams, N. (2007). A scale to assess fidelity to evidence-based principles of medication management for schizophrenia. *Schizophrenia Bulletin*, *33*, 469.

Lysaker P.H. & **Taylor A.C.** (2007). Personality dimensions in schizophrenia: Associations with symptoms and coping concurrently and 12 months later. *Psychopathology, 40*, 338-344.

Lysaker, P.H., **Taylor, A**., Miller, A., Beattie, N., Strasburger, A., & Davis, L.W. (2006). The Scale to Assess Narrative Development: Association with other measures of self and readiness for recovery in schizophrenia spectrum disorders. *The Journal of Nervous and Mental Disease, 194*, 223-225.

Lysaker, P.H., Buck, K.D., Hammoud, K., **Taylor, A.C.**, Roe, D. (2006). Associations of symptoms, psychosocial function and hope with qualities of self-experience in schizophrenia: Comparisons of objective and subjective indicators of health. *Schizophrenia Research, 82,* 241-249.

MANUSCRIPTS UNDER REVIEW

Karnieli-Miller, O., **Taylor, A.**, Cottingham, A. H., Inui, T. S., Vu, R. T., & Frankel, R. M. *(under revision)*. "R-E-S-P-E-C-T: Find out what it means to me": Analysis of medical student professionalism narratives at a large medical school. Journal of General Internal Medicine.

Bell, L., Spath, M., **Taylor, A.C.**, Godfrey, J.L. (*submitted*). Involving the family: An interdisciplinary exploration. Journal of the American Board of Family Medicine.

MANUSCRIPTS IN PREPARATION

Karnieli-Miller, O., **Taylor, A.C.**, Frankel, R. *What happens when things go right? Using high performing employees' narratives to understand values in a large healthcare organization.*

Taylor, A.C. & Bond, G.R. *Exploratory study of consumer perceptions of two employment models for people with severe mental illness.*

UNPUBLISHED REPORTS

Karnieli-Miller, O., Vu, R.T., **Taylor, A.C.**, Inui, T.S. (2008). Integrated analysis of resident focus groups on the NBME Environmental Survey. Indiana University School of Medicine, Indianapolis.

Taylor, A.C., Tsai, J., Miller, A.L., Bond, G.R., Howard, P.B., El-Mallakh, P., Finnerty, M., Kealey, E., Myrhol, B., Kalk, K., & Adams, N. (2006). MedMAP fidelity scale validation study. Indiana University Purdue University Indianapolis, Department of Psychology.

CONFERENCE PRESENTATIONS

Karnieli-Miller, O., **Taylor, A.C.**, Cottingham, A., Frankel, R.M. (September, 2008). *"R-E-S-E-C-T: Find out what it means to me": Analysis of medical student professionalism narratives at a large medical school.* Poster presented at the International Conference on Communication in Healthcare, Oslo, Norway.

Taylor, A.C., Spath, M., Godfrey, J., Dehn, J., Barnett, M., & Bell, L. (October, 2007). *Communication with families in healthcare transitions: Ethical concerns arising from conflicting personal, societal and professional values.* Poster presented at the International Conference on Communication in Healthcare, Charleston, SC.

Karnieli-Miller, O., **Taylor, A.C.**, Inui, T., & Frankel, R.M. (October, 2007). *Workplace narratives as a window into organizational values and culture.* Oral presentation at the International Conference on Communication in Healthcare, Charleston, SC.

Taylor, A.C., Tsai, J., Miller, A.L., Bond, G.R., Howard, P.B., El-Mallakh, P., Finnerty, M., Kealey, E., Myrhol, B., Kalk, K., & Adams, N. (February, 2007). *Medication management approaches in psychiatry (MedMAP) fidelity scale validation study.* Poster presented at the National Association of State Mental Health Program Directors, Washington, D.C.

Bond, G.R., Miller, A.L., **Taylor, A.C.**, Tsai, J., Howard, P.B., El-Mallakh, P., Finnerty, M., Kealey, E., Myrhol, B., Kalk, K., & Adams, N. (March, 2007). *A scale to assess fidelity to evidence-based principles of medication management for schizophrenia.* Poster presented at the International Congress on Schizophrenia Research, Colorado Springs, CO.

Bond, G., & **Taylor, A.** (October, 2005). *MedMAP fidelity scale: Psychometric study.* Oral presentation at the MedMAP Toolkit Revision Meeting sponsored by the National Association of State Mental Health Program Directors and Substance Abuse and Mental Health Services Administration, Alexandria, VA.

Adams, M., Hoy, E., **Taylor, A.**, Pokorny, S., & Jason, L. (April, 2005). *School tobacco policies: Enforcement, environment, and student tobacco use.* Poster presented at the Midwestern Psychological Association Annual Conference, Chicago, IL.

Taylor, A.C., Pokorny, S.B., & Jason, L.A. (April, 2004). *Assessment of the comprehensiveness of schools' tobacco control policies.* Poster presented at the Midwestern Psychological Association Annual Conference, Chicago, IL.

Ji, P.Y., Pokorny, S.B., Jason, L.A., Corbin, S.R., Driscoll, M.W., Hella, B.E., Sabatino, T.E., **Taylor, A.C.**, & Williams, T. (October, 2003). *Stages of community collaborations with community psychologists.* Panel discussions at the Ecological-Community Annual Conference, Donaldson, IN.

TEACHING EXPERIENCE

Position: **Graduate Student Teaching Assistant**
Site: Indiana University Purdue University Indianapolis
Course: Introduction to Counseling
Dates: Fall Semester 2006, Spring Semester 2007
Duties: Responsible for co-lecturing on a weekly basis to help educate undergraduates on the basics of counseling; Responsible for assisting undergraduate students with their studies, grading, and developing and presenting three original lectures on treatment planning, intake assessments, and motivational interviewing directly supervised by the course instructor.

Position: **Graduate Student**
Site: Indiana University Purdue University Indianapolis
Course: Seminar in Teaching Psychology
Date: August 2005
Duties: Successfully completed course focused on theories of effective teaching and assessment of learning, and how to implement these theories to help students become motivated learners in the classroom.

Position: **Peer Tutor**
Site: University of Illinois, Urbana-Champaign
Course: Introduction to Psychology and Cognitive Psychology
Dates: August 2000-May 2002
Duties: Tutored peers in undergraduate psychology coursework.

Position: **Peer Advisor**
Site: University of Illinois, Urbana-Champaign
Course: General undergraduate psychology courses

Dates: August 2000-May 2002
Duties: Advised and mentored undergraduate psychology students in course
                planning and preparation.

PROFESSIONAL HONORS AND AWARDS

Dissertation Scholarship Award, IUPUI   2010
Todd E. Husted Dissertation Award, American Psychological
Foundation   2008
Educational Enhancement Grant for Dissertation Research, IUPUI   2008
Graduate Student Assistantship, IUPUI   2004-2009
National Dean's List, University of Illinois   2000-2002
Dean's List, University of Illinois   2000-2002
Psi-Chi, National Psychology Honor Society   2000-2002

PROFESSIONAL MEMEBERSHIPS

American Psychological Association   2002-Present
Indiana Psychological Association   2008-Present