PERCEPTIONS OF REHABILITATION PROFESSIONALS REGARDING CAREER DEVELOPMENT SERVICES FOR TRANSITION YOUTH WITH DISABILITIES

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ABSTRACT

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Career outcomes for youth with disabilities continue to remain below their peers without disabilities (Newman, Wagner, Cameto, & Knokey, 2009), and such poor postsecondary outcomes may be due to lack of effective career development services. Rehabilitation professionals are increasingly involved with youth as adult service providers who help youth make transition to post school environments and employment. The purpose of the current study was to gather data potentially useful for developing a better understanding of career development services provided for transition youth with disabilities from the perspective of rehabilitation professionals in the state of Michigan. Specifically, the study examined rehabilitation professionals' perceptions of importance, availability, and quality of career development services offered to transition youth with disabilities. In addition, the study explored rehabilitation professionals' perspectives on the barriers to providing career development services for transition youth and professionals' training needs. An on-line survey was utilized to gather data from professionals who worked in the state of Michigan in the following settings: (a) Michigan Rehabilitation Services (MRS); (b) Community Rehabilitation Organizations (CROs), (c) Centers for Independent Living (CILs), and (d) public school districts that provide transition services to students with disabilities through the Michigan Transition Outcomes Project (MI-TOP).

A sample of 107 rehabilitation professionals responded to the survey. The findings of the study indicated that job-related services (i.e., On The Job Training, Job Coaching, Job

Placement, Job readiness Training) and Family Support services were the perceived most important career development for transition youth with disabilities. The results of the study also revealed that career development services considered extremely important by professionals were not necessarily available within their agencies. In addition, the study showed that some of the highly rated services in terms of importance were not addressed adequately by agencies with regard to quality. The findings of the study identified many barriers to providing career development services for transition youth with disabilities including barriers related to (a) Transition Youth, (b) Family, (c) Rehabilitation Professionals, (d) Transportation, (e) Funding, (f) Schools, (g) Interagency Collaboration, and (h) Employers. Moreover, the results of the study revealed several training needs of rehabilitation professionals including: (a) Available services /resources, (b) Assessment, (c) Interagency Collaboration, (d) Job/employment-related services, (e) Legislation, (f) Specific disability-related services, and (g) Other training.

Data generated from this study can be used to inform and enhance career development services provided to transition youth with disabilities, and to address the barriers that negatively affect providing services for transition youth. Specific implications for practice, training, policy and future research are provided.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

One of the important markers of adult success in society is employment. It provides individuals with financial security, allows them to be self-sufficient, and help them gain a sense of self-esteem and personal satisfaction (Szymanski, Enright, Hershenson, & Ettinger, 2010). Unfortunately, people with disabilities face many barriers to obtaining employment and achieving their career goals (Rose, Stapleton, & O'Day, 2008). According to The U.S. Department of Labor, Bureau of Labor Statistics (2011), the employment rates for people with disabilities continue to fall behind those without disabilities. Individuals with disabilities are also more likely to suffer from persistently higher poverty rates than others without disabilities (National Organization on Disability, 2004).

Unemployment, underemployment, and poverty are also a reality for many youth with disabilities. Previous research has documented that employment outcomes for youth with disabilities still lag behind those without disabilities (Newman, Wagner, Cameto, & Knokey, 2009). Limited employment opportunities and lack of financial stability for youth with disabilities do not affect these youth only but also the entire society that continues to pay the financial and social costs of youth's unemployment or underemployment status (Fabian & Pebdani, 2013). According to information from the Social Security Administration (2011), about 350,000 youth ages 18 to 25 receive disability-related social security income supports rather than working. This alone costs taxpayers more than \$10 billion annually (Social Security Administration [SSA], 2011).

The future encountered by youth with disabilities does not get better upon their entering adulthood. The employment outcomes of working-age adults with disabilities significantly lag behind that of adults without disabilities (Fabian & Pebdani, 2013). Data from the Bureau of Labor Statistics reports that 23% of youth with disabilities participated in the labor force compared to 35% of those without disabilities. As these youths age, the disparities increase. For example, 45% of young adults with disabilities ages 20 to 24 participate in the labor force compared to 72% of young adults without disabilities. In general, estimates are that 66% of the working-age populations of individuals with disabilities are not participating in the labor force (The U.S. Department of Labor, Bureau of Labor Statistics, 2011).

Historically, the field of rehabilitation counseling has been concerned with career development, employment, and vocational behavior of individuals with disabilities (Patterson, Szymanski, & Parker, 2005). One of the main responsibilities of rehabilitation counseling practitioners is to help individuals with disabilities make effective career choices and overcome career problems. The Council on Rehabilitation Education (CORE), the accreditation body for rehabilitation counseling programs, identifies career development and employment as a major knowledge area for the professional practice of rehabilitation counseling. This area includes such issues as career counseling and career exploration; vocational planning and assessment; employer consultation; and vocational consultation and job placement strategies (CORE, 2012). Competence in this knowledge area remains integral to preparation for the Certified Rehabilitation Counselor (CRC) examination (Leahy, Chan, Sung & Kim, 2013).

Rehabilitation professionals play a major role in providing career development services for youth with disabilities during their transition from school to adult life. School-to-adult life transition is the formal process that has been established by special education and rehabilitation

professionals to address the career development concerns of students with disabilities (Koch, 2000). The purpose of transition planning, which is initiated for adolescents as early as age 14, is to promote successful movement from high school to post-school activities such as employment, postsecondary education, adult services, independent living, and/or community participation (Kohler & Field, 2003). Transition team members (e.g., teachers, parents, rehabilitation counselors, transition coordinators, job coaches) work together to design and implement interventions to prepare transition youth to take on adult responsibilities.

Given that the research on transition has consistently emphasized that better collaboration among the relevant service providers is required to support a fluid and effective transition (Oertle & Trach, 2007; Oertle, Trach, & Plotner, 2013), it behooves teachers and rehabilitation professionals to share the responsibility to provide students with transition services that will increase their exposure to the world of work, expand opportunities for them to practice career decision-making, and improve their access to real work experiences. Therefore, rehabilitation professionals have an essential role in offering career development interventions that can be implemented within the context of transition planning for youth with disabilities. According to Lindstrom, Doren, and Miesch (2011), transition youth with disabilities who participate in adult services such as vocational rehabilitation programs, experience better employment and post-secondary educational outcomes.

The most recent amendments to the Rehabilitation Act – now part of the broader Workforce Innovation and Opportunity Act of 2014 (WIOA) emphasize the role of state vocational rehabilitation (VR) professionals in preparing transition youth with disabilities for competitive integrated employment. The law includes specific provisions to (a) increase the involvement of VR agencies in providing pre-employment transition services such as work-

based learning, counseling on post-secondary opportunities, and workplace readiness training; (b) increase supported employment services for young adults; (c) offer technical assistance to better enable youth with intellectual disabilities and other individuals with disabilities to participate in postsecondary educational experiences and to obtain and retain competitive integrated employment; and (d) limit the entry of young adults with disabilities into jobs that pay less than the minimum wage (Hoff, 2014).

Today, VR professionals are more involved in the transition process than ever before (Honeycutt, Thompkins, Bardos, & Stem, 2015). In addition, there are many Community Rehabilitation Organizations (CROs) and Centers for Independent Living (CILs) that are involved in providing career development services for youth with disabilities (Oertle et al., 2013). Rehabilitation professionals have an important role in helping transition youth achieve their career goals. Therefore, it is critical to examine professionals' role to help them learn and evolve with the changing field of rehabilitation service delivery so that they are better able to meet the requirements of their job and improve their practice.

Rehabilitation professionals' perceptions of career development services offered to transition youth with disabilities have not been examined. The majority of studies explore a teacher perspective but rarely an adult service provider perspective such as rehabilitation professionals. The few existing studies suggest rehabilitation professionals' participation in career-related services is essential but fragmented and inadequate (Agran, Cain, & Cavin, 2002; Benitez, Morningstar, & Frey, 2009; Oertle & Trach, 2007), thus contributing to the poor post-school outcomes for transition youth with disabilities. Consequently, a better understanding of rehabilitation professional's perceptions of employment and career related activities and services

for youth with disabilities is needed to improve the employment outcomes of youth with disabilities.

Purpose of the Study

The number of youth with disabilities requesting services from rehabilitation professionals is increasing (Oertle & Trach, 2007). Rehabilitation professionals are major contributors in the transition process for youth with disabilities. It is the responsibility of these professionals to ensure that transition-age youth get the proper career development services in order to work and live independently in the community. It is important that rehabilitation professionals have an understanding of career development services provided to transition youth to maximize the benefit to those transition-age individuals and improve their career outcomes. Limited research has been conducted to examine rehabilitation professionals' perceptions of career development services offered to transition youth with disabilities. There is a critical need for more research that investigates professionals' perspectives in order to enhance career development services and employment outcomes for transition youth with disabilities.

Therefore, the purpose of this study was to gather data potentially useful for developing a better understanding of career development services provided for transition youth with disabilities. Specifically, the study examined professionals' perspectives on importance, availability, and quality of career development services offered to transition youth with disabilities. In addition, the study explored rehabilitation professionals' perceptions of the barriers to providing career development services for transition youth and professionals' training needs. It is critical that rehabilitation professionals' perspectives are examined for three central reasons: (a) to better understand the current career development services offered to transition youth with disabilities, (b) to improve awareness of the effective services from the perspectives

of rehabilitation professionals working with transition youth, and (c) to contribute to the current literature by giving the field more information about the barriers to providing career development services to transition youth and professionals' training needs to enhance the career development process of transition youth with disabilities.

Research Questions

The research questions of study are as follows:

- (1) How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?
- (2) How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?
- (3) How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?
- (4) Do rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services differ based on professional setting?
- (5) What are the barriers to providing career development services to transition youth with disabilities?
- (6) What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?

Theoretical Framework

The National Collaborative on Workforce and Disability/Youth (NCWD/Youth, 2009) conducted an extensive review of literature and programs related to transition and developed core commonalities across disciplines and programs. From that review, NCWD/Youth developed five Guideposts for Success, which can guide students, families, and agencies through the

transition process. The five Guideposts include: (1) school-based preparatory experiences, (2) career preparation and work-based experiences, (3) youth development and leadership, (4) connecting activities, and (5) family involvement and supports.

School-Based Preparatory Experiences. These include educational programs grounded in standards and clear performance expectations:

- a) Academic programs that are based on clear state standards;
- b) Career and technical education programs that are based on professional standards;
- c) Curricular and program options based on universal design of school, work, and community-based learning experiences;
- d) Learning environments that are small and safe;
- e) Supports from and by highly qualified staff;
- f) Access to an assessment system that includes multiple measures; and
- g) Graduation standards that include options (NCWD/Youth, 2009).

Career Preparation and Work-Based Learning Experiences. These include experiences that help youth make informed choices about careers:

- a) Career assessments to help identify students' preferences and interests;
- Structured exposure to post-secondary education and other lifelong learning opportunities;
- c) Exposure to career opportunities that ultimately lead to a living wage, including
 information about educational requirements, entry requirements, income and benefits
 potential, and asset accumulation; and
- d) Training designed to improve job-seeking skills and basic workplace skills (sometimes called "soft skills") (NCWD/Youth, 2009).

In order to identify and attain career goals, youth need to be exposed to a range of experiences, including:

- a) Opportunities to engage in a range of work-based exploration activities such as site visits and job shadowing;
- b) Multiple on-the-job training experiences, including community service (paid/ unpaid) that is specifically linked to the content of a program of study and school credit;
- c) Opportunities to learn and practice their work skills ("soft skills"); and
- d) Opportunities to learn firsthand about specific occupational skills related to a career path (NCWD/Youth, 2009).

Youth Development and Leadership. This includes experiences that help youth control and direct their own lives:

- a) Mentoring activities designed to establish strong relationships with adults through formal and informal settings;
- b) Peer-to-peer mentoring opportunities;
- c) Exposure to role models in a variety of contexts;
- d) Training in skills such as self-advocacy and conflict resolution;
- e) Exposure to personal leadership and youth development activities; and
- f) Opportunities that allow youth to exercise leadership and build self-esteem (NCWD/Youth, 2009).

Connecting Activities. These include activities that enable youth to be linked with organizations and services that complement their transition planning:

- a) Mental and physical health services;
- b) Transportation;

- c) Tutoring;
- d) Financial planning and management;
- e) Post-program supports through structured arrangements in post-secondary institutions and adult service agencies; and
- f) Connection to other services (e.g., recreation) (NCWD/Youth, 2009).

Youth with disabilities may need:

- a) Acquisition of appropriate assistive technologies;
- b) Community orientation and mobility training (e.g., accessible transportation, bus routes, housing, health clinics);
- c) Exposure to post-program supports such as independent living centers and other consumer-driven, community-based support service agencies;
- d) Personal assistance services, including attendants, readers, interpreters, etc.; and
- e) Benefits planning counseling, including information regarding the many benefits available and their interrelationships so that youth may maximize those benefits in transitioning from public assistance to self-sufficiency (NCWD/Youth, 2009).

Family Involvement and Supports. Youth need parents, families, and other caring adults who have:

- a) High expectations that build upon the young person's strengths, interests, and needs and foster their ability to achieve independence and self-sufficiency;
- b) Been involved in their lives and assisting them toward adulthood;
- c) Access to information about employment, education, and community resources;
- d) Taken an active role in transition planning with schools and community partners; and
- e) Access to medical, professional, and peer support networks (NCWD/Youth, 2009).

In addition, youth with disabilities need parents, families, and other caring adults who have:

- a) An understanding of the youth's disability and how it affects his or her education,
 employment, and/or daily living options;
- b) Knowledge of the youth's rights and responsibilities under disability legislation;
- c) Knowledge of and access to programs, services, supports, and accommodations available for young people with disabilities; and
- d) An understanding of how individualized planning tools can assist youth in achieving transition goals and objectives (NCWD/Youth, 2009).

Definition of Terms

The following operational definitions will assist in the understanding of the study: *Career Development:* "A process that encompasses much of the life span—one that begins in childhood (and includes the formal and informal experiences that give rise to talents, interests, values, and knowledge of the world of work), continues into adulthood via the progression of one's career behavior (e.g., entry into and adjustment to work over time), and culminates with the transition into, and adjustment to, retirement." (Lent & Brown, 2013, p. 9)

Career Development Service/Activity: The service/Activity that would help youth engage in employment post–high school (Test, Aspel, & Everson, 2006).

Rehabilitation Professionals: State VR counselors; Transition Coordinators working in public schools districts; and rehabilitation services providers working in Community Rehabilitation Organizations (CROs) and Centers for Independent Living (CILs) who assist individuals with disabilities and their families with employment, training, independent living, and community involvement.

Transition: "A coordinated set of activities for a student with a disability, designed within an outcome-oriented process, to promote movement from school to post-school activities including postsecondary education, vocational training, integrated employment (including supported employment, continuing and adult education, adult services, independent living, or community participation" (Individuals with Disabilities Education Improvement Act of 2004).

Transition-age Youth: Students/individuals who are between the ages 14-26 and are transitioning or planning to transition from school (secondary education) to post-school activities.

Vocational Rehabilitation: Vocational rehabilitation (VR) is a set of services offered to individuals with disabilities. These services are designed to enable participants to attain information, skills, resources, attitudes, and expectations needed to compete in the interview process, get a job, and keep a job. Services offered may also help an individual retrain for employment after an injury or mental disorder has disrupted previous employment (Rehabilitation Act Amendments of 1992).

Summary

An overview of the significance, purpose, theoretical framework, and research questions of the current study were presented. This study examined rehabilitation professionals' perceptions of career development services. Specifically, the study explored the professionals' perceptions of importance, availability, and quality of career development services offered to transition youth with disabilities. In addition, the study examined rehabilitation professionals' perspectives on the barriers to providing career development services for transition youth and professionals' training needs.

CHAPTER 2

LITERATURE REVIEW

This chapter reviews the academic and professional literature that is related to career development services for transition youth with disabilities. The literature discussed is relevant to:

(a) The centrality of work; (b) Employment status of people with disabilities; (c) Barriers to employment; (d) Legal foundations of career development services for transition youth with disabilities (e) Career development models; (f) Career development services for transition youth with disabilities; and (g) The role of rehabilitation professionals in career development for transition youth with disabilities.

The Centrality of Work

The underlying philosophy of rehabilitation counseling is that work constitutes an integral component of people's lives and is the primary means by which individuals relate themselves to society (Szymanski & Hershenson, 2005). Work provides the person with status, recognition, affiliation and similar products essential for participation in a complex society (Strauser, Wong, & O'Sullivan, 2012). Work has been also viewed as a principle condition of psychological health. According to Blustein (2008), work provides individuals with opportunities for social interaction, self-expression and self-determination which are essentials of psychological health. Most work environments require an individual to interact with others, perform meaningful customs, and provide opportunities for growth and development—the activities that preserve mental health (Blustein, 2008).

From the social perspective, employment provides a person with income and a social role both of which improves an individual's social status (Wolfensberger, 2002). One's occupation generally determines where and how one lives, the community activities and organizations in

which one participates and many other aspects of life. Competitive employment is linked with improved access to better housing, health care, nutrition, educational services, as well as free-crime communities and better social relationships (Strauser et al., 2012).

According to Blustein (2008), the world of work provides a means through which individuals can fulfill three basic human needs: (1) survival and power, (2) social connection, and (3) self-determination and well-being. Ideally, competitive employment should enable individuals to generate enough income and financial benefits to meet their most basic needs of survival. In addition, work should provide individuals with an increased social role that ultimately increases their ability to derive psychological, social, and economic power (Wolfensberger, 2002).

Participation in work-related activities provides an opportunity for individuals to connect with other individuals and their border social and cultural environments (Blustein, 2008). Ideally, through work, individuals develop positive relationships and a sense of connection that is pivotal in the establishment of a personal identity (Strauser et al., 2012). Finally, work provides individuals with opportunities to be purposeful, creative, responsible, and useful especially if the person participates in work that is consistent with his/her skills and interests (Strauser et al., 2012). When an individual's personal values and goals coincide with those of the work organization, the person has a better opportunity to exercise self-determination, self- expression and promote individual well-being (Blustein, 2008).

Employment Status of People with Disabilities

Unfortunately, people with disabilities often encounter employment difficulties that preclude meaningful participation in the workforce. Statistics indicate that employment rates are much lower for persons with disabilities compared to individuals without disabilities. According

to the National Council on Disability (2007), only 35% of working-age people with chronic illness or disability are employed compared to 78% of those without disabilities. Over the last two decades, the employment rate of individuals with disabilities has been hovering around 35%. Interestingly, this employment rate tends to persist through economic cycles; in other words, whether the rest of the economy is doing well or poorly, unemployment among people with disabilities remains stuck at 30% to 40% (Bjelland, Burkhauser, von Schrader, & Houtenville, 2010). Importantly, when unemployed persons with chronic illness and disability were surveyed about their preference for working, two-thirds of them indicated that they would like to work but could not find a job (Amir, Strauser, & Chan, 2009).

Investigation of the employment rates of specific disability groups shoes a similar trend. According to Bond et al. (2001), only15% of people with severe mental illness are employed compared to 77% of the general working-age population. For persons with mild intellectual disabilities, roughly 2-9% are competitively employed (Moore, Feist-Price, & Alston, 2002). For persons with visual impairment, only 40-45% of working-age persons are employed (Capelle-McDonnall, 2005). For persons with spinal cord injury, 54% are employed (Marini, Lee, Chan, Chapin, & Romero, 2008).

Failure to participate in the workforce is also a reality for youth with disabilities. Despite modest improvements evidenced during the last two decades, unemployment, underemployment, and segregated employment still characterize the vocational landscape for many youth with disabilities—especially youth with severe disabilities (i.e., intellectual disabilities, autism, multiple disabilities) or emotional and behavioral disorders (Wagner, Newman, Cameto, Garza, & Levine, 2005). The National Longitudinal Transition Study (NLTS), the largest study of school-to-adult life transition of students leaving secondary special education programs, found

that only 25% of youth with intellectual disabilities, 32% of youth with autism, 36% of youth with emotional and behavioral disorders, 46% of youth with learning disabilities, and 58% of youth with speech/language impairments were employed two years out of high school compared to 63% of youth without disabilities (Wagner et al., 2005). Indeed, youth with severe disabilities or emotional and behavioral disorders consistently experience more disappointing in post-school employment outcomes than virtually any other group of youth with disabilities. Finally, the NLTS found that only 20% of youth with disabilities achieved what they considered successful adult adjustment by 5 years after graduation. Successful adult adjustment was defined as independent functioning in the following three domains: (1) employment, (2) residential, and (3) social activities (Wagner et al., 2005).

Barriers to Employment

There is a variety of interrelated factors that contribute to the high unemployment rate among people with disabilities. The factors that have received the most attention in the literature include: (a) disability benefits and health insurance policy, (b) discriminatory attitudes of employers, (c) limited access to adequate preparation for employment, and (d) professional attitudes toward employment.

Disability benefits and health insurance policy. Persons with disabilities who qualify for income support programs through the Social Security Administration may choose not to seek employment because they fear loss of benefits, especially health insurance (Orszag, 2010). These work disincentives inherent within the Social Security system have been cited as one of the most severe factors that discourage people with disabilities to return to work or to leave benefits rolls and seek employment (Fabian & Pebdani, 2013).

Discriminatory attitudes of employers. Discrimination and prejudice in the workplace have a pronounced effect on employment and career development of individuals with disabilities. According to the National Organization on Disability (2010), 43% of adults with disabilities have encountered some form of job discrimination throughout their lives. Employers may hold misconceptions, or stereotypes about people with disabilities, which can impact initial access to employment as well as opportunities for training and promotion (Noonan et al., 2004; Shahnasarian, 2001; Wilson-Kovacs, Ryan, Haslam, & Rabinovich, 2008). These barriers are particularly salient for individuals with certain highly stigmatized conditions, such as emotional, behavioral, and mental disabilities, as well as chronic diseases such as AIDS. More important, the negative social attitudes directed towards people with disabilities, may affect vocational identity development for youth, thus interfering with their career advancement (Fabian & Pebdani, 2013).

Limited access to adequate preparation for employment. Postsecondary education and training is one of the important factors that contribute to higher-wage employment (Flannery, Yovanoff, Benz, & McGrath-Kato, 2008; Fleming & Fairweather, 2012). Unfortunately, the majority of youth with disabilities continue to lag behind their peers in postsecondary school training and education (Loprest & Maag, 2007). Approximately only 30% of youth with disabilities engage in postsecondary education during the first two years after leaving high school, compared to nearly 70% of high school graduates in the general population (Wagner et al., 2005). Moreover, many young adults with disabilities have limited knowledge or awareness of potential job opportunities and career paths. This constrained set of career options may be influenced by a lack of exposure to early work experience (Kosciulek, 2009; Lindstrom & Benz, 2002; Newman et al., 2009). Previous studies have found that high school students with

disabilities are less likely than their peers without disabilities to be placed into a structured work experience or hold part time jobs in high school (Repetto et al., 2011; Rose et al., 2008). The results of several studies on the career and employment outcomes of youth with disabilities found that they experienced (a) limitations in early career exploratory experiences, (b) limited opportunities to develop decision-making abilities, and (c) poorer vocational well-being (Loprest & Maag, 2007; Moore, Konrad, Yang, Ng, & Doherty, 2011).

Professional attitudes toward employment. People with disabilities encounter several difficulties when they seek services for employment (Kosciulek, 2009). They also have difficulties in getting the services they need to maintain and advance in their careers (Fabian & Pebdani, 2013). As a result, employed people with disabilities often experience career patterns that consist primarily of a series of entry-level positions interspersed with extended periods of unemployment (Fabian, 1999). In addition, they may also have difficulty maintaining stable employment over time (Lindstrom & Benz, 2002; Roessler, 2002). Nearly two decades ago, Szymanski and Trueba (1994) pointed out that "at least some of the difficulties faced by persons with disabilities are not the result of functional impairments, but rather are the result of a castification process embedded in societal institutions for rehabilitation and education and enforced by well-meaning professionals" (p. 195).

Legal Foundations of Career Development Services for Transition Youth with Disabilities

Several laws have provided access to educational and vocational opportunities for people with disabilities. Knowledge of federal legislation that affects disability benefits and employment services is a critical matter for those who provide career development services to people with disabilities, in general, and youth with disabilities, in particular. This section describes the major

disability-related laws including the Individuals With Disabilities Education Improvement Act, the Americans With Disabilities Act, and the Workforce Innovation and Opportunity Act.

The Individuals With Disabilities Education Improvement Act (IDEIA)

The IDEIA established specific federal regulations for youth with disabilities who are transitioning from school to adult life. Special education legislation has existed since the landmark 1976 Education of All Handicapped Children (EAHC) Act, however, it was not until this act was amended in 1990, and renamed the Individuals With Disabilities Education Act (IDEA) that it addressed the issue of special education youth as they prepare to leave secondary school for adult life. In 1990, when the act was renamed, it required that students with disabilities include transition planning in their individualized education programs (IEPs). In 1997, the IDEA was amended again and attempted to shift the transition focus from educational process to post-school outcomes (Flexer, Baer, Luft, & Simmons, 2008). The most recent amendments to IDEA, passed in 2004, created the new name, The Individuals With Disabilities Education Improvement Act (IDEIA), and mandated collaborative transition planning to ensure a seamless exit from high school to college or careers. The transition objectives covered under IDEIA included (a) postsecondary education and vocational training, (b) employment, (c) independent living, and (d) social and community participation. IDEIA has called to considerable federal investment in devising more effective vocational interventions for special education youth who exit or graduate from high school (Sitlington, Neubert, & Clark, 2010).

The Americans With Disabilities Act (ADA)

The ADA's provisions prohibit discrimination against people with disabilities in all facets of life: employment, public services, private businesses, telecommunications, and transportation. For career and employment-related professionals, the major interest is in two key

areas of the ADA: Title I, which covers employment and the definition of the protected individual (i.e., who is an individual with a disability). The ADA defines disability as a "physical, mental or emotional impairment" that substantially limits functioning in a major life activity. Major life activities are defined broadly and include walking, speaking, breathing, seeing, learning, caring for self, and working, among others. Over the years, the courts increasingly limited the definition of disability under the act, determining that a disability is no longer covered when it can be mitigated by devices or equipment (such as eyeglasses) or medication (such as antidepressants) (National Council on Disability, 2003). In response to this change in the definition of disability, the Americans With Disabilities Act was amended by the ADA Amendments Act of 2009, in part to address some of the legal issues arising from the narrowed definition of who is protected under the act (Fabian & Pebdani, 2013).

Another key area under the employment provisions of Title I is the requirement for employers to provide reasonable accommodations. The law states that employers must provide "reasonable accommodations" that would enable a qualified individual with a disability to perform the essential functions of a job. What is important here is the legal word qualified, meaning that an applicant or employee must have the requisite background, credentials, education, or experience to perform the essential functions of the job with or without an accommodation. Thus, an employee who demonstrates requisite typing speed and accuracy and who uses a wheelchair might need a computer keyboard hand rest that would allow him or her to type more easily (Fabian & Pebdani, 2013). Typically, reasonable accommodations are modifications to the physical space, equipment, workplace procedures, policies, or practices. When effective, reasonable accommodations have been found to improve the job satisfaction,

retention, and productivity of people with disabilities (MacDonald-Wilson, Fabian, & Dong, 2008).

The Workforce Innovation and Opportunity Act (WIOA)

With the passage of the Workforce Innovation and Opportunity Act (WIOA) in 2014, the Workforce Investment Act (WIA) of 1998, including the Rehabilitation Act, was reauthorized through 2020. WIOA can be expected to push to the integrated employment agenda for youth transitioning from school to work. For the first time, competitive integrated employment is identified as the optimal employment outcome of VR services (Hoff, 2014). Competitive integrated employment refers to jobs held by people with disabilities in workplaces in which the majority of employees do not have disabilities. In these jobs, employees with disabilities are paid directly by their employers and earn wages consistent with those paid to employees without disabilities performing the same or similar work (Hoff, 2014).

Furthermore, new provisions in the law require VR agencies to assume a greater role in preparing youth with disabilities for competitive integrated employment. The statute includes specific provisions to (a) increase the involvement of VR agencies in providing pre-employment transition coordination and services such as work-based learning experiences; (b) increase supported employment services for young adults; (c) require formal cooperative agreements between state VR, Medicaid and developmental disabilities agencies with respect to the delivery of vocational rehabilitation services; (d) limit the entry of young adults with disabilities into jobs that pay less than the minimum wage; and (e) prohibit schools from contracting with subminimum wage providers, such as sheltered workshops, to provide transition services (Hoff, 2014).

The WIOA has the potential to dramatically impact the employment outlook for youth with significant disabilities. Consistent and widespread implementation of models and good practices for assisting youth to prepare for and enter integrated employment will be essential to the realization of this potential.

Career Development Models

Lent and Brown (2013) defines career development as

A process that encompasses much of the life span—one that begins in childhood (and includes the formal and informal experiences that give rise to talents, interests, values, and knowledge of the world of work), continues into adulthood via the progression of one's career behavior (e.g., entry into and adjustment to work over time), and culminates with the transition into, and adjustment to, retirement. (p. 9)

Numerous career development theories have been developed over the years, however, many practitioners believe that no single theory appropriately explains the career development of people with disabilities (Beveridge, Craddock, Liesener, Stapleton, and Hershenson (2002); Szymanski & Hershenson, 2005). Szymanski and Hershenson (2005) stated that there may never be a single, unified, comprehensive theory of career development and intervention because the career development process is too complex, too dependent on the idiosyncratic interaction of personal and environmental variables, and too contextually determined. According to Niles and Harris-Bowlsbey (2005), no one career development theory adequately incorporates all possible influences and early theories often neglect women, diversity, and socioeconomic difference. However, each has an important contribution for understanding career choice and development (Niles & Harris-Bowlsbey, 2005).

Research regarding the career development and employment of individuals with disabilities has identified the following three factors related to the lives of individuals with disabilities that limit the application of existing career and vocational theories: (1) limitations in career exploratory experiences, (2) limited opportunities to develop decision-making abilities, and (3) a negative self-concept resulting from negative societal attitudes toward individuals with disabilities (Strauser et al., 2012).

Because they believe that no one theory best describes a particular individual' career strengths and needs, a number of researchers have suggested models and frameworks that integrate multiple theories and research (Beveridge et al., 2002; Brown, 2002; Szymanski & Hershenson, 2005). Szymanski and colleagues (Szymanski & Hershenson, 2005) have introduced an ecological model that includes a comprehensive array of variables and career development theories. They use five groups of factors or constructs: individual, contextual, mediating, work environment, and outcome. These constructs interact to improve or inhibit the career development process of individuals with disabilities (Szymanski & Hershenson, 2005). Szymanski and Hershenson (2005) extended their original model to include six interrelated career development processes: congruence, decision making, development, socialization, allocation, and chance. These are mechanisms by which the constructs can be addressed, with related questions and suggested interventions for each construct and process across multiple theories.

Savickas (2005) developed a career development framework that is based on six key questions that represent primary concerns faced by practitioners. The framework is developed as a problem-solving model to determine which of the theories and interventions best address the individual's issues. Each question is associated with specific career instruments and interventions

across several theories. Subsequently Savickas has used Super's life-span, life-space model as a means to combine multiple theoretical models (Savickas, 2002, 2005). He included four theoretical segments to integrate these theories: individual differences, development (including stages and career maturity), self-concept, and context (including life roles).

Brown (2002) has developed a model of career development based on values for career decision making, defining values as containing cognitive, affective, and behavioral dimensions. These values include culture and form standards by which individuals evaluate their own and others' behavior. Genetic and environmental influences lead specific values to become more important than others, and as they become prioritized, they increasingly guide behavior. Life roles also interact, creating needs to prioritize values and resolve intrapersonal value conflicts (Brown, 2002).

Beveridge and colleagues (2002) developed a framework to guide rehabilitation counselors' delivery of VR services to individuals with disabilities. The INCOME framework is an inclusive framework to assist rehabilitation counselors in tracking and facilitating the career development of persons with disabilities (Beveridge et al., 2002). INCOME consists of six statuses through which individuals with disabilities can move: Imagining, iNforming, Choosing, Obtaining, Maintaining, and Exiting (Beveridge et al., 2002). The INCOME framework uses the concept of career statuses, not stages, to address the heterogeneity of individuals with disabilities. Statuses are more flexible, allowing the individual to occupy more than one status at a time, statuses are not bounded by order or sequential progression, and statuses allow individuals freedom to skip and revisit as needed, thus eliminating the sequential progression, hierarchic integration, and stage resolution sequencing that limit application to the unique needs and development of individuals with disabilities (Beveridge et al., 2002; Strauser et al., 2012).

Additionally, in each of the six statuses, one must consider the interaction of three factors: the individual, environment, and the general culture and subcultures within which the other two factors are located. Finally, the application of the INCOME framework recognizes that the age of onset and the progressive nature of certain disabilities are factors that impact career development and vocational behavior and within each status the following three distinct subgroups of individuals with disabilities are recognized as having their own unique needs: pre-career onset, mid-career onset, and episodic disabilities (Beveridge et al., 2002; Strauser et al., 2012).

Career Development Services for Transition Youth with Disabilities

Efforts to promote career development and encourage occupational exploration are typically introduced early in and continue throughout and after school to increase youths' awareness of the array of career possibilities that lies ahead and to assist them in discovering their interests, preferences, and strengths (Sitlington et al., 2010). But it is the experiences that youth have during and after high school that are especially salient in equipping them for their future careers. Adolescence represents a critical developmental period during which most youth participate in curricular, job, and community experiences that can help them acquire important work skills and values, inform their career decision making, and shape their aspirations for the future (Benz, Lindstrom, & Yovanoff, 2000).

The early career development and vocational experiences are especially critical for youth with disabilities (Rusch, Hughes, Agran, Martin, & Johnson, 2009; Test, 2004). There are several advantages of early career development for youth with disabilities. For example, career development process that begins early promote occupational readiness and career resiliency among adolescents and adults who function –within the moderate to severe range of disabilities (Moran, McDermott, & Butkus, 2001). A major advantage of early career development process

for youth with disabilities is that early intervention provides ample time for vocational exploration and the acquisition of skills necessary for vocational success in a preferred occupation (Wadsworth, Milsom & Cocco, 2004). By fortifying the career development of youth with disabilities, they are provided with the self-efficacy and job seeking skills needed to enhance not only their self-esteem but also their probability of receiving the positive reinforcement of being productive members of society.

Components of Career Development Services

A thorough review of literature from the fields of rehabilitation counseling and special education were conducted to identify the core components of career development for youth with disabilities. This review of literature led to a number of components: (a) Self-determination and decision making skills; (b) Career exploration; (c) Early work experiences; (d) Postsecondary education and training; (e) Career maintenance; and (f) Building employer relationships.

Self-Determination and Decision Making Skills

There are several individual skills that have been associated with successful career outcomes for people with disabilities. Among these skills are self-determination and decision making skills (Izzo & Lamb, 2003; Lindstrom, Kahn, & Lindsey, 2013). Individuals who are self-determined are aware of their own abilities, and capable of setting goals (Thoma & Getzel, 2005), and they maintain a sense of personal control (Seabrooks-Blackmore & Williams, 2012). Control refers to the ability to both adjust internal perceptions and make informed decisions to adapt to new and/or changing environments (Lindstrom et al., 2013). There is evidence that promoting alterable personal factors such as those encompassed by the construct of self-determination (e.g., self-awareness, goal setting, decision making) may assist youth with disabilities in being more successful in their educational programs and facilitate lifelong success.

Wehmeyer and Palmer (2003) conducted a study of school graduates with intellectual disabilities or learning disabilities who were surveyed 1- and 3-years after they left school to determine what they were doing in major life areas (employment, independent living or community integration). The results indicated that students who were more self-determined fared better across multiple life categories, including employment and access to health and other benefits, financial independence, and independent living.

Career Exploration

Initial career exploration is another key component of career development that facilitates achievement of occupational and career goals (Lindstrom et al., 2013; Wadsworth et al., 2004). Many youth with disabilities suffer limited exposure to employment options and restricted opportunities to develop generalizable work skills. These youths may not have the same opportunities as their peers without disabilities to participate in important activities (e.g., play, chores, extracurricular activities, after-school jobs, volunteer work) that facilitate the development of occupational interests, career decision-making skills, and work competencies (Lindstrom, Harwick, Poppen, & Doren, 2012). In addition, the expectations of significant others (e.g., parents, teachers, service providers) regarding the career potential of youth with disabilities can restrict their occupational aspirations (Rojewski, Lee, Gregg, & Gemici, 2012).

Researchers argue for the importance to engage youth with disabilities in a career exploration process that offers them a variety of options and help them explore different activities in the academic, social, leisure, and vocational domains (Lindstrom et al., 2013; Roessler, 2002). Such a process can include vocational assessments, job site visits, job search activities, or tours of vocational training programs (Lindstrom & Benz, 2002). Engaging youth with disabilities in an active and extensive career exploration process can result in increasing

career self-efficacy and a broader range of career options to be considered. In a study of the career development process for young women with learning disabilities, Lindstrom and Benz (2002) found that young women who participated in extensive career exploration activities were able to clarify their interests and identify specific vocational training programs that ultimately led to career-related employment opportunities.

Early Work Experiences

Several studies of youth with disabilities have documented the critical contribution of early work experiences in supporting job stability and later career advancement (Benz et al., 2000; Fabian, 2007; Lindstrom et al., 2011; Rabren, Dunn, & Chambers, 2002). In a study of 1393 of former special education students from 37 school districts, Rabren and colleagues (2002) found that 87% of former students who were employed at high school exit were also working one year later. In fact, the odds of having a job one year later were 3.8 times greater for those who had a paying job at exit from high school. The early employment experiences provide an opportunity to gain skills that are required to successful career outcomes (Fabian, 2007; Lindstrom et al., 2011; Lindstrom et al., 2013). In a study of the career development process and post-school employment outcomes for a sample of individuals with disabilities who were working in living wage occupations 7 to 10 years after exiting high school, Lindstrom and colleagues (2011) found that participants who had had work experiences during high school gained several important benefits. Importantly, participants gained critical work skills and behaviors such as teamwork, responsibility, and work ethic.

Postsecondary Education and Training

Postsecondary education or training is another critical competent of career development for youth with disabilities (Lindstrom et al., 2013). Obtaining postsecondary education, including

short-term occupational training, significantly increases the opportunities for higher wage employment for these individuals (Dutta, Gervey, Chan, Chou, & Ditchman, 2008; Flannery et al., 2008; Madaus, 2006). Community college offers several training opportunities that help develop required vocational skills for living wage occupations. For example, community colleges offer short term training programs that provide individuals with essential skills required to perform some occupation such as auto body repair, or veterinary assistant (Lindstrom et al., 2013; Stodden & Conway, 2002). Flannery and colleagues (2008) conducted a study of adults with disabilities entering the labor market and found that completion of a community college occupational skills training program have significantly enhanced participants' employment outcomes in several areas such as wages and hours worked.

University and four-year college programs offer another opportunity to career development (Lindstrom et al., 2013). In a study of the employment rates for students with learning disabilities who graduated from postsecondary institutions, Madaus (2006) found that 75% of participants were employed full time, and 85% of the employed participants were receiving full job benefits. In addition, individuals with disabilities who completed university or four-year college had employment rates, levels of income, and benefits commensurate with their peers without disabilities. In general, obtaining some type of postsecondary education or training increases youth's skills and facilitates access to higher wage occupations. Moreover, the demands of living and learning on campus offer an ideal environment to gain independence and self-advocacy skills (Lindstrom et al., 2011).

Career Maintenance

Career maintenance refers to the ability to adapt to, perform, and sustain a career (Strauser et al., 2012). This ability to maintain employment over time and be rewarded with

promotions and raises is a true challenge that requires several sources of support for youth with disabilities. Mentoring is an important source of support for improving youth's ability to retain a job (Noonan et al., 2004). Mentors are typically more experienced individuals within an organization that can provide (a) on the job training, (b) supervision and evaluation, and (c) follow-along services. In addition, mentors can offer feedback and specific suggestions for enhancing job performance (Rousso, 2008). A career mentor can provide effective guidance and support in promoting career growth and development (Lindstrom et al., 2013). Mentors are an especially powerful source of support that helps women and minority groups gain self-confidence and external approval (Noonan et al., 2004). Another effective strategy for addressing the career maintenance concerns of youth with disabilities is peer support groups (Beveridge et al., 2002). Such groups can provide ongoing support to youth who have already secured employment but need additional assistance to keep their jobs. For example, peer groups can share problems and solutions that youth with disabilities have discovered as they enter, or return to, the workplace (Beveridge et al., 2002).

Building Employer Relationships

Another core component of career development for youth with disabilities is partnership with employers (Lindstrom et al., 2013). This partnership facilitates hiring people with disabilities and can contribute to overall workplace functioning (Green & Brooke, 2001).

Research suggests that building relationships with businesses and organizations improve employers' attitudes toward and willingness to employ youth with disabilities in the future (Hernandez, Keys, & Balcazar, 2000). Partnering with local employer networks could provide new avenues for efficiently and exponentially expanding the job opportunities, resources, and relationships available to youth with disabilities. Moreover, employer networks holds potential to

further the early work experiences of youth with disabilities, and potentially contribute directly or indirectly to the career development of these youth (Carter, Trainor, Cakiroglu, Swedeen, & Owens, 2010).

Career Development Services

Career development services were operationally defined as services or activities that would help youth engage in employment post—high school (Test et al., 2006). The services supported by transition literature include: career assessment, career counseling, vocational education, career exploration, job shadowing, job coaching, job placement, internship or apprenticeship programs, tech prep programs, work experiences in school, and other paid work experiences (National Longitudinal Transition Study-2, (2009); Sitlington et al., 2010; Test et al., 2006). Research indicates that these interventions are all empirically linked to more favorable employment outcomes during early adulthood and enhance the career development process for youth with disabilities.

Fabian (2007) conducted a study to determine what factors were associated with securing employment in a study of transition youth with disabilities. This study examined the extent to which urban youth with disabilities who participated in a career development intervention program achieved paid employment. The program offered a standardized one-semester career intervention that consisted of three phases: (a) career counseling and job placement; (b) paid work experience with training and support provided by the program staff; and (c) follow-along support and tracking of student participants. All individuals served by the program were in the transition age, that is, 16 to 22. The majority of students entered the program during their last 2 years of high school. Among the most important findings is that 68% of the youth participating in the program secured competitive jobs during high school with average hourly earnings above

the minimum wage. The study indicated the importance of career development services for youth with disabilities to assist them in developing career plans that can lead to better jobs with higher wages.

Shandra and Hogan (2008) utilized longitudinal multivariate regression techniques to analyze eight waves of the National Longitudinal Survey of Youth 1997 (NLSY97) to assess the efficacy of specific types of career development services, including job shadowing, mentoring, cooperative education, school-sponsored enterprise, technical preparation, internships, and career major. Next, the authors extended the usual focus on the employment outcomes of work status and financial compensation to consider job-specific information on the receipt of fringe benefits. The results of the study indicated that career development services were effective in facilitating career success for youth with disabilities. However, different services emerged as beneficial for different aspects of employment. Participation in services such as cooperative education, schoolsponsored enterprise, technical preparation, and career major increased the likelihood that youth with disabilities be stably employed and working full-time. Conversely, participation in services such as mentoring and internships increased the likelihood that youth with disabilities be employed in jobs that provide fringe benefits such as health insurance and paid sick days. The results suggested that in combination, career development services could help provide the support that youth with disabilities need to achieve their career goals and integrate into the formal economy and more adult roles.

Joshi, Bouck, and Maeda (2012) used data from the National Longitudinal Transition Study-2 (NLTS2, 2009) to explore what career development services students with mild intellectual disability participated in and to investigate how the receipt of these services connected to their career-related post school outcomes. In other words, the authors sought to

identify career development services that might lead to students achieving better outcomes. The services that were examined in the study included: vocational assessment, career counseling, prevocational education, career technical education or vocational education, prevocational or job readiness training, instruction in looking for jobs, job shadowing, job coaching, specific job skills training, placement support, internship or apprenticeship programs, tech prep programs, work experiences in school, and other paid work experiences. The results of the study indicated that student post-school employment was related to the participation in career development services while in school. In addition, student engagement in school-sponsored work or paid work while in school was positively associated with post-school employment. In general, the results of the study suggested that career development services could support early career advancement for youth with disabilities.

To conclude, successful career development and positive employment outcome is an essential cornerstone of the transition process for youth with disabilities after high school. However, as indicated before, the career outcomes of youth with disabilities lag behind those of their peers without disabilities (Newman et al., 2009; Wagner et al., 2005). In order to address this disparity, rehabilitation professionals need to utilize all the services, supports, and resources that may assist in advancing employment outcomes and promoting equity for youth with disabilities. They need to provide a variety of career and vocational interventions for youth to improve their likelihood of a successful transition to adult life.

The Role of Rehabilitation Professionals in Career Development Services

The most recent amendments to IDEIA, passed in 2004 mandated the development of transition plans as part of the Individualized Education Plan (IEP) process for students with disabilities. These transition plans are designed to outline a set of coordinated activities to assist

& Pebdani, 2013). Employment or career development is a critical outcome of the process of transition for youth with disabilities. Providing career development services for transition youth to help them achieve their career goals involve the collaboration of many rehabilitation professionals working in different agencies including state VR agencies, high schools, and Community Rehabilitation Organizations (CROs) and Centers for Independent Living (CILs).

The role of rehabilitation professionals working in state VR agencies. VR is a federally designed program with a primary emphasis on employment. Any individuals who are accepted for service by the program must have a disability related to performing work. Once accepted, the client and the VR counselor jointly develop and agree to an Individual Plan of Employment (IPE). This plan should spell out exactly what the client's targeted employment goal is and what the counselor and client will do to help the client attain that goal. The types of services that a VR agency offers are vocational and career counseling, employment training, job skill training, job coaching, money for employment-related expenses, and other employment- related services. All services are provided by the counselor based on the agreement formulated in the IPE. Whereas services are provided based on the IPE, the cumulative success and rehabilitation of the client is based on the client's moving through the VR system and gaining employment (Flexer et al., 2008).

The role of rehabilitation professionals working in schools. Rehabilitation professionals working in schools are often referred to as transition coordinators. The role of transition coordinator appears to have emerged with the advent of transition programs and related legislation (deFur & Taymans, 1995). The transition coordinator plays a crucial role in identifying job opportunities and competency requirements, developing community worksites

and work experience programs, and identifying or coordinating transportation. In addition, the transition coordinator helps identify post-school options, coordinate referral to adult service providers, schedule meetings and contact participants, and monitor fulfillment of participant responsibilities as agreed upon in the Individualized Employment Program (IEP) (Blalock et al., 2003).

The role of rehabilitation professionals working in CROs and CILs. Rehabilitation professionals working in CROs and CILs usually have special training in community placement/employment or an expertise in a specific skill area. They assist the person with a disability in gaining the skills to find a job or train that person in a particular job. They also may perform a combination of the two components (Flexer et al., 2008). In addition, they play an important role in promoting advocacy, leadership development, and mentorship for adults within the community.

According to Blalock and colleagues (2003), rehabilitation professionals' active involvement on IEP and transition planning teams is crucial for the outcome of the transition process to be realized. Rehabilitation professionals have expertise in career development activities that provide the foundation for the acquisition of skills, attitudes, and knowledge that enable students to make a successful transition from school to the world of work (Blalock et al., 2003). Based on this expertise, rehabilitation professional are instrumental in identifying post-school goals and objectives and the supports necessary to achieve them, and their collaboration with other transition team members is essential for successful transition outcomes.

Research on best practices in career development and transition has consistently included successful collaboration among transition team members as a critical element necessary to achieve promising post-school outcomes in such areas as employment, independent living, and

postsecondary education participation (Landmark, Ju, & Zhang, 2010). Roberts (2010) posited that career development planning is most effective when developed by many people working together including school personnel, interagency stakeholders, and families. Therefore, better collaboration among educators, rehabilitation professionals, individuals, and their families is required to support a fluid and effective transition and to achieve positive career outcomes (Morningstar & Liss, 2008).

Summary

Youth with disabilities in transition from high school to emerging adulthood are often unemployed or underemployed, working in low wage/low skill jobs and struggling to rise above the poverty line (Newman et al., 2009; Wagner et al., 2005). Implementing career development services and other vocational interventions during youth transition years are likely to improve their employment outcomes.

CHAPTER 3

METHOD

The purpose of the current study was to gather data potentially useful for developing a better understanding of career development services provided for transition youth with disabilities from the perspective of rehabilitation professionals in the state of Michigan. The quantitative portion of this research study included descriptive statistics of professionals' perceptions of importance, availability, and quality of career development services offered to transition youth. The qualitative section included rehabilitation professionals' perceptions of the barriers to providing career development services for transition youth and professionals' training needs. It was anticipated that findings from this study would help rehabilitation professionals provide better career development services for transition youth with disabilities to improve their career outcomes.

This chapter describes the study's design, participants, instrument, data collection procedures, and data analysis techniques that were utilized. Six research questions guided the study:

- (1) How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?
- (2) How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?
- (3) How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?
- (4) Do rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services differ based on professional setting?

- (5) What are the barriers to providing career development services to transition youth with disabilities?
- (6) What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?

Research Design

The design of the study was mixed-method. The quantitative portion was intended to gather data about rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services offered to transition youth with disabilities. The qualitative section included two open-ended questions to get information about rehabilitation professionals' perspectives on the barriers to providing career development services for transition youth and professionals' training needs. The study utilized a concurrent embedded strategy in which qualitative data provides a supportive role to the quantitative survey data (Creswell, 2009). The design is considered useful when the quantitative and qualitative data are used to answer different questions (Creswell, 2009). Data were collected through a cross-sectional survey with the data collected at one point in time. The survey was administrated online. There are two main advantages of an online survey: first, it is an easy fast way to get access to a large group of potential respondents; and second, the instrument can be distributed at very low costs (Bethlehem, 2009).

Participants

The population of interest in this study was rehabilitation professionals who provided transition services to youth with disabilities in the state of Michigan. This included rehabilitation professionals who worked in the following settings: (a) Michigan Rehabilitation Services (MRS); (b) Community Rehabilitation Organizations (CROs), (c) Centers for Independent

Living (CILs), and (d) public school districts that provide transition services to students with disabilities through the Michigan Transition Outcomes Project (MI-TOP). A nonprobability purposive sampling was utilized to identify and recruit a representative sample of Michigan rehabilitation professionals involved in transition services. To locate participants for the study, the Directors of MRS, MI-TOP, and CROs and CILs in Michigan were notified via email to discuss participation in this study. After approval, the Directors were asked to either identify potential participants or to provide contact persons who could assist in recruiting participants who represented rehabilitation professionals involved in transition services.

The study announcement was disseminated to 420 rehabilitation professionals (275 MRS professionals; 75 CRO professionals; 15 CIL professionals; and 55 public school district professionals). There were a total of 120 survey responses which generated an initial sample response rate of 28.6%. Of these 120 responses, 13 were deleted because the surveys were largely incomplete. The resulting 107 completed study surveys yielded a final study response rate of 25.5% (107 out of 420).

Demographic Profiles of the Participants

As indicated in Table 1, the majority of the participants were female (*n*=87; 81.3%). Participants reported a variety of educational backgrounds (i.e., rehabilitation counseling, special education, social work, education, and counseling) of which 81 (75.7%) had at least a Master's degree. Sixty participants (56.1%) identified their job title as vocational rehabilitation counselors, while 28 participants (26.2%) identified themselves as transition coordinators. Additionally, 53 participants (49.5%) were employed at MRS; 28 participants (26.2%) worked at public school districts, 21 participants (19.6%) worked in CROs, and 5 participants (4.7%) worked at CILs. Twenty-seven participants (25.2%) reported having provided transition services

from 1 to 5 years, and 37 participants (34.6%) reported having provided transition services from 6 to 10 years. Moreover, 37 participants (34.6%) indicated that transition youth constituted 81 to 100% of their caseloads. The major type of disability of transition youth served by participants was learning disability (53.7%) followed by intellectual disability (23.2%). The other types of disabilities included psychiatric disabilities (9.7%), sensory disabilities (7.8%), and physical disabilities (6.7%). Further, 53 participants (49.5%) reported that they occasionally received transition-related training, while 25 participants (23.4%) reported that they received transition-related training very rarely.

Table 1:

Participant Demographic Characteristics

Variables	N	%
Gender		
Female	87	81.3
Male	20	18.7
Years of Experience		
1-5 years	27	25.3
6-10	37	34.6
11-15	23	21.5
16-20	10	9.3
More than 20 years	10	9.3
Education level (highest degree earned)		
High School	1	0.9
Associates	1	0.9
Bachelors	21	19.7
Masters	81	75.7
Doctorate	3	2.8
Major area of study for the highest degree earned		
Rehabilitation Counseling	21	19.6
Psychology	10	9.4
Social Work	9	8.4
Special education	17	15.9
Other Counseling Specialty (e.g. Substance Abuse, Mental	22	20.6
Other Rehabilitation Specialty (e.g. Vocational Evaluation,	4	3.7
Other	24	22.4

Table 1 (cont'd)

Variables	N	%
Job Title		
Vocational rehabilitation counselor	60	56.0
Transition coordinator	28	26.2
Youth specialist	8	7.5
Program Director	5	4.7
Job placement specialist	6	5.6
Professional Setting		
MRS	53	49.5
Community rehabilitation organization	21	19.6
Center for Independent Living	5	4.7
High School	28	26.2
Work setting Geographic Location		
Rural	49	47.1
Suburban	23	22.1
Urban	32	30.8
Percentage of Case load of Transition-age Youth		
0-20%	24	22.4
21-40%	16	15.0
41-60%	16	15.0
61-80%	14	13.0
81-100%	37	34.6
Frequency of Attending Training in Transition Services		
Never	0	0.0
Very Rarely	25	23.4
Occasionally	53	49.5
Often	21	19.6
Very Often	8	7.5

Instrument

An instrument was developed to collect data. Instrument development consisted of three phases: (a) review of the extant literature and initial survey development; (b) content review and pilot testing; and (c) survey instrument revision. To construct the survey, an item pool that represents career development services and activities was generated. An exhaustive review of the literature was conducted to derive the original pool of items. The sources used to generate the items included professional and academic literature within special education and rehabilitation

counseling that discuss career development practices (Carter et al., 2010; Flexer et al., 2008; NCWD/Youth, 2009; National Longitudinal Transition Study–2, 2009; Strauser et al., 2012). Comprehensive lists of career development services were compiled to craft the initial draft of the survey.

For content validity purposes, two rehabilitation professionals were asked to provide feedback on the preliminary draft of the survey. Each content reviewer has experience in serving transition-age youth for at least 2 years. Additionally, each reviewer has a master's degree in rehabilitation counseling or a related field. The purpose of the content review stage was to review the survey on the following criteria: (a) adequacy of overall coverage, (b) distinctiveness of each item, (c) clarity of each item, and (d) if any items need to be added or deleted. The survey was also reviewed for appropriate grammatical form and modified as necessary on the basis of the input from the reviewers. Suggestions were taken into account and the instrument was revised.

After the dissertation committee members reviewed the instrument and changes were made, the survey instrument was piloted with 3 rehabilitation professionals for an additional level of clarity on the revised instrument. A convenience sample was chosen from rehabilitation professionals working in different settings (i.e., MRS, schools, CROs). Each of the pilot participants had transition-age youth on their caseload. The purpose of the pilot study was to solicit potential participants' feedback (individuals similar to the study's population) and opinions regarding the content, structure, and wording of the instrument. Pilot participants received an email with the background and purpose of the study, a consent letter, a web link to the survey, and the feedback form. Feedback on the survey was collected on the following (a) appropriateness of career development services; (b) if respondents perceived the need to add

additional items in the survey, (c) clarity of directions in the survey, (d) ease of understanding the concepts in the survey, and (e) length of time required to complete the survey (Dillman, 1978).

The final version of the survey consisted of three sections. The first section included questions about demographic information, experience and education, and transition caseload. Through these questions data are gathered such as gender, education, position title, professional setting, years of experience, and percentage of transition age youth on caseload. The second section examined rehabilitation professionals' perspectives on career development services. Examples of survey items included (a) career assessment and planning; (b) job-shadowing programs; (c) interviewing or resume-writing practice; (d) job placement services; and (e) paid or unpaid internships. Participants responded to a five-point Likert scale and categorical checklist type questions. The Likertscales were as follows: Importance Scale: 1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Very Important, 5= Extremely Important; Availability Scale: 1 = Never Available, 2 = Rarely Available, 3 = Sometimes Available, 4 = Usually Available, 5 = Always Available; Quality Scale: 1= Poor, 2 = Average, 3 = Good, 4 = Very Good, 5 = Excellent. The third section included two qualitative questions about barriers to providing career development services to transition youth with disabilities and professionals' training needs.

Data Collection Procedures

After the study was approved by IRB, the data collection began. A list of CROs and CILS located in the state of Michigan was obtained from the website of Michigan Association of Rehabilitation Organizations (MARO). The list was reviewed to identify the CILs and CROs that provide career development services to transition youth with disabilities. The Directors of the

CROs and CILs that met the sampling criteria were sent an email inviting them to participate in this study. Similarly, the Directors of MRS, and MI-TOP were notified via emails to discuss participation in this study. After approval, the agencies directors were asked to either identify potential participants or to provide contact persons who could assist in recruiting participants for the study. After being identified, all potential participants were sent an email. The email provided background information about the study, a consent form, and a link to the survey. Surveys were sent to the participants with the assistance of Qualtrics (http://www.qualtrics.com/).

Rehabilitation professionals participated by choosing to fill out the survey and clicking the submit button. Therefore, participation in this study was voluntary. An informed consent form was presented on-line prior to viewing the survey. Participants clicked a button indicating their agreement with the consent letter to go on to view and complete the survey. Participants who received the survey had four weeks to complete and submit the survey. Two weeks after the first electronic mailing, the agencies directors and the contact persons were asked to send a reminder email to all participants. The email reminded participants about the study for those who had not completed the survey, and thanked those who had already completed the survey.

Data Analysis Procedures

Quantitative Data

Four types of data were entered into SPSS: (a) demographic data, (b) importance data, (c) availability data, and (d) quality data. To describe the demographic characteristics of the participants, frequency counts and percent were calculated for each group of participants (Agresti & Finlay, 2010).

To address the first research question, descriptive statistics (mean and standard deviation) were computed for each item according to participants' response to the five Point Likert-scales for service importance. The items were then ranked in order. A mean score for all items was computed.

To address the second research question, descriptive statistics (mean and standard deviation) were computed for each item according to participants' response to the five Point Likert-scales for service availability. The items were then ranked in order. A mean score for all items was computed.

To address the third research question, descriptive statistics (mean and standard deviation) were computed for each item according to participants' response to the five Point Likert-scales for service quality. The items were then ranked in order. A mean score for all items was computed.

To address the fourth research question, a one-way analysis of variance (ANOVA) was used to test for differences among rehabilitation professionals' perspectives on career development services across different rehabilitation professional settings (i.e., MRS, Schools, CROs/CILs) (Agresti & Finlay, 2010). Based on an a priori power analysis with effect size of .31 at power = .80, and an alpha level of .05 (Cohen, 1992), a minimum sample size of 102 was needed to test if significant differences existed among participants across different professional settings.

Qualitative Data

To address the fifth and the sixth research questions, a qualitative analysis was used to make inferential representational generalizations about the barriers to providing career development services to transition youth with disabilities and professionals' training needs.

Qualitative data was analyzed using a coding process, a basic interpretation tool that assists in identifying and organizing the emerging themes in the data (Creswell, 2009). A careful coding process that included open coding followed by and axial coding was conducted to ensure that the themes presented accurately reflected the qualitative data. An initial descriptive coding was conducted and a list of categories was made to investigate reoccurring themes. All data were then reviewed again and categories were modified as necessary. To ensure the validity of the themes, peer debriefing (Creswell, 2009), a discussion of findings with a peer who has Ph.D. and is familiar with the topic of transition, was utilized. This peer was instructed to question the methods, analyses, biases, and emerging conclusions. This process was intended to add quality checks and trustworthiness measures to strengthen the integrity of the study's qualitative findings.

CHAPTER 4

RESULTS

The purpose of the current study was to identify rehabilitation professionals' perceptions of importance, availability, and quality of career development services offered to transition youth with disabilities. In addition, the study examined rehabilitation professionals' perspectives on barriers to providing career development services to transition youth with disabilities and professionals' training needs. A web-based survey was disseminated to rehabilitation professionals in the state of Michigan. Participants were rehabilitation professionals who worked in the following settings: (a) Michigan Rehabilitation Services (MRS); (b) Community Rehabilitation Organizations (CROs), (c) Centers for Independent Living (CILs), and (d) public school districts that provide transition services to students with disabilities through the Michigan Transition Outcomes Project (MI-TOP).

Six research questions guided this study:

- (1) How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?
- (2) How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?
- (3) How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?
- (4) Do rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services differ based on professional setting?
- (5) What are the barriers to providing career development services to transition youth with disabilities?

(6) What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?

Quantitative Analysis

Research Question 1: How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?

The first research question examined rehabilitation professionals' beliefs regarding the importance of career development services offered to transition youth with disabilities. Research Question #1 was addressed by collecting descriptive statistics on the responses to the related survey questions. The respondents were asked to rate their beliefs on the importance of career development services on a five-point Likert scale (1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Very Important, 5= Extremely Important). Table 2 indicates the rating for each service.

The overall mean rating of rehabilitation professionals' perceptions regarding the importance of career development services was very high (M=3.85), ranging from 3.22 to 4.25 across the thirty services (SD= 0.97 ranged from 0.85 to 1.13). The six most highly rated career development services in terms of importance were On The Job Training (M =4.25), Job Coaching (M =4.19), Supported Employment (M =4.17), Job Placement (M = 4.14), Family Support (M =4.14), and Job readiness Training (M = 4.13). The six lowest rated career development services were Career Interest Assessments (M =3.55), Tours of Local Business or Industries (M = 3.53), Motivational Interviewing (M =3.45), Speakers Brought in From Local Businesses (M =3.42), Job Fairs or Career Days (M = 3.38), and College Fairs or College Days (M = 3.22). There was a 1.03 mean difference between the highest rated and the lowest rated career development services in regard to importance. All 30 services had a mean between

"Important" to "Very Important" indicating that rehabilitation professionals believe that each of the career development services is vital in the provision of services to transition youth with disabilities.

Table 2:

Importance Mean and Standard Deviation for Each Career Development Service

Services	M	SD
On the Job Training	4.25	0.89
Job Coaching	4.19	0.94
Supported Employment	4.17	0.90
Family Support	4.14	0.94
Job Placement	4.14	0.93
Job Readiness Training	4.13	0.96
Interviewing or Resume-Writing Practice	4.11	0.92
Self-Determination Skills	4.07	0.91
Job Search	4.04	0.85
Benefits Counseling	4.01	1.10
Tech-Preparation Programs	4.01	0.99
Career or Job Counseling	4.00	0.96
Vocational Education	3.99	0.94
Career Exploration	3.97	0.95
Mentorship	3.97	0.99
Cooperative Education	3.95	0.95
Internship	3.93	0.94
Job shadowing	3.85	0.93
Career Aptitude Assessment	3.73	0.86
School-Based Enterprises or Businesses	3.72	1.04
Apprenticeship	3.72	1.11
Career or Job Resource Center	3.65	0.90
Written Career Plans	3.56	1.02
Tours of Colleges or Technical Schools	3.56	1.10
Career Interest Assessment	3.55	1.01
Tours of Local Business or Industries	3.53	0.94
Motivational Interviewing	3.45	1.13
Speakers Brought in from Local Businesses	3.42	1.01
Job Fairs or Career Days	3.38	0.92
College Fairs or College Days	3.22	1.08
Overall	3.85	0.97

Research Question 2: How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?

The second research question explored rehabilitation professionals' beliefs regarding the availability of career development services within their agencies. Research Question #2 was addressed by collecting descriptive statistics on the responses to the related survey questions. The respondents were asked to rate their beliefs on the availability of the services on a five-point Likert scale (1 = Never Available, 2 = Rarely Available, 3 = Sometimes Available, 4 = Usually Available, 5 = Always Available). Table 3 indicates the mean ranting for each service. Mean rating scores of rehabilitation professionals' regarding career development services availability were in large part lower than importance mean scores. The availability mean across each of the 30 services was 3.33 ranging from 2.80 to 3.83 (*SD*= 1.01 ranged from 0.85 to 1.16). There was a 1.03 mean difference between the highest rated and the lowest rated services in regard to availability.

The six most highly rated career development services in terms of availability were Career or Job Counseling (M = 3.83), Career Interest Assessments (M = 3.77), Interviewing or Resume-Writing Practice (M = 3.72), Job Readiness Training (M = 3.70), Job Coaching (M = 3.67), and Written Career Plans (M = 3.58). The six lowest rated career development services were School-Based Enterprises or Businesses (M = 2.96), Internship (M = 2.96), Tours of Local Business or Industries (M = 2.91), Mentorship (M = 2.86), Speakers Brought in From Local Businesses (M = 2.80), and Apprenticeship (M = 2.80). The career development service with the highest mean, Career or Job Counseling (M = 3.83), falls closer to the "Usually Available" category which suggests that none of the career development services are "Always Available" within agencies serving transition youth.

Table 3:

Availability Mean and Standard Deviation for Each Career Development Service

Services	M	SD
Career or Job Counseling	3.83	1.06
Career Interest Assessments	3.77	0.95
Interviewing or Resume-Writing Practice	3.72	1.04
Job Readiness Training	3.70	1.05
Job Coaching	3.67	1.03
Written Career Plans	3.58	1.08
On the Job Training	3.57	0.95
Motivational Interviewing	3.57	1.10
Benefits Counseling	3.57	1.14
Job Search	3.50	1.07
Job Placement	3.50	1.02
Vocational Education	3.47	0.92
Tours of Colleges or Technical Schools	3.39	1.01
Career Exploration	3.39	1.16
Career Aptitude Assessment	3.38	0.93
Tech-Preparation Programs	3.37	0.96
Supported Employment	3.30	1.13
Career or Job Resource Center	3.28	1.03
Job Fairs or Career Days	3.27	0.85
Family Support	3.25	1.11
College Fairs or College Days	3.22	0.95
Cooperative Education	3.16	0.95
Job Shadowing	3.08	0.98
Self-Determination Skills	3.06	0.99
School-Based Enterprises or Businesses	2.96	1.06
Internships	2.96	0.91
Tours of Local business or Industries	2.91	1.01
Mentorship	2.86	1.02
Speakers Brought in from Local Businesses	2.80	0.95
Apprenticeship	2.80	1.06
Overall	3.33	1.01

Research Question 3: How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?

The third research question examined rehabilitation professionals' beliefs regarding the quality of the available career development services within their agencies. Research Question #3 was addressed by collecting descriptive statistics on the responses to the related survey questions. The respondents rated the quality of the services on a five-point Likert scale (1= Poor, 2 = Average, 3 = Good, 4 = Very Good, 5 = Excellent). Table 4 indicates the mean rating for each career development service. Mean rating scores of rehabilitation professionals' perceptions regarding the quality of the services was lower than the importance and the availability mean scores. The quality mean rank for all services was 3.14 ranging from 2.82 to 3.55 (*SD*= 1.11 ranged from 0.95 to 1.25).

The six most highly rated career development services with regard to quality were Career or Job Counseling (M = 3.55), On the Job Training (M = 3.45), Job Coaching (M = 3.41), Benefits Counseling (M = 3.40), Job Placement (M = 3.40), and Internship (M = 3.33). The six lowest rated services with regard to quality were Self-Determination Skills (M = 2.94), College Fairs or College Days (M = 2.94), Career or Job Resource Center (M = 2.93), Supported Employment (M = 2.91), Written Career Plans (M = 2.83), and School-Based Enterprises or Businesses (M = 2.82). There was a 0.73 mean difference between the highest rated and the lowest rated career development service in regard to service quality. All 30 career development services had a quality mean between "Good" and "Very Good". The career development service with the highest mean, Career or Job Counseling (M = 3.55), falls closer to the "Very Good" category which suggests that none of the career development services provide by rehabilitation agencies have "Excellent" quality.

Table 4:

Quality Mean and Standard Deviation for Each Career Development Service

Services	M	SD
Career or Job Counseling	3.55	1.12
On the Job Training	3.45	1.08
Job Coaching	3.41	1.04
Benefits Counseling	3.40	1.25
Job Placement	3.40	1.12
Internship	3.33	1.15
Tech-Preparation Programs	3.28	1.00
Tours of Colleges or Technical Schools	3.27	0.95
Interviewing or Resume-Writing Practice	3.25	1.21
Job Readiness Training	3.25	1.14
Apprenticeship	3.25	1.20
Job Search	3.24	1.10
Vocational Education	3.21	1.09
Motivational Interviewing	3.15	1.05
Speakers Brought in from Local Businesses	3.13	0.99
Career Aptitude Assessment	3.13	1.02
Career Interest Assessments	3.09	1.12
Career Exploration	3.09	1.14
Family Support	3.02	1.16
Job Fairs or Career Days	3.01	0.98
Mentorship	3.01	1.16
Job Shadowing	2.99	1.19
Tours of Local Business or Industries	2.98	1.21
Cooperative Education	2.97	1.17
Self-Determination Skills	2.94	1.07
College Fairs or College Days	2.94	1.01
Career or Job Resource Center	2.93	1.08
Supported Employment	2.91	1.18
Written Career Plans	2.83	1.14
School-Based Enterprises or Businesses	2.82	1.12
Overall	3.14	1.11

Table 5:

Means and Standard Deviations for Service Importance, Availability, and Quality

Services	Importance		Availa	ability	Quality	
	M	SD	M	SD	M	SD
On the Job Training	4.25	0.89	3.57	0.95	3.45	1.08
Job Coaching	4.19	0.94	3.67	1.03	3.41	1.04
Supported Employment	4.17	0.90	3.30	1.13	2.91	1.18
Family Support	4.14	0.94	3.25	1.11	3.02	1.16
Job Placement	4.14	0.93	3.50	1.02	3.40	1.12
Job Readiness Training	4.13	0.96	3.70	1.05	3.25	1.14
Interviewing or Resume-Writing Practice	4.11	0.92	3.72	1.04	3.25	1.21
Self-Determination Skills	4.07	0.91	3.06	0.99	2.94	1.07
Job Search	4.04	0.85	3.50	1.07	3.24	1.10
Benefits Counseling	4.01	1.10	3.57	1.14	3.40	1.25
Tech-Preparation Programs	4.01	0.99	3.37	0.96	3.28	1.00
Career or Job Counseling	4.00	0.96	3.83	1.06	3.55	1.12
Vocational Education	3.99	0.94	3.47	0.92	3.21	1.09
Career Exploration	3.97	0.95	3.39	1.16	3.09	1.14
Mentorship	3.97	0.99	2.86	1.02	3.01	1.16
Cooperative Education	3.95	0.95	3.16	0.95	2.97	1.17
Internship	3.93	0.94	2.96	0.91	3.33	1.15
Job shadowing	3.85	0.93	3.08	0.98	2.99	1.19
Career Aptitude Assessment	3.73	0.86	3.38	0.93	3.13	1.02
School-Based Enterprises or Businesses	3.72	1.04	2.96	1.06	2.82	1.12
Apprenticeship	3.72	1.11	2.80	1.06	3.25	1.20
Career or Job Resource Center	3.65	0.90	3.28	1.03	2.93	1.08
Written Career Plans	3.56	1.02	3.58	1.08	2.83	1.14
Tours of Colleges or Technical Schools	3.56	1.10	3.39	1.01	3.27	0.95
Career Interest Assessment	3.55	1.01	3.77	0.95	3.09	1.12
Tours of Local Business or Industries	3.53	0.94	2.91	1.01	2.98	1.21
Motivational Interviewing	3.45	1.13	3.57	1.10	3.15	1.05
Speakers Brought in from Local Businesses	3.42	1.01	2.80	0.95	3.13	0.99
Job Fairs or Career Days	3.38	0.92	3.27	0.85	3.01	0.98
College Fairs or College Days	3.22	1.08	3.22	0.95	2.94	1.01

The results showed that the services order in terms of availability was different from the orders in terms of importance and quality which suggests that services considered extremely important by professionals are not necessarily available within their agencies and/or offered with high quality (See Table 5). For example, only two of the six most highly important services, Job Readiness Training and Job Coaching, were reported among the six most highly rated services with regard to availability. The results also indicated that three of the six most highly rated services in regard to importance (On The Job Training, Job Coaching, and Job Placement) were rated highly in regard to quality. In contrast, one highly rated service in terms of importance (Supported Employment) was among the six lowest rated career development services with regard to quality.

Research Question 4: Do rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services differ based on professional setting?

Analysis of variances (ANOVAs) were employed to examine if there was a difference in rehabilitation professionals' perceptions of importance, availability, and quality in regard to career development services based on their professional settings (MRS, schools, and CILs/CROs).

Service Importance

The mean importance score across all 30 services was 3.77 for MRS professionals (N=53), 3.86 for School professionals (N=28), and 3.97 for CILs/CROs professionals (N=26). Means were above 3.7 for the three groups indicating a high overall importance rating. As shown in Table 6, ANOVA results indicated no statistically significant differences among the means of the three groups in their perceptions of the importance of career development services.

Table 6:

ANOVA Results for Impact of Professional Setting on Perceptions of Service Importance

	Type III Sum				
Source	of Squares	df	Mean Square	F	Sig.
Corrected Model	0.762^{a}	2	0.381	1.005	0.370
Intercept	1452.121	1	1452.121	3827.375	< 0.05
Professional Setting	0.762	2	0.381	1.005	0.370
Error	39.458	104	0.379		
Total	1624.303	107			
Corrected Total	40.220	106			

a. R Squared = .019 (Adjusted R Squared = .000)

Service Availability

MRS professionals (*N*=53) reported an availability mean score of 3.35 across all the 30 services, Schools professionals (*N*= 28) had a mean of 3.17, while CILs/CROs professionals (*N*= 26) had a mean of 3.46. ANOVA was used to determine differences among the three groups in their beliefs of the availability of career development services. As shown in Table 7, results of ANOVA showed no statistically significant differences among the means of the three groups in their perceptions of the services availability.

Table 7:

ANOVA Results for Impact of Professional Setting on Perceptions of Service Availability

Source	Type III Sum	df	Mean Square	F	Sig.
Corrected	1.170 ^a	2	0.585	1.929	0.150
Intercept	1071.167	1	1071.167	3532.989	< 0.05
Professional	1.170	2	0.585	1.929	0.150
Error	31.532	104	0.303		
Total	1219.813	107			
Corrected Total	32.702	106			

a. R Squared = .036 (Adjusted R Squared = .017)

Service Quality

ANOVA was conducted to determine differences among the three groups in their perceptions of the quality of career development services. MRS professionals (N=53) had a mean score of 3.13 across all the 30 services, Schools professionals (N=28) had a mean of 3.02, compared to 3.30 for CILs/CROs professionals (N=26). Results of the ANOVA indicated no statistically significant differences among the means of the three groups in terms of their perceptions of the services quality (See table 8).

Table 8:

ANOVA Results for Impact of Professional Setting on Perceptions of Service Quality

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.049 ^a	2	0.525	0.975	0.381
Intercept	959.143	1	959.143	1782.048	< 0.05
Professional Setting	1.049	2	0.525	0.975	0.381
Error	55.975	104	0.538		
Total	1112.933	107			
Corrected Total	57.025	106			

a. R Squared = .018 (Adjusted R Squared = .000)

Qualitative Analysis

The following results were from a careful manual reading and a qualitative review of the data acquired from two questions: "What are the barriers to providing career development services to transition youth with disabilities?" and "What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?" The data analysis initially involved open coding, followed by focused axle coding concentrating on key emergent themes associated with each question.

Research Question 5: What are the barriers to providing career development services to transition youth with disabilities?

Fifty-eight participants provided responses to Research Question # 5. Participants sometimes gave more than one answer, and each part of the response was separately coded. Data analysis revealed eight major themes that defined barriers to providing career development services to transition youth with disabilities: (a) Transition Youth, (b) Family, (c) Rehabilitation Professionals, (d) Transportation, (e) Funding, (f) Schools, (g) Interagency Collaboration, and (h) Employers . As will be subsequently discussed, the findings were clustered in 18 subcategories, which fell within the eight overarching themes (see Table 9).

Table 9:

Summary of Barriers to Providing Career Development Services by Category

Category	Barrier (sub-category)
Transition Youth	Limited time during school Lack of motivation and readiness
	Vague and unrealistic career goals
	Lack of family support
Families	Fear of losing benefits
	Unrealistic expectations
Rehabilitation Professionals	Lack of time
Renadilitation Professionals	Staff shortage
	Limited transportation services in certain times
Transportation	Lack of transportation options in rural settings
Funding	Insufficient funding for career development services
Tunung	Limited funding for hiring professionals
***	Michigan Merit Curriculum
High Schools	Lack of career development services/programs
	Lack of clear roles and responsibilities
Interagency Collaboration	Lack of clear roles and responsibilities Lack of collaborations among agencies
	Luck of condocidations among agencies
Employers	Refusal to hire people with disabilities
	Lack of knowledge on disability issues

Transition Youth

The most frequently reported barriers were those issues related to transition youth.

Participants indicated that their clients did not have time during school day to participate in career development programs, and/or did not have the motivation to seek career development services. In addition, participants reported that their clients had vague and unrealistic career goals which represented a barrier to providing career development services. Within this category, three sub-themes emerged: (a) Limited time during school, (b) Lack of motivation and readiness, and (c) Vague and unrealistic career goals.

Limited time during school. Participants indicated that many of their clients were still students and did not have enough time during school day to participate in career development services. Participants reported that this barrier prevented many students from participating in the services they needed. One participant stated:

"The ability to get to the kids to provide them with these services. Often times the schools will not allow the students to leave their classes to participate in these types of programs due to the stringent academic requirements to graduate. The students have no time in their schedules for these programs."

Lack of motivation and readiness. Participants pointed out that many of their clients were not motivated to get a job and enter the world of the work. Participants also indicated that some of their clients were not ready to begin their career life because of their young age, and as a result, those clients refused to participate in career-related services. For example, one participant reported:

"The barriers are that this is all beginning too early. Students are not exposed to the world of work yet and have limited information trying to make life time decisions. I believe they need to be out of school for a year to start to be able to put it together."

Vague and unrealistic career goals. Participants explained that many of their clients had vague and unrealistic goals, and identified this issue as one of the barriers to providing career development services for transition youth. One participant wrote; "The client not knowing what they want for a career."

Family

This second main category included participant-identified barriers related to family.

Participants indicated that family process variables, including family support and advocacy, involvement, and career aspirations were among the barriers to providing career development services for transition youth with disabilities. Within this category, three sub-themes emerged:

(a) lack of family support, (b) family fear of losing benefits, and (c) family unrealistic expectations.

Lack of family support. Participants pointed out to the lack of family support as a major barrier to providing career development services for transition youth. The participants indicated that many of their clients started to receive services before they were 18 years old, and for those clients, family involvement in services provision was necessary. However, many families did not provide their children with the needed support, which negatively affected rehabilitation professionals' ability to serve their clients. One participant wrote: "since students in high school are not yet 18, their parents needed to participate in their services and getting them involved and on board could be a challenge." Another participant indicated the challenge of working with families who did not trust professionals and refused their service recommendations. The

participant stated: "parent's inability to accept constructive feedback from professionals in the industry of working with their youth."

Family fear of losing benefits. Participants reported that some families prevented their children from getting jobs or even participating in career-related services because they wanted to keep the social security benefits received by the children. One participant wrote: "parents who need their students SSI to survive preventing students from competitive employment and even job training in some cases." Another participant wrote: "Despite having benefits counseling, they still fear losing the child's income."

Family unrealistic expectations. Participants referred to families' expectations as a challenge to offering career development services for transition youth. Participants indicated that some families hold unrealistic expectations; either very high or very low expectations for their children, which limited their clients' career options and interests. For example, one participant wrote:

"Families want their students to go to college, and get excellent jobs; however they are unrealistic at times about the students' abilities in the world of work. Families often have a false sense of ability or unrealistic goals for their students, causing the students to be set up for failure."

Rehabilitation Professionals

This third main category of barriers to providing career development services for transition youth included issues related to rehabilitation professionals. Participants referred to the multiple tasks assigned to them and indicated that they did not have enough time to perform these tasks. In addition, they pointed out that there was shortage of staff prepared to provide

career development services for transition youth. Within this category, two specific sub-themes were revealed, including: (a) Lack of time, and (b) staff shortage.

Lack of time. Participants indicated that a major challenge for them was the lack of time. They reported that they did not have enough time to properly serve all of their clients as they had big caseloads and multiple tasks to complete. For example, one participant wrote: "The time and consistency that it takes to properly serve this population of customers is needed and unfortunately, not available due to caseload sizes." Another participant explained that processing paperwork and documentation limited the time professionals needed to serve their clients. The participant stated:

"Mostly it is being bogged down with paperwork and documentation. If we are spending more time documenting what we are doing then we are doing less quality work when we are doing it. With all of the technology that we have at our fingertips you'd think by now we would have a way to make things more efficient, but instead we are to document the same action in 5 different places which creates more work and more problems in audits and taking more attention off of what really matters. Holding staff accountable is good and necessary but there has to be a better way of doing business to provide added quality to the work we already do."

A third participant indicated that professionals working in rural areas were assigned several roles in addition to their main ones as rehabilitation professionals; therefore they did not have enough time to work properly with their clients:

"Myself as the Transition Coordinator across five local districts, I wear many hats in this organization because we are a rural setting with a high poverty rate, therefore must wear

many hats as a Special Ed., Administrator. This limits my time to focus solely on my Transition Coordinator role."

Staff shortage. Some participants indicated that several agencies such as schools did not have the experienced staff who could offer career development services for transition youth with disabilities. For example, one participant stated:

"the school districts need to have transition coordinators or staff to help provide the linkage and facilitation of collaborative services with state voc. rehab - if someone is not inside the schools helping to identify appropriate referrals and facilitate meetings, they don't happen."

Transportation

Participants reported issues related to transportation as barriers to providing career development services to transition youth. The participants indicated that the lack or limited nature of transportation services in certain times during the day or in certain geographic areas constituted a big challenge for transition youth seeking career development services or employment. Within this category of barriers, two specific sub-themes emerged. These were (a) limited transportation services at certain times, and (b) lack of transportation options in rural settings.

Limited transportation services at certain times. Participants indicated that the limited transportation service at certain times during the day was a barrier that affected transition youth's ability to benefit from career services or opportunities. For example, one participant stated: "The lack of public transportation for the students after school and during weekends negatively impacts their ability to benefit from community work experiences."

Lack of transportation options in rural settings. Participants highlighted the lack of transportation services in rural area as one of the significant barriers to providing career services for transition youth with disabilities living in these areas. For example, one participant reported "Transportation is the biggest problem for rural communities."

Funding

Funding issues were among the reported barriers to providing career development services for transition youth with disabilities. Participants indicated that limited funding negatively affected agency ability to implement many career services and to hire professionals who can provide career development services for transition youth. Within this category of barriers, two specific sub-themes emerged. These were (a) insufficient funding for career development services, and (b) limited funding for hiring professionals.

Insufficient funding for career development services. Many participants wrote about inadequate funding as a barrier that limits professionals' ability to provide transition youth with the services they need to achieve their career goals. One participant indicated that his/her agency did not have enough funding to cover such important services as job placement and job coaching. Another participant stated: "lack of funding for Community Mental Health and Michigan Rehabilitation Services. New WIOA is an unfunded mandate by the state..... This limits our ability to provide very important services."

Limited funding for hiring professionals. Participants indicated that limited funding affected agency ability to hire professionals and/or pay appropriate salaries for staff who can provide better career development services for transition youth with disabilities. For example, one participant reported "Funding and appropriate salaries for professionals who provide the service. If you want a quality program you have to pay people better to provide the services."

High Schools

This category included issues related to high schools. Participants indicated that students adherence to the requirements of Michigan Merit Curriculum often came at the expense of their participation in career-related programs. In addition, participants stated that several schools did not provide the necessary career development programs which constituted a barrier to career development for transition youth. Within this category, two sub-themes emerged: (a) Michigan Merit Curriculum, and (b) Lack of career development services/programs.

Michigan Merit Curriculum. Many participants indicated that the core requirements of the Michigan Merit Curriculum were so rigorous that students were not able to participate in career development services while they were in schools. For example, one participant wrote; "There is a service gap for those students who have concentrated on Michigan Merit Curriculum and have not made themselves available for vocational counseling, exploration, and work experience."

Lack of career development services/programs. Participants identified the lack of career development services/programs in schools as one barrier to providing services for transition youth with disabilities. Participants indicated that services such as Work-Based Training and Tech-Preparation Programs were not adequately offered through high schools, and as a result, students were not provided with appropriate employment skills training. Participants stated that the lack of necessary training resulted in students graduating from high school with underdeveloped social and employment skills and limited knowledge of how to access community resources. For example, one participant wrote; "I feel the schools do not do enough to prepare the child for work. I feel there is lack of assessments, work experiences and exploration, or training in soft skills."

Interagency Collaboration

Participants identified issues related to interagency collaboration as barriers to providing career development services for transition youth with disabilities. Participants referred to the lack of clear roles and responsibilities of professionals involved in services provision. In addition, participants pointed out to the lack of collaboration among the different agencies serving transition youth. Within this category, two sub-themes emerged: (a) lack of clear roles and responsibilities, and (b) lack of collaboration among agencies.

Lack of clear roles and responsibilities. Participants pointed out the lack of understanding between agencies with regard to the roles assigned to professionals offering career development services for transition youth with disabilities. For example, one participant reported:

"The biggest barrier are the school systems, specifically, teachers who try to assume vocational counselors roles. School teachers and administrators presence emerges into power struggles among the professionals. As a vocational counselor I will suggest an avenue couched in prior experience and research only to have school officials offer alternative suggestions that I have been previously implemented that I found through experience was not an effective practice. This means vocational counselors are often pitted against other school professionals and my valuable time is consumed with managing political barriers."

Lack of collaboration among agencies. Some participants referred to the limited or lacking collaboration among agencies as a barrier for providing transition youth with career development services. For example, one participant wrote: "We need better collaborations in the community and with educational institutions."

Employers

The last category of barriers was related to employers. Participants indicated that both the paucity of employers willing to hire youth with disabilities and the limited information employers have about disability issues were prominent barriers to providing career development services for transition youth. Within this category, two sub-themes emerged: (a) Refusal to hire people with disabilities, and (b) Lack of knowledge about disability issues.

Refusal to hire people with disabilities. Participants indicated that one of the barriers to helping transition youth achieve their career goals is employers who are unwilling to hire people with disabilities. For example, one participant wrote: "People in the community are not willing to hire, mentor and teach individuals with brain injuries or other disabilities."

Lack of knowledge on disability issues. Participants referred to the lack of knowledge of disability issues among employers as one of the challenges that rehabilitation professionals faced while serving transition youth. For example, one participant explained that employers did not know about the benefits of including individuals with disabilities in their workforce. Another participant wrote: "employers do not know what a Certificate of Completion means."

Research Question 6: What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?

Forty-two participants provided responses to Research Question # 6. The participants indicated that they need several types of training in order to be better able to serve transition youth with disabilities. These trainings were grouped into seven categories: (a) Available services /resources, (b) Assessment, (c) Interagency collaboration, (d) Job/employment-related services, (e) Legislation, (f) Specific disability-related services, and (g) Other trainings.

Available services /resources. The most frequently reported training needed by participants was the training on the services and resources available in the geographic area where participants provided services. Participants explained that they needed to know about community resources and the agencies that provided services for youth with disabilities and their families. Examples of participant comments included:

- "Specific location-related training on resources available to the youth and
 families. Each school district and county is different and general overviews do not
 always help the small town areas that my agency serves in regards to developing
 employment-related activities and job placement for youth with disabilities."
- "Information on community partners and what services students can access once they leave school."
- "DHHS Clear understanding of the services and how you get them, loose them and reinstate them."

Assessment. Many participants provided answers indicating that they needed training on assessment services in general, while some participants stated that they needed training on specific types of assessment such as aptitude and interest assessment. Examples of participant responses included:

- "Training on various assessments."
- "Need a choice of aptitude tests that can be provided to students."

Interagency Collaboration. Participants indicated their need for training on how they can collaborate with other agencies and institutions for better services for transition youth with disabilities. Examples of participant responses included:

- "Training to get cooperation between the various local agencies competing for funding and students. Many times the agencies work against each other."
- "Collaborative training with the schools to get on the same page for our plans in how to help transition youth."

Job/employment related services. Participants explained that they needed to receive training on job/employment related services such as Job exploration and Job development. Examples of participant responses included:

- "Improve ability to assist youth with exploring potential careers."
- "Training on Linkages to apprenticeships they usually screen out most students with learning disabilities and intellectual disabilities."

Legislation. Participants pointed out that they need a special training on legislation related to services for transition youth with disabilities such as WIOA. Examples of responses provided by participants are as follows:

- "Essentially, the main areas where such training would be beneficial would be update on such areas as WIOA."
- "Review of legal aspects for employers hiring students with disabilities."

Specific disability-related services. Some participants indicated that they needed training on how to serve transition youth with specific disabilities such as Autism and ADHD. Examples of responses included:

• "To better serve the youth population that I primarily work with would be to seek additional training on Autism and functional capabilities and social aspects, as well as, how to work better with severely emotionally impaired youth to transition from high school to adult life."

 "Further training in Asperger's Spectrum Disorder and how to best assist youth with this particular disability.

Other trainings. In addition to the previously mentioned training needs, participants expressed their interest in several training such as Motivational Interviewing and Transition Best Practices. Examples of participant responses included:

- "Understanding the challenges and barriers to competitive employment and how to partner with business."
- "Relating to where they are. I find that paid professionals in a student's life can talk over their comprehension or sound too clinical. We need to relate to them to develop the trust and relationship that will allow us the opportunity to provide good, slid career counseling and help them be empowered to do the work and invest in his/her own future."
- "Planning certificate of completion program."
- "Marketing skills are actually really a key for rehab counselors to build relationship with employers who might be willing to provide training opportunities or employment. Marketing/sales are usually not a counselor's strong suit but it's of paramount important."
- "Family dynamics and support at home to help the student acknowledge skills and barriers alike."
- "Quarterly technology training on the latest devices, apps, and other barrier reducing technology would be nice."

CHAPTER 5

DISCUSSION

The purpose of the current study was to examine rehabilitation professionals' perceptions of the importance, availability, and quality of career development services provided to transition youth with disabilities in the state of Michigan. In addition, the present study explored rehabilitation professionals' perspectives on the barriers to providing career development services to transition youth and professionals' training needs. To achieve these objectives, six research questions were posed:

- (1) How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?
- (2) How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?
- (3) How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?
- (4) Do rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services differ based on professional setting?
- (5) What are the barriers to providing career development services to transition youth with disabilities?
- (6) What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?

This chapter summarizes the study and discusses the findings considering current literature. Recommendations regarding career development service delivery are presented. In addition, implications for training, policy, and research are suggested.

Summary of the Findings

The first three research questions were answered by descriptive statistical analysis (i.e., means and standard deviations) to determine rehabilitation professionals' perceptions of the importance, availability, and quality of career development services provided to transition youth with disabilities. The results of the study indicated that the six most highly rated career development services in terms of importance were On The Job Training, Job Coaching, Supported Employment, Job Placement, Family Support, and Job readiness Training. With regard to availability, the six most highly rated career development services were Career or Job Counseling, Career Interest Assessments, Interviewing or Resume-Writing Practice, Job Readiness Training, Job Coaching, and Written Career Plans for Students. With regard to quality, the six most highly rated services were Career or Job Counseling, On the Job Training, Job Coaching, Benefits Counseling, Job Placement, and Internship.

The fourth research question was answered using Analysis of Variance (ANOVA) to determine if there was a difference in rehabilitation professionals' perceptions of career development service importance, availability, and quality based on participant professional work settings (i.e. MRS, Schools, CROs/CILs). Results indicated no significant differences among the three groups of participants.

The final two research questions were open-ended and were answered using qualitative analysis to identify rehabilitation professionals' perceptions of the barriers to providing career development services to transition youth and professionals' training needs. Results revealed several barriers which were classified into eight major themes: (a) Transition Youth, (b) Families, (c) Rehabilitation Professionals, (d) Transportation, (e) Funding, (f) Schools, (g) Interagency Collaboration, and (h) Employers. The results also indicated several types of training

which professionals needed in order to be better able to serve transition youth with disabilities.

These training needs were grouped into seven categories: (a) Available services /resources, (b)

Assessment, (c) Interagency Collaboration, (d) Job/employment-related services, (e) Legislation,

(f) Specific disability-related services, and (g) Other trainings.

Discussion of the Findings

In response to strengthened transition mandates within the IDEIA of 2004, there has been a growing emphasis among researchers and educational leaders on identifying factors that support transition youth with disabilities to develop the knowledge, skills, and experiences needed to help them achieve successful postsecondary outcomes including employment goals (Alwell & Cobb, 2006). The current study provided important insights into career development services provided to transition youth with disabilities to help them attain their post school career goals. The study identified rehabilitation professionals' perceptions of importance, availability, and quality of career development services provided to transition youth with disabilities in the state of Michigan. In addition, the present study explored professionals' perspectives on the barriers to providing career development services to transition youth and professionals' training needs.

Service Importance

Per study's results, all 30 career development services had a mean between "Important" to "Very Important" indicating that rehabilitation professionals believe that each of the career development services is vital to the provision of services to transition youth. The results showed that the six most important career development services to be On the Job Training, Job Coaching, Supported Employment, Job Placement, Family Support services, and Job readiness Training. These findings indicate that job-related services (i.e. The Job Training, Job Coaching,

Job Placement, Job readiness Training) are critical factors in helping transition youth achieve successful career outcomes. The results are consistent with previous studies that examined data from the Rehabilitation Services Administration (RSA-911) to determine which service factors predicted competitive employment for youth with disabilities. These studies identified job-related services such as Job Placement and On the Job Training as important predictors of competitive employment for youths with disabilities (Alsaman & Lee, 2016; Giesen & Cavenaugh, 2012; Migliore, Timmons, Butterworth, & Lugas, 2012; Schaller, Yang, & Trainor, 2006; Strauser et al., 2010). Results in the current study thus demonstrate the necessity for job-related services to have a high priority in the career development process of transition youth with disabilities. Rehabilitation professionals will need to think creatively about how to provide these services in light of the new federal legislation mandating additional career development services for transition youth with disabilities.

Among the six most highly important career development services identified by participants was Family Support services. The high importance rating of Family Support services reflects participants' belief in the importance of this service as essential to contributing to positive career and employment outcomes for transition youth. As indicated by previous research, families play a critical role in preparing transition youth for post-school employment. Family support, advocacy, and involvement in career-related activities shape career goals and employment outcomes for all youth (Blustein, 2008). Family expectations for positive post-school outcomes have also been linked to self-efficacy and career development for youth with disabilities (Newman, 2004). However, families need to be supported in order to be able to help their children plan and make decisions about future training and career options. Families of youth with disabilities need access to information about post high school employment and

community resources (Lindstrom, Doren, Metheny, Johnson, & Zane, 2007). Families also need to be trained on how to take an active role in career planning and foster high expectations for employment and community participation by youth with disabilities (NCWD/Youth, 2009). Therefore, one of the main responsibilities of rehabilitation professionals should be to support families of youth with disabilities and educate them about programs, services, career options, and accommodations available for their children in order to help them plan for and achieve their career development goals.

Service Availability

Regarding service availability, findings showed that the service with the highest mean, Career or Job Counseling (M = 3.83), falls closer to "Usually Available" which suggests that none of the services are "Always Available" for transition youth. However, it should be noted that 24 of the 30 career services were rated either "Sometimes Available" or "Usually Available". Results suggest that several career development services are available to some extent for transition youth with disabilities in the state of Michigan. Agencies providing career development services appear to generally try to offer various opportunities for promoting the skills, knowledge, attitudes, and experiences that can prepare youth for their future careers. These agencies appear to be making efforts to equip youth with the vocational knowledge and skills that can further their career development and help them achieve successful employment outcomes. The availability of these diverse services bodes well for transition youth with disabilities and professionals serving them who could potentially draw on a range of opportunities to tailor a sequence of career development services that builds on the strengths, needs, interests, and preferences of transition youth (Carter et al., 2010).

The six most highly rated career development services in terms of availability were Career or Job Counseling, Career Interest Assessments, Interviewing or Resume-Writing Practice, Job Readiness Training, Job Coaching, and Written Career Plans for Students.

According to these results, career interest assessment is one of the services that are adequately offered to transition youth with disabilities. Given the central role assessment plays in effective career planning and service delivery (Carter, Trainor, Sun, & Owens, 2009; Morningstar & Liss, 2008), the attention given to career assessment and planning services is encouraging. IDEIA (2004) mandates that the postsecondary goals of transition-age youth be "based upon age-appropriate transition assessments related to training, education, employment, and, where appropriate, independent living skills" (20 U.S.C. § 1414(d) (1)(A)(i)(VIII)(aa)).

Unfortunately, only two of the six most highly important services, Job Readiness

Training and Job Coaching, were reported among the six most highly rated services with regard to availability. The variance between services in terms of importance and availability suggests that career development services considered extremely important by rehabilitation professionals are not necessarily available within their agencies for transition youth with disabilities. For example, Job Placement was rated as one of the most important services (*M*= 4.14), however, its mean in terms of availability was 3.50 which falls closer to "Sometimes Available". Job Placement service is one of the services that have been identified as important predictors of competitive employment for youth with disabilities (Alsaman & Lee, 2016; Giesen & Cavenaugh, 2012; Migliore et al., 2012; Schaller et al., 2006; Strauser et al., 2010). Accordingly, it behooves the transition system to make job placement services available to transition youth with disabilities. Another service that was ranked as very important (*M*=3.97), but had a low mean in terms of availability (*M*=2.86) was Mentorship. Mentoring has been considered essential

for promoting the career growth and development of youth with disabilities (Lindstrom et al., 2013). The identification of a mentor or a relationship with a caring adult, particularly with a local employer who can convey information about work expectations, has been advocated as a recommended career development practice (Whelley, Radtke, Burgstahler, & Christ, 2003). However, the present study found Mentorship to be among the six lowest rated career development services in terms of availability. The overall services *availability* results suggest that agencies offering career development services should allocate resources to those services that research has demonstrated to enhance career development outcomes of transition youth with disabilities.

Service Quality

All 30 career development services had a quality rating mean between "Good" and "Very Good". Study participant ratings indicated that none of the services had an "Excellent" quality. The results indicated that the six most highly rated services with regard to quality were Career or Job Counseling, On the job Training, Job Coaching, Benefits Counseling, Job Placement, and Internship. The results showed that three of the highly rated services with regard to importance (On The Job Training, Job Coaching, and Job Placement) were rated highly in terms of quality. This finding suggests that agencies that provide these job-related services have an interest in addressing them adequately. It can be surmised that agencies are aware of the importance of these services and their role in helping transition youth achieve successful employment outcomes.

In contrast, the other three highly-rated services in terms of importance (Job Readiness Training, Family Support services, and Supported Employment) had a low rating in terms of quality. It should be noted that Supported Employment was among the six lowest rated career

services with regard to quality. It was rated as one of the most important services (*M*= 4.17), however, its mean in terms of quality was 2.91 which falls closer to "Good". Supported Employment is one of the services that is associated with increased employment rates, raised salaries (Howlin, Alcock, & Burkin, 2005), and improved quality of life of individuals with disabilities (Garcia-Villamisar, Wehman, & Navarro, 2002). Previous research has supported its effectiveness for promoting successful employment closures for youth and young adults with severe disabilities (Wehman, Chan, Ditchman, & Hyun-Ju Kang, 2014; Wehman et al. 2012; Wehman et al. 2014). However, the present study found Supported Employment to be among the six lowest rated career development services in terms of quality.

The findings of the study suggest that while participants believe in the importance of some services, they are not satisfied with their quality level. Offering important services such as Supported Employment with low quality could be related to limited funding and/or lack of professional development programs that provide rehabilitation professionals with the skills needed to deliver career development services for transition youth with disabilities. As indicted in Chapter 4, limited funding was one of the reported barriers to providing career development services to transition youth. Limited funding could negatively affect both agency ability to provide important services and service quality. Moreover, research suggests that appropriate training addressing career development is not available to rehabilitant professionals serving transition youth and that more efforts are needed to adequately integrate such information into the professional development of rehabilitation professionals (Agran et al., 2002; Carter et al., 2010; Fives, 2008). With limited funding and/or inadequate professional training, rehabilitation professionals simply cannot be expected to provide high-quality services for transition youth with disabilities.

Comparison among Participant Professional Work Settings

Study results indicated that rehabilitation professionals across the various professional settings (MRS, Schools, and CROs/CILs) had similar perceptions of career development services in terms of importance, availability, and quality. Such a finding may be due to the fact that all the participants worked in the state of Michigan. They might have worked under similar policies and faced the same barriers to service delivery such as insufficient funding for career development services. If participants worked under similar circumstances and had the same resources, they may have similar perceptions of service delivery. In addition, the participants across the different professional settings might have been involved in collaborative work to provide transition services to youth with disabilities. Therefore, they may have acquired similar experiences and developed similar perspectives. Moreover, the lack of differences in the perceptions of participants across the various professional settings could be related to the small sample size (*N*=107). These reasons together may explain why no statistically significant differences were found among the three groups of participants with regard to their perceptions of career development services importance, availability, and quality.

Barriers to Providing Career Development Services to Transition Youth

Study participants identified a wide range of barriers to providing career development services for transition youth. The most frequently reported barriers were those related to transition youth themselves. The participants reported that some youth had vague and unrealistic career goals and that they lacked the motivation and skills necessary for achieving successful employment outcomes such as self-advocacy skills, knowledge of how to access community resources, and social skills. As indicated by previous research, these skills are positively associated with post-school employment (Cameto, 2005; Lindstrom et al., 2011), retention of

employment (Elksnin & Elksnin, 2001), and post-school community participation (Wagner et al., 2005). The findings of the current study support previous research (e.g., Riesen et al., 2014) and suggest that secondary special educators and rehabilitation professionals may not provide youth with disabilities with appropriate employment skills training. Previous research indicated that special education teachers and rehabilitation professionals do not receive appropriate training with regard to providing employment skills training to youth with disabilities (Agran et al., 2002; Benitez et al., 2009; Carter et al., 2010; Fives, 2008). This finding suggests that transition youth with disabilities may not be prepared appropriately for employment during critical transition years and highlights the need for ways to provide special education teachers and rehabilitation professionals with improved training in the area of career and employment skills development.

The second most frequently reported barriers were those related to families of youth with disabilities. The participants indicated that lack of family support and families' unrealistic expectations constitute challenges to providing career development services for transition youth. According to Lindstrom and colleagues (2007), perceived parental support is a significant predictor of the career self-efficacy of adolescents with disabilities. In addition, family expectations influence the vocational goals and achievement of youth with disabilities (Lindstrom et al., 2007). For example, Newman (2004) found that a majority of youth with disabilities had parents who expected them to succeed in entering adult roles after high school. Generally, family involvement in the transition process has been identified as one variable that predicts positive post-school outcomes (Test et al., 2009). However, too much involvement can encumber service provision and the transition process in general. As indicated by the results of the current study, there are some parents who decline career services for their children because of

fear of losing public benefits such as Social Security benefits. Moreover, there are parents who have too high expectations for their children, and as a result, they lead youth to ineffective educational and career choices. A balanced role for families in the career development of youth with disabilities is needed. There remains the need to first identify what a balanced role for family members in providing career-related services and ultimately shaping post-school employment outcomes for transition youth with disabilities.

An important barrier identified by participants was the lack of career development services/programs in schools. This finding is consistent with other studies indicating that schools may not have adequate career development services to assist professionals in serving transition youth with disabilities (Fabian, 2007; Morningstar & Kleinhammer-Tramill, 1999). Such a situation may be related to financial constraints and a focus on educational core curriculum at the expense of career development services. A small portion of the data collected in the current study suggests that schools may emphasize Michigan Merit Curriculum more than career development services. Such a finding is not new as it is reported by previous literature (Lohmeier, Blankenship, & Hatlen, 2009; Riesen et al., 2014; Wolffe & Kelly, 2011).

However, it is worthy to mention that it is not simply the limited availability of career development services that constitutes the primary barrier for transition youth with disabilities. Even when career services were offered within high schools, not all students with disabilities were reported to participate in such services. Carter and colleagues (2010) found that more than one quarter of schools examined in their study reported that none of their students with severe disabilities participated in paid or unpaid internships, apprenticeship programs, cooperative education programs, college or technical school tours, or college fairs. With limited availability of career services in schools and limited participation by youth with disabilities, transition youth

may be missing out important, relevant experiences that hold potential to shape and broaden their goals for their future and aspirations for life after high school (Carter et al., 2010). Special educators, rehabilitation professionals, program administrators, and policy makers need to be more deliberate about ensuring that the full range of career services is available for students with disabilities especially those with severe disabilities, and that students participate in these services.

The results of the present study indicated barriers related to interagency collaboration. Many participants indicated that limited collaboration between the different agencies (i.e., MRS, high schools) with regard to transition services negatively impacts their work with youth with disabilities. This finding corresponds with previous research that found that both secondary teachers and key adult service providers perceived that sustained coordination was not occurring (Agran et al, 2002; Lubber, Rehetto, & McGorray, 2008). Some of the participants in the current study suggested that this limited collaboration was due to a lack of understating of the roles assigned to different agencies. It is likely that service providers are confused about the role of each other in transition services. Role confusion may be why Agran and colleagues (2002) and Carlson, Brauen, Klein, Schroll, and Willig (2002) found that special educators do not often initiate rehabilitation professionals participation in transition activities. Competition rather than collaboration may prevail in the relationship among agencies providing rehabilitation services to transition youth with disabilities (Oertle et al., 2013). Thus, findings in the present study reinforce the need for a clear definition and process for collaboration between the various agencies (Riesen et al., 2014). Rehabilitation professionals should take advantage of the expertise and support available from schools and other agencies to promote interagency

collaboration because active and ongoing interagency collaboration leads to improved employment outcomes for transition youth with disabilities (Murray & Doren, 2013).

Findings in this study also revealed barriers that were related to employers. The participants referred to the paucity of employers willing to hire youth with disabilities. The participants also indicated that employers had limited awareness or understanding of the skills and strengths of youth with disabilities, and the resources or assistance potentially available to them when they hire or work with youth. These finding were not unexpected as the literature has frequently reported that rehabilitation professionals have limited training, time, resources, and avenues to effectively conduct job development and build relationships with employers which likely contribute to these barriers (Lubber et al., 2008). Employer-related barriers highlight the necessity of developing stronger and broader linkages between the local business community, rehabilitation agencies, and schools. More networking between professionals and employers is likely to influence their capacity to deliver high-quality career development services for youth with disabilities (Anderson-Butcher, Stetler, & Midle, 2006; Johnson, 2004). In addition, research suggests that increasing the numbers of businesses and organizations that interact with and/or hire youth with disabilities may further improve employers' attitudes toward and willingness to employ these youth in the future (Hernandez et al., 2000).

Training Needs of Rehabilitation Professionals

Based on data collected in this study, it appears that rehabilitation professionals who participated in the study have several training needs that should be addressed. The participants reported training needs in such important areas as available services and community resources, career assessment, interagency collaboration, and job/employment-related services. These findings correspond with previous literature that suggests that rehabilitation professionals need

training in the available rehabilitation services and resources area, including rehabilitation services in diverse settings, financial resources, and benefits counseling (Chan et al., 2003; deFur & Taymans, 1995). In addition, the results of this study confirm the findings of previous research that indicated that career and vocational assessment is one of the areas identified as a critical training need for rehabilitation professionals (Chan et al., 2003; Plotner, Trach, & Strauser, 2012). It should be noted that assessment has always been identified as one of the core critical competencies central to the role of rehabilitation professionals (deFur & Taymans, 1995; Plotner et al., 2012).

Moreover, findings in the current study indicated that interagency collaboration is an important training need for professionals working with youth with disabilities. This finding corroborates the literature that suggests that rehabilitation professionals must learn how to work together to assist youth with disabilities to successfully complete the transition process and achieve successful outcomes (Kohler & Field, 2003; Oertle & Trach, 2007; Plotner et al., 2012). In addition, best transition service delivery practices highlighted interagency collaboration as a predictor of successful career services and appropriate employment outcomes for transition youth with disabilities (Test et al., 2009).

It is interesting to find a traditional rehabilitation knowledge area such as job/employment-related services is still a training need for participants. It has been frequently reported by literature that rehabilitation professionals need to receive training in this knowledge area (Chan et al., 2003; Plotner et al., 2012). Job related services were identified by participants in the current study as the most important services for transition youth with disabilities. In addition, several research studies identified job-related services such as Job Placement and On the Job Training as important predictors of competitive employment for youth with disabilities

(Alsaman & Lee, 2016; Giesen & Cavenaugh, 2012; Migliore et al., 2012; Schaller et al., 2006; Strauser, et al., 2010).

The findings of the current study suggest that participants needed to be provided with training in several important areas for better career development services for transition youth with disabilities. Input from rehabilitation professionals involved in career development services should be fully considered when developing training programs for professionals. In this way, staff development is more likely to be applicable to training and youth career development needs.

Limitations of the Study

Interpretation of the results and conclusions in this study should be considered in the context of several limitations. First, this was an exploratory study that focused on rehabilitation professionals involved in providing career development services to transition youth with disabilities in the State of Michigan. The small sample from a single geographical region limits the generalizations that can be made about career development services provided to transition youth with disabilities on a broader scale and in other locales. Second, the response rate for this study was relatively low (25.5%; *N*=107). The response rate in the present study limits the representativeness of the sample; thereby limiting the generalizability of the results. Third, the survey was self-report, with no attempt made to verify or validate the responses of the participants. This limitation is further compounded by the fact that participants were asked questions regarding their perceptions of the quality of career development services provided for transition youth with disabilities. Participants may have interpreted service quality as a direct reflection of their professional competence and skill, and thus may have responded in a socially desirable manner.

Implications of the Study

Implications for Practice

The current study provides new empirical data that supports the importance of the provision of job-related services (i.e., On The Job Training, Job Coaching, Job Placement, and Job readiness Training) in the career development process for transition youth with disabilities. Such services involve preparing and coaching transition youth on obtaining employment as well as working with employers to facilitate the hiring of youth with disabilities. In the current study, job-related services were identified as the most important career development services for transition youth with disabilities. As a result, such services should be considered by rehabilitation professionals as viable service options for transition youth to help them achieve their career development goals. Job-related services should be targeted to youth needs, interests, and goals. Based on study findings, it is recommended to provide job-related services to all transition youth who seek employment, and to develop approaches that lead to rapid implementation of these services in high schools and agencies serving transition youth with disabilities.

The results of the present study also highlighted the significance of family support services as one of the most important career development services for transition youth with disabilities. Families play a critical role in the career development process of their children.

Therefore, families need to be educated about available career services and employment options. Rehabilitation professionals should provide information to families so that they are aware of a range of options including career services, postsecondary education, vocational training programs, and available jobs. By offering families such information, rehabilitation professionals might help broaden the array of career options for consideration and help expand family career

aspirations. Professionals need to create specific opportunities for engaging families in career exploration, job search, and post-school planning services. Families should be encouraged to take an active role in career planning, and to have high expectations that build upon the strengths, interests, and needs of their children.

The current study also highlighted the need for providing transition youth with education that focuses on skills such as self-determination, self-advocacy, and communication. These skills can enhance personal attributes and bolster persistence and self-efficacy. Rehabilitation professionals need to partner with school personnel to create training opportunities to help transition youth build self-determination and communication skills. In addition, transition youth should be taught skills such as setting realistic employment goals, evaluating progress toward self-selected goals, advocating for opportunities and supports, and accepting responsibility for one's actions. Professionals should also help transition youth gain a greater understanding of personal values and motivation (both intrinsic and extrinsic) and how these capacities relate to future education and employment goals.

According to the study's findings, both successful collaborative relationships among different transition-related agencies and strong coordinated efforts to improve career services across agencies may be lacking. To improve career outcomes of youth with disabilities, high school personnel and rehabilitation professionals should increase the capacity for more meaningful and practical interagency collaboration. Efforts must be made to first educate school and rehabilitation professionals about the importance of career development services and the strategies that can be used to promote positive career outcomes of transition youth with disabilities. In addition, efforts must also be made to teach special education teachers and

rehabilitation professionals about their specific roles and responsibilities in serving transition youth.

To improve career development outcomes of transition youth with disabilities, specific interagency partnerships between the various agencies should be developed to foster functional relationships among all professionals involved in providing services to transition youth. The goal of these partnerships should be to ensure that there is a clear commitment to improving employment outcomes for transition youth with disabilities. These partnerships should outline the roles and responsibilities of each agency involved in serving transition youth. More importantly, the partnerships should identify and allocate collaborative funding from schools and adult service agencies to be used to promote successful career outcomes of transition youth with disabilities.

Findings in the current study also emphasize the need to work in partnership with employers to create new opportunities for recruiting, hiring, accommodating, and promoting transition youth with disabilities. Rehabilitation professionals can partner with potential employers to discuss the benefits of hiring individuals with disabilities such as tax incentives, and support from professionals for initial training and ongoing retention to ensure long-term success on the job. In addition, employers may need specific training to increase disability awareness and address disability discrimination. Employer training should include a number of key topics including: (a) common misperceptions about individuals with disabilities, (b) laws and policies impacting hiring, retention, and promotion, (c) examples of assistive technology and workplace accommodations, and (d) information about on the job support strategies (Rogers, Lavin, Tran, Gantenbein, & Sharpe, 2008). Rehabilitation professionals can often provide

training in relation to disability awareness, incentives to hiring a person with a disability, and disability discrimination.

Implications for Training

The findings of the current study support the importance of further education and training for rehabilitation professionals in the area of the career development of transition youth.

Rehabilitation professionals who participated in this study provided valuable information on their training needs that educators should consider for more effective preparation of professionals involved in providing career development services to transition youth with disabilities. The results highlighted several training needs for rehabilitation professionals including available services and community resources, career assessment, interagency collaboration, and job/employment-related services. Pre-service preparation programs need to review their own curricula in light of the findings from this study. Educators also need to apply these results to continuing education offerings designed to promote professional development for practicing rehabilitation professionals. In-service training should be developed based on professionals' needs to improve their ability to provide career development services to transition youth with disabilities.

The results of the present study reinforce the need for pre and in-service cross-agency training. Training opportunities should be designed to help special education teachers and rehabilitation professionals understand and appreciate each other's roles and responsibilities. Comprehensive training will enhance how different agencies work toward a common career-related outcome for transition youth with disabilities. In addition, it will help professionals from these agencies develop instruction and supports that are responsive to the career development needs of youth with disabilities. Training topics should include information on how to (a) plan

for and run effective planning meetings; (b) work with transition youth and their families; (c) collaborate across systems, agencies, and within communities; and (d) establish cross-agency evaluation and accountability systems (Oertle et al., 2013).

Implications for Policy

Transition youth with disabilities require a solid foundation of career development services to secure employment and achieve their career goals. The results of the current study emphasize the need to increase funding for career development services needed by transition youth. Per stud's results, there are multiple important services that are of limited availability or of inadequate quality within agencies serving youth with disabilities. Therefore, it is necessary to increase funding for career development services delivered by state VR agencies, CROs, CILs, and schools. Part of the funding should be allocated to increase financial incentives for businesses that collaborate with schools and agencies serving transition youth to provide hands-on work experiences such as internships and apprenticeships. Such experiences are among the most consistent predictors of improved career development outcomes of youth with disabilities (Carter et al., 2010).

A commitment to successful career outcomes of transition youth requires an investment in quality personnel. This investment should include building the capacity of personnel training institutions to strengthen interagency collaboration, coordinate personnel development improvement planning, address the needs of special education teachers and rehabilitation professionals, alleviate personnel shortages, and build leadership capacity. Such efforts require partners with shared visions for, and commitments to achieve better outcomes for transition youth. Further, such efforts may improve interagency collaboration, consequently maximizing

the support, services, and resources available to transitioning youth. Thus, a fiscal investment of this sort is vital for helping youth achieve successful career development outcomes.

Implications for Research

Further research into rehabilitation professionals' perceptions of career development services for transition youth with disabilities is necessary for improving services and the career outcomes of transition youth. Replication of the current study across multiple states would provide useful additional data on the importance, availability, and quality of career development services for transition youth with disabilities. The use of different research (i.e. quantitative, mixed methods, qualitative research) would be beneficial for getting varied types of information about career development services offered to transition youth. Research studies that go beyond surveying participants and that utilize generalizable sampling techniques would address the limitations of the current study and further advance our understanding of what works in career development for youth with disabilities.

The current study examined rehabilitation professionals' perspectives on the most important career development services. Some of these services (i.e., Job Placement and On The Job Training) have been identified as predictors of successful employment outcomes for transition youth with disabilities (Alsaman & Lee, 2016; Giesen & Cavenaugh, 2012; Migliore et al., 2012; Schaller et al., 2006; Strauser et al., 2010). However, more data are needed for better understanding which of these services—or combination of services—contributes most strongly to improved employment outcomes. All career development experiences are not the same, and the needs of different youths may vary considerably. Additional research is needed that attempts to more directly links effective career development services to specific outcomes for youth with particular needs. In other words, a more sophisticated knowledge base is needed that addresses

which services predict which outcomes for which group of youth with disabilities and under which conditions (Paul, 1967).

Rehabilitation professionals who participated in this the study identified several barriers to providing career development services for transition youth with disabilities. Future researchers should query more in-depth regarding barriers to participation in various career development services. Youth themselves represent a particularly relevant source of information about the factors they perceive that hinder their own involvement (Kortering, Braziel, & Tompkins, 2002). Additional research is also needed to identify promising planning, instructional, and support models that address these barriers and expand youth involvement in the array of career development services during and after high school.

Finally, research-based evidence is needed to develop strategies to enhance interagency collaboration among all professionals involved in providing services to transition youth with disabilities. The identification of specific barriers to interagency collaboration at the local state, and national levels is needed in order to be able to develop and implement strategies to reduce or eliminate their negative impact. Additionally, to advance the understanding of interagency collaboration, CROs and CILs should be included in research because CROs and CILs are essential community agencies and are instrumental in the delivery of transition services for youth with disabilities (Oertle et al., 2013). Further study and research are required to determine the roles of different rehabilitation agencies so that the best practices that promote interagency collaboration could be developed.

Conclusion

Youth with disabilities are often unemployed or underemployed, working in low wage/low skill jobs and struggling to rise above the poverty line (Newman et al., 2009; Wagner

et al., 2005). Providing youth with career development services during transition years are likely to improve their employment outcomes. Rehabilitation professionals play a major role in providing career development services for youth with disabilities during their transition from school to adult life. However, professionals' perceptions of career development services offered to transition youth with disabilities have not been examined. A better understanding of rehabilitation professional's perspectives is needed to improve the employment outcomes of youth with disabilities. Therefore, the purpose of the current study was to gather data potentially useful for developing a better understanding of career development services provided for transition youth with disabilities. Specifically, the study examined rehabilitation professionals' perspectives on importance, availability, and quality of career development services offered to transition youth with disabilities. In addition, the study explored rehabilitation professionals' perceptions of the barriers to providing career development services for transition youth and professionals' training needs.

The findings of the study indicated that job-related services (i.e., On The Job Training, Job Coaching, Job Placement, Job readiness Training) and Family Support services are the perceived most important career development services for transition youth with disabilities. Therefore, such important services should be considered by rehabilitation professionals as viable service options for transition youth to help them achieve successful career development outcomes. The results of the study revealed that career development services considered extremely important by professionals were not necessarily available for all transition youth. In addition, the study showed that some of the highly rated services in terms of importance were not addressed adequately by rehabilitation agencies with regard to quality. These results suggest that

agencies offering career development services should allocate more resources to the most important services that are of limited availability and/or of low quality.

The findings of the study identified many barriers to providing career development services for transition youth with disabilities including barriers related to (a) Transition Youth, (b) Family, (c) Rehabilitation Professionals, (d) Transportation, (e) Funding, (f) Schools, (g) Interagency Collaboration, and (h) Employers. Rehabilitation researchers and professionals will need to think creatively to identify promising planning, instructional, and support models that address these barriers and expand youth involvement in the array of career development services during and after high school. The results of the study also revealed several training needs of rehabilitation professionals including: (a) Available services /resources, (b) Assessment, (c) Interagency Collaboration, (d) Job/employment-related services, (e) Legislation, (f) Specific disability-related services, and (g) Other trainings. This input from rehabilitation professionals involved in career development services should be fully considered when developing training programs for professionals.

In sum, data generated from this study can be used to inform and enhance career development services provided to transition youth with disabilities, and to address the barriers that negatively affect providing services for transition youth.

APPENDICES

APPENDIX A Contact Letter

Dear ****:

My name is Marwa Altantawy, a PhD student in the Rehabilitation Counselor Education program in Michigan State University. Currently, I am working on my dissertation study regarding "Perceptions of Rehabilitation Professionals Regarding Career Development Services for Transition Youth with Disabilities."

I am contacting you to ask for your approval of your staff's participation in the online survey designed to collect data for the study. The purpose of this study is to better understand professionals' perceptions of importance, availability, and quality of career development services offered to transition youth with disabilities. In addition, the study will examine rehabilitation professionals' perspectives on the barriers to providing career development services for transition youth and professionals' training needs. It is anticipated that the findings of this study have the potential to enhance rehabilitation professionals' understanding of career development services with the goal of improving career outcomes of transition youth with disabilities. This study focuses on 6 main research questions:

- (1) How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?
- (2) How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?
- (3) How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?
- (4) Do rehabilitation professionals' perceived level of importance, availability, and quality in regard to career development services differ based on professional setting?
- (5) What are the barriers to providing career development services to transition youth with disabilities?
- (6) What training do rehabilitation professionals need to be better able to serve transition youth with disabilities?

Participation in this study is voluntary, and I assure you that there will be no risks associated with your or your staff's work by participating in the research study. I will greatly appreciate if you give me a permission to conduct this study with your staff. If you have any questions or concerns about this research study, please feel free to contact me at alsamana@msu.edu
You can also contact my advisor Dr. John Kosciulek at e-mail jkosciul@msu.edu
Thank you for your time!

Marwa Altantawy, M.Ed.

APPENDIX B Consent Form

1. PURPOSE OF RESEARCH:

You are being asked to participate as a research participant in this internet-based survey study of rehabilitation professionals' perceptions of career development services offered to transition youth with disabilities. Your participation in this study will take about 10 - 15 minutes of your time.

2. WHAT YOU WILL DO:

All what is required of you is to take the time to complete this internet-based survey. There are a total of 42 questions to answer. You can save your selected answers by pushing the next button. You will be unable to go back and change your answers once you have submitted them since no identifying information will be included with your responses.

3. POTENTIAL BENEFITS:

Your participation in this study may generate data useful for better understanding of rehabilitation professionals' perceptions of career development services offered to transition youth with disabilities with the goal of improving career outcomes of transition youth with disabilities.

4. POTENTIAL RISKS:

There are no foreseeable risks associated by participating in this study.

5. PRIVACY AND CONFIDENTIALITY:

The data for this project will be kept confidential. All data will be collected on the web using the web-survey service program, Qualtrics. Access to Qualtrics will be password protected. Only the researchers will have access to the password to Qualtrics needed to access the data. No identifying information will be stored with the data. All the data will be imported and stored on one of the researcher's personal computer and software programs where data will be entered and stored for data analysis. The personal computer used and data files created will be password protected to ensure protection of all participant data. Only the researchers and Michigan State University Institutional Review Board will have access to the data. The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain anonymous.

6. YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAWAL:

Participation in this research project is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. There are no consequences of withdrawal or

incomplete participation. You may choose not to answer specific questions or to stop participating at any time.

7. COSTS AND COMPENSATION FOR BEING IN THE STUDY:

There are no costs to you for participation in this study other than the value you place on your time. You will not receive money or any other form of compensation for participating in this study. If you have any questions about this study, such as how to do any part of it, or prefer an alternative method for taking this survey (e.g., by phone or hard copy), please contact the researcher, Marwa Altantawy, Michigan State University, 401A Erickson Hall, College of Education, East Lansing, MI 48824, email alsamana@msu.edu

If you have any questions and concerns about your role and rights as a research participant, you can also contact the responsible project investigator, Dr. John Kosciulek, at e-mail jkosciul@msu.edu

If you would like to obtain information or offer input, or would like to register a complaint about this research study, you may also contact, anonymously if you wish, the Michigan State University Human Research Protection Program at 517-355-2180, FAX 517-432-4503, or e-mail irb@msu.edu or regular mail at: 408 West Circle Drive Room 207 Olds Hall, MSU, East Lansing, MI 48824.

By clicking the "NEXT" button below, it means that you voluntarily agree to participate in this research study.

Please print a copy of this form to keep before proceeding.

THANK YOU

APPENDIX C Survey Instrument

Do you	u work with youth with disabilities (14-26 years old) to provide career development es?
	Yes No
If you	answer No, this will send you directly to the end of the survey.
If you	answered YES, please CONTINUE question number 1.
Sectio	n I Demographic Information
1. Wha	at is your gender?
	Female Male
2. Wha	at is your education level (highest degree earned)?
	High School
	Associates
	Bachelors
	Masters
	Doctorate
3. Plea	se indicate your major area of study for your highest degree earned
	Rehabilitation Counseling
	Rehabilitation Psychology
	Psychology
	Social Work
	Special education
	Other Counseling Specialty (e.g. Substance Abuse, Mental Health, etc.)
	Other Rehabilitation Specialty (e.g. Vocational Evaluation, Job Placement, etc.) Other (please specify)
4. Wha	at is your job title?

5. Wh	nich of the following best describes your current practice setting? (Please select one)
	State vocational rehabilitation agency
	Community rehabilitation organization
	Center for Independent Living
	High School
6. Wh	nich setting best describes your agency's location? (Please select one)
	Rural
	Suburban
	Urban
7. Ho	w many years of experience do you have working with transition-age youth with
	lities?
8. Wh	at is the percentage of transition-age youth (14-26 years old) cases on your caseload?
9 Ind	icate the percentage of each disability group on your caseload of transition youth with
disabi	
	Sensory Disabilities%
	•
	Intellectual Disabilities%
	Psychiatric Disabilities%
	Psychiatric Disabilities%
10. H	Psychiatric Disabilities% ow often do you attend training in transition services?
10. H	
	ow often do you attend training in transition services?
	ow often do you attend training in transition services? Never
	ow often do you attend training in transition services? Never Very Rarely

Section 2: Career Development Services

Each numbered question refers to a specific career development service. Please answer the following questions by rating each statement on a 1-5 scale.

How do rehabilitation professionals perceive the importance of career development services for transition youth with disabilities?

Use the IMPORTANCE scale to indicate the degree of the importance of each career development service for transition youth with disabilities.

- 1 = Not Important
- 2 =Somewhat Important
- 3 = Important
- 4 = Very Important
- 5 = Extremely Important

How do rehabilitation professionals perceive the availability of career development services for transition youth with disabilities?

Use the AVAILABILITY scale to indicate the degree of the availability of each career development service for transition youth with disabilities in your agency.

- 1 = Never Available
- 2 = Rarely Available
- 3 = Sometimes Available
- 4 = Usually Available
- 5 = Always Available

How do rehabilitation professionals perceive the quality of career development services offered to transition youth with disabilities?

Use the QUALITY scale to indicate the degree of the quality of each career development service for transition youth with disabilities.

1 = Poor

- 2 = Average
- 3 = Good
- 4 = Very Good
- 5 = Excellent

	How do you perceive the IMPORTANCE of this service?						How do you perceive the AVAILABILITY of this service?					If the service is available, How do you perceive its QUALITY?					
11. Apprenticeship programs	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
12. Career aptitude assessments	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
13. Career exploration services	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
14. Career interest assessments	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
15. Career or job counseling	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
16. Career or job resource center	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
17. College fairs or college days	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
18.Cooperative education	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
19. Interviewing or resume-writing practice	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
20. Job coaching services	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
21. Job fairs or career days	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
22. Job placement services	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
23. Job readiness training	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		
24. Job search services	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5		

	How do you perceive the IMPORTANCE of this service?						How do you perceive the AVAILABILITY of this service?						If the service is available, How do you perceive its QUALITY?					
25. Job shadowing	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
26. On the Job training	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
27. Mentorship programs	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
28. Paid/unpaid internships	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
29. School- based enterprises or businesses	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
30. Speakers brought in from local businesses	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
31. Tech-prep programs	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
32. Tours of colleges or technical schools	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
33. Tours of local business or industries	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
34. Self- Determination Skills	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
35. Family Support Services	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
36. Benefits Counseling	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
37. Supported Employment	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
38.Motivational Interviewing	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
39. Vocational education	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
40. Written career plans	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			

41. What are the barriers to providing career development services to transition youth with disabilities?	
42. What training do you need to be better able to serve transition youth with disabilities?	

This is the end of the survey.

Thank you very much!

REFERENCES

REFERENCES

- Agran, M., Cain, H. M., & Cavin, M. D. (2002). Enhancing the involvement of rehabilitation counselors in the transition process. *Career Development for Exceptional Individuals*, 25(2), 141-157.
- Agresti, A., & Finlay, B. (2010). Statistical Methods for the Social Sciences. New Jersey: Prentice Hall.
- Alsaman, M., & Lee, C. (2016). Employment Outcomes of Youth with Disabilities in Vocational Rehabilitation: A Multilevel Analysis of RSA-911 Data. *Rehabilitation Counseling Bulletin*. doi:10.1177/0034355216632363
- Alwell, M., & Cobb, B. (2006). A map of the intervention literature in secondary special education transition. *Career Development for Exceptional Individuals*, 29(1), 3–27.
- Americans With Disabilities Act Amendments Act (ADAAA) of 2008, Public Law 110-325, 42 U.S.C., 12101-12210.
- Amir, Z., Strauser, D. R., & Chan, F. (2009). Employers' and survivors' perspectives. In M. Feuerstein (Ed.), *Work and cancer survivors* (pp. 73–89). New York, NY: Springer.
- Anderson-Butcher, D., Stetler, E. G., & Midle, T. (2006). A case for expanded school-community partnerships in support of positive youth development. *Children & Schools*, 28(3), 155-163.
- Benitez, D.T., Morningstar, M., & Frey, D. (2009). A multi-state study of special educations teachers' perceptions of their transition competencies. *Career Development for Exceptional Individuals*, 32(1), 6-16.
- Benz, M., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children*, 66(4), 509-529.
- Bethlehem, J. (2009). *Applied Survey Methods: A Statistical Perspective* (Vol. 558). Hoboken, NJ: John Wiley & Sons.
- Beveridge, S., Craddock, S.H., Liesener, J., Stapleton, M., & Hershenson, D. (2002). Income: A framework for conceptualizing the career development of persons with disabilities. *Rehabilitation Counseling Bulletin*, 45(4), 195-206.
- Bjelland, M. J., Burkhauser, R. V., von Schrader, S., & Houtenville, A. J. (2010). *Progress report on the economic well-being of working age people with disabilities*. Rehabilitation Research and Training Center on Employment Policy for Persons With Disabilities, Employment & Disability Institute, Cornell University.

- Blalock, G., Kochhar-Bryant, C. A., Test, D. W., Kohler, P., White, W., Lehmann, J., ... & Patton, J. (2003). The need for comprehensive personnel preparation in transition and career development: A position statement of the Division on Career Development and Transition. *Career Development for Exceptional Individuals*, 26(2), 207-226.
- Blustein, D. L. (2008). The role of work in psychological health and well-being. *American Psychologist*, 63(4), 228–240
- Bond, G. R., Resnick, S. G., Drake, R. E., Xie, H., McHugo, G. J., & Bebout, R. R. (2001). Does competitive employment improve nonvocational outcomes for people with severe mental illness? *Journal of Consulting and Clinical Psychology*, 69(3), 489-501.
- Brown, D. (2002). Status of theories of career choice and development. In D. Brown and Associates (Eds.), *Career choice and development* (4th ed., pp. 510-515). San Francisco: Jossey-Bass.
- Cameto, R. (2005). Employment of youth with disabilities after high school. In M. Wagner, L. Newman, R. Cameto, N. Garza, & P. Levine (Eds.), *After high school: A first look at the postschool experiences of youth with disabilities. A report from the National Longitudinal Transition Study-2 (NLTS)*. Menlo Park, CA: SRI International.
- Capella-McDonnall, M. E. (2005). The effects of single and dual sensory loss on symptoms of depression in the elderly. *International Journal of Geriatric Psychiatry*, 20(9), 855-861.
- Carlson, E., Brauen, M., Klein, S., Schroll, K., & Willig, S. (2002). SPeNSE: *Study of personnel needs in special education: Key findings*. Retrieved from http://www.spense.0rg/KeyFindings.pdf
- Carter, E. W., Trainor, A. A., Cakiroglu, O., Swedeen, B., & Owens, L. A. (2010). Availability of and access to career development activities for transition-age youth with disabilities. *Career Development for Exceptional Individuals*, 33(1) 13-24.
- Carter, E. W., Trainor, A. A., Sun, Y., & Owens, L. A. (2009). Assessing the transition-related strengths and needs of adolescents with high-incidence disabilities: Youth, teacher, and parent perspectives. *Exceptional Children*, 76(1), 74-94.
- Chan, F., Leahy, M., Saunders, J. L., Tarvydas, V. M., Ferrin, J. M., & Lee, G. (2003). Training needs of certified rehabilitation counselors for contemporary practice. *Rehabilitation Counseling Bulletin*, 46(2), 82-91.
- Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin*, 112(1), 155-159.
- Council on Rehabilitation Education (2012). *Accreditation Manual for Master's Level Rehabilitation Counselor Education Programs*. Retrieved from http://www.core-rehab.org/Files/Doc/PDF/COREStandardsPrograms.pdf

- Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches. Los Angeles: Sage.
- DeFur, S. H., & Taymans, J. M. (1995). Competencies needed for transition specialists in vocational rehabilitation, vocational education, and special education. *Exceptional Children*, 62(1), 38-51.
- Dillman, D. A., (1978). Mail and telephone surveys: The total design method. New York: Wiley.
- Dutta, A., Gervey, R., Chan, F., Chou, C., & Ditchman, N. (2008). Vocational rehabilitation services and employment outcomes for people with disabilities: A United States study. *Journal of Occupational Rehabilitation*, 18(4), 326-334.
- Elksnin, N., & Elksnin, L. K. (2001). Adolescents with disabilities: The need for occupational social skill training. *Exceptionality*, *9*, 91 -105.
- Fabian, E. (2007). Urban youth with disabilities: Factors affecting transition employment. *Rehabilitation Counseling Bulletin*, *50*(3), 130-138.
- Fabian, E. S., & Pebdani, R. (2013). The career development of youth and young adults with disabilities. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 357-384). Hoboken, NJ: John Wiley & Sons.
- Fives, C. J. (2008). Vocational assessment of secondary students with disabilities and the school psychologist. *Psychology in the Schools*, 45(6), 508–522.
- Flannery, K., Yovanoff, P., Benz, M., & McGrath-Kato, M. (2008). Improving employment outcomes of individuals with disabilities through short-term training. *Career Development and Transition for Exceptional Individuals*, 31(1), 26-36.
- Fleming, A., & Fairweather, J. (2012). The role of postsecondary education in the path from high school to work for youth with disabilities. *Rehabilitation Counseling Bulletin*, 55(2), 71-81.
- Flexer, R. W., Baer, R. M., Luft, P., & Simmons, T. J. (2008). *Transition planning for secondary students with disabilities* (3 rd ed.). Upper Saddle River, NJ: Pearson/Merrill-Prentice Hall.
- Garcia-Villamisar, D., Wehman, P., & Navarro, M. D. (2002). Changes in the quality of autistic people's life that work in supported and sheltered employment. A 5-year follow-up study. *Journal of Vocational Rehabilitation*, 17(4), 309–312.
- Giesen, M. J., & Cavenaugh, B. S. (2012). Transition-Age Youths with Visual impairments in Vocational Rehabilitation: A New Look at Competitive Outcomes and Services. *Journal of Visual Impairment & Blindness*, 106(8), 475–487.

- Green, J. H., & Brooke, V. (2001). Recruiting and retaining the best from America's largest untapped talent pool. *Journal of Vocational Rehabilitation*, 16(2), 83-88.
- Hernandez, B., Keys, C, & Balcazar, F. (2000). Employer attitudes toward workers with disabilities and their ADA employment rights: A literature review. *Journal of Rehabilitation*, 66(4), 4–16.
- Hoff, D. (2014). WIA is now WIOA: What the new bill means for people with disabilities. *The Institute Brief*, *31*, 1–4. Retrieved from http://www.communityinclusion.org/pdf/IB31_F.pdf
- Honeycutt, T., Thompkins, A., Bardos, M., & Stem, S. (2015). State differences in the vocational rehabilitation experiences of transition-age youth with disabilities. *Journal of Vocational Rehabilitation*, 42(1), 17-30.
- Howlin, P., Alcock, J., & Burkin, C. (2005). An 8 year follow-up of a specialist supported employment service for high-ability adults with autism or Asperger syndrome. *Autism*, 9(5), 533–549.
- Individuals With Disabilities Education Improvement Act of 2004. 20 U.S.C. § 1400 et seq., Pub. L. No. 108–446, 118 Stat. 2647 (2004).
- Izzo, M.V., & Lamb, P. (2003). Developing self-determination through career development activities: Implications for vocational rehabilitation counselors. *Journal of Vocational Rehabilitation*, 19(2), 71-78.
- Johnson, D. R. (2004). Supported employment trends: Implications for transition-age youth. *Research and Practice for Persons with Severe Disabilities*, 29(4), 243-247.
- Joshi, G. S., Bouck, E. C., & Maeda, Y. (2012). Exploring employment preparation and postschool outcomes for students with mild intellectual disability. *Career Development and Transition for Exceptional Individuals*, 35(2), 97-107.
- Kamens, M. W., Dolyniuk, C. A., & Dinardo, P. (2003). Preparing teachers for the transition of students with disabilities through community-based instruction. *Career Development for Exceptional Individuals*, 26(1), 99-117.
- Koch, L. C. (2000). Career development interventions for transition-age youths with disabilities. *Work: A Journal of Prevention, Assessment and Rehabilitation, 14*(1), 3-11.
- Kohler, P. D., & Field, S. (2003). Transition-focused education: Foundation for the future. *Journal of Special Education*, *37*(3), 174 -183.
- Kortering, L. J., Braziel, P. M., & Tompkins, J. R. (2002). The challenge of school completion among youths with behavioral disorders: Another side of the story. *Behavioral Disorders*, 27(2), 142–154.

- Kosciulek, J. (2009). Empowering individuals with disabilities through career counseling. In N. C. Gysbers, M. J. Heppner, & J. A. Johnson (Eds.), *Career Counseling: Contexts, Processes, and Techniques* (pp. 125-136). Alexandria, VA: American Counseling Association.
- Lamb, P. (2007). Implications of the summary of performance for vocational rehabilitation counselors. *Career Development for Exceptional Individuals*, 30(1), 3-12.
- Landmark, L. J., Ju, S., & Zhang, D. (2010). Substantiated best practices: Fifteen plus years later. Career Development for Exceptional Individuals, 33(3), 165-176.
- Leahy, M. J., Chan, F., Sung, C., & Kim, M. (2013). Empirically derived test specifications for the certified rehabilitation counselor examination. *Rehabilitation Counseling Bulletin*, 56(4), 199-214.
- Lent, R. W., & Brown, S. D. (2013). Understanding and Facilitating Career Development in the 21st Century. In S. D. Brown, & R. W. Lent (Eds), *Career Development and Counseling: Putting Theory and Research to Work*, ((2nd ed., pp. 1-26). Hoboken, NJ: John Wiley & Sons.
- Lindstrom, L., & Benz, M. (2002). Phases of career development: Case studies of young women with learning disabilities. *Exceptional Children*, 69(1), 67-83.
- Lindstrom, L., Doren, B., Metheny, J., Johnson, P., & Zane, C. (2007). Transition to employment: Role of the family in career development. *Exceptional Children*, 73(3), 348-366.
- Lindstrom, L., Doren, B., & Miesch, J. (2011). Waging a living: Career development and long-term employment outcomes for young adults with disabilities. *Exceptional Children*, 77(4), 423-434.
- Lindstrom, L., Harwick, R., Poppen, M., & Doren, D. (2012). Gender gaps: Career development for young women with disabilities. *Career Development for Exceptional Individuals*, 35(2), 108-117.
- Lindstrom, L., Kahn, L. G., & Lindsey, H. (2013). Navigating the early career years: Barriers and strategies for young adults with disabilities. *Journal of Vocational Rehabilitation*, 39(1), 1-12.
- Lohmeier, K., Blankenship, K., & Hatlen, P. (2009). Expanded core curriculum: 12 years later. *Journal of Visual Impairment & Blindness*, 103(2), 103-112.
- Loprest, P., & Maag, E. (2007). The relationship between early disability onset and education and employment. *Journal of Vocational Rehabilitation*, 26(1), 49-62.

- Lubber, J. H., Repetto, J. B., & McGorray, S. P. (2008). Perceptions of transition barriers, practices, and solutions in Florida. *Remedial and Special Education*, 29(5), 280-292.
- MacDonald-Wilson, K., Fabian, E., & Dong, S. (2008). Best practices in reasonable accommodations: Findings based on the research literature. *The Rehabilitation Professional*, 16(4), 221-232.
- Madaus, J. (2006). Employment outcomes of university graduates with learning disabilities. *Learning Disability Quarterly*, 29(1), 19-31.
- Marini, I., Lee, G. K., Chan, F., Chapin, M. H., & Romero, M. G. (2008). Vocational rehabilitation service patterns related to successful competitive employment outcomes of persons with spinal cord injury. *Journal of Vocational Rehabilitation*, 28(1), 1-13.
- Migliore, A., Timmons, J., Butterworth, J., & Lugas, J. (2012). Predictors of employment and postsecondary education of youth with autism. *Rehabilitation Counseling Bulletin*, 55(3), 176-184.
- Moore, C. L., Feist-Price, S., & Alston, R. J. (2002). VR services for persons with severe/profound mental retardation: Does race matter? *Rehabilitation Counseling Bulletin*, 45(3), 162-167.
- Moore, M. E., Konrad, A. M., Yang, Y., Ng, E. S. W., & Doherty, A. (2011). The vocational well-being of workers with childhood onset of disability: Life satisfaction and perceived workplace discrimination. *Journal of Vocational Behavior*, 79(3), 681-698.
- Moran, R. R., McDermott, S., & Butkus, S. (2001). Getting a job, sustaining a job, and losing a job for persons with mental retardation. *Journal of Vocational Rehabilitation*, 16(3), 1-8.
- Morningstar, M. E., & Kleinhammer-Tramill, P. J. (1999). Using successful models of student-centered transition planning and services for adolescents with disabilities. *Focus on Exceptional Children*, 31(9), 1–19.
- Morningstar, M. E., & Liss, J. M. (2008). A preliminary investigation of how states are responding to the transition assessment requirements under IDEIA 2004. *Career Development for Exceptional Individuals*, 31(1), 48-55.
- Murray, C., & Doren, B. (2013). The effects of working at gaining employment skills on the social and vocational skills of adolescents with disabilities: A school-based intervention. *Rehabilitation Counseling Bulletin*, 56(2), 96-107.
- National Collaborative on Workforce and Disability for Youth [NCWD/Youth]. (2009). *Guideposts for success* (2nd ed.). Washington, DC: Institute for Educational Leadership.
- National Council on Disability. (2003). The Americans With Disabilities Act policy brief: Righting the ADA. Retrieved from http://www.ncd.gov/publications.

- National Council on Disability. (2007). *Empowerment for Americans with disabilities: Breaking barriers to careers and full employment*. Retrieved from http://www.ncd.gov/newsroom/publications/2007/NCDEmployment_20071001.htm
- National Longitudinal Transition Study-2. (2009). Retrieved from http://www.nlts2.org
- National Organization on Disability. (2004). 2004 NOD/Harris survey of Americans with disabilities. Retrieved from www.nod.org/research-publications/mod_harris_survey
- National Organization on Disability (2010). The ADA 20 years later. New York, NY.
- Newman, J. (2004). Family involvement in the educational development of youth with disabilities. *A report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International.
- Newman, L., Wagner, M., Cameto, R., & Knokey, A. M. (2009). *The post-high school outcomes of youth with disabilities up to 4years after high school*. A report of findings from the National Longitudinal Transition Study-2 (NLTS2). (NCSER Report No. 2009-3017). Menlo Park, CA: SRI International. Retrieved from www.nlts2.org/reports/2009_04/nlts2-report- 2009_04 _complete.pdf
- Niles, S. G., & Harris-Bowlsbey, J. (2005). *Career development interventions in the 21st century*. (2nd ed). Upper Saddle River, NJ: Pearson.
- Noonan, B., Gallor, S., Hensler-McGinnis, N., Fassinger, R., Wang, S., & Goodman, J. (2004). Challenge and success: A qualitative study of the career development of highly achieving women with physical and sensory disabilities. *Journal of Counseling Psychology*, *51*(1), 68-81.
- Oertle, K. M. & Trach, J. S. (2007). Interagency collaboration: The importance of rehabilitation professional's involvement in transition. *Journal of Rehabilitation*, 73(3), 36-44.
- Oertle, K. M., Trach, J. S., & Plotner, A. J. (2013). Rehabilitation professionals' expectations for transition and interagency collaboration. *Journal of Rehabilitation*, 79(3), 25-35.
- Orszag, P. (2010, December 9). Making disability work. Op-ed, The New York Times.
- Patterson, J. B., Szymanski, E. M., & Parker, R. M. (2005). Rehabilitation counseling: The profession. In R. M. Parker, E. M. Szymanski, & J. B. Patterson (Eds.), *Rehabilitation counseling: Basics and beyond* (pp. 1–25). Austin, TX: Pro-Ed.
- Paul, G. L. (1967). Strategy of outcome research in psychotherapy. *Journal of Counseling Psychology*, 31(2), 109–118.

- Plotner, A. J., Trach, J. S., & Strauser, D. R. (2012). Vocational rehabilitation counselors' identified transition competencies: Perceived importance, frequency, and preparedness. *Rehabilitation Counseling Bulletin*, 55(3), 135-143.
- Rabren, K., Dunn, C., & Chambers, D. (2002). Predictors of post-high school employment among young adults with disabilities. *Career Development for Exceptional Individuals*, 25(1), 25-40.
- Raykov, T., & Marcoulides, G. A. (2008). An introduction to applied multivariate analysis. New York, NY: Routledge.
- Rehabilitation Act Amendments of 1992. (1992, October). Pub. L. no. 102-569, U.S. States at Large, 106, 4344-4488.
- Repetto, J., McGorray, S., Wang, H., Podmostko, M., Andrews, W., Lubbers, J., & Gritz, S. (2011). The high school experience: What students with and without disabilities report as they leave school. *Career Development for Exceptional Individuals*, 34(3), 142-152.
- Riesen, T., Schultz, J., Morgan, R., & Kupferman, S. (2014). School-to-work barriers as identified by special educators, vocational rehabilitation counselors, and community rehabilitation professionals. *Journal of Rehabilitation*, 80(1), 33-44.
- Roberts, K. D. (2010). Topic areas to consider when planning transition from high school to postsecondary education for students with Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities*, 25(3), 158-162.
- Roessler, R.T. (2002). Improving job tenure outcomes for people with disabilities: The3Mmodel. *Rehabilitation Counseling Bulletin*, 45(4), 207-212.
- Rogers, C., Lavin, D., Tran, T., Gantenbein, T., & Sharpe, M. (2008). Customized employment: Changing what it means to be qualified in the workforce for transition-aged youth and young adults. *Journal of Vocational Rehabilitation*, 28(3), 191-207.
- Rojewski, J., Lee, I., Gregg, N., & Gemici, S. (2012). Development patterns of occupational aspirations in adolescents with high-incidence disabilities. *Exceptional Children*, 78(2), 157-179.
- Rose, A., Stapleton, D., & O'Day, B. (2008). Trends in outcomes for young people with work disabilities: Are we making progress? *Journal of Vocational Rehabilitation*, 21(3), 175-218.
- Rousso, H. (2008). Role models, mentors and muses for women with disabilities. *Impact:* Feature Issue on Employment and Women with Disabilities, Institute on Community Integration: University of Minnesota, 21(1).

- Rusch, F. R., Hughes, C., Agran, M., Martin, J. E., & Johnson, J. R. (2009). Toward self-directed learning, post-high school placement, and coordinated support: Constructing new bridges to adult life. *Career Development for Exceptional Individuals*, 32(1), 53–59.
- Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown and Associates (Eds.), *Career choice and development* (4th ed., pp. 149-205). San Francisco: Jossey-Bass.
- Savickas, M. L. (2005). The theory and practice of career construction. In S.D. Brown and R. W. Lent (Eds.), *Career development* and counseling: Putting theory and research to work (pp. 42-69). New York: John Wiley.
- Schaller, J., Yang, N. K., & Trainor, A. (2006). Transition-age adults with ADHD: Gender and predictors of vocational rehabilitation outcomes. *Journal of Applied Rehabilitation Counseling*, 37(1), 3-12.
- Seabrooks-Blackmore, J., & Williams, G. (2012). Transition planning strategies. In M. L. Wehmeyer & K. W. Webb (Eds.), Handbook of adolescent transition for youth with disabilities (pp. 91-101). Florence, KT: Routledge, c/o Taylor & Francis, Inc.
- Shahnasarian, M. (2001). Career rehabilitation: Integration of vocational rehabilitation and career development in the twenty first century. *Career Development Quarterly*, 49(3), 275-283.
- Shandra, C. L., & Hogan, D. P. (2008). School-to-work program participation and the post-high school employment of young adults with disabilities. *Journal of Vocational Rehabilitation*, 29(2), 117-130.
- Sitlington, P., Neubert, D. A., & Clark, G. (2010). *Transition education and services for students with disabilities* (5th ed.). Boston, MA: Pearson.
- Social Security Administration. (2011). Monthly statistical snapshot, August, 2011. Retrieved from http://jwww.ssa.gov/policy/docs/quickfacts/stat_snapshot/
- Stodden, R., & Conway, M. (2002). Supporting youth with disabilities to access and succeed in post-secondary education: Essentials for educators in secondary schools. *National Center on Secondary Education and Transition Issue Brief, 1*(5), 1-6.
- Strauser, D., Feuerstein, M., Chan, F., Arango, J., Da, S. C., & Chiu, C. (2010). Vocational services associated with competitive employment in 18-25 year old cancer survivors. *Journal of Cancer Survivorship*, *4*(2), 179-86.
- Strauser, D., Wong, W. K., & O'Sullivan, D. (2012). Career development vocational behavior and work adjustment. In D. R. Maki, & V. M. Tarvydas (Eds.), *The professional practice of rehabilitation counseling* (pp. 311-335). New York, NY: Springer Publishing Company.

- Szymanski, E. M., Enright, M., Hershenson, D., & Ettinger, J. (2010). Career development theories, constructs and research: Implications for people with disabilities. In E. M. Szymanski & R. M. Parker (Eds.), *Work and disability: Issues and strategies in career development and job placement* (pp. 87-132). Austin, TX: Pro-Ed.
- Szymanski, E. M., & Hershenson, D. B. (2005). An ecological approach to vocational behavior and career development of people with disabilities. In R. M. Parker, E. M. Szymanski, & J. B. Patterson (Eds.), *Rehabilitation counseling: Basics and beyond* (pp. 225–280). Austin, TX: Pro-Ed.
- Szymanski, E. M. & Trueba, H. (1994). Castification of people with disabilities: Potential disempowering aspects of castification in disability services. *Journal of Rehabilitation*, 60(3), 12-20.
- Test, D. W. (2004). Invited commentary on Rusch and Braddock (2004): One person at a time. *Research and Practice for Persons With Severe Disabilities*, 29(4), 249-252.
- Test, D., Aspel, N., & Everson, J. (2006). *Transition methods for youth with disabilities*. Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Test, D. W., Mazzotti, V., Mustian, A. L., Fowler, C. H., Kortering, L., & Kohler, P. (2009). Evidence-based secondary transition predictors for improving post-school outcomes for students with disabilities. *Career Development for Exceptional Individuals*, 32(3), 160-181.
- The U.S. Department of Labor, Bureau of Labor Statistics. (2011). *Persons with a disability: Labor force characteristics summary*. Retrieved from http://www.bls.gov/news.release/disabl.nr0.htm
- Thoma, C. A., & Getzel, E. E. (2005). Self-determination is what it's all about: What post-secondary student with disabilities tell us are important considerations for success. *Education and Training in Mental Retardation and Developmental Disabilities*, 40(3), 35-48.
- Wadsworth, J., Milson, A., & Cocco, K. (2004). Career development for adolescents and young adults with mental retardation. *Professional School Counseling*, 8(2), 141-147.
- Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities*. Menlo Park, CA: SRI International.
- Wehman, P., Chan, F., Ditchman, N., & Kang, H. J. (2014). Effect of supported employment on vocational rehabilitation outcomes of transition-age youth with intellectual and developmental disabilities: A case control study. *Intellectual and developmental disabilities*, 52(4), 296-310.

- Wehman, P., Lau, S., Molinelli, A., Brooke, V., Thompson, K., Moore, C., & West, M. (2012). Supported employment for young adults with autism spectrum disorder: Preliminary data. *Research and Practice for Persons with Severe Disabilities*, *37*(3), 1–10.
- Wehman, P., Schall, C., Carr, S., Targett, P., West, M., & Cifu, G. (2014). Transition from school to adulthood for youth with autism spectrum disorder: What we know and what we need to know. *Journal of Disability Policy Studies*, 25(1), 30-40.
- Wehmeyer, M., & Palmer, S. (2003). Adult outcomes for students with cognitive disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities*, 38(2), 131-144.
- Whelley, T. A., Radtke, R., Burgstahler, S., & Christ, T. W. (2003). Mentors, advisors, role models, & peer supporters: Career development relationships and individuals with disabilities. *American Rehabilitation*, 27, 42–49.
- Wilson-Kovacs, D., Ryan, M., Haslam, S., & Rabinovich, A. (2008). "Just because you can get a wheelchair in the building doesn't necessarily mean that you can still participate": Barriers to the career advancement of disabled professionals. *Disability & Society*, 23(7), 705-717.
- Wolfensberger, W. (2002). Social role valorization and, or versus, "empowerment". *Mental Retardation*, 40(3), 252-258.
- Wolffe, K., & Kelly, M. (2011). Instruction in areas of the expanded core curriculum linked to transition outcomes for students with visual impairments. *Journal of Visual Impairment & Blindness*, 105(6), 340-349.
- Workforce Innovation and Opportunity Act of 2014, Pub. L. 113-128.