

TRANSITION COUNSELOR EFFICACY: ESSENTIAL KNOWLEDGE DOMAINS FOR
BEST PRACTICE

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ABSTRACT

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Youth with disabilities receiving transition from services from State/Federal vocational rehabilitation agencies accounted for more than one quarter of closed cases within in FY 2010 (RSA, 2010). This unique population of clients, however, has received little attention in empirical studies, scholarly journals, and as a focus within training programs. By investing in youth as they enter the world of work and embark in their formative years of career development, professionals can seek to eliminate the “revolving door” of services that many clients pursue throughout their vocational lifetime. An effective way to invest in youth with disabilities is to educate rehabilitation counseling professionals in the unique needs of this population. As studies have shown, transition services are an important and relevant area of rehabilitation practice (Leahy et al, 1993; Leahy et al 2003, Shaw et al, 2006; Leahy et al 2009), however counselors feel as if they have received limited preparation for these tasks (Chan et al, 2003; Leahy, et al, 2009).

A sample of 353 rehabilitation professionals working in a public vocational rehabilitation agency was obtained for this study. Participants were located in Ohio, Illinois, Michigan, Pennsylvania, Iowa, Minnesota or Wisconsin. The sample included 240 general rehabilitation counselors who provided services primarily to adults with disabilities, and 110 transition counselors who identified at least 50 percent of their caseloads to consist of transition aged youth. This sample allowed for comparisons between general and transition counselors regarding demographics characteristics and training profiles. This specific demographic information

regarding transition counselors has previously been unknown to the field of rehabilitation counseling. Furthermore, this sample also allows for comparisons between the two groups of counselors on their perception of importance and preparedness regarding transition and general rehabilitation counseling knowledge domains.

The results of this study yield several implications for practice, training and policy. First, the knowledge domain that was identified to be the most important was that of transition knowledge. Despite this finding, however, vocational rehabilitation counselors found themselves to be the least prepared in this knowledge domain area. Second, less than one quarter of transition counselors stated that they receive transition trainings either often or very often. This shows an obvious limitation in the availability of skill development and attainment for this group of rehabilitation professionals. Additionally, some transition counselors stated that they have received no training at all relevant to transition services. Finally, results showed that staff development units would be well served to provide more in-service training specific to: vocational consultation and services for employers, group and family counseling, mental health counseling, and psychosocial and cultural issues in counseling, as these knowledge subdomains were rated lowest for preparedness by counselors.

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TABLE OF CONTENTS

LIST OF TABLES.....	ix
LIST OF FIGURES.....	xi
LIST OF ABBREVIATIONS.....	xii
CHAPTER 1	
INTRODUCTION.....	1
Statement of Problem.....	2
Purpose of the Study	5
Research Questions	5
Theoretical Framework.....	6
Overview of the Current Study	7
Definition of Terms.....	8
CHAPTER 2	
LITERATURE REVIEW.....	10
Historical Context of Transition Services.....	11
Preservice Transition Training.....	15
Role and Function of Vocational Rehabilitation Counselors	19
Required Knowledge for Transition Services Personnel	24
Transition as a Sub-Specialty in Rehabilitation Counseling.....	29
CHAPTER 3	
METHODOLOGY.....	33
Instrumentation	33
Content Review.....	35
Pilot Testing.....	36
Final Version of the Transition Knowledge Validation Assessment (TKVA).....	37
Data Collection Procedures.....	38
Knowledge Subdomains	39
Data Analysis Procedures	41
CHAPTER 4	
RESULTS.....	43
Participants.....	47
Research Questions	49
Research Question 1: What are the demographic characteristics and professional experiences of those who provide transition services in the VR setting?.....	49

Research Question 2: How did transition counselors in the current study receive their training specific to transition services?	52
Factor Analysis.....	54
Student Focused Planning (Transition Knowledge Subdomain 1).....	57
Student Development (Transition Knowledge Subdomain 2).....	57
Interagency Collaboration (Transition Knowledge Subdomain 3).....	58
Family Involvement (Transition Knowledge Subdomain 4).....	58
Program Structure and Policies (Transition Knowledge Subdomain 5).....	59
IEP Development (Transition Knowledge Subdomain 6).....	59
Research Question 3: How important are the various knowledge domains for transition counselors in relation to optimizing outcomes for their transition-aged youth clients?	65
Research Question 4: In what various knowledge domains do transition counselors perceive themselves to be the most and least prepared?	72
Research Question 5: Do perceptions of importance and preparedness of knowledge domain areas differ according to demographic, educational and professional characteristics?	84
CHAPTER 5	
DISCUSSION.....	99
Overview of the Study	99
Summary of Findings.....	100
Demographics.....	97
Training Profiles.....	99
Knowledge Domain and Subdomain Importance.....	99
Knowledge Domain and Subdomain Preparedness.....	101
Limitations	105
Implications.....	106
Implications for Practice.....	103
Implications for Training.....	105
Implications for Policy.....	108
Implications for Future Research.....	108
Conclusion	112
APPENDIX A: Content Review and Pilot Study Contact Letter.....	115
APPENDIX B: Contact Letter for State VR Director.....	117
APPENDIX C: Transition Knowledge Validation Assessment (TKVA)	119
REFERENCES.....	129

LIST OF TABLES

Table 1: Historical Context of Transition Services in Rehabilitation Counseling.....	12
Table 2: Role and Function Studies: Importance Ranking of Major Job Functions.....	24
Table 3: Consumer Age by State.....	44
Table 4: Transition Age Youth Primary Disability by State.....	45
Table 5: Transition Age Youth Closure Status by State.....	46
Table 6: Participant Caseload Characteristics.....	49
Table 7: Participant Caseload Characteristics by State.....	49
Table 8: Participant General Characteristics by Caseload Characteristics.....	50
Table 9: Transition Training by Caseload Characteristics.....	53
Table 10: Factor Analysis –Total Variance Explained.....	55
Table 11: Rotated Factor Matrix.....	56
Table 12: Cronbach’s Alpha Coefficients for General Rehabilitation Counseling Knowledge Subdomains.....	61
Table 13: Importance and Preparedness Rating for Knowledge Domains by Caseload Characteristics.....	63
Table 14: Transition Knowledge Subdomains by Caseload Characteristics.....	69
Table 15: General Rehabilitation Counseling Knowledge Subdomains by Caseload Characteristics.....	75
Table 16: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Importance of Knowledge Domain Factors.....	85
Table 17: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Preparedness of Knowledge Domain Factors.....	86
Table 18: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Importance of Transition Knowledge Subdomain Factors.....	87
Table 19: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Preparedness of Transition Knowledge Subdomain Factors.....	87

Table 20: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Importance of General Rehabilitation Counseling Knowledge Subdomain Factors.....	88
Table 21: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Preparedness of General Rehabilitation Counseling Knowledge Subdomain Factors.....	88
Table 22: Chi-Square Results for Effect of Counselor Type on Demographics Characteristics...	89
Table 23: Chi-Square Results for Effect of Counselor Type on Training Characteristics.....	90
Table 24: Correlations among Knowledge Domains for Importance.....	91
Table 25: Correlations among Knowledge Domains for Preparedness.....	91
Table 26: Correlations among Transition Knowledge Subdomains for Importance.....	92
Table 27: Correlations among Transition Knowledge Subdomains for Preparedness.....	93
Table 28: Correlations among General Rehabilitation Counseling Knowledge Subdomains for Importance.....	95
Table 29: Correlations among General Rehabilitation Counseling Knowledge Subdomains for Preparedness.....	97

LIST OF FIGURES

Figure 1: Scree Plot for Transition Knowledge Subdomains.....	55
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LIST OF ABBREVIATIONS

ASCA.....	American School Counselor Association
AYP.....	Adequate Yearly Progress
CEC.....	Council for Exceptional Children
CORE.....	Council on Rehabilitation Education
CRCC.....	Commission on Rehabilitation Counselor Certification
CRCE.....	Certified Rehabilitation Counselor Examination
IEP.....	Individualized Education Plans
IDEA.....	Individuals with Disabilities Education Act
LEA.....	Local Education Agency
MANOVA.....	Multivariate Analysis of Variance
NCLB.....	No Child Left Behind Act
OSERS.....	Office of Special Education and Rehabilitation Services
RSA.....	Rehabilitation Services Administration
SEA.....	State Education Agency
VR.....	Vocational Rehabilitation

CHAPTER 1

INTRODUCTION

In less than a century, we have witnessed the labor movement, the civil rights movement, the women's movement, the disability rights movement, and the gay rights movement, to name a few. Each of these social reform initiatives has shared the same overarching goal: to revolutionize outdated systems for the benefit of disadvantaged populations. One could argue that the underlying theme within each of these reforms is to ultimately make our society more accepting by providing opportunities to previously disenfranchised groups. Utilizing research to aid reform with objective facts, social scientists aim to make the future a fairer place with a more equal distribution of power and resources. The current study aims to collect subjective data informing knowledge requirements for effective transition practices, towards the objective goal of creating a better environment and service delivery system for today and tomorrow's youth.

Rehabilitation Services Administration (RSA) 911 data shows that there were 174,033 transition aged youth who closed their cases in FY 2010. With a total of 611,932 closed cases among all customers, transition youth account for 28.43%. Of those transition-age youth cases, 60.8% were male and 39.2% were female. With regard to race/ethnicity, the largest ethnic group was White (58.9%) followed by African American (23.4%), Hispanic/Latino (12.6%), Multiracial (2.8%), Asian (1%), Native American (.9%), and finally, Native Hawaiian or Other Pacific Islander (.3%). With regard to primary disability category related to transition-age youth, learning disability had the highest prevalence rate at 33.2%, followed by mental illness (13.8%), mental retardation (13.3%), attention deficit hyper activity disorder (8.8%), other physical impairments (4.7%), physical impairments - orthopedic/neurological (4.5%), autism (3.3%), deafness or hard of hearing (2.9%), blindness or visual impairment (2%), substance abuse (1.7%)

and finally, traumatic brain injury (1.1%). With regard to primary source of support at application for transition-age youth, friends and family had the highest prevalence rate at 78.3%, followed by public support (14.1%), personal income (4.7%) and finally, all other sources of support (2.8%).

Focusing attention, research and training efforts on youth with disabilities in a vocational rehabilitation (VR) system yields many conceivable benefits. With specialized training for rehabilitation professionals to serve this population, services may be more effective than a generally trained professional working with transitioning youth. This could impact temporal facets of services, which may directly impact cost of case services, length of time from opening to closing a case, the number of successful rehabilitation outcomes for this population, the number of post-secondary training completion and ultimately, customer satisfaction. Perhaps most significant in regard to fiscal considerations and client change is the theory that with the provision of specialized training in providing vocational rehabilitation counseling services to youth with disabilities, the “revolving door” of VR services may be minimized.

Statement of Problem

While conducting a review of literature published within professional rehabilitation counseling journals within the past 10 years, it becomes readily apparent that transitioning youth, transition counselors, services for youth, and best practices for this population has not been given the attention one would expect. Searching within six prevalent journals within the field of rehabilitation counseling yields 2,889 journal articles published within the past 10 years (Journal of Disability Policy Studies, Journal of Applied Rehabilitation Counseling, Journal of Vocational Rehabilitation, Psychiatric Rehabilitation Journal, Rehabilitation Counseling Bulletin and Rehabilitation Education). When searching the same journals using the key words ‘transition’

school-to-work' 'youth' and 'special education', one finds a return of 86 articles (or 3.35% of the original set of articles). These findings are indicative of a dearth of literature, underlying knowledge, process and structure of evidence-based transition practices.

Over the past several decades, researchers in the field of rehabilitation counseling have been studying critical areas of importance for training qualified professionals (Leahy, Szymanski, & Linkowski, 1993; Leahy, Chan, & Saunders, 2003; Shaw, Leahy, Chan & Catalano, 2006; Leahy, Muenzen, Saunders, & Strauser, 2009; Leahy, Chan, Sung, & Kim, 2011). It has been through these studies that the Council on Rehabilitation Counselor Certification (CRCC) has informed and designed the certifying examination in the field of rehabilitation counseling. As the field progresses with an increasing complexity of case loads and more diverse practice settings, the essential knowledge domains for rehabilitation professionals continue to evolve. Educators have an obligation to ensure that students attain necessary knowledge for competent and effective practice.

Previous studies have shown transition to be an important and relevant area in rehabilitation practices (Leahy et al, 1993; Leahy et al 2003, Shaw et al, 2006; Leahy et al 2009). Recent role and function studies within the field of rehabilitation counseling show knowledge related to school-to-work transition services for students with disabilities to be critical (Leahy et al, 2003; Chan et al, 2003), and for practicing rehabilitation counselors to feel as if they received limited preparation for these tasks (Chan et al, 2003). These findings were updated in 2009 (Leahy, et al), however included other rehabilitation services with school-to-work transition (i.e. supported employment, assistive technology, special populations, etc.). Furthermore, while these services were reported moderately important, only 42 percent of certified counselors developed this knowledge through their formal graduate education and training. This finding is not surprising,

given that rehabilitation counselor educators ranked the job function of rehabilitation counselors using community-based services sixth out of seven major functions (Ebener, 2007).

School-to-work transition services are reflected in the requirements for certification, established by the CRCC, and the accreditation standards, established by the Council on Rehabilitation Education (CORE). The CRCC certification exam is comprised of questions across twelve knowledge domains. Those specifically relevant to transition services are: theories of career development, job readiness, theories of family counseling, practices and interventions within family counseling, community referral resources (i.e. schools). CORE provides ten curriculum standards for program accreditation. Those specifically relevant to transition services include: legislation related to people with disabilities, human growth and development across the lifespan, individual and family response to disability, and family dynamics. The CORE standards makes reference to school-to-work transition services specifically in section C.10.4, stating that programs should have a curriculum that trains master's level rehabilitation professionals to develop knowledge of transition services that facilitate an individual's movement from school to work.

The aforementioned research and subsequent professional developments are juxtaposed with regard to the reality of time allocated to training and research of transition services for youth with disabilities. More information is needed to highlight the essential knowledge domains required for effective services to this population. By doing so, empirical evidence can aid in the development of more in-depth courses, units within courses or in-service training modules for transition counselors. By gaining a deeper understanding of transition knowledge, professionals are equipped with tools for improved service delivery, and ideally would be more effective in achieving post-school outcomes for youth with disabilities. The implications of this ultimate goal

are vast, and directly include increasing quality of life for the youth involved, while indirectly aid in decreasing recidivism within the public VR system which could potentially have limitless financial implications.

Purpose of the Study

Despite our knowledge base, the long history of transition services, and strong research supporting the essential knowledge domains necessary for rehabilitation professionals, current research indicate that outcomes for youth are less than satisfactory (Blackborby & Wagner, 1996; Bullis, Davis, Bull, & Johnson, 1997; "Keeping the Promises", 2003). Studies show that transition services are timely, costly and have a lower success rate than general cases. The field of rehabilitation counseling still has work to do in discovering more detail on transition processes and structure, beginning with essential knowledge required for effective practice. Specifically, the results of the proposed study will contribute to the larger body of rehabilitation counseling literature in that it focuses on rehabilitation professionals' experiences concerning transition services and knowledge necessary to perform essential functions of a transition counselor as they relate to the overall transition process, which is unique from other rehabilitation caseloads. This distinctive difference is an important, but not well-understood perspective. The results of the current study can help inform pre-service and in-service training curriculum to increase the efficacy of transition services.

Research Questions

The specific research questions for the current study are as follows:

1. What are the demographic characteristics and professional experiences of those who provide transition services in the VR setting?

2. How did transition counselors in the current study receive their training specific to transition services?
3. How important are the various knowledge domains for transition counselors in relation to optimizing outcomes for their transition-aged youth clients?
4. In what various knowledge domains do transition counselors perceive themselves to be the most and least prepared?
5. Do perceptions of importance and preparedness of knowledge domain areas differ according to demographic, educational and professional characteristics?

Theoretical Framework

A considerable amount of research regarding competencies related to transition outcomes exists in the special education and school counseling literature (DeFur & Taymans, 1995; Blackorby et al, 1996; Landmark, Ju, & Zhang, 2010). The framework for the current study is a critical piece within in the special education field and is one of few empirically-based structures for working with transitioning youth with disabilities. Kohler's (1996) Taxonomy for Transition Planning is a comprehensive conceptual framework of transition practices. This model was developed due to a void and desperate need in sepecial education to guide services for youth with disabilities. Kohler identifies best practices of transition service personnel and thereby established a reference of critical features that could then be disseminated to administrators and service providers (Kohler, 1996). Based on past and present school-to-work research, the taxonomy for transition planning is empirically validated by a national pool of 296 individuals associated with transition research, programs and or service delivery settings.

The following five categories of practice represent the final cluster solutions that make up the taxonomy of transition planning: (1) student focused planning (student participation, IEP

development, accommodations and planning strategies); (2) student development (structured work experiences, life skills instruction, accommodations and support, employment skills instruction, vocational assessment, career and vocational curricula); (3) intragency and interdisciplinary collaboration (individual-level planning; collaborative service delivery, interorganization framework, organizational level planning, and human resource development), (4) family involvement (family training, family empowerment, and family involvement); and (5) program structure and attributes (program philosophy, program policy, resource allocation, program evaluation, human resource development, and strategic planning).

Overview of the Current Study

Throughout the course of the current study, data regarding the perceived essential knowledge domains for effective service delivery for youth with disabilities has been collected. As such, counselors located within various states (Ohio, Pennsylvania, Iowa, Minnesota, Michigan, Wisconsin and Illinois) having fifty percent or more of their caseload consisting of transition-age youth were surveyed using Qualtrics (www.qualtrics.com). This study has focused on VR transition counselor perception of knowledge domains required for effective practice. Specifically, this study sought to determine the level of importance of specific knowledge domains presented from the Knowledge Validation Inventory-Revised (KVI-R) (Leahy et al, 2011) as well as those from transition-specific items guided by the taxonomy for transition planning. Additionally, this study determined how and when these counselors within this sample acquired the knowledge domains essential for transition practice and determined if transition counselor reports of importance varied from other certified rehabilitation counselors. Finally, the results of the current study may help researchers consider if it would be beneficial for vocational

rehabilitation professionals to be educated in relation to specific transition practices that yield positive post-school outcomes within the pre-service setting.

Definition of Terms

General Counselor: A vocational rehabilitation counselor managing a caseload in which more than half of their customers are adults with disabilities.

Knowledge Domain: An area of knowledge that is required in order to perform the essential job functions associated with the role of rehabilitation professionals (Leahy et al, 2009).

Knowledge Validation Inventory-Revised (KVI-R): Assesses the importance of knowledge areas to respondents' in their role as a rehabilitation counselor and the degree of preparedness they feel they have in this area or standard as a result of their education and training (Leahy et al, 2011).

Kohler's Taxonomy of Transition Planning: A comprehensive, empirically-based model for planning, organizing, evaluating and predicting post-secondary transition outcomes consisting of student focused planning, student development, interagency and interdisciplinary collaborations, family involvement and program structure and attributes (Kohler, 1996).

Transition-age Youth: Youth and young adults between 14-25.99 years of age that are planning to or are currently transitioning from secondary to post-secondary activities (i.e. post-secondary education and/or employment).

Transition Counselor: A vocational rehabilitation counselor managing a caseload in which at least half of their customers are transitioning youth or young adults with disabilities.

Transition Services: A coordinated set of activities for a student, designed within an outcome-oriented process, that promotes 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 (Rehabilitation Act Amendments of 1998, PL 105-220).

Vocational Rehabilitation: The continuous and coordinated process of service provision that involves vocational guidance, vocational training and selective placement, designed to enable a disabled person to secure and retain suitable employment. Vocational rehabilitation is the provision of any rehabilitative service (mental, physical, educational, social, etc.) to a vocationally disadvantaged person for the purpose of occupational (re)adjustment (Wright, 1980).

CHAPTER 2

LITERATURE REVIEW

The purpose of this study was to analyze data to identify essential knowledge domains in regard to rehabilitation counselors providing transition services to youth with disabilities. While there is limited information available about necessary knowledge for transition counselors found in the rehabilitation counseling literature, there are a great deal of works focused on required knowledge in relation to the broader field of rehabilitation counseling (Leahy et al, 1993; Leahy et al, 2003; Shaw et al, 2006; Leahy et al, 2009; Leahy et al, 2011). Furthermore, the Taxonomy for Transition Programming (Kohler, 1996) offers literature supporting a framework for transition practices that have been associated with improving post-school outcomes for transition-aged youth.

To provide a comprehensive review of transition and rehabilitation counseling, this literature review will address five main areas. First, the historical context of transition services will be discussed. Second, preservice training for transition services personnel will be presented. Third, an overview of various role and function studies offered in the rehabilitation counseling field. Fourth, required knowledge for transition services personnel are explored, and finally, transition as a sub-specialty of vocational rehabilitation counseling will be discussed.

The current need within the field of rehabilitation is to structure programming and services to what is known about effective transition practices. By identifying knowledge relevant to these needs, both pre-service and in-service training for rehabilitation professional will be enhanced. Ultimately, this is expected to yield more positive outcomes for transition-aged youth.

Historical Context of Transition Services

The foundation of school-to-work transition services for youth with disabilities began in the 1960s, and is rooted in the field of special education. The first structure of this system is seen with the creation of cooperative agreements between state VR agencies and local education agencies, allocating a portion of each teacher's class time to job placement coordination. This in turn helped facilitate efficient referral of youth with disabilities to become clients of rehabilitation agencies, thereby easing the transition from school to the adult community (Halpern, 1991). This initial step towards transition services was inadvertently thwarted as a consequence of the Rehabilitation Act Amendments of 1973, which stated that VR agencies cannot pay for services that are the responsibility of some other agency (in this case, the local education agency (LEA)).

The 1970's brought about the career education movement, which expanded vocational instruction to primary and secondary education, as well as to both disabled and non-disabled students. This movement focused on the totality of life experience, with the primary focus on creating a meaningful and satisfying work life (Halpern, 1991). Despite being initially supported, this federal initiative was eventually disowned at the end of the decade, citing intent to funnel monies to develop a movement (Hoyt, 1982).

Following an Office of Special Education and Rehabilitative Services (OSERS) position paper identifying specific transition models (Will, 1984), the 1980's marked the beginning of the special education transition movement. This model describes three services that vary according to degree of support needed. They range from connecting students with community resources available to all students (i.e. community college), to connecting students to specialized services

(i.e. vocational rehabilitation), and connecting students with more substantive long-term services (i.e. supported employment).

The preceding two decades yield evidence of significant legislative initiatives that have advocated for increased inclusion, accountability and outcomes concerning youth with disabilities in vocational rehabilitation systems. This segment reviews several pieces of legislation that influence transition policies and practices: Individuals with Disabilities Education Act (IDEA) Amendments, Rehabilitation Act Amendments, and No Child Left Behind (NCLB).

Table 1: Historical Context of Transition Services in Rehabilitation Counseling

1973	Rehabilitation Act Amendments Mandated that VR agencies cannot pay for services that are the responsibility of some other agency (e.g. school); required transition teams to include a statement regarding students' long-range rehabilitation goals.
1975	Education for All Handicapped Children Act (EHA) Free and appropriate public education for all students; advocated for youth with disabilities.
1990	IDEA First time public education focused on equal rights for students with disabilities; created Individualized Education Program (IEP) team to identify vocational and career training opportunities.
1992	Rehabilitation Act Amendments Mandated a state plan requirement of VR services within school systems; requires collaboration between educational and vocational rehabilitation systems to serve youth with disabilities.
1997	IDEA Amendments Greater focus on attaining better post-school outcomes (post-secondary education/training, employment, and community living).
2001	No Child Left Behind State education agencies and local education agencies are made accountable for ensuring that all students, including disadvantaged students, meet high academic standards.

Table 1 (cont'd)

2004	Individuals with Disabilities Education Improvement Act Schools are required to include post-secondary transition goals and measureable goals in IEPs based on age-appropriate transition assessments.
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Prior to 1975, children with disabilities were denied education solely on the basis of their disabilities. In response to this prejudice, the Education for All Handicapped Children Act, PL 94-142 (EHA) (1975) was created to apply equal protection and provided a free and appropriate public education for all students. While it didn't specifically focus on transition, it advocated for youth with disabilities and paved the way for future legislation. In 1990, amendments were made to EHA, changing the name to Individuals with Disabilities Act (IDEA), PL 101-476. This document was the first to formally recognize transition in the law by including specific language, including a definition for transition services for youth with disabilities. While EHA originally required five components to the Individualized Education Plan (IEP), the IDEA added a sixth component specific to transition: the IEP team was to now look ahead to post-secondary needs and identify vocational and career training opportunities, continuing education, adult services and independent living supports within the students community (Twenty-Eight Institute on Rehabilitation Issues, 2002).

Successive amendments to the IDEA have continued to strengthen and support the vision for youth with disabilities to transition from education to employment. In 1997, IDEA amendments (PL 105-17) extended services to youth with disabilities from 16 to 14 years of age. The IEP process is now focused on student participation in the general education curriculum also known as the "least restrictive environment". There is also an importance placed on accurate measuring and reporting of student's progress towards achieving annual goals. This may be done

by including students with disabilities in state-wide assessments, similar to those taken by their non-disabled peers or through alternative assessments (Yell & Shriner, 1997).

A further reauthorization in 2004 led to a subsequent name change to the Individuals with Disabilities Education Improvement Act (IDEIA) (PL 108-446). As the title indicates, this act emphasized services designed within a results oriented process that focuses on improving academic and functional achievement. As such, IDEIA, included requirements to design and obtain measurable transition goals that articulate the intended post-graduation achievements of the student, stressing the ability to concretely gauge improvement of post-secondary outcomes (Yell, Katsiyannis, Ryan, & McDuffie, 2008). Additionally, the age of transition planning was again altered to require that planning be initiated at age 16. This was due to a consensus that 14 and 15-year-old students are too young to plan for transitioning out of secondary systems (McGuire, 2010).

Another key piece of legislation for people with disabilities was the Rehabilitation Act of 1973 (PL 93-112). This article promoted consumer involvement in writing the Individual Written Rehabilitation Plan (IWRP), established funding for disability research, mandated equal opportunity and nondiscrimination in hiring and established employment opportunities for people with disabilities (Peterson & Aguiar, 2004). Most significant for transition was the establishment of the IWRP and the requirement of the transition team to state the student's long-range rehabilitation goals, type and date of rehabilitation services to be provided and evaluation procedures. This act was the foundation for future rehabilitation legislation that would inform services for people with disabilities as well as transitioning youth.

In 1992, the rehabilitation act was amended (PL 102-569) to include a definition of transition services consistent with the definition provided by the 1990 IDEA. This alignment

provided unification for professionals serving youth with disabilities by providing a clear and consistent characterization of transition services. The amendments also address the requirements of state VR agencies to coordinate with state education agencies (SEAs) and LEAs to ensure a smooth transitioning process from secondary education to either post-secondary schooling or to the world of work (National Transition Network, 1993). Due to this collaborative initiative, VR counselors are now required to become involved with students while they are still in school. The role of rehabilitative services in transition planning is principally one of preparing the students for services upon exiting secondary education and subsequent LEA's.

The No Child Left Behind (NCLB) Act of 2001 (PL 107-110) was implemented to improve performance of America's school systems, by placing rigid accountability standards on each SEA and LEA (Twenty-Eight Institute on Rehabilitation Issues, 2002). Title I of NCLB states an expectation of achieving adequate yearly progress (AYP) for all students, including those that are disadvantaged. While the technical definition of AYP varies state to state, the general principles are: (a) the same high standards of academic achievement for all students in the State; (b) statistically valid and reliable measures; (c) continuous and substantial academic improvement for all students; and are (d) measured via academic assessments. LEAs that fail to make AYP are sanctioned by the SEA and must implement a corrective action plan for the following year. Students that are unable to meet the rigid academic standards that are set in place due to the implementation of NCLB are no longer eligible for the high school diploma, and instead earn a certificate of completion.

Preservice Transition Training

Professionals serving youth with disabilities in educational settings primarily consist of school counselors, special educators and rehabilitation counselors. Each field adheres to their

own unique set of certification and licensure criteria, which varies in core curriculum and depth of content between each discipline. To obtain certification as a school counselor, most states require students to have taken a course in career development (American School Counselor Association, 2004) [ASCA]. To create consistency between programs and enhance quality of graduates, the ASCA created a set of standards for educators. The National Standards for students in school counseling programs are divided into three areas: academic, career and personal/social knowledge domains (Pérusse, Goodnough, & Noel, 2001). Despite career development being one of three overarching domains, the implementation of these domains varies greatly between programs.

In 2001, 195 program directors of master's level school counseling programs were asked to what extent the ASCA National Standards were implemented into their teaching, and how this was done (Pérusse et al, 2001). Results indicated that five percent of programs did not use the standards at all, citing that they instead focused on state licensure requirements to guide teaching imperatives, 12.5 percent of programs implemented the standards only minimally, 53.8 percent implemented the standards moderately, and 14.4 percent reported teaching the standards extensively throughout the program. Furthermore, only one in seven programs reported using the national standards as key elements in their programs.

This lack of consistency could be explained by the variety of settings and roles that school counselors identify with. School counselors working in assorted settings (elementary, middle, high and K-12 schools) were asked to rate their perceived level of importance of six different key school counseling program elements that are affirmed by the ASCA National Model (Dahir, Burnham, & Stone, 2009). Overall results showed career and postsecondary development to be less important than school counseling priorities and personal-social

development, respectively. Furthermore, career and postsecondary development was reported to be more important than academic development, school setting perceptions and program management. When taking employment setting into account, these results are greatly skewed. School counselors working in high schools and K-12 schools rate career and postsecondary development as the most important element of school counseling programs. Alternatively, school counselors working in elementary school rated career and postsecondary development to least important, while those working in middle schools found this domain to be similar to the overall importance rating (third). This variance in perceived importance of national standards could explain the inconsistency with which these domains are implemented within master's level school counseling programs.

Special educators are also required to obtain certification and licensure that is state-specific. Some states require special education teachers receive a general education credential to teach kindergarten through grade 12, then earn an additional certification in a specialty area, such as learning disabilities or behavioral disorders, on their license. Many states offer general special education licenses across a variety of disability categories, while others license several different specialties within special education (Council for Exceptional Children, 2011) [CEC].

Professional content standards for special education programs, as outlined by the CEC include 10 knowledge and skill sets: (1) foundations, (2) development and characteristics of learners, (3) individual learning differences, (4) instructional strategies, (5) learning environments and social interactions, (6) language, (7) instructional planning, (8) assessment, (9) professional and ethical practice, and (10) collaboration.

Without a focus on transition planning, special educators must rely on agency collaboration to provide this much needed service for youth with disabilities. Not surprisingly,

knowledge and involvement with transition services were found to be low to moderate among secondary special educators (Knott & Asselin, 1999). This same study found special educators to have little knowledge and understanding of necessary eligibility requirements of adult service agencies. This finding makes the need for interagency collaboration more crucial for the successful transition from school to work, as those school-based professionals lack specific knowledge and training regarding this process.

Rehabilitation counselors are certified by the Commission on Rehabilitation Certification (CRCC). The field of rehabilitation counseling acknowledges necessary competency in 12 specific domains for certification. Those include: (1) career counseling and assessment, (2) job development and placement services, (3) vocational consultation and services for employees, (4) case and caseload management, (5) individual counseling, (6) group and family counseling, (7) mental health counseling, (8) psychosocial and cultural issues in counseling, (9) medical, functional, and environmental aspects of disabilities, (10) foundations, ethics, and professional issues, (11) rehabilitation services and resources, and (12) healthcare and disability systems (Commission on Rehabilitation Counselor Certification, 2011).

The Council on Rehabilitation Education (CORE) was established in 1972 as the accreditation body for rehabilitation counseling programs (CORE, 2011). Section three of the CORE standards for rehabilitation counselor education programs focuses on human growth and development, and contains the solitary reference to transition services. Specifically, section C.10.4.a refers to the development of an understanding of transition services that facilitate an individual's movement from school to work (CORE, 2011).

As rehabilitation professionals are employed in a variety of settings and may work with many different disability populations, there is little pre-service focus on any one caseload-type

that a counselor may have in practice (i.e. transition, deaf and hard of hearing, HIV/AIDS, etc.). Despite this, the current rehabilitation act requires VR agencies to be actively involved in the transition planning process with LEAs. As such, transition caseload carrying counselors employed in a VR setting are responsible for an understanding of school-specific special education legislation, family functioning models, developmental considerations, in addition to the traditional career planning activities. Many of these skills are learned on-the-job for VR transition counselors.

Role and Function of Vocational Rehabilitation Counselors

A great deal of research in the field of rehabilitation counseling, dating back to 1979, has been devoted to role and function studies. Researchers have sought to validate the various job functions and tasks that counselors deem to be important in their daily roles as rehabilitation professionals (Berven, 1979). Other studies have focused on knowledge validation of or various domains associated with identified roles that rehabilitation professionals adhere to (Leahy et al, 2003). These researchers have also asked for counselors to indicate which knowledge domains are most to least important, and which tasks they perform most to least frequently (Leahy et al. 2003; Leahy et al, 2009; Chan et al, 2003). Yet another theme in the role and function studies has been to survey practicing counselors to determine which skills they acquired during their pre-service training (Szymanski, Leahy, & Linkowski, 1993; Chan et al, 2003).

These studies have been crucial in that they keep the field of rehabilitation counseling updated with relevant issues and guide educators and certification bodies towards central areas of study. CRCC has sponsored several national studies that have helped inform the revision of the Certified Rehabilitation Counselor Examination (CRCE), and CORE has also used the findings

to update potential curriculum revisions to the national curriculum content standards (Leahy et al, 2003). In 2009, Leahy et al. conducted the most recent of these studies.

In 2003, CRCC sponsored a study to determine job functions as reported by certified rehabilitation counselors. (Leahy et al, 2003). Results yielded 7 major job factors: (1) vocational counseling and guidance; (2) counseling intervention; (3) community-based rehabilitation services; (4) case management; (5) applied research; (6) assessment; and (7) professional advocacy. Findings showed that certified rehabilitation counselors viewed case management to be the most important job task, followed by professional advocacy, counseling interventions, vocational counseling and guidance, assessments, community-based rehabilitation services, and applied research, respectively. This same study also sought to identify knowledge domains important to rehabilitation counseling practice. Results yielded 6 major knowledge domains: (1) career counseling, assessment and consultation services; (2) counseling theories, techniques and applications; (3) rehabilitation services and resources; (4) case and caseload management; (5) health care and disability systems; and (6) medical, functional and environmental implications of disability. Findings showed that certified rehabilitation counselors viewed medical, functional and environmental implications of disability to be the most important knowledge domain important for rehabilitation counseling practice, followed by case and caseload management; career counseling assessment, and consultation services; rehabilitation services and resources; counseling theories, techniques and applications; and health care and disability systems; respectively. School-to-work transition services for students with disabilities were rated with a mean importance of 2.29 on a 5-point Likert scale (0 = not important, 1 = somewhat important, 2 = important, 3 = very important, and 4 = extremely important).

Published within the same journal issue as Leahy et al (2003), Chan et al (2003) utilized the same instrument (Knowledge Validation Inventory-Revised [KVI-R]) to determine training needs for certified rehabilitation counselors. These training needs were identified by assessing counselors perceived level of preparation in the aforementioned knowledge areas. Results indicated that counselors found medical/functional implications of disability to have no critical training needs. This was the only area in which there was not a large enough discrepancy between relative importance and level of preparedness. The remaining five categories yielded: nine training needs in career counseling, assessment and consultation; four training needs in counseling theories, techniques and application; five training needs in rehabilitation services and resources; three training needs in case and caseload management; and one training need in health care and disability systems. School-to-work transition services for students with disabilities was noted as a specific training need for counselors in the public VR setting, indicating it to be of high importance, but offering little pre-service preparation (Chan et al, 2003).

A more recent follow up study in 2009 (Leahy, et al) sought again to determine essential knowledge domains for effective rehabilitation counseling practice. In addition to determining essential knowledge, this study also addressed the frequency of using each domain within the last year, as well as asking at what point in a rehabilitation professionals career they should acquire this knowledge. Updated for this study were the relevant knowledge domains, as derived from Leahy et al (2003). The 2009 study acknowledged 12 knowledge domains (as expounded upon from the previous 6). Group and family counseling was the only knowledge domain that was not rated as moderately important, or higher. Furthermore, respondents indicated that they utilized this construct least frequently, as either yearly or never. The remaining domains indicating

respective importance are: medical, functional and environmental aspects of disabilities (3.8); case and caseload management (3.8); rehabilitation services and resources (3.7); individual counseling (3.7); career counseling and assessment (3.7); job development and placement services (3.7); foundations, ethics, and professional issues (3.6); mental health counseling (3.4); psychosocial and cultural issues in counseling (3.4); health care and disability systems (3.4); and, vocational consultation and services for employers (3.3) (Leahy et al, 2009).

Frequency was assessed with a 5-point Likert scale (1 = never, 2 = yearly or almost yearly, 3 = monthly or almost monthly, 4 = weekly or almost weekly, and 5 = daily or almost daily). Results of frequency of utilizing knowledge domains were similar in ranking to those of importance, yielding: case and caseload management as the most frequently used (4.6); medical, functional and environmental aspects of disabilities (4.4); individual counseling (4.2); rehabilitation services and resources (4.2); career counseling and assessment (4.1); foundations, ethics, and professional issues (4.1); job development and placement services (3.8); health care and disability systems (3.6); psychosocial and cultural issues in counseling (3.5); mental health counseling (3.4); vocational consultation and services for employers (3.0); and, group and family counseling (2.5) (Leahy et al, 2009).

The most recent knowledge validation study also sought to determine which essential knowledge domains were acquired during preservice training. School-to-work transition services have been identified in knowledge domain 3, rehabilitation services and resources, previously (Chan et al, 2003; Leahy et al, 2003). Rehabilitation services and resources was rated as moderately important (3.7) and used weekly or almost weekly (4.2). In previous studies, school-to-work transition services were mentioned specifically, and individually however in the 2009 study, school-to-work transition is included with other rehabilitation services (i.e. supported

employment, assistive technology, special populations, etc.). Despite this, an average for acquisition during education for rehabilitation service subdomains yields a response of 42 percent. This substantively means that rehabilitation services and resources are viewed as highly important and used weekly or almost weekly, yet only 42 percent of respondents acquired the essential knowledge to perform these tasks during their preservice training. With transition services being subsumed within this category, these findings are significant to the rationale for the current study.

A further study surveyed rehabilitation counselor educators to determine the emphasis or importance placed within their curricula on the skills related to the seven major job factors identified for rehabilitation counselors (Ebener, 2007). Results yielded the following rank order of emphasis: (1) professional advocacy; (2) managing cases; (3) counseling interventions; (4) assessments; (5) vocational counseling; (6) use of community-based services; and (7) applying research to practice. This finding indicates that school-to-work transition services, which are commonly included within community-based services or specialized services, are emphasized sixth out of seven job factors in training curricula. This result is consistent with the aforementioned finding in which only 42 percent of certified rehabilitation counselors indicated their acquisition of rehabilitation service knowledge during preservice training (Leahy et al, 2009).

The result of reviewing recent role and function studies within the field of rehabilitation counseling indicate knowledge related to school-to-work transition services for students with disabilities to be important (Leahy et al, 2003; Chan et al, 2003), and for practicing rehabilitation counselors to feel as if they received limited preparation for these tasks (Chan et al, 2003). These findings were updated in 2009 (Leahy et al), however included other rehabilitation services with

school-to-work transition (i.e. supported employment, assistive technology, special populations, etc.). Furthermore, this study found that while these services were moderately important, only 42 percent of certified counselors acquired this knowledge during their preservice training. This finding is not surprising, given that rehabilitation counselor educators ranked the job function of rehabilitation counselors using community-based services sixth out of seven major functions (Ebener, 2007).

Table 2: Role and Function Studies: Importance Ranking of Major Job Functions

	Leahy et al, 2003	Ebener, 2007*
Factor 1: Vocational Counseling and Consultation	4	5
Factor 2: Conducting Counseling Interventions	3	3
Factor 3: Community-Based Rehabilitation Services	6	6
Factor 4: Managing Cases	1	2
Factor 5: Applying Research to Practice	7	7
Factor 6: Conducting Assessments	5	4
Factor 7: Practicing Professional Advocacy	2	1

*Ebener, 2007 provides rehabilitation counselor educator importance ranking of major job functions

Required Knowledge for Transition Services Personnel

Transition planning is essential for successful post-school outcomes for students with disabilities. The comprehension of this concept is vital to professionals having the knowledge and frameworks to support and facilitate students through school-to-work transition.

The Taxonomy for Transition Planning, a comprehensive conceptual framework of transition practices, was developed by Paula Kohler (1996) and colleagues. The rationale for the development of this model was to fill the gap in education in which research was not linked with practice. By identifying the best practices of transition service personnel, a direct communication of critical features can then be disseminated to administrators and service providers (Kohler, 1996). This taxonomy was based on past and present school-to-work research and empirically

validated by a national pool of 296 individuals associated with transition research, programs and or service delivery settings.

The following five categories of practice represent the final cluster solutions that are the make up of the Taxonomy of Transition Planning: (1) student focused planning (student participation, IEP development, accommodationals and planning strategies); (2) student development (structured work experiences, life skills instruction, accommodations and support, employment skills instruction, vocational assessment, career and vocational curricula); (3) intragency and interdisciplinary collaboration (individual-level planning; collaborative service delivery, interorganization framework, organizational level planning, and human resource development), (4) family invomvement (family training, family empowerment, and family involvement); and (5) program structure and attributes (program philosophy, program policy, resource allocation, program evaluation, human resource development, and strategic planning).

Other studies that also reviewed transition research further validated Kohler's (1996) findings by identifying ten best practices in transition, that mirror those previously outlined (Greene, 2003). They include: (1) interagency collaboration; (2) interdisciplinary collaboration; (3) integrated schools, classrooms, and employment; (4) functional life-skills curriculum and community-based instruction; (5) social and personal skills development and training; (6) career and vocational assessment and education; (7) business and industry linkages with schools; (8) development of effective IEPs; (9) student self-determination, advocacy, and input in transition planning; and (10) parent or family involvement in transition planning.

In a comprehensive literature review of transition research published between 1990 and 1997, Kohler & Chapman (1999) identified 106 documents that contained one or more key words related to school-to-work transition services. These documents were then screened to meet

the following criteria: (1) did the study focus or include students with disabilities, (2) was the topic of the study related to transition services, and (3) was the document research oriented (independent and dependent variable defined, clearly stated outcomes of an intervention, implications, etc.). This process resulted in 20 studies adequate for inclusion into the current review, and applied to the taxonomy of transition planning (Kohler, 1996).

The first taxonomy category is student-focused planning. The aim of this cluster is to assist the student in identifying their personal goals using relevant assessment information for planning, student participation in decision making, as well as student evaluation of their progress in meeting their goals (Kohler & Field, 2003). Four out of 20 empirical research studies highlighted student involvement in IEP planning while three out of 20 studies analyzed mentioned student goal attainment as a result of the students choice (Kohler et al, 1999). These findings are in support of the 1990 and 1997 IDEA mandates that require student involvement in transition planning. Other research studies cited best practices regarding planning strategies include involving the student, family, school personnel and outside agencies to the IEP meetings, and using assessments to inform the direction of planning activities (Kohler et al, 1999; Test, Mazzotti, Mustian, Fowler, Kortering & Kohler, 2009). All of these activities support the overarching theme of this cluster, which is to identify and support decisions based on the students' goals, visions and interests.

The second taxonomy category is student development. The aim of this cluster is to emphasize life, employment and occupational skill development through school-based and work-based learning experience (Kohler et al, 2003; Test et al, 2009; Landmark et al, 2010). Kohler et al (1999) identified 11 studies that addressed student development, all of which incorporated some facet of life skills instruction for students (i.e. social skills training, identification of

personal and interpersonal problems). Self-awareness, self-determination and self-advocacy training was prevalent in six different studies, and highlighted the skill of students having an understanding of their disability, strengths, weaknesses, how to identify services and request services. Independent living skills training such as budgeting, public transportation, shopping, and laundry were referenced in six different studies as best practices to assist in post-secondary educational and vocational goal attainment. Support services were focused on in six different studies, highlighting interventions such as post-secondary counseling and/or academic support, use of adult mentors, emotional counseling, independent living skills counselors, vocational counseling, “real world” seminars, how to identify and obtain community resources, and youth re-entry specialists. Finally, 7 different studies out of 20 identified career pathways and contextual learning as a necessary and best practice (applied work experiences, employment skills instruction, etc) (Kohler et al, 1999).

The third taxonomy category is intragency and interdisciplinary collaboration. This grouping focuses on the utilization and collaboration with community partners, businesses and organizations (Kohler et al, 2003; Landmark et al, 2010). Through these symbiotic relationships, community organizations can provide standards and necessary competencies. The degree of collaboration varies drastically from program to program. Only three studies that were included in the transition literature review provided interventions for collaboration between schools, service agencies, employers and other stakeholders (Kohler et al, 1999). Despite this, interagency collaboration with regard to school-to-work transition is thought to be a key determining factor in students achieving or not achieving their transition goals (Oertle & Trach, 2007; Test et al, 2009).

Next, the family involvement taxonomy category is discussed. This cluster highlights the relevance of parental and family involvement within the transition planning, education dissemination and provision of services (Kohler et al, 2003; Test et al, 2009; Landmark et al, 2010). Transition from school-to-work is also a time of transition for family members of students with a disabilities, in that the role of the support system may be shifting as well. During this time, family members may take on the role of advocate, service developer, nurturer, teacher and learner (Timmons, Whitney-Thomas, McIntyre, Butterworth, & Allen, 2004). Five studies included in the national transition literature review addressed family involvement. Only two of these studies included interventions, while the remaining three referenced the qualitative impact of family on the transition of youth with disabilities (Kohler et al, 1999). The influence of family variables is indirectly linked to outcomes through the positive impact on school attendance, higher education attendance, assessment scores, self-esteem, confidence, drop-out rates, autonomy and self-determination (Kohler et al, 2003).

The final taxonomy category is in regard to program structure and attributes. The organization of a school largely dictates its framework for transition services and processes. For instance, practices that promote outcome-based education, community integration, cultural sensitivity, increased expectations of skills and values, as well as inclusion of students with disabilities into the social life of the school are all positive practices for a successful transition structure (Kohler et al, 2003). In a comprehensive literature review of transition literature, four studies indicated a promising practice of interagency collaboration, citing a school-family-community partnership that focuses on team building with employers and the community in general. Five studies reflected the importance of having outcomes-based program planning, three studies reflected the importance of a community-referenced curricula, and one other study

referenced the importance of a longitudinal school-to-work transition (Kohler et al, 1999). By having a clear mission and program policy, these values can be transparent for community partners, students and families.

Transition as a Sub-Specialty in Rehabilitation Counseling

During pre-service training, rehabilitation counselors are prepared to work with a myriad of disabilities that could become apparent within any given caseload (e.g. HIV/AIDS, mental illness, physical impairment, cognitive impairment, developmental disabilities, sensory impairment, etc.). Beyond this vertical expansion of the possible caseload dimensions, horizontal implications must also be considered. Working with any person with a disability has special considerations when being applied to a child, which is also a minor with a necessary support system, and likely involved in a public school setting.

The training of any group of professionals requires a standard set of competencies with which formal training is founded on. Rehabilitation professionals, as evidenced above, have an abundance of literature supporting the professional certification and accreditation bodies. Those professionals that either choose or inherit a transition caseload however, have little pre-service training or knowledge in relation to school-to-work transition. If a professional has broad training in a field, with little training on a specific sub-specialty with which they work closely, are they adequately prepared? DeFur & Taymans (1995), sought to alleviate the issue of a lack of transition foundation by identifying and categorizing transition competencies, polling a panel of transition experts and collecting data to rank the importance of each category. Utilizing a 5-point Likert scale to rank twelve knowledge domains, their findings yield the following order of transition competency importance: (1) knowledge of agency and systems change, (2) development and management of individual plans, (3) working with others in the transition

process, (4) vocational assessment and job development, (5) professionalism, advocacy and legal issues in transition, (6) job training and support, (7) assessment (general), (8) transition administrative functions, (9) philosophical and historical considerations, (10) career counseling and vocational theory and transition, (11) program evaluation and research, and (12) curriculum, instruction and learning theory (general). It would be logical to further examine the top ranked domains towards the objective of developing either a pre-service or in-service training program for vocational rehabilitation transition specialists.

In a literature review of substantiated best practices in transition (Landmark et al, 2010), 4 activities stand out in efficacy: (1) paid or unpaid work experience, (2) employment preparation program participation, (3) general education/inclusion, and (4) parent/family involvement. These findings support the taxonomy for transition planning, as defined by Kohler (1996). The National Secondary Transition Technical Assistance Center (2010) conducted a literature review of evidence-based practices identifying quality experimental studies that correlated with improved post-school outcomes in education, employment and/or independent living. Those findings yield the following predictors/outcomes that correlate with moderate (defined as 2 a priori studies with consistent significant correlations between predictor and outcomes) evidence for employment: inclusion in general education, paid employment/work experience, vocational education and a work study program. Furthermore, findings from the National Longitudinal Transition Study show that vocational education, work experience, tutoring, extracurricular group activities, and parental support positively contribute to school performance and post school outcomes (Blackorby, et al, 1996).

The attainment of post-school outcomes for youth and with disabilities lay with rehabilitation professional's likelihood to develop and apply the interdisciplinary skills

referenced heretofore. Without doing so, we risk adding to the revolving door phenomenon often referenced in VR agencies; allow youth with disabilities to needlessly struggle to meet their post-school outcomes, and allow for further encroachment on our profession by special educators and school counselors. Trach (1998) suggests special educator's complete coursework that provides information on the vocational rehabilitation system, in addition to completing practicum and internships at state/federal vocational rehabilitation agencies, as a way to demonstrate competencies in vocational rehabilitation to aid in seamless collaboration. If these recommendations were acted upon, special educators may exhibit a higher degree of understanding regarding the vocational rehabilitation process, however the risk for further encroachment is much more threatening to our profession (as is seen with social work, case managers, nurse practitioners, school and general counselors, etc.). Instead, the aim of the current study is to demonstrate data in support of the counter-argument – vocational rehabilitation professionals should be educated with the well established transition practices that yield positive post-school outcomes. In doing so, the body of knowledge that supports certification and accreditation bodies is further enlightened to evidence supporting the advancement of rehabilitation professionals, and perhaps a sub-specialty of rehabilitation transition professionals.

Successful transition of youth with disabilities from secondary education to post-secondary education and/or employment requires competent professionals skilled in working with this specific population. As evidenced, there is a dearth of literature and evidence of defined competencies for transition professionals, specifically in vocational rehabilitation. Legislation has made transition a priority in the special education and vocational rehabilitation fields, and the role of the transition professional has increased demands with new academic standards

legislation (e.g. NCLB). Rehabilitation counseling has a history of empirically validating the roles and functions as well as the knowledge and skills required for effective practice for certified vocational counselors. This study presents an additional and logical step to expound upon these findings, with application to transition professionals serving youth with disabilities.

CHAPTER 3

METHODOLOGY

The purpose of this study was to begin the inductive process of identifying knowledge domains that are required for effective transition service delivery by rehabilitation counselors, and the perceived preparedness of these counselors to provide transition services. A survey instrument was developed and disseminated across various states (Ohio, Pennsylvania, Iowa, Minnesota, Michigan, Wisconsin and Illinois) to those counselors employed in the public rehabilitation program who provide transition services to youth with disabilities. This chapter describes the instrument development process, research procedures, sample, and data analysis techniques that were utilized. The five research questions that guided the current study follow:

1. What are the demographic characteristics and professional experiences of those who provide transition services in the VR setting?
2. How did transition counselors in the current study receive their training specific to transition services?
3. How important are the various knowledge domains for transition counselors in relation to optimizing outcomes for their transition-aged youth clients?
4. In what various knowledge domains do transition counselors perceive themselves to be the most and least prepared?
5. Do perceptions of importance and preparedness of knowledge domain areas differ according to demographic, educational and professional characteristics?

Instrumentation

The survey research design for this exploratory project called for the development of a new survey instrument that was constructed in five phases: (1) a review of the literature, (2)

review of the Knowledge Validation Inventory-Revised (KVI-R) (Leahy et al, 2011), (3) initial survey development utilizing the pre-existing KVI-R and taxonomy for transition planning for the development of transition-specific items, (4) content review by subject matter experts and pilot testing, and (5) survey instrument revision. Survey construction required generation of an item pool to represent transition-specific knowledge domains. A literature review was conducted to derive the original pool of items from evidence-based transition practices. Various sources included literature within school counseling, special education and rehabilitation counseling fields.

No research has been conducted to investigate the specific knowledge requirements for effective service delivery to transition-age youth with disabilities by rehabilitation counselors. When looking more broadly at the field of rehabilitation counseling (e.g. CRCs with varying caseloads), role and function studies show knowledge related to school-to-work transition services to be critical (Leahy et al, 2003), and that practicing rehabilitation counselors believe they received limited preparation for these tasks (Chan et al, 2003). As the research design called for the development of a new instrument, a self-report questionnaire was constructed consisting of a demographic section, a general rehabilitation counseling knowledge validation section, and a transition-specific knowledge validation section.

Following a literature review and a review of the pre-existing KVI-R (Leahy et al, 2011), the taxonomy for transition planning (Kohler, 1996) was then reviewed and used to create the transition-specific portion of the current instrument, based on the five branches of the transition taxonomy: student focused planning, student development, interagency and interdisciplinary collaboration, family involvement, and program structures and attributes. Using a comprehensive literature review of evidence-based practices within each transition branch (Kohler et al, 1999),

four to five items were generated to represent each transition branch. This yielded a transition-specific portion of the instrument that was 24 items in length.

Content Review

For content validity purposes, five transition specialists were contacted to provide feedback on the instrument. Each content reviewer had served transition-age youth while working in a State VR agency within the last five years, or was currently a specialist overseeing transition counselor's within a State VR agency. Additionally, each content reviewer held a master's degree in rehabilitation counseling. Each content reviewer received a phone call, followed by an email (see Appendix A) explaining the nature, purpose of the study, and a copy of the instrument. Content reviewers were asked to respond with feedback on the instrument via email to the researcher. The purpose of this content review by subject matter experts was to assess the instrument on the following areas: (a) adequacy of overall coverage, (b) clarity of each item, (c) redundancy, and (d) if any items needed to be added or deleted. Knowledge items were deleted from the KVI-R if the area would be included within the transition-specific portion of the inventory. Each item was reviewed for appropriate grammatical form and modified as necessary on the basis of the input from the subject matter experts. Suggestions were taken into account and the instrument was revised.

Four of the five content reviewers contracted for feedback responded to the assessment with comments. While additional questions were not created following the content review, suggestions for wording and statement relevance were offered. The definable age for transition-age youth was adjusted from 14-24 years of age to 14-25.99 years of age. Under "student focused planning", social skills now includes reference to "soft skills" as well, which is a more VR-centric term. Additionally, the suggestion to change "limitation" to "barriers to employment"

was implemented to reflect a strength-based model versus a deficit model. In the “student development” section, “work based learning” was amended to reflect a continuum of work based learning activities, not just one isolated incidence. “Mentors to facilitate learning” was added to and now reads, “Mentors to facilitate socialization, inclusion and learning”. The “family involvement” section has been amended to include reference to a guardian anywhere that a family is referenced. Finally, within the “program structure” section, “cash match agreements” has been changed to resource sharing agreements.

Pilot Testing

After the subject matter experts and dissertation committee chair reviewed the instrument and changes were made, the instrument was piloted with 5 VR professionals and 5 doctoral students actively engaged in school-to-work transition research for the purpose of obtaining an additional level of clarity of the revised instrument. The purpose of the pilot study was to solicit feedback and opinions regarding the content, structure, and wording of the instrument.

Pilot participants received an email explaining the nature and purpose of the study, and a copy of the instrument. Pilot participants were asked to respond with feedback to the instrument via email to the researcher. Feedback on the survey was collected on the following areas: (a) appropriateness of the competencies, (b) if items needed to be added to the survey to fill in missing content, (c) directions for the survey, (d) ease of understanding the concepts in the survey, and (e) length of time required to complete the survey. Participants in the pilot study were asked to indicate if all the words were understood, if the questionnaire created a positive impression, one that motivated people to answer it, and if any aspect of the questionnaire suggested bias on the part of the researcher.

Final Version of the Transition Knowledge Validation Assessment (TKVA)

The final version of the TKVA consists of 9 pages (including a welcome page) and 119 items, divided into two sections (see Appendix C). Section one consists of items designed to obtain demographic data, such as state of residence, training, education, years of experience, primary responsibility, and percentage of their caseload consisting of transition age youth. This section is 15 items in length. In section two of the survey, VR transition professional's ratings of individual perceptions of importance and preparedness for 24 transition-specific items and 80 general rehabilitation counseling knowledge domains are posed. All of the items in section two were generated from the literature review and were adjusted through a three-step process: researcher level, content reviewer level, and pilot study level.

Participants will respond to a series of Likert-scale questions relating to (a) perceived importance of a knowledge domain (either specific to transition services or general to rehabilitation counseling); and (b) perceived preparedness in regard to each knowledge domain. It is estimated that the survey will take approximately 30-45 minutes to complete. The Likert-scales are as follows: Importance Scale: 1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Very Important, 5 = Extremely Important; Preparedness Scale: 1 = No Preparation, 2 = Little Preparation, 3 = Moderate Preparation, 4 = High Degree of Preparation, 5 = Very High Degree of Preparation.

This study will utilize a self-report format. Self-report measures are commonly used to obtain information that cannot be readily made available from other sources. Furthermore, this study is seeking the subjective opinion of practicing VR transition professionals to begin the inductive process of identifying essential knowledge domains for effective transition service provision. Many of the items included in this instrument are knowledge domains that cannot be

observed or empirically measured. The participants were therefore in the best position to evaluate the importance of specific knowledge, and their level of preparedness for each knowledge domain.

Data Collection Procedures

For each state that participated in the current study (Ohio, Pennsylvania, Iowa, Minnesota, Michigan, Wisconsin and Illinois), a letter was sent to the VR director to discuss participation in this study (see Appendix B). After approval, the transition coordinator or specialist from each state was sought out to assist in recruiting participants for the current study. Each of these individual's were also asked to participate in the content review for the development of the instrument, as outlined previously. An email outlining the background information for the study, a consent form, and a link to the survey was sent to VR transition professionals located within each state that participated in the current study. Surveys were sent to participants with the assistance of Qualtrics (<http://www.qualtrics.com>). Participants self-selected to participate by choosing to fill out the survey and clicking the submit button. Therefore, participation in this study was entirely voluntary. Information regarding informed consent was presented on-line prior to viewing the survey. Participants were shown a button to click indicating their agreement with the consent letter allowing them to view and complete the survey. State VR professionals who received the survey had four weeks to complete and submit the survey. Two weeks following the first electronic mailing, a reminder email was sent to all participants with the assistance of each state's transition coordinator. The email reminded participants about the study for those who had not completed the survey, and thanked those that had already completed the survey. A third and final reminder was sent two weeks after the second reminder, creating a total of four weeks for data collection.

All of the survey responses were protected via password protection on the Qualtrics website, and any hard copies will be stored in a locked filing cabinet. All of the responses to the questions will be converted using the Statistical Package for the Social Sciences²⁰ for Macintosh (SPSS, 2011).

Knowledge Subdomains

A factor analysis was conducted on the 24 transition-specific items that were created from the theoretical framework prior to any further analyses concerning the specific research questions for this study. Factor analysis is an item reduction technique that begins with a large number of variables and then tries to reproduce the interrelationships among the variables using a smaller number of latent variables based on clusters of items. After this process has been completed, often a pattern appears among the relationships between the variables that captures the essence of the relationships. This statistical method was determined to be the most useful data reduction method for this study because it explains the most variance by taking into consideration not only the unique item variation, but error variance as well.

Multiple steps of dimension reduction were tested in an attempt to identify the factors that explained the most variance, while also capturing the foundation of the theoretical framework chosen for this study. The final decision of analysis for item reduction on the 24 transition-specific items was a factor analysis using an eigenvalue greater than 1. This yielded 6 factors, which were well supported by theory, and explained 61.72% of variance. When trying to extract 5 factors (as theory states), less variance was explained (57.6%) and when trying to extract fixed factors of 7 or 8 factors, more variance was explained (64.8% and 67.6%, respectively). This is not unexpected for more variance to be explained when fixing for more

factors, however the identified factors do not align with the theoretical framework clearly, and were therefore difficult to make inferences upon.

The six factors transition knowledge subdomain factors that were identified after running the factors analysis are as follows: (1) student focused planning, (2) student development, (3) interagency collaboration, (4) family involvement, (5) program structure and policies, and (6) IEP development. These factors will be explain in detail, along with means, standard deviations and Cronbach Alpha's in chapter 4. The sixth factor that was identified beyond the theory, when running the data with an eigenvalue greater than 1 refers to a cluster of items that relate to Individualized Education Plans (IEPs), a very important construct in transition counseling.

Principal component analysis and varimax rotation were both used for the analysis of these 24 transition-specific items, identical to the decisions made by Leahy et al, 2011, when conducting analysis on general rehabilitation counseling items. When attempting to run other types of rotations (e.g. Oblimin), it was challenging to interpret the break down of items into factors that made logical sense, given the conceptual framework. Items showed weaker correlation to factors than they did within the varimax rotation, and there were more occurrences of strong negative correlations reported.

The remaining 80 general rehabilitation counseling items remained in the factor reductions that had been previously set forth by Leahy et al, 2011. They consisted of 11 factors after one had been removed because it was unrelated to transition counseling and youth in general (Health Care and Disability Systems: workers compensation, social security benefits, health care benefits, etc). These knowledge subdomains include: (1) Individual Counseling, (2) Group and Family Counseling, (3) Mental Health Counseling, (4) Psychosocial and Cultural Issues in Counseling, (5) Career Counseling and Assessment, (6) Job Development and

Placement Services, (7) Vocational Consultation and Services for Employers, (8) Case and Caseload Management, (9) Medical, Functional and Environmental Aspects of Disabilities, (10) Foundations, Ethics, and Professional Issues, and (11) Rehabilitation Services and Resources.

Data Analysis Procedures

Descriptive statistics were computed on sample characteristics from the demographic questionnaire. Specific demographic characteristic variables which define selected characteristics of the sample include the following categorical variables: (1) gender; (2) age; (3) race/ethnicity; (4) State of residence; (5) highest degree earned, (6) major area of study; (7) certification status as a rehabilitation counselor; (8) current job title; (9) current work setting; (10) percentage of caseload consisting of transition-age youth; (11) types of transition training received; (12) frequency of transition training; (13) time per week spent on transition-related responsibilities; (14) years of experience working with transition-age youth with disabilities; and (15) primary responsibility of transition services.

To address the first research question, descriptive statistics (mean, standard deviation and frequency) will be computed for each item within the demographic portion of the assessment. A mean score for each factor will be computed.

To address the second research question, descriptive statistics (mean, standard deviation and frequency) will be computed for each item on the assessment according to subject's response to the two demographic questions relevant to transition training. A mean score for each factor will be computed.

To address the third research question, descriptive statistics (mean, standard deviation and frequency) will be computed for each item on the assessment according to subjects' response

to the five point Likert-scale for importance. The items will then be ranked in order with the factors identified by the factor analysis. A mean score for each factor will be computed.

To address the fourth research question, descriptive statistics (mean, standard deviation and frequency) will be computed for each item on the assessment according to subject's response to the five point Likert-scale for preparedness. The items will then be ranked in order with the factors identified by the factor analysis. A mean score for each factor will be computed.

To address the fifth and final research question and determine whether perceptions of importance and preparedness of knowledge domains differ according to demographic, educational and professional characteristics, a series of multivariate analyses of variance (MANOVA) will be conducted. The dependent variables for these analyses will be the mean scores on the factors identified from the subject's response to the five point Likert-scale for importance and preparedness. The independent variables used in each MANOVA will be type of counselor (transition versus general counselor). The purpose of the MANOVA is to test between group differences in the independent variables on the linear combinations of the factors that are identified via the factor analysis technique. Additionally, a chi-squared test will be run on categorical variables to test for group differences, with the dependent variables consisting of demographic information (age, race, gender, certification status, job title, educational achievement, area of study, years employed as a vocational rehabilitation counselor, etc.) and training profile information (frequency of attending training, type of training received, opinions regarding transition training options).

CHAPTER 4

RESULTS

The goal of this study was to identify essential knowledge domains in regard to rehabilitation counselors providing transition services to youth with disabilities. Before addressing research questions, the response rate of the sample is provided. Variables of primary interest include those derived from VR counselors with 50% or more of their caseload consisting of transition aged youth. However a comparison between this group (referred to as transition counselors from this point forward) and those with 50% or less of their caseload consisting of transition age youth (referred to as general counselors from this point forward) will be discussed. All analysis was conducted using the Statistical Package for the Social Sciences²⁰ for Macintosh (SPSS, 2011).

Seven states participated in the current study. RSA 911 data for FY 2010 has been utilized to report consumer demographics within those states (Ohio, Pennsylvania, Iowa, Minnesota, Michigan, Wisconsin and Illinois). States within the current study ranged from having 25,061 to 7,192 consumers in FY 2010. As shown in table 3, Illinois has the highest proportion of transition age youth, with 46.5% of consumers being under 25.99 years of age. Ohio has the lowest proportion of transition age youth, with 28.8% of consumers being between 14-25.99 years of age.

Table 3: Consumer Age by State

	Transition Age Youth Age 14.00 to 25.99		Adults Age 26.00 or older		Total
	N	%	N	%	N
Ohio	6438	28.8	15939	71.2	22377
Pennsylvania	9505	37.9	15556	62.1	25061
Iowa	3325	46.2	3867	53.8	7192
Minnesota	3955	40.2	5889	59.8	9844
Michigan	7039	32.3	14760	67.7	21799
Wisconsin	4600	31.4	10048	68.6	14648
Illinois	7314	46.5	8418	53.5	15732

Table 4 represents the primary disability reported by transition age youth, by state. In every state, excluding Wisconsin, learning disabilities accounted for the highest proportion of primary disability. This finding is not surprising, and is found to be consistent across national data. The second most commonly reported primary disability is mental illness. Again, this finding is consistent across all states, excluding Wisconsin.

Table 5 represents closure status by state for transition age youth. Wisconsin reports a comparably higher incidence of closure before eligibility status is determined. This can likely be linked to the finding in table 4, which shows that 21.2% of transition age youth that apply for VR services in Wisconsin have no impairment. Pennsylvania has the highest rate of successful employment outcomes for transition age youth (36.7%), followed by Iowa (33.8%) and Illinois (31.0%). Ohio and Illinois report the lowest rate of successful employment outcomes for transition age youth in their states (21.0% and 21.1%, respectively).

Table 4: Transition Age Youth Primary Disability by State

	Ohio		Pennsylvania		Iowa		Minnesota		Michigan		Wisconsin		Illinois	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No Impairment	2	0	1	0	249	7.5	1	0	49	0.7	977	21.2	0	0
Blindness/ Visual Impairment	234	3.6	184	1.9	13	0.4	3	0.1	35	0.5	65	1.4	136	1.9
Deafness/Hearing Impairment including Deaf/Blindness	318	4.9	322	3.4	66	2	129	3.3	255	3.6	134	2.9	260	3.6
Physical Impairment Orthopedic/Neurologic	354	5.5	525	5.5	144	4.3	176	4.5	178	2.5	248	5.4	278	3.8
Other Physical Impairment	398	6.2	663	7	182	5.5	120	3	477	6.8	159	3.5	239	3.3
LD	1429	22.2	2845	29.9	976	29.4	956	24.2	3140	44.6	875	19	2861	39.1
ADHD	534	8.3	917	9.6	442	13.3	554	14	546	7.8	344	7.5	563	7.7
MR	1028	16	1034	10.9	439	13.2	484	12.2	580	8.2	472	10.3	988	13.5
Autism	272	4.2	272	2.9	62	1.9	322	8.1	290	4.1	181	3.9	300	4.1
Mental Illness	1338	20.8	1611	16.9	623	18.7	848	21.4	967	13.7	699	15.2	1064	14.5

Table 4 (cont'd)

Substance Abuse	44	0.7	558	5.9	35	1.1	49	1.2	150	2.1	25	0.5	35	0.5
TBI	99	1.5	142	1.5	28	0.8	86	2.2	70	1	60	1.3	82	1.1
Communicative/All Other Mental Impairment	388	6	431	4.5	66	2	227	5.7	302	4.3	361	7.8	508	6.9
Total	6438	100	9505	100	3325	100	3955	100	7039	100	4600	100	7314	100

Table 5: Transition Age Youth Closure Status by State

	Ohio		Pennsylvania		Iowa		Minnesota		Michigan		Wisconsin		Illinois	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Closed before determined eligible	1526	23.7	1507	15.9	253	7.6	277	7	817	11.6	1026	22.3	992	13.6
Determined eligible, No IPE	1692	26.3	1468	15.4	1081	32.5	1903	48.1	1317	18.7	1793	39	2366	32.3
Services initiated, not employed	1866	29	3044	32	867	26.1	896	22.7	3037	43.1	809	17.6	1689	23.1
Employment outcome	1354	21	3486	36.7	1124	33.8	879	22.2	1868	26.5	972	21.1	2267	31
Total	6438	100	9505	100	3325	100	3955	100	7039	100	4600	100	7314	100

Participants

As stated in chapter three, the target populations for this study were VR counselors located within Ohio, Pennsylvania, Iowa, Minnesota, Michigan, Wisconsin and Illinois. In the initial State VR contact letter (see Appendix B), directors were asked to provide the researcher with a contact person with which to disseminate the survey to counselors within each state. Furthermore, the transition consultant for each state worked with the researcher on a content analysis, and was also utilized as a resource for survey dissemination. States were asked to disseminate the instrument via email through a transition listserv. If one did not exist, states were asked to disseminate the instrument via email to all VR counselors within their state. It was assumed that the title of the email, survey and demographic questionnaires would aid in attracting the desired subject pool of transition counselors. Additional states were contacted for participation in the current study, however for various reasons were unable to participate and thus are not represented in this sample.

Six of the seven states assisted in the data collection process by providing a transition consultant to serve as the liaison to disseminate the Qualtrics survey to counselors via an email listserv. One state, Wisconsin, gave consent to participate in the study, but for various interagency reasons was unable to provide a liaison for survey dissemination. Despite this limitation, the director encouraged the researcher to utilize the agency's public website to obtain email addresses for their counselors. As a representative from the agency was not visible through the data collection process, this was thought to negatively impact the response from this state. A second contrast to standard data collection procedures occurred in Illinois. While the other six states had email addresses and listservs to utilize for survey dissemination, Illinois required dissemination to occur via the agency intranet website. With this procedure, the survey

introduction, consent statement, and link to the Qualtrics survey was posted on the main page of the intranet site. This procedure required counselors to access the intranet site, see the survey posted, and click on the link for participation. Because the survey was not sent to counselors directly via email in this state, this was thought to negatively impact the response rate from Illinois.

From the 1,251 professionals who received the survey via email invitation, a total of 421 surveys were returned. Unfinished surveys, and surveys missing more than 10% of data were removed before running analysis; resulting in a final sample of 353 participants. Response rate for this study was 28.22%. Overall response rate was negatively impacted by the aforementioned data collection discrepancies described above for Wisconsin and Illinois. When removing these two states from the overall participant pool to determine the response rate, there is a 7.5% increase in response rate to 35.67%. Iowa had the largest response rate (N=85, response rate of 58.8%) followed by Ohio (N=237, response rate of 41.7%) and Pennsylvania (N=285, response rate of 34.0%). This can likely be attributed to the nature of survey dissemination in these states, as transition listservs were utilized in Ohio and Iowa. The transition consultant in Pennsylvania, who also served as the liaison between the researcher and staff, was highly collaborative and supportive and may be a contributing factor to the higher response rate in this State.

As noted in table 6, 68.6% of participants identified themselves as general counselors, while 31.4% of participants identified as being transition counselors. Table 7 represents sample participants by State, and demonstrates Ohio (28.0%) and Pennsylvania (27.5%) as having the largest representation of responses, followed by Iowa (14.2%) and Minnesota (12.2%).

Table 6: Participant Caseload Characteristics

	N	%
Transition Counselor	110	31.4
General Counselor	240	68.6
Total	350	100

Note: Transition Counselor refers to those participants that identified with having >50% of their caseload consisting of transition aged youth.

Table 7: Participant Caseload Characteristics by State

	Transition Counselor		General Counselor		Total	
	n	%	n	%	N	%
Ohio	34	30.9	65	26.7	99.0	28.0
Pennsylvania	23	20.9	74	30.5	97	27.5
Iowa	12	10.9	38	15.6	50	14.2
Minnesota	17	15.5	26	10.7	43	12.2
Michigan	16	14.5	15	6.2	31	8.8
Wisconsin	0	0.0	18	7.4	18	5.1
Illinois	8	7.3	7	2.9	15	4.2
Total	110	100.0	243	100.0	353	100.0

Research Questions

Research Question 1: What are the demographic characteristics and professional experiences of those who provide transition services in the VR setting?

Table 8 shows basic demographic characteristics of transition counselors, as compared to general counselors. For both groups, the majority of participants were female (72.4%) and White (93.6%). When considering the entire sample, the greatest number of participants were between 50-59 years of age (28.2%). However, when considering age by caseload characteristics, the greatest number of transition counselors were between 30-39 years of age (34.6%), whereas the greatest number of general counselors were between 50-59 years of age (30.1%). With regard to education, the majority of participants reported a Master's degree as the highest degree earned

(89.1%). However, more transition counselors reported having a Bachelor degree, when compared to the entire sample. When analyzing degree majors, most reported their degree to be in Rehabilitation Counseling (60.7%). More transition counselors reported a degree in Psychology (6.4%), Social Work (9.1%) and Other (12.7%), when compared to the entire sample. Reports for certification status were similar across groups, with the majority of participants indicating that they are not certified (53.9%). The majority of participants reported a current job title of vocational rehabilitation counselor (84.5%). Not surprisingly given the nature of the current study, nearly 8 times more transition specialists were reported as transition counselors, when compared to general counselors. Furthermore, nearly twice as many transition counselors reported “other” as a current job title, when compared to general counselors. The greatest number of participants worked as a rehabilitation counselor for 10+ years (40.8%). Additionally, the greatest number of participants worked in their State’s VR agency for 10+ years (35.4%), as opposed to private or non-profit rehabilitation settings. The majority of participants also reported being Civil Servants (81.8%). While the majority of the sample reported their work setting as being within a public VR office (83.9%), more transition counselors reported being located within a high school (3.7%) or “other” (21.3%) setting, when compared to the entire sample.

Table 8: Participant General Characteristics by Caseload Characteristics

	Transition Counselor		General Counselor		Total	
	n	%	n	%	n	%
Gender						
Female	87	81.3	165	72.4	165	72.4
Male	20	18.7	63	27.6	83	36.4
Total	107	100.0	228	100.0	228	100.0
Age						
20-29	11	10.3	33	14.6	44	13.2
30-39	37	34.6	46	20.4	83	24.9

Table 8 (cont'd)

40-49	25	23.4	54	23.9	79	23.7
50-59	26	24.3	68	30.1	94	28.2
60+	8	7.5	25	11.1	33	9.9
Total	107	100.0	226	100.0	333	100.0
Race						
White	99	95.2	208	92.9	307	93.6
Black	3	2.9	10	4.5	13	4.0
Asian	0	0.0	1	0.4	1	0.3
Hispanic	1	1.0	2	0.9	3	0.9
American Indian	1	1.0	1	0.4	2	0.6
Other	0	0.0	2	0.9	2	0.6
Total	104	100.0	224	100.0	328	100.0
Education (Highest Degree Earned)						
Associates Degree	1	0.9	2	0.8	3	0.9
Bachelors Degree	16	14.7	16	6.7	32	9.2
Masters Degree	90	82.6	221	92.1	311	89.1
Doctorate	2	1.8	1	0.4	3	0.9
Total	109	100.0	240	100.0	349	100.0
Major of Highest Degree						
Rehabilitation Counseling	59	53.6	153	64.0	212	60.7
Rehabilitation Psychology	1	0.9	2	0.8	3	0.9
Psychology	7	6.4	11	4.6	18	5.2
Social Work	10	9.1	14	5.9	24	6.9
Other Counseling Specialty (e.g. Substance Abuse, Mental Health, etc.)	14	12.7	39	16.3	53	15.2
Other Rehabilitation Specialty (e.g. Vocational Evaluation, Job Placement, etc.)	5	4.5	8	3.3	13	3.7
Other	14	12.7	12	5.0	26	7.4
Total	110	100.0	239	100.0	349	100.0
Certified Rehabilitation Counselor						
Yes	46	43.0	112	47.5	158	46.1
No	61	57.0	124	52.5	185	53.9
Total	107	100.0	236	100.0	343	100.0
Current Job Title						
Vocational Rehabilitation Counselor	79	72.5	215	90.0	294	84.5
Transition Specialist	9	8.3	1	0.4	10	2.9
Transition Consultant	1	0.9	0	0.0	1	0.3

Table 8 (cont'd)

Other	20	18.3	23	9.6	43	12.4
Total	109	100.0	239	100.0	348	100.0
Years worked as a Rehabilitation Counselor						
0-3 Years	32	29.4	49	20.5	81	23.3
4-6 Years	24	22.0	46	19.2	70	20.1
7-10 Years	13	11.9	42	17.6	55	15.8
10+ Years	40	36.7	102	42.7	142	40.8
Total	109	100.0	239	100.0	348	100.0
Years worked in your State VR Agency						
0-3 Years	32	29.4	51	21.4	83	23.9
4-6 Years	27	24.8	57	23.9	84	24.2
7-10 Years	12	11.0	45	18.9	57	16.4
10+ Years	38	34.9	85	35.7	123	35.4
Total	109	100.0	238	100.0	347	100.0
Employee Status						
Civil Servant	78	71.6	206	86.6	284	81.8
Contractual Employee	31	28.4	32	13.4	63	18.2
Total	109	100.0	238	100.0	347	100.0
Current Work Setting						
State-Federal Vocational Rehabilitation Office	76	70.4	215	90.0	291	83.9
Community Rehabilitation Provider	5	4.6	12	5.0	17	4.9
High School	4	3.7	1	0.4	5	1.4
Other	23	21.3	11	4.6	34	9.8
Total	108	100.0	239	100.0	347	100.0

Research Question 2: How did transition counselors in the current study receive their training specific to transition services?

Table 9 demonstrates the nature, frequency and opinion of specific training in transition services for both transition and general counselors. The majority of the sample has received their training in related to transition services via seminars and workshops (67.2%). Surprisingly, 10% of transition counselors (and 18.9% of general counselors) report having never received formal

training in relation to transition services. The largest number of the sample reports the frequency with which they receive transition training as occasional (48.9%), followed by very rarely (31.3%). When asked if they believe there should be specific training for transition counselors, 83.5% of the sample responded with a yes, that there should be training for these caseloads. Furthermore, when asked if Master's programs and VR agencies should provide more training specific to transition services, 87.1% agreed that master's programs should provide more training, while 85.3% agreed that VR agencies should offer more training specific to transition services.

Table 9: Transition Training by Caseload Characteristics

	Transition Counselor		General Counselor		Total	
	n	%	n	%	n	%
Nature of Previous Transition Training						
Workshops	79	71.8	155	65.1	234	67.2
On-line Courses	1	0.9	5	2.1	6	1.7
University or college training	19	17.3	33	13.9	52	14.9
No training	11	10.0	45	18.9	56	16.1
Total	110	100.0	238	100.0	348	100.0
Frequency of Transition Training						
Never	4	3.6	22	9.2	26	7.5
Very Rarely	18	16.4	91	38.2	109	31.3
Occasionally	61	55.5	109	45.8	170	48.9
Often	18	16.4	15	6.3	33	9.5
Very Often	9	8.2	1	0.4	10	2.9
Total	110	100.0	238	100.0	348	100.0
Do you believe there should be specific training for transition counselors?						
Yes	95	88.8	188	81.0	283	83.5
No	12	11.2	44	19.0	56	16.5
Total	107	100.0	232	100.0	339	100.0

In your opinion, should master's level educational programs provide more training specific to transition services?

Table 9 (cont'd)

Yes	96	88.1	202	86.7	298	87.1
No	13	11.9	31	13.3	44	12.9
Total	109	100.0	233	100.0	342	100.0

In your opinion, should VR agencies offer or require more training specific to transition services?

Yes	95	86.4	202	84.9	297	85.3
No	15	13.6	36	15.1	51	14.7
Total	110	100.0	238	100.0	348	100.0

Factor Analysis

Figure 1, shown below, is the scree plot for the six transition knowledge subdomain factors that were identified after running the factor analysis. As mentioned in chapter 3, six factors account for 61.72% of variance. The first factor explains a great deal of variance (35.72%). This factor is represented as the transition knowledge subdomain entitled program structure and policies. Using .40 as the factor loading criteria, 22 of 24 items loaded on one of the six factors; however, decisions were made to remove or retain various items based on relevancy to individual factors and the researchers consideration of items to be key in defining a particular underlying construct.

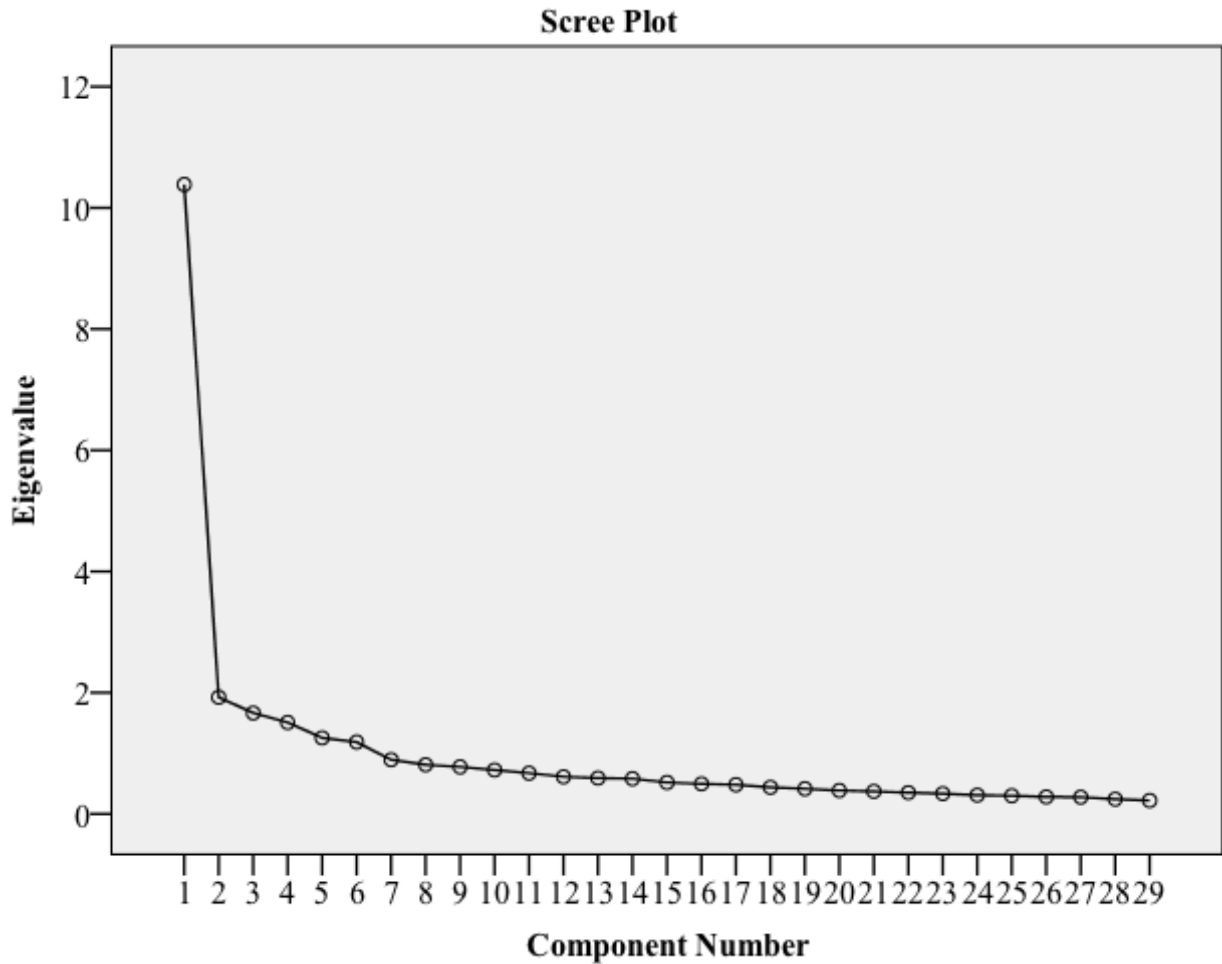


Figure 1: Scree Plot for Transition Knowledge Subdomains

Table 10: Factor Analysis –Total Variance Explained		
Factor	Eigenvalue	% Variance
1: Program Structure and Policies	10.36	35.72
2: Family Involvement	1.91	6.58
3: Student Development	1.69	5.77
4: Interagency Collaboration	1.51	5.20
5: Student Focused Planning	1.25	4.32
6: IEP Development	1.20	4.12

Two items did not load higher than .40, however both of these items were retained and placed in the domains that were identified by the factor analysis. These items were retained despite being below the .40 cutoff, based on researcher knowledge and the items centrality to the underlying construct. Item 9 (mentors to facilitate socialization, inclusion and learning) was kept

in factor 3 (Student Development), despite having a factor loading of .363. Additionally, item 24 (individualized services to meet student needs) was kept in factor 1 (Program Structure and Policies), despite having a factor loading of .338. Finally, one factor was removed from the analysis because it was not considered critical or relevant in defining the underlying construct in which it was placed. This was item 5 (leisure skills training), and it was initially placed in the sixth factor (IEP Development), with a factor loading of .436. The item distributions resulting from the factor analysis can be found in table 11.

Table 11: Rotated Factor Matrix						
	Factor					
	1	2	3	4	5	6
Pre-Individual Education Plan (IEP) activities for parents/guardians.	.221	.390	.163	.041	-.018	.553
Facilitation of student involvement in the Individual Education Program (IEP) development.	.086	.107	.218	.134	.210	.582
Leisure skills training.	.253	.122	.039	.110	.187	.436
Individual Education Plan (IEP) development.	.196	.125	.180	.458	.014	.488
Principles of self-awareness to aid in identification of barriers to employment and realistic job goals.	.208	.162	.223	.121	.592	.199
Social skills (soft skills) training.	.021	.102	.157	.221	.608	.200
Principles of self-determination to facilitate vocational planning.	.219	.062	.230	.001	.469	.426
Collaboration with general and special education teachers.	.224	.199	.202	.627	.194	.096
School system, programs, and personnel.	.364	.132	.169	.631	.097	.176
Assessment of community resources and needs.	.271	.289	.124	.461	.270	.090
Providing classroom resources for students and teachers relevant to the world of work.	.085	.168	.328	.435	.120	.385
Employment skills instruction.	.165	.053	.606	.219	.315	.105
Continuum of work-based learning experiences.	.154	.112	.588	.150	.137	.162
Career and vocational curriculum to facilitate career exploration.	.199	.226	.639	.164	.107	.241
Mentors to facilitate socialization, inclusion and learning.	.172	.167	.363	.221	.204	.295

Table 11 (cont'd)

Skill instruction in the context of real life experiences.	.164	.245	.486	.128	.285	.146
Inclusion of parents and family members/guardians in vocational planning and decision-making.	.042	.797	.101	.074	.113	.154
Encouragement of parent/guardian attendance at vocational planning meetings.	.128	.718	.235	.125	.000	.229
Providing school-to-work and transition information to parents/guardians and families.	.218	.550	.184	.271	.173	.110
Federal legislation relevant to educational systems (No Child Left Behind, Individuals with Disabilities Education Act, etc)	.622	.051	.016	.283	.183	.211
Resource sharing agreements.	.609	.002	.239	.147	-.041	.283
Awareness of ways to facilitate shared delivery of school-to-work transition services between partners.	.683	.180	.219	.136	.188	.037
Outcome-based programming.	.612	.170	.247	.131	.129	.098
Individualized services to meet student needs.	.338	.331	.202	.328	.275	.001

Student Focused Planning (Transition Knowledge Subdomain 1)

The aim of this cluster is to assist the student in identifying their personal goals using relevant assessment information for planning, student participation in decision making, as well as student evaluation of their progress in meeting their goals (Kohler & Field, 2003). Principles of self-awareness to identify realistic employment options, self-determination to facilitate vocational planning and soft skills training are inherent in this knowledge domain cluster.

The average score for this transition knowledge subdomain, as reported by transition counselors was 4.0 (SD=.78) for importance and 3.2 (SD=.93) for preparedness. General rehabilitation counselors reported an average score of 4.0 (SD=.85) for importance and 3.2 (SD=.97) for preparedness. A Cronbach's alpha yielded a coefficient of .77 and is considered acceptable to indicate internal consistency.

Student Development (Transition Knowledge Subdomain 2)

The aim of this cluster is to emphasize life, employment and occupational skill development through school-based and work-based learning experience (Kohler et al, 2003; Test et al, 2009; Landmark et al, 2010). Employment skill instruction, work-based learning experiences, vocational curriculum, mentoring and skill instruction in the context of real life experiences are central to this knowledge domain cluster.

The average score for this transition knowledge subdomain, as reported by transition counselors was 3.9 (SD=.82) for importance and 3.0 (SD=1.03) for preparedness. General rehabilitation counselors reported an average score of 3.9 (SD=.88) for importance and 2.9 (SD=.99) for preparedness. A Cronbach's alpha yielded a coefficient of .82 and is considered acceptable to indicate internal consistency.

Interagency Collaboration (Transition Knowledge Subdomain 3)

This grouping focuses on the utilization and collaboration with community partners, businesses and organizations (Kohler et al, 2003; Landmark et al, 2010). Through these symbiotic relationships, community organizations can provide standards and necessary competencies. The degree of collaboration varies drastically from program to program. Themes of collaboration between general and special education teachers, school systems, and school personnel are important in this subdomain. Additionally, assessment of community resources and needs and the provision of classroom resources for students and teachers relevant to the world of work are inherent in this cluster.

The average score for this transition knowledge subdomain, as reported by transition counselors was 4.1 (SD=.82) for importance and 3.1 (SD=1.19) for preparedness. General rehabilitation counselors reported an average score of 3.9 (SD=.93) for importance and 2.8

(SD=1.07) for preparedness. A Cronbach's alpha yielded a coefficient of .82 and is considered acceptable to indicate internal consistency.

Family Involvement (Transition Knowledge Subdomain 4)

This domain highlights the relevance of parental and family involvement within transition planning, education dissemination and provision of services (Kohler et al, 2003; Test et al, 2009; Landmark et al, 2010). Items concerning the inclusion of guardians in vocational planning and decision making, encouraging the guardian to attend vocational planning meetings and providing information to guardians regarding school-to-work transition are central in this knowledge subdomain.

The average score for this transition knowledge subdomain, as reported by transition counselors was 4.2 (SD=.86) for importance and 3.3 (SD=1.06) for preparedness. General rehabilitation counselors reported an average score of 4.0 (SD=.86) for importance and 3.1 (SD=1.06) for preparedness. A Cronbach's alpha yielded a coefficient of .83 and is considered acceptable to indicate internal consistency.

Program Structure and Policies (Transition Knowledge Subdomain 5)

The organization of a school largely dictates its framework for transition services and processes. With this in mind, concepts regarding federal legislation, resource sharing agreements, awareness of ways to share school-to-work transition services between partners, outcomes-based programming and individualized services to meet student needs are essential in this cluster.

The average score for this transition knowledge subdomain, as reported by transition counselors was 3.8 (SD=.89) for importance and 2.9 (SD=1.05) for preparedness. General rehabilitation counselors reported an average score of 3.6 (SD=.92) for importance and 2.8

(SD=1.04) for preparedness. A Cronbach's alpha yielded a coefficient of .84 and is considered acceptable to indicate internal consistency.

IEP Development (Transition Knowledge Subdomain 6)

Individual Education Plans are integral to any transition planning services provided within a school system, and federally mandated. As such, it is not surprising that a separate subdomain was identified with the factor analysis. Within the theme, concepts of the facilitation of student involvement in their IPE, IEP development, and pre-IEP activities for guardians are seen within the cluster.

The average score for this transition knowledge subdomain, as reported by transition counselors was 3.6 (SD=1.03) for importance and 2.7 (SD=1.18) for preparedness. General rehabilitation counselors reported an average score of 3.5 (SD=1.03) for importance and 2.4 (SD=1.09) for preparedness. A Cronbach's alpha yielded a coefficient of .69. This alpha is considered to be below the acceptable level of internal consistency (by .01 units), however the research decided to incorporate this transition knowledge subdomain for further analysis. The rationale of the inclusion of this item is twofold: (1) This item was identified as a sixth factor when running an unrestricted factor analysis with eigenvalues greater than 1, (2) this item is considered important when considering the central roles and functions of transition counselors, and was this included for further analysis.

The remaining 11 general rehabilitation counseling knowledge subdomains, as identified by Leahy et al, 2011, yielded Cronbach alphas between .73 and .90 to indicate high internal consistency of the items making up each factor. A minimum reliability coefficient of .70 for subscales is considered acceptable (Nunnally, 1978).

Table 12: Cronbach's Alpha Coefficients for General Rehabilitation Counseling Knowledge Subdomains	
Subdomain	α
Individual Counseling	.83
Group and Family Counseling	.90
Mental Health Counseling	.86
Psychosocial and Cultural Issues in Counseling	.87
Career Counseling and Assessment	.82
Job Development and Placement Services	.81
Vocational Consultation and Services for Employers	.83
Case and Caseload Management	.73
Medical, Functional, and Environmental Aspects of Disabilities	.82
Foundations, Ethics, and Professional Issues	.86
Rehabilitation Services and Resources	.74

Table 13 shows the importance and preparedness average ratings for knowledge domains by caseload characteristics. The transition knowledge domain was established by the conceptual framework for the current study, and expounded upon after conducting the factor analysis, which added the 6th subdomain of IEP development. The remaining three knowledge domains (counseling knowledge, vocational knowledge and core rehabilitation counseling knowledge) were established by Leahy, et al (2009) after performing a factor analysis and grouping subdomains by content area. As demonstrated in table 13, both transition counselors and general counselors reported transition knowledge as the most important knowledge domain. While transition counselors rated the transition knowledge domain slightly higher than general rehabilitation counselors ($M=3.9$ $SD=.87$) and $M=3.8$ $SD=.91$, respectively), the groups reported the same domain averages for the remaining three knowledge domains. Furthermore, both groups of professionals also reported themselves to be most prepared in core rehabilitation counseling knowledge. There were, however, marginal differences in domain rankings for preparedness from both groups of professionals with regard to the remaining three knowledge domains. For example, transition counselors reported themselves to be least prepared in vocational knowledge,

while general rehabilitation counselors reported themselves to be least prepared in transition knowledge. These findings will be reviewed in more detail in the discussion portion of chapter 5.

Table 13: Importance and Preparedness Rating for Knowledge Domains by Caseload Characteristics

	Transition Counselors				General Counselors			
	IMPORTANCE		PREPAREDNESS		IMPORTANCE		PREPAREDNESS	
	M	SD	M	SD	M	SD	M	SD
Transition Knowledge	3.9	0.87	3.0	1.07	3.8	0.91	2.9	1.04
Student Focused Planning	4.0	0.78	3.2	0.93	4.0	0.85	3.2	0.97
Student Development	3.9	0.82	3.0	1.03	3.9	0.88	2.9	0.99
Interagency Collaboration	4.1	0.82	3.1	1.19	3.9	0.93	2.8	1.07
Family Involvement	4.2	0.86	3.3	1.06	4.0	0.86	3.1	1.06
Program Structure and Policies	3.8	0.89	2.9	1.05	3.6	0.92	2.8	1.04
IEP Development	3.6	1.03	2.7	1.18	3.5	1.03	2.4	1.09
Counseling Knowledge	3.4	0.95	3.1	1.05	3.4	0.94	3.2	0.92
Individual Counseling	3.6	0.95	3.6	1.03	3.7	0.92	3.7	0.80
Group and Family Counseling	2.8	0.98	3.1	1.20	2.7	1.02	3.0	0.97
Mental Health Counseling	3.6	0.91	2.9	1.01	3.6	0.92	3.1	0.97
Psychosocial and Cultural Issues in Counseling	3.6	0.98	3.0	0.97	3.6	0.92	3.1	0.92
Vocational Knowledge	3.7	0.90	2.9	1.01	3.7	0.88	3.1	0.99
Career Counseling and Assessment	3.6	0.92	3.0	0.99	3.6	0.88	3.2	0.96
Job Development and Placement Services	3.9	0.85	3.0	1.02	3.9	0.84	3.3	0.99
Vocational Consultation and Services for Employers	3.6	0.94	2.7	1.01	3.6	0.93	2.8	1.02
Core Rehabilitation Counseling Knowledge	3.7	0.92	3.2	1.02	3.7	0.91	3.3	1.01
Case and Caseload Management	3.9	0.88	3.3	1.11	4.0	0.88	3.5	1.10

Table 13 (cont'd)

Medical, Functional, and Environmental Aspects of Disabilities	3.9	0.89	3.4	0.94	3.9	0.85	3.5	0.92
Foundations, Ethics, and Professional Issues	3.4	0.97	3.1	1.00	3.2	0.96	3.1	0.98
Rehabilitation Services and Resources	3.6	0.93	3.1	1.03	3.6	0.93	3.2	1.04

Research Question 3: How important are the various knowledge domains for transition counselors in relation to optimizing outcomes for their transition-aged youth clients?

Table 14 shows the six transition knowledge domains that were identified after performing the factor analysis, and compares transition counselor ratings of importance on these domains to general counselor ratings. The scale used when asking counselors to ranking their perceived level of importance on various items was a 5-point Likert-scale. They were scored as follows: Importance Scale: 1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Very Important, 5 = Extremely Important.

Of these six subdomains for transition knowledge, transition counselors rated family involvement as most important, with a subdomain average of 4.2. Notably, this is the highest ranking given to any of the 17 subdomains for either group of counselors. Interagency collaboration was given a subdomain average of 4.1 followed by student focused planning with an average of 4.0. Transition counselors identified these three knowledge subdomains of transition counseling to be, at least, very important. The lowest ranked subdomain average by transition counselors for importance was IEP development, which yielded an average of 3.6. As mentioned previously in chapter 3, this 6th factor was identified after conducting a factor analysis that produced one factor beyond the conceptual framework. Each item within the cluster focuses on IEP development and planning with students and their guardians. Program structure and policies had a subdomain average of 3.8, while student development had a subdomain average of 3.9. Transition counselors found these three knowledge subdomains of transition counseling to be, at least, important.

General counselors rated family involvement and student focused planning equally high, with a subdomain average of 4.0. As such, general counselors identified these two knowledge subdomains of transition counseling to be very important. Student development and interagency collaboration were both given a subdomain average of 3.9. The lowest ranked subdomain average for importance, as ranked by general counselors, was IEP development, which yielded an average of 3.5. Program structure and policies had a subdomain average of 3.6, General rehabilitation counselors found these four knowledge subdomain of transition counseling to be, at least, important.

Both groups of counselors had similarities in importance rating for transition knowledge subdomains. IEP development was ranked as the least important knowledge subdomain (3.6 for transition counselors and 3.5 for general rehabilitation counselors), and family involvement was ranked highest (4.2 for transition counselors and 4.0 for general rehabilitation counselors). The range in subdomain averages varied slightly, with transition counselors ranking subdomain averages from 3.6 to 4.2 and general rehabilitation counselors ranking subdomain averages from 4.0 to 3.5. However, transition counselors ranked transition knowledge subdomains as more important than general rehabilitation counselors for four knowledge areas (Interagency collaboration, family involvement, program structure and policies and IEP development). Finally, transition counselors ranked transition knowledge subdomains as equally important to general rehabilitation counselors ranking for two knowledge areas (student focused planning and student development).

Table 15 demonstrates the 11 general rehabilitation counseling knowledge domains that were identified by Leahy et al (2011), and compares transition counselor ratings of importance

and preparedness on these domains to general counselor ratings. The same scale for transition knowledge subdomains regarding importance and preparedness was used on these items as well.

Of the 11 subdomains for general rehabilitation counseling knowledge, transition counselors rated job development and placement, case and caseload management, and medical, functional and environmental aspects of disabilities as most important, with an average in each subdomain of 3.9. Individual counseling, mental health counseling, psychosocial and cultural issues in counseling, career counseling and assessment, vocational consultation and services for employers and, finally, rehabilitation services and resources were all given a subdomain average of 3.6 by transition counselors. The knowledge subdomain of foundations, ethics and professional issues was given an average of 3.4 by transition counselors. Ten of the 11 knowledge subdomains for general rehabilitation counseling knowledge were rated as, at least, “important” by transition counselors. The least important general counseling knowledge subdomain as ranked by transition counselors was group and family counseling, which yielded a subdomain average of 2.8, indicating that this group of counselors felt this knowledge subdomain was “somewhat important.”

General rehabilitation counselors ranked case and caseload management as the most important general knowledge subdomain, given an average of 4.0, or indicating that it is “very important”. Following are nine other general counseling knowledge subdomains that general counselors rank as “important”. Those are job development and placement (3.9), medical, functional and environmental aspects of disabilities (3.9), individual counseling (3.7), mental health counseling (3.6), psychosocial and cultural issues in counseling (3.6), career counseling and assessment (3.6), vocational consultation and services for employers (3.6), rehabilitation services and resources (3.6), and finally, foundations, ethics and professional issues (3.2). The

least important general counseling knowledge subdomain as ranked by general rehabilitation counselors was group and family counseling, which yielded a subdomain average of 2.7, indicating that this group of counselors felt this knowledge subdomain was “somewhat important.

When comparing importance rankings of each group of counselors, there was a great deal of consistency and agreement with regard to general rehabilitation counseling knowledge subdomains. Both groups of professional’s felt that case and caseload management, job development and placement and medical, functional and environmental aspects of disabilities are most important. Additionally, both groups of professionals felt as if group and family counseling was least important.

Table 14: Transition Knowledge Subdomains by Caseload Characteristics

	Transition Counselors				General Counselors			
	IMPORTANCE		PREPAREDNESS		IMPORTANCE		PREPAREDNESS	
	M	SD	M	SD	M	SD	M	SD
Student Focused Planning								
Principles of self-awareness to aid in identification of barriers to employment and realistic job goals	4.0	0.79	3.2	0.96	4.0	0.83	3.2	0.96
Principles of self-determination to facilitate vocational planning	3.9	0.80	3.2	0.95	3.8	0.85	3.2	1.00
Social Skills (soft skills) training	4.1	0.75	3.3	0.90	4.1	0.87	3.2	0.97
Subdomain Average:	4.0		3.2		4.0		3.2	
Student Development								
Employment skills instruction	4.1	0.83	3.3	0.98	4.0	0.89	3.2	0.95
Continuum of work-based learning experiences	3.9	0.85	3.0	1.01	4.0	0.82	3.0	0.94
Career and vocational curriculum to facilitate career exploration	4.0	0.81	3.2	1.04	4.0	0.87	3.2	1.01
Mentors to facilitate socialization, inclusion and learning	3.5	0.84	2.5	0.99	3.6	0.97	2.5	1.02
Skill instruction in the context of real life experiences	4.1	0.80	2.9	1.12	4.0	0.86	2.7	1.01
Subdomain Average:	3.9		3.0		3.9		2.9	
Interagency Collaboration								
Collaboration with general and special education teachers	4.3	0.75	3.3	1.23	4.1	0.90	3.0	1.10
School system, programs, and personnel	4.0	0.87	3.0	1.23	3.6	0.93	2.6	1.05

Table 14 (cont'd)

Assessment of community resources and needs	4.3	0.73	3.2	1.06	4.0	0.84	3.2	1.3
Providing classroom resources for students and teachers relevant to the world of work	3.8	0.92	2.9	1.24	3.7	1.05	2.6	1.10
Subdomain Average:	4.1		3.1		3.9		2.8	
Family Involvement								
Inclusion of parents and family members/guardians in vocational planning and decision-making	4.2	0.87	3.3	0.97	4.1	0.85	3.2	1.00
Encouragement of parent/guardian attendance at vocational planning meetings	4.1	0.91	3.1	1.08	4.0	0.87	3.0	1.09
Providing school-to-work and transition information to parents/guardians and families	4.4	0.80	3.4	1.14	4.0	0.85	3.1	1.08
Subdomain Average:	4.2		3.3		4.0		3.1	
Program Structure and Policies								
Federal legislation relevant to educational systems (No Child Left Behind, Individuals with Disabilities Education Act, etc.)	3.4	1.08	2.8	1.02	3.3	1.02	2.7	1.03
Resource sharing agreements	3.5	0.92	2.6	0.99	3.3	0.96	2.5	1.06
Awareness of ways to facilitate shared delivery of school- to-work transition services between partners	4.0	0.85	2.8	1.11	3.7	0.88	2.7	1.05
Outcome-based programming	3.8	0.90	2.9	1.07	3.4	0.96	2.8	1.08

Table 14 (cont'd)

Individualized services to meet student needs	4.4	0.69	3.5	1.06	4.3	0.79	3.4	0.99
Subdomain Average:	3.8		2.9		3.6		2.8	
IEP Development								
Facilitation of student involvement in the Individual Education Program (IEP) development	3.8	1.02	2.8	1.24	3.7	0.98	2.6	1.10
Individual Education Plan (IEP) development	3.7	1.03	2.9	1.22	3.6	1.05	2.5	1.14
Pre-Individual Education Plan (IEP) activities for parents/guardians	3.3	1.03	2.3	1.08	3.1	1.05	2.1	1.03
Subdomain Average:	3.6		2.7		3.5		2.4	

Research Question 4: In what various knowledge domains do transition counselors perceive themselves to be the most and least prepared?

The scale used when asking counselors to rank their perceived level of preparedness on various items was a 5-point Likert-scale. They were scored as follows: 1 = No Preparation, 2 = Little Preparation, 3 = Moderate Preparation, 4 = High Degree of Preparation, 5 = Very High Degree of Preparation. Of the six subdomains for transition knowledge displayed in Table 14, transition counselors rated themselves as being most prepared with regard to the family involvement knowledge subdomain, yielding an average of 3.3. Student focused planning was given a subdomain average of 3.2 followed by interagency collaboration and student development, with subdomain averages of 3.1 and 3.0, respectively. Transition counselors identified themselves in these three knowledge subdomains of transition counseling to be, at least, moderately prepared. The lowest ranked subdomain average by transition counselors for preparation was IEP development, which yielded an average of 2.7. Program structure and policies had a subdomain average of 2.9 for preparation. Transition counselors reported themselves to have, at least, “little preparation”, in these two transition knowledge subdomain of transition counseling.

General counselors rated themselves as being most prepared with regard to the student focused planning knowledge subdomain, yielding an average of 3.2. Family involvement was given a subdomain average of 3.1 for preparation. General counselors regard themselves to be, at least, “moderately prepared” in these two transition knowledge subdomains. General counselors reported themselves to have, at least, “little preparation” with regard to student development, interagency collaboration and program structure and policies, yielding subdomain averages of

2.9, 2.8 and 2.8, respectively. Finally, general rehabilitation counselors reported themselves to be the least prepared in IEP development, yielding a subdomain average of 2.4.

Both groups of counselors had similarities in preparedness ratings for transition knowledge subdomains. IEP development was ranked as the knowledge area with the least amount of preparation (2.7 for transition counselors and 2.8 for general rehabilitation counselors). While family involvement was ranked highest for preparation among the transition counselors (3.3), general rehabilitation counselors ranked student focused planning the highest for preparation (3.2). The range in subdomain averages for preparation is similar between groups, with transition counselors ranking subdomain averages from 3.3 to 2.7 and general rehabilitation counselors ranking subdomain averages from 3.1 to 2.4. However, transition counselors ranked themselves as more prepared in transition knowledge subdomains than did general rehabilitation counselors for five knowledge areas (student development, interagency collaboration, family involvement, program structure and policies and IEP development). Finally, transition counselors reported themselves as equally prepared to general rehabilitation counselors for one knowledge subdomain (student focused planning).

Of the 11 general rehabilitation counseling knowledge domains displayed in Table 15, transition counselors reported themselves to be the most prepared in individual counseling knowledge (3.6). Additionally transition counselors reported themselves to be, at least, “moderately prepared” in eight other general rehabilitation counseling knowledge subdomains: medical, functional and environmental aspects of disabilities (3.4), case and caseload management (3.3), group and family counseling (3.1), foundations, ethics and professional issues (3.1), rehabilitation services and resources (3.1), job development and placement (3.0), career counseling and assessment (3.0), and, psychosocial and cultural issues in counseling (3.0). The

area of least preparation in general counseling knowledge, as reported by transition counselors, was vocational consultation and services for employers (2.7), followed by mental health counseling (2.9). Transition counselors reported themselves to have had, at least, “little preparation”, in these two general rehabilitation counseling knowledge subdomains.

General rehabilitation counselors also reported themselves to be the most prepared in individual counseling knowledge (3.7). Additionally general rehabilitation counselors reported themselves to be, at least, “moderately prepared” in nine other general rehabilitation counseling knowledge subdomains: case and caseload management (3.5), medical, functional and environmental aspects of disabilities (3.5), job development and placement (3.3), career counseling and assessment (3.2), rehabilitation services and resources (3.2), mental health counseling (3.1), psychosocial and cultural issues in counseling (3.1), foundations, ethics and professional issues (3.1), and group and family counseling (3.0). The area of least preparation in general counseling knowledge, as reported by general rehabilitation counselors, was vocational consultation and services for employers (2.8). General rehabilitation counselors reported themselves to have had, at least, “little preparation”, in this general rehabilitation counseling knowledge subdomain.

When comparing preparedness rankings of each group of counselors, there was some consistency with regard to general rehabilitation counseling knowledge subdomains. Both groups of professionals felt most prepared in individual counseling knowledge and least prepared in vocational consultation and services for employer. The remaining nine general counseling knowledge subdomains were clustered equally between the highest and lowest rankings for preparedness within each group of professionals.

Table 15: General Rehabilitation Counseling Knowledge Subdomains by Caseload Characteristics

	Transition Counselors				General Counselors			
	IMPORTANCE		PREPAREDNESS		IMPORTANCE		PREPAREDNESS	
	M	SD	M	SD	M	SD	M	SD
Individual Counseling								
Individual counseling theories	3.6	1.05	3.7	1.09	3.7	1.00	3.9	0.71
Individual counseling practices and interventions	3.8	1.01	3.7	1.06	3.9	0.88	3.9	0.75
Behavior and personality theory	3.6	0.91	3.7	0.94	3.6	0.91	3.6	0.86
Human growth and development	3.5	0.86	3.5	0.96	3.5	0.89	3.4	0.82
Diversity and multicultural counseling issues.	3.7	0.91	3.5	1.10	3.8	0.91	3.6	0.84
Subdomain Average:	3.6		3.6		3.7		3.7	
Group and Family Counseling								
Group counseling theories	2.5	1.06	3.2	1.21	2.5	1.03	3.2	0.99
Group counseling practices and interventions	2.6	1.01	3.2	1.19	2.6	1.04	3.1	1.00
Family counseling theories	3.0	0.92	3.0	1.20	2.9	1.00	2.8	0.98
Family counseling practices and interventions	3.0	0.92	2.9	1.21	2.9	1.00	2.8	0.93
Subdomain Average:	2.8		3.1		2.7		3.0	
Mental Health Counseling								
Substance abuse and treatment	3.5	0.87	2.9	1.01	3.7	0.90	3.2	0.96

Table 15 (cont'd)

Rehabilitation techniques for individuals with psychological disabilities	4.1	0.81	3.2	0.90	4.2	0.73	3.4	0.93
Health promotion and wellness concepts and strategies for people with chronic illness and disability	3.3	0.94	2.6	1.05	3.4	0.93	2.6	0.89
Treatment planning for clinical problems (e.g. depression and anxiety)	3.5	0.97	2.8	1.08	3.4	1.05	3.0	1.08
Diagnostic and Statistical Manual of Mental Disorders IV-TR	3.5	0.99	3.4	1.12	3.4	1.03	3.5	0.97
Implications of medications as they apply to people with disabilities	3.7	0.89	2.8	0.89	3.6	0.86	2.9	0.98
Subdomain Average:	3.6		2.9		3.6		3.1	
Psychosocial and Cultural Issues in Counseling								
Societal issues, trends, and developments as they relate to rehabilitation	3.5	0.91	3.0	0.86	3.5	0.87	3.2	0.80
Environmental and attitudinal barriers for individuals with disabilities	4.0	0.89	3.5	1.02	4.1	0.86	3.6	0.86
The psychosocial and cultural impact of disability on the individual	4.0	1.00	3.5	1.01	4.1	0.79	3.7	0.90

Table 15 (cont'd)

The psychosocial and cultural impact of disability on the family	3.7	0.99	3.2	1.04	3.8	0.92	3.3	0.95
Techniques for working with individuals with limited English proficiency	3.0	1.00	2.1	0.91	3.2	1.03	2.2	1.02
Human disability and sexuality issues	3.1	1.07	2.6	1.03	2.8	1.04	2.6	1.04
Individual and family adjustment to disability	3.8	0.98	2.9	0.95	3.8	0.93	3.1	0.89
Subdomain Average:	3.6		3.0		3.6		3.1	
Career Counseling and Assessment								
Theories of career development and work adjustment	3.5	1.10	3.1	1.10	3.4	0.91	3.3	0.92
The tests and evaluation techniques available for assessing clients needs	3.9	0.90	3.3	0.97	3.9	0.82	3.5	0.94
Interpretation of assessment results for rehabilitation planning purposes	4.0	0.83	3.2	0.93	4.2	0.77	3.5	0.96
Ergonomics, job accommodations, and assistive technology	3.9	0.82	2.9	0.94	4.0	0.78	3.1	0.95
Transferable skills analysis	3.8	0.85	3.0	1.04	3.7	0.91	3.2	0.99
Computer-based and on-line assessment tools	3.2	0.97	2.5	1.04	3.1	0.91	2.7	1.02

Table 15 (cont'd)

Psychometric concepts related to measurement (reliability, validity, standard error of measurement)	2.7	0.98	2.9	0.93	2.6	1.10	3.0	0.93
Subdomain Average:	3.6		3.0		3.6		3.2	
Job Development and Placement Services								
Vocational implications of functional limitations associated with disabilities	4.3	0.78	3.6	0.96	4.5	0.70	3.9	0.91
Occupational and labor market information	3.9	0.89	3.0	1.00	4.0	0.84	3.5	0.97
Job placement and job development strategies	4.4	0.81	3.2	1.05	4.3	0.80	3.4	0.99
Supported employment strategies and services	3.9	0.90	2.9	1.00	3.8	0.87	3.1	1.01
Job readiness including seeking and retention skills development	4.2	0.78	3.1	1.02	4.2	0.81	3.3	0.98
Methods and techniques used to conduct labor market surveys	2.7	0.96	2.4	1.10	2.7	1.02	2.6	1.10
Subdomain Average:	3.9		3.0		3.9		3.3	
Vocational Consultation and Services for Employers								
Job modification and restructuring techniques	3.8	0.84	3.0	0.99	3.8	0.85	2.9	0.99

Table 15 (cont'd)

Consultation process with employers related to management of disability issues in the workplace	3.8	0.92	2.6	1.06	3.8	0.89	2.8	1.08
Employer development for job placement	4.1	0.88	2.8	1.05	3.9	0.97	2.8	1.10
Marketing strategies and techniques for rehabilitation services	3.0	1.06	2.3	0.95	3.2	1.04	2.5	1.01
Job analysis and/or job description development	3.7	0.88	3.1	1.08	3.6	0.87	3.2	1.02
Work conditioning or work hardening resources and strategies	3.4	1.02	2.5	0.94	3.4	0.91	2.8	1.00
Educating employers on disability-related issues (e.g., ADA, job accommodation, compliance/disability law)	3.7	0.98	2.9	0.99	3.8	0.98	3.0	0.96
Subdomain Average:	3.6		2.7		3.6		2.8	

Table 15 (cont'd)

Case and Caseload Management								
The case management process, including case finding, planning, service coordination, referral to and utilization of other disciplines, and client advocacy	4.2	0.85	3.5	1.07	4.3	0.79	3.6	1.00
Principles of caseload management	3.9	0.89	3.2	1.17	4.0	0.91	3.4	1.17
Professional roles, functions, and relationships with other human service providers	3.7	0.89	3.3	1.09	3.7	0.95	3.4	1.13
Subdomain Average:	3.9		3.3		4.0		3.5	
Medical, Functional, and Environmental Aspects of Disabilities								
Rehabilitation terminology and concepts	3.8	0.85	3.7	0.85	3.7	0.97	3.9	0.88
Environmental and attitudinal barriers for individuals with disabilities	4.0	0.88	3.5	1.02	4.1	0.86	3.6	0.86
Medical terminology	3.6	0.94	3.4	0.95	3.6	0.89	3.5	0.96
Medical aspects and implications of various disabilities	4.0	0.91	3.5	0.98	4.1	0.82	3.7	0.91
The functional capacities of individuals with disabilities	4.2	0.88	3.5	0.99	4.4	0.72	3.7	0.93

Table 15 (cont'd)

Implications of medications as they apply to people with disabilities	3.7	0.89	2.8	0.86	3.6	0.86	2.9	0.98
Subdomain Average:	3.9		3.4		3.9		3.5	
Foundations, Ethics, and Professional Issues								
Historical and philosophical foundations of rehabilitation counseling	2.9	1.00	3.3	1.03	2.8	0.98	3.5	0.91
Laws and public policy affecting individuals with disabilities	3.9	0.89	3.5	0.88	3.9	0.89	3.5	0.84
Risk management and professional ethical standard for rehabilitation counselors	4.1	0.95	3.7	0.98	4.1	0.97	3.8	1.01
Ethical decision making models and processes	3.8	1.04	3.6	1.13	3.8	1.01	3.7	0.89
Clinical problem-solving and critical-thinking skills	4.1	0.98	3.5	0.98	4.3	0.82	3.8	0.99
Advocacy processes needed to address institutional and social barriers that impede access, equity, and success for clients	3.7	0.97	3.0	1.06	3.5	0.98	2.8	1.01
Rehabilitation research literature related to evidence-based practice	3.0	0.96	2.9	0.97	2.7	0.93	2.7	0.99
Rehabilitation research methods and statistics	2.7	0.93	2.8	0.98	2.5	0.99	2.8	1.01

Table 15 (cont'd)

Evidence-based practice and research utilization	3.0	1.05	2.9	0.90	2.7	1.07	2.6	0.97
Research databases (e.g. Cochrane Collaboration, PsyINFO, and MEDLINE) for locating empirically validated interventions	2.4	0.97	2.0	1.07	2.2	1.00	2.1	1.18
Subdomain Average:	3.4		3.1		3.2		3.1	
Rehabilitation Services and Resources								
Organizational structure of rehabilitation counseling practice settings (e.g. public, private-for-profit, and not for profit service delivery systems)	3.0	0.99	3.1	0.96	2.9	1.04	3.2	1.02
Community resources and services for rehabilitation planning	4.2	0.81	3.4	1.03	4.3	0.72	3.5	0.98
Financial resources for rehabilitation services	3.9	0.93	3.0	0.98	3.8	0.90	3.1	1.03
Services available from one-stop career centers	3.3	1.07	3.0	1.06	3.4	1.05	3.2	1.15
Services available through client advocacy programs (e.g., Client Assistant Programs [CAP], legal aid)	3.4	0.92	2.9	1.08	3.3	1.00	3.0	1.10

Table 15 (cont'd)

Programs and services for specialty populations (e.g., school-to-work transition, spinal cord injury, traumatic brain injury, mental health, developmental disability, substance abuse, correctional)	4.1	0.84	3.1	1.03	4.0	0.86	3.2	0.98
Subdomain Average:	3.6		3.1		3.6		3.2	

Research Question 5: Do perceptions of importance and preparedness of knowledge domain areas differ according to demographic, educational and professional characteristics?

In order to determine the effect of the independent variables on the perceptions of importance and preparedness of knowledge domain areas separately, six Multivariate Analysis of Variance (MANOVA) tests were run. One MANOVA was run with the independent variables “Transition Counselor” and “General Counselor”, and with the dependent variables of factor scores regarding importance for the four knowledge domain areas (transition knowledge, counseling knowledge, vocational knowledge and core rehabilitation knowledge). The second MANOVA was run with the independent variables “Transition Counselor” and “General Counselor”, and with the dependent variables of factor scores regarding perceived level of preparation for these four knowledge domain areas. A third MANOVA was run with the same independent variables for type of counselor, with the dependent variables of factor scores regarding importance for the six transition knowledge subdomain factor areas (student focused planning, student development, interagency collaboration, family involvement, program structure and policies, and IEP development). The fourth MANOVA was run with the same independent variables for type of counselor, and with the dependent variables of factor scores regarding perceived level of preparation for these six transition knowledge subdomain areas. A fifth MANOVA was run with the same independent variables for type of counselor, with the dependent variables of factor scores regarding importance for the 11 general rehabilitation counseling knowledge subdomain factor areas (individual counseling, group and family counseling, mental health counseling, psychosocial and cultural issues in counseling, career counseling and assessment, job development and placement services, vocational consultation and

services for employers, case and caseload management, medical, functional and environmental aspects of disabilities, foundations, ethics, and professional issues, and rehabilitation services and resources.). The sixth MANOVA was run with the same independent variables for type of counselor, and with the dependent variables of factor scores regarding perceived level of preparation for these eleven general rehabilitation knowledge subdomain areas.

The results from the first MANOVA, shown in Table 16, indicate that only one main effect was found. Specifically, a significant difference was found for the importance of transition knowledge on type of counselor, $F(1,264) = 6.917, p < .01$. Transition counselors had a higher average score for importance on transition knowledge domain items ($M=3.95, SD=.50$) than did general rehabilitation counselors ($M=3.77, SD=.54$). The omnibus F test indicated significant differences in importance of knowledge domain factor ratings by counselor type, Wilks' Lambda = .948, $F(4, 259) = 3.574, p < .01$. As demonstrated in Table 17, no main effect was found in relation to counselor type on perceived level of preparedness for the four main knowledge domain areas. Despite this, however, when run as an entire MANOVA, the omnibus F test indicated significant differences in perceived preparedness of knowledge domain factor ratings by counselor type, Wilks' Lambda = .941, $F(4, 254) = 3.968, p < .01$.

Table 16: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Importance of Knowledge Domain Factors

Factor	F	Significance
Transition Knowledge	6.917	0.009
Counseling Knowledge	0.089	0.766
Vocational Knowledge	0.004	0.951
Core Rehabilitation Knowledge	0.008	0.93

Table 17: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Preparedness of Knowledge Domain Factors

Factor	F	Significance
Transition Knowledge	1.87	0.173
Counseling Knowledge	0.732	0.393
Vocational Knowledge	3.878	0.05
Core Rehabilitation Knowledge	1.596	0.208

The results from the third MANOVA, shown in Table 18, show three main effects in relation to type of counselor and perceived importance of the six transition knowledge subdomain factors. Specifically, a significant difference was found for the importance of interagency collaboration on type of counselor, $F(1,297) = 8.402$, $p < .01$. Transition counselors had a higher average score for importance on the interagency collaboration domain items ($M=4.14$, $SD=.60$) than did general rehabilitation counselors ($M=3.91$, $SD=.70$). A significant difference was also found between type of counselor and perceived importance for family involvement, $F(1,297) = 4.14$, $p < .05$, with transition counselors having a higher average score for importance on family involvement ($M=4.27$, $SD=.68$) than did general rehabilitation counselors ($M=4.10$, $SD=.68$). Additionally, a third significant difference was found between type of counselor and perceived importance of program structure and policies, $F(1,297) = 5.895$, $p < .05$, with transition counselors having a higher average score for importance on program structure and policies ($M=3.79$, $SD=.65$) than did general counselors ($M=3.59$, $SD=.69$). The omnibus F test indicated significant differences in importance of transition knowledge subdomain factor ratings by counselor type, Wilks' Lambda = .942, $F(6, 290) = 2.953$, $p < .01$.

Table 18: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Importance of Transition Knowledge Subdomain Factors

Factor	F	Significance
Student Focused Planning	2.95	0.087
Student Development	0.055	0.815
Interagency Collaboration	8.402	0.004
Family Involvement	4.14	0.043
Program Structure and Policies	5.895	0.016
IEP Development	0.865	0.353

The omnibus F test did not indicate significant differences in preparedness of transition knowledge subdomain factor ratings by counselor type, Wilks' Lambda = .971, $F(6, 287) = 1.416$, $p = .208$. The results for this MANOVA can be found in Table 19. Additionally, the omnibus F test did not indicate significant differences in importance of general rehabilitation counseling knowledge subdomain factor ratings by counselor type, Wilks' Lambda = .975, $F(11, 243) = 1.001$, $p = .446$. The results for this MANOVA can be found in Table 20. Finally, the omnibus F test did not indicate significant differences in preparedness of general rehabilitation counseling knowledge subdomain factor ratings by counselor type, Wilks' Lambda = .935, $F(11, 239) = 1.499$, $p = .132$. The results for this MANOVA can be found in Table 21.

Table 19: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Preparedness of Transition Knowledge Subdomain Factors

Factor	F	Significance
Student Focused Planning	2.314	0.129
Student Development	0.534	0.465
Interagency Collaboration	4.034	0.046
Family Involvement	1.614	0.205
Program Structure and Policies	0.988	0.321
IEP Development	4.839	0.029

Table 20: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Importance of General Rehabilitation Counseling Knowledge Subdomain Factors

Factor	F	Significance
Individual Counseling	0.677	0.411
Group and Family Counseling	0.394	0.531
Mental Health Counseling	0.298	0.586
Psychosocial and Cultural Issues in Counseling	0.32	0.572
Career Counseling and Assessment	0.028	0.867
Job Development and Placement Services	0.014	0.905
Vocational Consultation and Services for Employers	0.017	0.897
Case and Caseload Management	0.344	0.558
Medical, Functional, and Environmental Aspects of Disabilities	0.337	0.562
Foundations, Ethics and Professional Issues	1.526	0.218
Rehabilitation Services and Resources	0.069	0.793

Table 21: MANOVA Results for Omnibus F Test for Effect of Counselor Type on Perceived Preparedness of General Rehabilitation Counseling Knowledge Subdomain Factors

Factor	F	Significance
Individual Counseling	0.394	0.531
Group and Family Counseling	0.519	0.472
Mental Health Counseling	2.999	0.085
Psychosocial and Cultural Issues in Counseling	1.947	0.164
Career Counseling and Assessment	5.081	0.025
Job Development and Placement Services	4.381	0.037
Vocational Consultation and Services for Employers	1.279	0.259
Case and Caseload Management	0.889	0.347
Medical, Functional, and Environmental Aspects of Disabilities	2.641	0.105
Foundations, Ethics and Professional Issues	0.113	0.737
Rehabilitation Services and Resources	1.389	0.24

A chi-squared test was conducted on the demographic and training characteristics of this sample, to determine if there were any differences between these categorical variables. Two significant effects were found in relation to basic demographic characteristics by type of counselor, as shown in Table 22. There was a significant difference in employment status (civil

servant or contractual employee) by counselor type ($df=1$, $p<.01$), and current work setting ($df=3$, $p<.001$). These between group differences will be reviewed in detail within the discussion section of chapter 5.

Table 22: Chi-Square Results for Effect of Counselor Type on Demographics

Factor	df	Significance
Gender	1	.077
Age	4	.068
Race/Ethnicity	5	.822
Education (highest degree earned)	3	.051
Area of Study	6	.130
Certification Status	1	.442
Current job title	3	.000
Years you have worked as a rehabilitation counselor	3	.174
How many years have you worked in your state's vocational rehabilitation agency	3	.184
Are you a civil servant, or a contractual employee	1	.001
Current work setting	3	.000

One significant difference was found in relation to training of transition services on type of counselor, as shown in Table 23. Specifically, the frequency of attending trainings was significantly different between groups of counselors ($df=4$, $p<.001$). The consistency of opinions between types of counselors regarding transition training will be reviewed in detail within the discussion section of chapter 5.

Table 23: Chi-Square Results for Effect of Counselor Type on Training Characteristics		
Factor	df	F
Do you believe there should be specific training for transition counselors?	1	.074
What training for transition services have you received?	3	.144
How often do you attend training in transition services?	4	.000
Should master's level educational programs provide more training specific to transition services?	1	.723
Should VR agencies offer or require more training specific to transition services?	1	.715

Correlation matrices are presented below in Tables 24-29 for each domain and subdomain regarding both importance and preparedness in relation to the current study. These tables show that there are multiple statistically significant correlations that are all positive. Within the knowledge domain matrices, the most significant relationship is noted between vocational knowledge and core rehabilitation knowledge for preparedness ($r=.838$) followed closely by the importance scale for these same domains ($r=.818$). This finding suggests that the importance of vocational knowledge factors (career counseling and assessment, job development and placement services, and vocational consultation and services for employers) are very strongly and positively correlated with the importance of core rehabilitation knowledge factors (case and caseload management, medical, functional and environmental aspects of disabilities, foundations, ethics and professional issues, and rehabilitation services and resources). The lowest correlation between knowledge domains was found between that of the preparedness in transition knowledge and counseling knowledge ($r=.482$). This finding suggests that for the current sample, there is a strong positive (but to a lesser degree) correlation between the knowledge domains of student focused planning, student development, interagency collaboration, family involvement,

program structure and policies, IEP development and individual counseling, group and family counseling, mental health counseling and psychosocial and cultural issues in counseling.

Table 24: Correlations among Knowledge Domains for Importance

	Transition Knowledge	Counseling Knowledge	Vocational Knowledge	Core Rehabilitation Knowledge
Transition Knowledge	-			
Counseling Knowledge	.608**	-		
Vocational Knowledge	.622**	.761**	-	
Core Rehabilitation Knowledge	.643**	.765**	.818**	-

** Correlation is significant at the 0.01 level (2-tailed)

Table 25: Correlations among Knowledge Domains for Preparedness

	Transition Knowledge	Counseling Knowledge	Vocational Knowledge	Core Rehabilitation Knowledge
Transition Knowledge	-			
Counseling Knowledge	.482**	-		
Vocational Knowledge	.626**	.645**	-	
Core Rehabilitation Knowledge	.631**	.699**	.838**	-

** Correlation is significant at the 0.01 level (2-tailed)

Within the transition knowledge subdomain matrices, the most significant relationship is noted between student focused planning and student development for preparedness ($r=.751$). This finding suggests that the importance of student focused planning factors are very strongly and positively correlated with the preparedness of student development knowledge factors. The lowest correlation between transition knowledge subdomains was found between that of the importance in family involvement and program structure and policies knowledge ($r=.423$). This finding suggests that for the current sample, there is a strong positive (but to a lesser degree) correlation between these two importance factors for transition knowledge.

Table 26: Correlations among Transition Knowledge Subdomains for Importance

	Student Focused Planning	Student Development	Interagency Collaboration	Family Involvement	Program Structure and Policies	IEP Development
Student Focused Planning	-					
Student Development	.616**	-				
Interagency Collaboration	.578**	.644**	-			
Family Involvement	.428**	.517**	.548**	-		
Program Structure and Policies	.512**	.566**	.617**	.423**	-	
IEP Development	.502**	.504**	.528**	.487**	.467**	-

** Correlation is significant at the 0.01 level (2-tailed)

Table 27: Correlations among Transition Knowledge Subdomains for Preparedness

	Student Focused Planning	Student Development	Interagency Collaboration	Family Involvement	Program Structure and Policies	IEP Developm ent
Student Focused Planning	-					
Student Development	.751**	-				
Interagency Collaboration	.644**	.731**	-			
Family Involvement	.632**	.711**	.731**	-		
Program Structure and Policies	.580**	.671**	.734**	.688**	-	
IEP Development	.659**	.702**	.740**	.649**	.654**	-

** Correlation is significant at the 0.01 level (2-tailed)

Within the general rehabilitation counseling knowledge subdomain matrices, the most significant relationship is noted between job development and placement services and vocational consultation and services for employers in relation to preparedness ($r=.867$). This finding suggests that the preparedness of job development and placement service factors are very strongly and positively correlated with the preparedness of vocational consultation and services for employer factors. The lowest correlation between general rehabilitation counseling knowledge subdomains was found between that of the preparedness in group and family counseling and case and caseload management knowledge ($r=.251$). This finding suggests that

for the current sample, there is a weak positive correlation between these two preparedness factors for general rehabilitation counseling knowledge.

Table 28: Correlations among General Rehabilitation Counseling Knowledge Subdomains for Importance

	Individual Counseling	Group and Family Counseling	Mental Health Counseling	Psychosocial and Cultural Issues in Counseling	Career Counseling and Assessment	Job Development and Placement Services	Vocational Consultation and Services for Employers	Case and Caseload Management	Medical, Functional and Environmental Aspects of Disabilities	Foundations, Ethics, and Professional Issues	Rehabilitation Services and Resources
Individual Counseling	-										
Group and Family Counseling	.530**	-									
Mental Health Counseling	.572**	.490**	-								
Psychosocial and Cultural Issues in Counseling	.589**	.503**	.712**	-							
Career Counseling and Assessment	.584**	.465**	.698**	.638**	-						
Job Development and Placement Services	.465**	.397**	.650**	.642**	.702**	-					
Vocational Consultation and Services for Employers	.470**	.462**	.751**	.719**	.740**	.751**	-				

Table 28 (cont'd)

Case and Caseload Management	.433**	.252**	.582**	.624**	.583**	.638**	.584**	-			
Medical, Functional and Environmental Aspects of Disabilities	.587**	.364**	.705**	.724**	.724**	.637**	.644**	.651**	-		
Foundations, Ethics, and Professional Issues	.574**	.540**	.722**	.705**	.657**	.614**	.677**	.601**	.660**	-	
Rehabilitation Services and Resources	.416**	.377**	.618**	.636**	.645**	.651**	.668**	.660**	.658**	.632**	-

** Correlation is significant at the 0.01 level (2-tailed)

Table 29: Correlations among General Rehabilitation Counseling Knowledge Subdomains for Preparedness

	Individual Counseling	Group and Family Counseling	Mental Health Counseling	Psychosocial and Cultural Issues in Counseling	Career Counseling and Assessment	Job Development and Placement Services	Vocational Consultation and Services for Employers	Case and Caseload Management	Medical, Functional and Environmental Aspects of Disabilities Foundations, Ethics, and Professional Issues	Rehabilitation Services and Resources
Individual Counseling	-									
Group and Family Counseling	.675**	-								
Mental Health Counseling	.599**	.533**	-							
Psychosocial and Cultural Issues in Counseling	.594**	.513**	.688**	-						
Career Counseling and Assessment	.535**	.426**	.625**	.689**	-					
Job Development and Placement Services	.437**	.305**	.599**	.689**	.809**	-				
Vocational Consultation and Services for Employers	.378**	.333**	.569**	.686**	.763**	.867**	-			

Table 29 (cont'd)

Case and Caseload Management	.376**	.251**	.546**	.617**	.618**	.693**	.646**	-			
Medical, Functional and Environmental Aspects of Disabilities	.563**	.359**	.594**	.774**	.737**	.677**	.635**	.662**	-		
Foundations, Ethics, and Professional Issues	.560**	.454**	.630**	.745**	.675**	.633**	.620**	.533**	.705**	-	
Rehabilitation Services and Resources	.411**	.300**	.564**	.657**	.688**	.763**	.721**	.711**	.704**	.586**	-

** Correlation is significant at the 0.01 level (2-tailed)

CHAPTER 5

DISCUSSION

Following the analysis of results in Chapter 4, the purpose of this chapter is to summarize results and provide implications based on the findings. Before discussing the results, here is a brief review of the study and its intended purposes.

Overview of the Study

Youth with disabilities receiving transition from services from State/Federal VR agencies accounted for more than one quarter of closed cases within in FY 2010 (RSA, 2010). This unique population of clients, however, has received little attention in empirical studies, scholarly journals, and as a focus within training programs. By investing in youth as they enter the world of work and embark in their formative years of career development, professionals can seek to eliminate the “revolving door” of services that many clients pursue throughout their vocational lifetime. An effective way to invest in youth with disabilities is to educate rehabilitation counseling professionals in the unique needs of this population. As studies have shown, transition services are an important and relevant area of rehabilitation practice (Leahy et al, 1993; Leahy et al 2003, Shaw et al, 2006; Leahy et al 2009), however counselors feel as if they have received limited preparation for these tasks (Chan et al, 2003; Leahy, et al, 2009).

Empirical studies within special education literature give insight into evidence based practices for serving transition aged youth with disabilities. The taxonomy for transition planning is a conceptual framework most commonly associated with transition service planning (Kohler, 1996). The primary emphasis in using this taxonomy for transition knowledge domain and subdomain research has been to due to the empirical foundation behind each construct within the taxonomy leading to evidence based practices. Because there has been no research, to date,

regarding the training of rehabilitation counseling transition counselors, the results of the current study can help inform pre-service and in-service training curriculum to increase the efficacy of transition services.

A sample of 353 rehabilitation professionals working in a public vocational rehabilitation agency was obtained for this study. The sample included 240 general rehabilitation counselors who provided services primarily to adults with disabilities, and 110 transition counselors who identified at least 50 percent of their caseloads to consist of transition aged youth (3 participants did not respond to the caseload characteristic question). This sample allowed for comparisons between general and transition counselors regarding demographics characteristics and training profiles. This specific demographic information regarding transition counselors has previously been unknown to the field of rehabilitation counseling. Furthermore, this sample also allows for comparisons between the two groups of counselors on their perception of importance and preparedness regarding transition and general rehabilitation counseling knowledge domains. With an overview of the study provided, the results from Chapter 4 are summarized, limitations of the study noted, and then implications of the results provided.

Summary of Findings

Demographics. The primary focus of this study was on the perception of importance and preparedness on multiple transition and general rehabilitation counseling items. Beyond this aim, the comparison of sample demographics was central to make group comparisons to determine if there were any substantial differences between transition and general counselors. As shown in table 5, there were several homogeneous factors reported with regard to demographic characteristics. The majority of the sample were White (93.6%), female (72.4%), non-certified (53.9%), having worked as a rehabilitation counselor for 10+ years (40.8%), and having worked

in their State VR agency for 10+ years (35.4%). Between group differences were evident when comparing categorical age groupings, educational attainment, area of study, current job title, and current work setting. With regard to age, the largest number of the sample reported being between 50-59 years of age (28.2%), however the greatest number of transition counselors reported being between 20-39 years of age (34.6%). While the majority of the sample held master's degrees (89.1%) in rehabilitation counseling (60.7%), transition counselors were more likely to hold a bachelor's degree when compared to the sample (14.7%), and more likely to have studied in an area other than rehabilitation counseling (psychology (6.4%), social work (9.1%), other (12.7%) when compared to the sample. None of these between group differences are statistically significant, however, as shown in table 16.

Statistically significant between group demographic characteristics were exhibited for current job title ($p<.000$), employee status ($p<.001$), and current work setting ($p<.000$). While the majority of the current sample indicated their current job title as a vocational rehabilitation counselor (84.5%), transition counselors were eight times more likely to report their current job title as a transition specialist (8.3%) than were general counselors (0.4%), and twice as likely to report "other" as their current job title (18.3%) than were general counselors (9.6%). Some examples of "other" include: supervisor, intern, site manager, and coordinator. With regard to employee status, while the majority of the current sample indicated their status to be as a civil servant (81.8%), transition counselors were twice as likely to report their employee status to be as a contractual employee (28.4%) than did general counselors (13.4%). Finally, with regard to current work setting, while the majority of the current sample indicated their current work setting to be within a State-Federal vocational rehabilitation office (83.9%), transition counselors were nine times as likely to report their work setting to be within a high school (3.7%) than did

general counselors (0.4%). Additionally, transition counselors were four times as likely to report their work setting to be “other” (21.3%) than did general counselors (4.6%). Some examples of “other” include: a hybrid setting of State/Federal VR office and high school office setting, intermediate school district office setting, an office within the county board for the developmentally disabled, career tech centers, and college settings.

Training Profiles. As shown in table 6, there were several homogeneous factors reported with regard to training profiles. The majority of the sample received their transition service training at workshops (67.2%), attend transition trainings occasionally (48.9%), and believe that there should be more pre-service (87.1%) and in-service (85.3%) transition training options for rehabilitation professionals. One statistically significant between group difference was exhibited with regard to training profiles. This was with regard to the frequency of receiving transition training ($p<.000$). Transition counselors were more likely to attend trainings occasionally (55.5%), often (16.4%) and very often (8.2%) than were general counselors (45.8%, 6.3% and .4%, respectively).

Knowledge Domain and Subdomain Importance. Table 7 shows the importance rankings for knowledge domains, as compared between the two groups of counselors. The average rankings for the four knowledge domains were similar between the two groups of counselors. Both groups of counselors ranked counseling knowledge as the least important knowledge domain (3.4) and ranked vocational knowledge and core rehabilitation knowledge as 3.7. Both groups of counselors ranked the transition knowledge domain as the most important knowledge domain, with transition counselors ranking this domain slightly higher in importance (3.9) than general counselors (3.8). This between group difference on the transition knowledge domain for importance was found to be statistically significant ($p<.01$).

Table 8 shows the importance rankings for transition knowledge subdomains, as compared between the two groups of counselors. Transition counselors ranked family involvement (4.2) and interagency collaboration (4.1) higher than any ranking for importance that was given by general rehabilitation counselors on transition knowledge subdomains. General counselors ranked family involvement (4.0) and student focused planning (4.0) as equally most important transition knowledge subdomains. Both groups of counselors ranked IEP development as least important, with general rehabilitation counselors ranking it as slightly less important (3.5) than did transition counselors (3.6). Statistically significant between group differences were exhibited for three transition knowledge subdomains regarding importance. These differences were evident in interagency collaboration ($p < .01$), family involvement ($p < .05$) and program structure and policies ($p < .05$). For each of these subdomains, transition counselors ranked the average importance .2 units higher than did general rehabilitation counselors.

Table 9 shows the importance rankings for general rehabilitation counseling knowledge subdomains, as compared between the two groups of counselors. General rehabilitation counselors ranked case and caseload management as more important (4.0) than any ranking for importance that was given by transition counselors on general rehabilitation counseling knowledge subdomains. Transition counselors ranked job development and placement services (3.9), case and caseload management (3.9) and, medical, functional and environmental aspects of disabilities (3.9) as most important general rehabilitation counseling knowledge subdomains. Foundations, ethics, and professional issues was ranked as the least important general rehabilitation counseling knowledge subdomain by both transition counselors (3.4) and general rehabilitation counselors (3.2). There were no statistically significant between group differences for importance rankings for general rehabilitation counseling knowledge subdomains.

Knowledge Domain and Subdomain Preparedness. Table 7 shows the preparedness rankings for knowledge domains, as compared between the two groups of counselors. The average rankings for the four knowledge domains were similar between the two groups of counselors. Transition counselors (3.2) and general rehabilitation counselors (3.3) ranked core rehabilitation knowledge as the knowledge domain area in which they perceived themselves to be the most prepared. Transition counselors reported the least perceived preparation in vocational knowledge (2.9) while general rehabilitation counselors reported the least perceived preparation in transition knowledge (2.9). There were no statistically significant between group differences for preparedness rankings found for knowledge domains.

Table 8 shows the preparedness rankings for transition knowledge subdomains, as compared between the two groups of counselors. Transition counselors reported themselves to be the most prepared in family involvement (3.3) while general rehabilitation counselors reported themselves to be most prepared in student focused planning (3.2). Transition counselors (2.7) and general rehabilitation counselors (2.4) reported the least amount of perceived preparation in IEP development. Statistically significant between group findings were exhibited for two transition knowledge subdomains regarding preparedness. These differences were evident in interagency collaboration ($p < .05$) and IEP development ($p < .05$). For each of these subdomains, transition counselors ranked average preparedness .3 units higher than did general rehabilitation counselors.

Table 9 shows the preparedness rankings for general rehabilitation counseling knowledge subdomains, as compared between the two groups of counselors. Transition counselors (3.6) and general rehabilitation counselors (3.7) perceived themselves to be most prepared in individual counseling knowledge. Additionally, transition counselors (2.7) and general rehabilitation

counselors (2.8) perceived themselves to be the least prepared in vocational consultation and services for employers. Statistically significant between group findings were exhibited for two general rehabilitation counseling knowledge subdomains regarding preparedness. These differences were evident in career counseling and assessment ($p < .05$) and job development and placement services ($p < .05$). For both of these subdomains, general counselors ranked average preparedness higher than did transition counselors.

Limitations

Interpretation of the results and conclusions in this study should be considered in the context of several limitations. Limitation in the extent to which results might be generalized is an anticipated outcome from the sample selected for this study. The seven states that participated in the current study cannot be generalized to all State/Federal VR agencies given the complexities within each system (e.g. general or combined agencies, order of selection status, location within or outside of the continental United States). An attempt was made to contact each state that participated in the current study to gain information related to counselor demographics, for means of comparison and generalizability. Three states responded to the request. One state indicated that they were unable to locate the information that was requested, and the remaining two states did their best to summarize demographics, but stated that the information they had on record was only voluntarily self-reported, and perhaps not representative. Furthermore, it is important to note that the demographic profiles that were obtained from these two states only included those counselors that were civil servants, and did not capture the demographic profiles of those staff that are contractual employees. This preliminary study, despite the sampling limitations, does benefit the profession in that it seeks to understand basic demographic characteristics and training profiles of transition counselors.

The response rate of 28.22% creates another limitation for the generalization of findings. This rate is less than ideal given that two reminder notifications were sent and the majority of states that participated in the current study provided a liaison within the agency to help distribute surveys. There was some variation between states in their dissemination methods, which likely contributed to the varying response rates. Agencies that personally sent out the survey via a listserv (Pennsylvania, Iowa, Ohio and Minnesota) had higher response rates than did states that posted the survey on the State Intranet system for users to access themselves.

The reliance on self-report is an additional limitation of the current study. The survey information was collected using online data collection software (Qualtrics), with no attainable way to verify the responses made by participants. This limitation is further compounded by the fact participants were asked questions regarding their perceived level of preparation, which some may see as a reflection on their level of competence as a rehabilitation professional and therefore be potentially influenced by socially acceptable norms.

Finally, when comparing two or more variables in research, there is also the potential for multicollinearity to exist between variables. This may have also have acted as a limitation in this study by influencing the significance of demographics, training profiles, importance and preparedness ratings on various knowledge domains.

Implications

Implications for Practice. The results of this study have some potentially important implications for rehabilitation education and VR transition, practice, policy and training. This is one of a few studies that examine the perceptions of transition competencies from both the transition counselor and general counselor perspective. The overall results were that VR

counselors identified transition knowledge to be the most important knowledge domain, specifically citing family involvement as the most important transition knowledge subdomain. Despite this finding, VR counselors feel least prepared in these tasks ($M=2.91$, $SD=.74$). While caseload distribution and management practices vary from state to state there were no significant differences found in the importance or perceived preparedness of counselors between different states. This finding speaks to the consistency of agreement of the relative importance and level of perceived preparedness of each knowledge domain.

One of the more interesting findings from the current study is the rating of importance of IEP development activities, as ranked by counselors. Within the transition knowledge domain, this subdomain was ranked as the least important. This finding is valuable and important to delve into, given that the IEP process is a central piece in disability legislation, and a federally mandated requirement for all students with disabilities to engage in during their formative training years. It would seem that the rehabilitation professionals in the current study fail to realize the importance of this critical piece of structured program planning for transitioning youth with disabilities. Rehabilitation educators might consider including the IEP process that is central to special education into course content related to environmental aspects of disabilities and rehabilitation services and resources. While the IEP is a school responsibility, it is also a phenomenal opportunity for the rehabilitation counselor to learn about the strengths and limitations of a student, hear about their goals and aspirations, as well as meet their support system. By recognizing and understanding the significance of the IEP process, transition counselors can be in a position to better serve their clients.

Regarding application, the results of this study can be used by both educators and training staff to evaluate, update, and revise the curriculum and training provided. These findings are

similar to previous studies of knowledge domain importance (Leahy et al, 2009), and therefore considerable modifications to the curriculum and training are not necessary. However, the findings could be used to determine the importance of domain areas that should be covered in both pre-service and professional development training. The information related to the importance and preparedness can be used as a guided parameter for the amount of depth and training time devoted to each domain and subdomain.

Implications for Training. Previous studies have shown the importance of school-to-work transition services (Leahy et al, 2003; Chan et al, 2003; Leahy et al, 2009) and the accrediting body for our profession includes these as a competency standard. Despite this, rehabilitation professionals report that they receive little preparation for these tasks (Chan et al, 2003). This finding is further supported by the current study. Both transition counselors and general rehabilitation counselors identified transition knowledge to be very important and yet they receive moderate preparation. Furthermore, an overwhelming majority of participants in the current study believe that there should be more specific training for transition services, both via pre-service and in-service trainings.

With less than one quarter of transition counselors receiving transition trainings either often or very often, there is an obvious limitation in the availability of skill development and attainment for this group of rehabilitation professionals. Additionally, most obtain what little transition training they do have at workshops, which can vary in quality and are often short in length and infrequent in occurrence. This information shows that there is a stated need for these services to rehabilitation professionals, and a lack of availability to receive these services.

The overall results of the current study show that both types of counselors find family involvement and student focused planning to be the most important transition knowledge subdomains. These findings may be contributed to the fact that family counseling is a central piece to the individual and group counseling course present in most master level training programs. Additionally, student focused planning is closely associated with person centered planning, which is a critical component to disability rights and individual counseling theories.

There were several instances in the current study in which both transition and general rehabilitation counselors ranked the importance of a knowledge subdomain item 1 or more units higher than they did for their perceived preparation. These differences indicate areas which rehabilitation educators could allocate more time within their pre-service training activities. Within the transition subdomain of student focused planning, the following areas were ranked by counselors one unit (or more) less prepared when compared to relative importance: continuum of work-based learning experiences, mentors to facilitate socialization, inclusion and learning, and skill instruction in the context of real life experiences. Within the transition subdomain of interagency collaboration, the following areas were ranked by counselors one unit (or more) as less prepared when compared to relative importance: collaboration with general and special education teachers, assessment of community resources, and providing classroom resources for students and teachers relevant to the world of work. Within the transition subdomain of family involvement, the following area was ranked by transition counselors one unit less prepared when compared to relative importance: providing school-to-work and transition information to parents/guardians and families. Within the transition subdomain of IEP development, the following areas were ranked by counselors one unit (or more) as less prepared when compared to

relative importance: Individual Education Plan (IEP) development, pre-IEP activities for parents/guardians.

Within the general rehabilitation counseling subdomain of job development or placement services, the following areas were ranked by counselors one unit (or more) less prepared when compared to relative importance: job placement or job development strategies, supported employment strategies and services, and job readiness including seeking and retention skills development. Finally, within the general rehabilitation counseling subdomain of vocational consultation and services for employers, the following areas were ranked by counselors one unit (or more) less prepared when compared to relative importance: Consultation process with employers related to management of disability issues in the workplace, and employer development for job placement. Each of these areas listed above shows a discrepancy in applied importance and pre-service preparation. Rehabilitation educators can utilize this information to structure curriculum to better prepare master's level rehabilitation counselors for entering the workforce.

Knowledge domain studies continue to inform the accrediting body for rehabilitation counseling, and standards are frequently updated based on these findings. With this, educators are often altering curriculum to meet these demands. Additionally, the shift from 60 to 48 credit hour programs is another limitation on the curriculum standards that educators must face. Additionally, not all graduates of master level rehabilitation counseling programs go on to practice transition counseling. It would therefore be difficult to expect master's level programs to include a specific course for transition counseling. However, these knowledge areas can be infused within areas of the current curriculum. Perhaps a better solution would be to join with special education programs, and offer an elective for students interested to learn about special

education legislation, transition training and services. Another option would be to incorporate in-service trainings, which will be discussed next.

Implications for policy. The current study also shows that some transition counselors have received no training at all relevant to transition services, and that these professionals very rarely or never attend trainings on this topic. It would appear to be somewhat unethical for VR agencies to employ rehabilitation professionals as transition counselors, without providing the necessary knowledge base and skill set proven to be effective in serving this unique population. While availability of staff cannot always align expertise areas with caseloads, VR agencies should implement policies regarding the requirement of necessary transition training. This could be either at conference workshops, college or university courses, or even through the creation of transition training programs by the staff development unit within all VR agencies.

Given the sometime different structure of pre-service master's level training programs, VR agencies should coordinate their staff development units to train counselor's specific to their caseload needs. Despite these training programs already being in place, the results of the current study offer insight into areas in which more focus could be given. For instance, staff development units would be well served to provide more in-service training on: vocational consultation and services for employers ($M=2.80$, $SD=.77$), group and family counseling ($M=3.01$, $SD=.96$), mental health counseling ($M=3.02$, $SD=.73$) and psychosocial and cultural issues in counseling ($M=3.06$ and $SD=.67$). These knowledge subdomains were rated lowest for preparedness when combining both transition and general rehabilitation counselors.

Implications for Future Research. The current study is relevant and important, given that few similar studies have been conducted, to date. The specific focus on counselors by caseload type in relation to knowledge importance and preparedness and transition counselors

makes this study unique. Future studies that expound upon the current one, by including more states that differ in size, order of selection status, and overall demographics would be beneficial to understand these ratings more thoroughly.

The 11 general rehabilitation counselor knowledge subdomains used in the current study were borrowed from Leahy, et al (2011). A comparison between the findings in the current study, and those found by Leahy, et al (2011) would be interesting for multiple reasons. First, the sample used by Leahy and his colleagues includes only those that are current CRCs, as sampling takes place via the CRCC listserv. The majority of participants from the current study report not being a CRC (53.9%), which would indicate a fundamental difference in participants within each sample. Furthermore, the 2011 study does not extrapolate by counselor type, and thus comparisons could be made between transition counselors in the current study and VR counselors in the Leahy, et al study.

It is critical to examine how these knowledge areas are applied in practice and what specific methods are evidence-based in relation to successful outcomes for persons with disabilities. Few standards of practice are in place within public VR agencies to guide transition services. This can be an area of focus in future research, with consideration of the importance of each domain and subdomain to begin to shape a guideline of serving youth with disabilities.

Conclusion

The findings of this research assist to fill the gap of information regarding transition and school-to-work services. Results show that transition counseling is important to both transition counselors and general rehabilitation counselors, alike. Also, perceived level of preparation for these services is below that of perceived importance, and more attention to pre-service and in-service trainings devoted to this population would be warranted. In contrast, while counseling

knowledge is found to be moderately important, both groups of counselors reported a relatively high level of preparation for these tasks.

The results of this study can also be used by the rehabilitation counseling credentialing body (CRCC) to develop a transition specialty designation. Credentials such as these can aid in professional advancement for promotion as a transition specialist, coordinator, or consultant. With these opportunities, rehabilitation counselors can have greater potential to obtain positions in which they are more integrated into other settings (e.g. High Schools, Intermediate School District offices, higher administration within schools). This can serve two purposes: 1) Meeting the needs of students with disabilities in a greater capacity with more access to student services, and 2) Creating more visibility for the rehabilitation counseling profession, by integrating with other professionals in different capacities.

APPENDICES

APPENDIX A

Content Review and Pilot Study Contact Letter

From: Katherine Marjorie Kierpiec [kierpie1@msu.edu]
Sent: Tuesday, November 08, 2011 2:58 PM
Subject: Instrumentation Feedback - Essential Knowledge Domains for Transition Counselor Efficacy

Greetings:

My name is Katherine Kierpiec and I am a doctoral candidate in Rehabilitation Counselor Education at Michigan State University. Currently, I am in the process of dissertating, and as such, I am developing an instrument relevant to vocational rehabilitation services, with a specific focus on transition. I am writing to seek your assistance in reviewing the attached instrument, and relaying any thoughts that you might have as transition specialists. The first 80 items are directly from the Knowledge Validation Inventory-Revised (KVI-R) and have been used in research numerous times to understand and validate knowledge domains to guide rehabilitation counselor certification. The last 24 items (items 81-104) are those that I am seeking the most feedback for. They are transition-specific items, guided by the Taxonomy for Transition Planning. Do you find the instrument valid, confusing, or redundant? In your opinion, is there any critical information missing?

Below is an overview of the study. In summary, I am seeking to conduct an empirical research study that provides an overview of essential knowledge domains for effective transition practice, as reported by transition counselors located within Region V (Michigan, Ohio, Indiana, Minnesota, Illinois and Wisconsin). I will utilize the Knowledge Validation Inventory-Revised (KVI-R) (Leahy, Chan, Sung & Kim, 2011) and a transition-specific addendum as guided by Paula Kohler's Taxonomy for Transition Planning (Kohler, 1996). A comparison of these findings with those of previous knowledge domain studies of CRCs (Leahy, Chan, & Saunders, 2003; Leahy, Muenzen, Saunders, & Strauser, 2009; Leahy, Szymanski, & Linkowski, 1993) will also take place, including a report of any similarities and differences. Additionally, implications for curriculum development and implementation as well as in-service trainings will be noted.

Purpose: The purpose of this study is to obtain data from practicing rehabilitation counselors regarding their impressions of essential knowledge domains relevant to rehabilitation counselors providing effective transition services to youth with disabilities. While there is limited information available about necessary knowledge for transition counselors found in the rehabilitation counseling literature, there are a great deal of publications focused on required knowledge in regards to the broader field of rehabilitation counseling.

Methods: The Knowledge Validation Inventory-Revised (KVI-R) will be utilized for this study, with an addendum for transition-specific knowledge domain questions. Paula Kohler's Taxonomy for Transition Planning framework will guide the addendum. This 5-point Likert

scale survey will be disseminated via Qualtrics to all transition counselors located within Region V. Data collection is schedule to take place between December and February.

Conclusions: The attainment of post-school outcomes for youth and with disabilities lay with rehabilitation professional's likelihood to develop and apply interdisciplinary skills of the transition specialist, special educator and school counselor. Without doing so, we risk adding to the revolving door phenomenon often referenced in VR agencies; allow youth with disabilities to needlessly struggle to meet their post-school outcomes, and allow for further encroachment on our profession by special educators and school counselors. The aim of the current study is to demonstrate data in support of vocational rehabilitation professionals becoming educated in pre-service (as well as in-service) settings with the well-established transition practices that yield positive post-school outcomes. In doing so, the body of knowledge that supports certification and accreditation bodies is further enlightened to evidence supporting the advancement of rehabilitation professionals, and perhaps a sub-specialty of rehabilitation transition professionals.

Implications for Research and Practice: Some educators suggests special education students should complete coursework that provides information on the vocational rehabilitation system, in addition to completing practicum and internships at state/federal vocational rehabilitation agencies, as a way to demonstrate competencies in vocational rehabilitation to aid in seamless collaboration. If these recommendations were acted upon, special educators may exhibit a higher degree of understanding regarding the vocational rehabilitation process, however the risk for further encroachment is much more threatening to our profession (as is seen with social work, case managers, nurse practitioners, school and general counselors, etc.). Instead, the aim of the current study is to demonstrate data in support of the counter-argument -- vocational rehabilitation professionals should be educated with the well-established transition practices that yield positive post-school outcomes. Finally, implications for curriculum development and implementation and in-service trainings will be noted.

If you have any questions of concerns, please do not hesitate to ask. Thank you for your time, and also for your commitment to school-to-work transition research.

Sincerely,

Katherine Marjorie Kierpiec, M.A., L.P.C., C.R.C.
Doctoral Candidate, Rehabilitation Counselor Education
Graduate Assistant/Teaching Assistant Coordinator
401A Erickson Hall
Michigan State University
Rehabilitation Counseling M.A.
Psychology B.A.

APPENDIX B

Contact Letter for State VR Director

Dear State VR Director:

I am contacting you in regard to the “Essential Knowledge Domains for Effective Transition Service Provision” study. As the State VR director for your representative state agency, I would greatly appreciate your assistance, since you are in the position to approve participation for state vocational rehabilitation professionals.

The purpose of this study is to begin the inductive process of identifying knowledge domains that are necessary for effective transition service provision by rehabilitation counselors, and the perceived preparedness of these counselors to provide transition services.

This study focuses on 5 main research questions:

How important are the various knowledge domains for transition counselors in relation to optimizing outcomes for their transition-aged youth clients?

In what various knowledge domains do transition counselors perceive themselves to be the most and least prepared?

How did transition counselors in the current study receive their training specific to transition services?

Do perceptions of importance and preparedness of knowledge domain areas differ according to demographic, educational and professional characteristics?

What are the demographic characteristics and professional experiences of those who provide transition services in the VR setting?

This study will be disseminated via email to VR professionals using an online survey format (e.g. SurveyMonkey, Qualtrics). I assure you that there are no risks associated with you or your staff's participation in the research study. Your perspectives and insight will contribute in valuable ways to our work. Participation in this study is voluntary. **Please do indicate if your permission is granted to disseminate this online survey to your staff, and a contact person with which I could connect with to disseminate this survey.**

If you have any questions or concerns about this research, please feel free to contact me at 517-256-4920 or kierpie1@msu.edu. I hope you will be willing to participate!

Thank you for your time!

Katherine Marjorie Kierpiec, M.A., L.P.C., C.R.C.
Doctoral Candidate, Rehabilitation Counselor Education
Graduate Assistant/Teaching Assistant Coordinator
401A Erickson Hall
Michigan State University

Rehabilitation Counseling M.A.
Psychology B.A.

APPENDIX C

Transition Knowledge Validation Assessment (TKVA)

Welcome to Participants:

Greetings!

Welcome to the VR Transition Counselor Knowledge Study. Your help is needed in studying transition professionals' perceived level of importance and preparedness in various vocational rehabilitation and transition competencies. Katherine Kierpiec, a doctoral candidate at Michigan State University, is conducting this study.

The purpose of this study is to learn more about what explicit knowledge VR transition professionals feel as most important for effective provision of transition services. Your anonymous responses to the questions and instruments you complete will be critical to this process. Your participation in this study is voluntary, and poses no risk to you. At any time while participating in this study, you are free to skip any question that you do not wish to answer or withdraw from the research study altogether.

Over the course of this survey, you will be asked to complete a portion of the Knowledge Validation Inventory-Revised (KVI-R), which consists of 80 items, in addition to 24 transition-specific items as organized by the Taxonomy for Transition Planning. You are encouraged to complete the questionnaire in one session. However, if necessary, you can complete your survey in several sessions as long as you are using the same computer.

Thank you for agreeing to be part of this investigation for the field of rehabilitation counseling and transition professionals, specifically. Your contribution to this research project is greatly appreciated.

By continuing on to the next page, you are voluntarily consenting to take part in this survey. It should take no longer than 30 minutes of your time.

If you have any other questions about this study, please contact Michael Leahy (517-432-0605; leahym@msu.edu; 463 Erickson Hall, Michigan State University, East Lansing, MI 48824) or Katherine Kierpiec (517-256-4920; kierpie1@msu.edu; 401A Erickson Hall, Michigan State University, Michigan State University, East Lansing, MI 48824). Thank you!!

Katherine Kierpiec
517-256-4920
kierpie1@msu.edu

Demographic Information:

State where you reside:

- ☐ Michigan
- ☐ Ohio
- ☐ Pennsylvania
- ☐ Wisconsin
- ☐ Minnesota
- ☐ Illinois
- ☐ Iowa

Education (highest degree earned):

- ☐ Associates
- ☐ Bachelors
- ☐ Masters
- ☐ Doctorate

Please indicate your major area of study for your highest degree earned

- ☐ Rehabilitation Counseling
 - ☐ Rehabilitation Psychology
 - ☐ Psychology
 - ☐ Social Work
 - ☐ Other Counseling Specialty (e.g. Substance Abuse, Mental Health, etc)
 - ☐ Other Rehabilitation Specialty (e.g. Vocational Evaluation, Job Placement, etc)
- Other (please specify) _____

Are you a Certified Rehabilitation Counselor?

- ☐ Yes
- ☐ No

What is your current job title?

- ☐ Vocational Rehabilitation Counselor
- ☐ Transition Specialist
- ☐ Transition Consultant

Other (please specify) _____

What is your current work setting?

- ☐ State-Federal Vocational Rehabilitation Office
- ☐ Community Rehabilitation Provider
- ☐ High School
- ☐ Center for Independent Living

Other (please specify) _____

What percentage of your caseload consists of transition-age youth (14-25.99 years of age)?

- ☐ 0-25%
- ☐ 25-50%
- ☐ 50-75%
- ☐ 75-100%

What training for transition services have you received?

- ☐ Workshops
- ☐ Online Courses
- ☐ University or college training
- ☐ No training

How often do you attend training in transition services?

- ☐ Never
- ☐ Very Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Very Often

Approximately how much time to you spend per work week on transition-related responsibilities?

- ☐ None
- ☐ Less than 10 hours
- ☐ 10-20 hours
- ☐ 20-30 hours
- ☐ 30-40 hours
- ☐ More than 40 hours

How many years of experience do you have working with transition-age youth with disabilities?

- ☐ Less than 1 year
- ☐ 1-3 years
- ☐ 4-7 years
- ☐ 8-12 years
- ☐ 13-16 years
- ☐ More than 16 years

Is it your primary responsibility to provide transition services?

- ☐ Yes
- ☐ No

Gender

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer

Age (leave it blank if you prefer not to answer)

- ☐ 20-29

- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60+

Race/Ethnicity:

- ☐ Caucasian-non Hispanic
- ☐ African American
- ☐ Asian American
- ☐ Hispanic/Latino American
- ☐ American Indian/Native American
- ☐ Prefer not to answer

Other (please specify) _____

General Directions:

Listed below on the following pages are knowledge areas related to rehabilitation counseling. Please review these areas to determine their importance for your role as a rehabilitation counseling **transition** professional.

Rate each statement on a 1-5 scale for both of the following:

Use the IMPORTANCE scale to indicate the degree of the importance of the knowledge area described in the statement to your role as a rehabilitation transition counselor.

- 1 = NOT IMPORTANT
- 2 = SOMEWHAT IMPORTANT
- 3 = IMPORTANT
- 4 = VERY IMPORTANT
- 5 = EXTREMELY IMPORTANT

Use the PREPAREDNESS scale to indicate your current level of proficiency in the knowledge area described in the statement to your role as a rehabilitation transition counselor.

- 1 = NO PREPARATION
- 2 = LITTLE PREPARATION
- 3 = MODERATE PREPARATION
- 4 = HIGH DEGREE OF PREPARATION
- 5 = VERY HIGH DEGREE OF PREPARATION

Transition Knowledge Validation Assessment (TKVA)

Rehabilitation Counseling Knowledge Domains Transition-Specific Items	SCALE FOR IMPORTANCE	SCALE FOR PREPAREDNESS
Social skills (soft skills) training.	1 2 3 4 5	1 2 3 4 5
Principles of self-awareness to aid in identification of barriers to employment and realistic job goals.	1 2 3 4 5	1 2 3 4 5
Principles of self-determination to facilitate vocational planning.	1 2 3 4 5	1 2 3 4 5
Facilitation of student involvement in the Individual Education Program (IEP) development.	1 2 3 4 5	1 2 3 4 5
Leisure skills training.	1 2 3 4 5	1 2 3 4 5
Employment skills instruction.	1 2 3 4 5	1 2 3 4 5
Continuum of work-based learning experiences.	1 2 3 4 5	1 2 3 4 5
Career and vocational curriculum to facilitate career exploration.	1 2 3 4 5	1 2 3 4 5
Mentors to facilitate socialization, inclusion and learning.	1 2 3 4 5	1 2 3 4 5
Skill instruction in the context of real life experiences.	1 2 3 4 5	1 2 3 4 5

Individual Education Plan (IEP) development.	1 2 3 4 5	1 2 3 4 5
Collaboration with general and special education teachers.	1 2 3 4 5	1 2 3 4 5
School system, programs, and personnel.	1 2 3 4 5	1 2 3 4 5
Assessment of community resources and needs.	1 2 3 4 5	1 2 3 4 5
Providing classroom resources for students and teachers relevant to the world of work.	1 2 3 4 5	1 2 3 4 5
Inclusion of parents and family members/guardians in vocational planning and decision-making.	1 2 3 4 5	1 2 3 4 5
Pre-Individual Education Plan (IEP) activities for parents/guardians.	1 2 3 4 5	1 2 3 4 5
Encouragement of parent/guardian attendance at vocational planning meetings.	1 2 3 4 5	1 2 3 4 5
Providing school-to-work and transition information to parents/guardians and families.	1 2 3 4 5	1 2 3 4 5
Federal legislation relevant to educational systems (No Child Left Behind, Individuals with Disabilities Education Act, etc)	1 2 3 4 5	1 2 3 4 5
Resource sharing agreements.	1 2 3 4 5	1 2 3 4 5
Awareness of ways to facilitate shared delivery of school-to-work transition services between partners.	1 2 3 4 5	1 2 3 4 5
Outcome-based programming.	1 2 3 4 5	1 2 3 4 5
Individualized services to meet student needs.	1 2 3 4 5	1 2 3 4 5

Rate each statement on a 1-5 scale for both of the following:

Use the IMPORTANCE scale to indicate the degree of the importance of the knowledge area described in the statement to your role as a rehabilitation transition counselor.

- 1 = NOT IMPORTANT
- 2 = SOMEWHAT IMPORTANT
- 3 = IMPORTANT
- 4 = VERY IMPORTANT
- 5 = EXTREMELY IMPORTANT

Use the PREPAREDNESS scale to indicate your current level of proficiency in the knowledge area described in the statement to your role as a rehabilitation transition counselor.

- 1 = NO PREPARATION
- 2 = LITTLE PREPARATION
- 3 = MODERATE PREPARATION
- 4 = HIGH DEGREE OF PREPARATION

5 = VERY HIGH DEGREE OF PREPARATION

Rehabilitation Counseling Knowledge Domains General Rehabilitation Counseling Items	SCALE FOR IMPORTANCE	SCALE FOR PREPAREDNESS
Historical and philosophical foundations of rehabilitation counseling.	1 2 3 4 5	1 2 3 4 5
Laws and public policy affecting individuals with disabilities.	1 2 3 4 5	1 2 3 4 5
Rehabilitation terminology and concepts.	1 2 3 4 5	1 2 3 4 5
Organizational structure of rehabilitation counseling practice settings (e.g. public, private-for-profit, and not for profit service delivery systems).	1 2 3 4 5	1 2 3 4 5
Risk management and professional ethical standard for rehabilitation counselors.	1 2 3 4 5	1 2 3 4 5
Societal issues, trends, and developments as they relate to rehabilitation.	1 2 3 4 5	1 2 3 4 5
Group counseling theories.	1 2 3 4 5	1 2 3 4 5
Group counseling practices and interventions.	1 2 3 4 5	1 2 3 4 5
Family counseling theories.	1 2 3 4 5	1 2 3 4 5
Family counseling practices and interventions.	1 2 3 4 5	1 2 3 4 5
Individual counseling theories.	1 2 3 4 5	1 2 3 4 5
Individual counseling practices and interventions.	1 2 3 4 5	1 2 3 4 5
Behavior and personality theory.	1 2 3 4 5	1 2 3 4 5
Human growth and development.	1 2 3 4 5	1 2 3 4 5
Diversity and multicultural counseling issues.	1 2 3 4 5	1 2 3 4 5
Environmental and attitudinal barriers for individuals with disabilities.	1 2 3 4 5	1 2 3 4 5
The services available for a variety of rehabilitation populations, including persons with multiple disabilities.	1 2 3 4 5	1 2 3 4 5
The case management process, including case finding, planning, service coordination, referral to and utilization of other disciplines, and client advocacy.	1 2 3 4 5	1 2 3 4 5
Community resources and services for rehabilitation planning.	1 2 3 4 5	1 2 3 4 5
Internet based counseling tools and resources.	1 2 3 4 5	1 2 3 4 5
Theories of career development and work adjustment.	1 2 3 4 5	1 2 3 4 5
Vocational implications of functional limitations associated with disabilities.	1 2 3 4 5	1 2 3 4 5
Occupational and labor market information.	1 2 3 4 5	1 2 3 4 5
Medical terminology.	1 2 3 4 5	1 2 3 4 5
Medical aspects and implications of various disabilities.	1 2 3 4 5	1 2 3 4 5
The psychosocial and cultural impact of disability on the individual.	1 2 3 4 5	1 2 3 4 5

The psychosocial and cultural impact of disability on the family.	1 2 3 4 5	1 2 3 4 5
The tests and evaluation techniques available for assessing clients' needs.	1 2 3 4 5	1 2 3 4 5
Interpretation of assessment results for rehabilitation planning purposes.	1 2 3 4 5	1 2 3 4 5
Financial resources for rehabilitation services.	1 2 3 4 5	1 2 3 4 5
Program evaluation procedures for assessing the effectiveness of rehabilitation services and outcomes.	1 2 3 4 5	1 2 3 4 5
The functional capacities of individuals with disabilities.	1 2 3 4 5	1 2 3 4 5
Appropriate medical intervention resources.	1 2 3 4 5	1 2 3 4 5
Job analysis.	1 2 3 4 5	1 2 3 4 5
Job modification and restructuring techniques.	1 2 3 4 5	1 2 3 4 5
Ergonomics, job accommodations, and assistive technology.	1 2 3 4 5	1 2 3 4 5
Job placement and job development strategies.	1 2 3 4 5	1 2 3 4 5
Supported employment strategies and services.	1 2 3 4 5	1 2 3 4 5
Consultation process with employers related to management of disability issues in the workplace.	1 2 3 4 5	1 2 3 4 5
Employer development for job placement.	1 2 3 4 5	1 2 3 4 5
Job readiness including seeking and retention skills development.	1 2 3 4 5	1 2 3 4 5
Rehabilitation research literature related to evidence-based practice.	1 2 3 4 5	1 2 3 4 5
Rehabilitation research methods and statistics.	1 2 3 4 5	1 2 3 4 5
Substance abuse and treatment.	1 2 3 4 5	1 2 3 4 5
Social security programs, benefits, work incentives, and disincentives.	1 2 3 4 5	1 2 3 4 5
Rehabilitation techniques for individuals with psychological disabilities.	1 2 3 4 5	1 2 3 4 5
Transferable skills analysis.	1 2 3 4 5	1 2 3 4 5
Marketing strategies and techniques for rehabilitation services.	1 2 3 4 5	1 2 3 4 5
The workplace culture, environment, and business terminology.	1 2 3 4 5	1 2 3 4 5
Ethical decision making models and processes.	1 2 3 4 5	1 2 3 4 5
Techniques for working effectively in teams and across disciplines.	1 2 3 4 5	1 2 3 4 5
Techniques for working with individuals with limited English proficiency.	1 2 3 4 5	1 2 3 4 5
Case recording and documentation.	1 2 3 4 5	1 2 3 4 5
Clinical problem-solving and critical-thinking skills.	1 2 3 4 5	1 2 3 4 5
Negotiation, mediation, and conflict resolution strategies.	1 2 3 4 5	1 2 3 4 5
Health promotion and wellness concepts and strategies	1 2 3 4 5	1 2 3 4 5

for people with chronic illness and disability.		
Evidence-based psychiatric rehabilitation practices.	1 2 3 4 5	1 2 3 4 5
Work conditioning or work hardening resources and strategies.	1 2 3 4 5	1 2 3 4 5
Principles of caseload management.	1 2 3 4 5	1 2 3 4 5
Methods and techniques used to conduct labor market surveys.	1 2 3 4 5	1 2 3 4 5
Professional roles, functions, and relationships with other human service providers.	1 2 3 4 5	1 2 3 4 5
Advocacy processes needed to address institutional and social barriers that impede access, equity, and success for clients.	1 2 3 4 5	1 2 3 4 5
Human disability and sexuality issues.	1 2 3 4 5	1 2 3 4 5
Treatment planning for clinical problems (e.g. depression and anxiety).	1 2 3 4 5	1 2 3 4 5
Computer-based and on-line assessment tools.	1 2 3 4 5	1 2 3 4 5
Computer-based job-matching systems.	1 2 3 4 5	1 2 3 4 5
Diagnostic and Statistical Manual of Mental Disorders IV-TR.	1 2 3 4 5	1 2 3 4 5
Implications of medications as they apply to people with disabilities.	1 2 3 4 5	1 2 3 4 5
Individual and family adjustment to disability.	1 2 3 4 5	1 2 3 4 5
Psychometric concepts related to measurement (reliability, validity, standard error of measurement).	1 2 3 4 5	1 2 3 4 5
Educating employers on disability-related issues (e.g., ADA, job accommodation, compliance/disability law).	1 2 3 4 5	1 2 3 4 5
Evidence-based practice and research utilization.	1 2 3 4 5	1 2 3 4 5
Services available from one-stop career centers.	1 2 3 4 5	1 2 3 4 5
Services available through client advocacy programs (e.g., Client Assistant Programs [CAP], legal aid).	1 2 3 4 5	1 2 3 4 5
Programs and services for specialty populations (e.g., school-to-work transition, spinal cord injury, traumatic brain injury, mental health, developmental disability, substance abuse, correctional).	1 2 3 4 5	1 2 3 4 5
Human resource practices, diversity in the workplace, and workplace supports for people with disabilities.	1 2 3 4 5	1 2 3 4 5
Establishing and maintaining effective working alliances with the clients we serve.	1 2 3 4 5	1 2 3 4 5
Systematic review/meta-analysis.	1 2 3 4 5	1 2 3 4 5
Research databases (e.g. Cochrane Collaboration, PsycINFO, and MEDLINE) for locating empirically validated interventions.	1 2 3 4 5	1 2 3 4 5
Social media (e.g. Twitter and Facebook) as a networking tool to increase social participation of people	1 2 3 4 5	1 2 3 4 5

with disabilities.		
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REFERENCES

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