

SERVICE PROVISIONS FOR YOUTH WITH EMOTIONAL AND  
BEHAVIORAL DISORDERS

Latoya Lavan Dean, M.A., M.Ed.

Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

August 2012

APPROVED:

Lyndal M. Bullock, Major Professor  
Richard Fossey, Minor Professor  
Bertina H. Combes, Committee Member  
Anne Rinn, Committee Member  
Abbas Tashakkori, Chair of the Department of  
Educational Psychology  
Jerry R. Thomas, Dean of the College of  
Education  
Mark Wardell, Dean of the Toulouse Graduate  
School

Dean, Latoya Lavan, Service Provisions for Youth with Emotional and Behavioral Disorders. Doctor of Philosophy (Special Education), August 2012, 98 pp., 20 tables, references, 98 titles.

Youth with emotional or behavioral disorders (EBD) have poorer outcomes compared to their peers with and without disabilities. As a result, the federal government has mandated transition services to improve supports and ultimately student outcomes. Using data from the National Longitudinal Transition Study-2 (NLTS-2), this secondary analysis looked at services provided to youth with EBD ( $n = 410$ ). The purpose of the study was to show a relationship between utilization of multiple services and the attainment of paid employment, and/or attending post-secondary education. Results indicate relationships between receiving financial services, tutoring and educational services and vocational services with attending a post-secondary institution. Logistic regression indicated a relationship between time, age and amount of services with paid employment. These results indicate the need for continuous, systematic and linked services for youth with EBD well into their twenties.

Copyright 2012  
by  
Latoya Lavan Dean

## ACKNOWLEDGEMENT

This has been a most tumultuous journey which was made easier with support from many casts of characters. First and foremost all of the honor and glory goes to you old Lord. Thank you for walking me through this journey. I also would like to thank the dissertation survival committee at the Office of Special Education Programs (OSEP) in Washington D.C. for steering me in this direction. Dr. Bullock and Dr. Combes you have been with me through this five year process, thank you for your wisdom and correction. Dr. Fossey and Dr. Rinn, your help was greatly appreciated. To the staff of this wonderful program, Fred and Jeanie, none of this would be possible without your dedication and hard work. To my fellow classmates who finished and moved on, thank you for showing me it can be done. To Grace, Kelly, and Emerald your encouragement and prayers were much needed and appreciated. To my friends (Karen, Rhonda, Susan, Lindsay, Peg, Rick, Joe, Shannon, Leah, Val, Becky) who run with “LT”, I am not sure if I would have made it without our Saturday morning stress relieving runs and our crazy talks. Thanks for running me around White Rock Lake. To my lunch bunch (Chantel, Dani, Mary), thanks for keeping me sane when our work environment got intense. Finally, I thank my family especially my mother, Mary, and my big brother Basil Jr. for letting me live life to the beat of my own drums. And to my deceased father Basil Sr., I hope you can see this...there is now a Dr. Dean in the family. Who knew that a picky head, sorry leg girl from Foxhill could get a Ph.D. All things are possible with GOD.

# TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENT.....	iii
LIST OF TABLES.....	vi
CHAPTERS	
1. INTRODUCTION .....	1
Statement of Problem	
Purpose of Study	
Significance	
Limitations	
Definition of Key Terms	
2. REVIEW OF LITERATURE .....	9
Characteristics of Youth with EBD	
Outcomes of Youth with EBD	
Legal Mandates	
Best Practices in Working with Youth with EBD	
Inter-Agency Collaborations	
Systems of Care	
Discussion	
3. METHODOLOGY .....	35
Purpose of the Study	
Statement of the Problem	
Research Questions	
Description of the National Longitudinal Transition Study-2	
Statistical Analysis	
4. RESULTS AND DISCUSSION.....	44
Demographics Information	
Analysis of Data	
Summary	
5. SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS.....	73
Summary	
Implications	

Future Directions

APPENDICES.....78

REFERENCES.....87

## LIST OF TABLES

	Page
Table 1: Unweighted and Weighted Samples of District Designated Emotionally Disturbed Youth.....	45
Table 2: Gender of Participants for Unweighted and Weighted Samples of District Designated Emotionally Disturbed Youth.....	45
Table 3: Ethnicity of Participants for Unweighted and Weighted Samples.....	46
Table 4: Age of Youth at the Time of Wave 5 Interview .....	47
Table 5a: Attended a Post-Secondary Institution Since Leaving High School by Individual Total Number of Services Received (GroupEver) Crosstabulation.....	49
Table 5b: Young adult has ever worked for pay other than work around house by individual total number of services received (GroupEver) Crosstabulation.....	50
Table 6a: Young Adult has Ever Worked for Pay Other Than Work Around House by Total Number of Services Received by Participants Who Were in High School (Inschevergroup) Crosstabulation.....	51
Table 6b: Attended a Post-Secondary Institution Since Leaving High School by Total Number of Services Received by Participants Who Were in High School (Inschevergroup) Crosstabulation.....	52
Table 7: Young Adult has Ever Had Vocational Services/Job Training and Young Adult Who Ever Attended a Post-Secondary Institution Since Leaving High School Crosstabulation.....	54
Table 8: Young Adult Has Ever Had Financial Services and Young Adult Who Ever Attended a Post-Secondary Institution Since Leaving High School Crosstabulation.....	56
Table 9: Young Adult Has Ever Had Tutoring/Education/Educational Assistance and Young Adult Who Ever Attended a Post-Secondary Institution Since Leaving High School Crosstabulation.....	57
Table 10: Young Adult Has Ever Had Personal Assistant/Aide Since Leaving High School and Young Adult Has Ever Worked For Pay Other Than Work Around House Crosstabulation.....	58
Table 11: Young Adult Ever Attended a Post-Secondary Institution Since Leaving High School and Receiving Vocational Services In-High School and in Post- Secondary (Bothvoc) Crosstabulation.....	60

Table 12: Young Adult Ever Attended a Post-Secondary Institution Since Leaving High School and Receiving Educational Services In-High School and in Post- Secondary (BothED) Crosstabulation .....	61
Table 13: Young Adult Ever Attended a Post-Secondary Institution Since Leaving High School and Receiving Financial Services In-High School and in Post- Secondary (BothFin) Crosstabulation .....	62
Table 14: Young Adult Has Ever Worked For Pay Other Than Work Around House and Receiving Speech Services In-High School and in Post-Secondary (BothSpeech) Crosstabulation .....	63
Table 15: Young Adult Has Ever Worked For Pay Other Than Work Around House and Receiving Respite Services In-High School and in Post-Secondary (BothRES) Crosstabulation .....	64
Table 16: Young Adult Has Ever Worked For Pay Other Than Work Around House and Having a Personal Assistant/Aide In-High School and in Post-Secondary (BothPersonal) Crosstabulation .....	65
Table 17: Odds Ratio for Having Had Paid Employment with Time, Age and Amount of Service .....	68
Table 18: Odds Ratio for Post-Secondary Attendance with Time, Age and Amount of Service..	69



## CHAPTER 1

### INTRODUCTION

People continually grow and learn as they move from one developmental stage of life to another. The period between these stages is called transition. For example, in academic transition there is the movement from one grade level to another, from junior high school to high school, and from high school to college. One of the most significant transitions is graduating from high school and entering the adult world. The Division on Career Development and Transition (DCDT) of the Council for Exceptional Children (CEC) defines transition as a change from behaving primarily as a student to assuming adult roles in the community including employment, post-secondary education, maintaining a home, involving oneself in the community and experiencing satisfactory relationships (Repetto, 2003). Transition comes with many challenges that require youth to determine which direction to take in order to become productive adults. For youth with disabilities, these challenges are usually accentuated by their disability. Consequently, youth with disabilities need extensive and carefully planned supports in order to be successful as they transition to adulthood.

In 1990, the Individual with Disabilities Act (IDEA) mandated transition services for students with disabilities. The language used in this amendment to the Education of All Handicapped Children Act (EAHCA; 1975) indicated that a statement of the needed transition services was to be written for students beginning no later than age 16 and annually thereafter, and if appropriate for some individuals, beginning at age 14 or younger (IDEA, 1990). IDEA 1990 defined transition services as a “coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school- to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or

community participation” (sec.101). As part of the transition process, the student’s individual education plan (IEP) needs to address services with a focus on post-school outcomes (Hosp, Clark-Griller, & Rutherford, 2001). In the reauthorization of IDEA (1997), transition planning was strengthened to include the involvement of parents and youth as essential team members, the development of interagency linkages, and included related services, community experience, and employment as part of the planning process (Morningstar & Benetiz, 2004). In 2004, IDEA 1997 was reauthorized and renamed the Individuals with Disabilities Education Improvement Act (IDEIA). This reauthorization indicated that transition services that promote post-school employment or education to be an important measure of accountability. In this amendment, the definition of transition services was revised; IDEIA moved from transition services being an outcome-oriented to a results-oriented process that focuses on improving the academic and functional achievement of the youth.

IDEIA, along with other federal mandates and initiatives, stimulated the field and led to research on best practices in transition planning. After many years of research, several practices essential to successful transition have been identified. Kohler (1996) developed, and later refined, the taxonomy of transition programming as a framework of organizing identified practices for comprehensive secondary transition education. The taxonomy has five categories: student-focus planning, student development, interagency collaboration, family improvement, and program structure and attributes (Finn & Kohler, 2010). Best practices that can fit into this framework include vocational/technical skills training, social skills training, career education, and paid work experience during high school (Goupil, Tasse, Garcin, & Dore, 2002). Moreover individual, parent, and family involvement in development of written transition plans has been listed as a best practice (Finn & Kohler, 2010; Goupil et al., 2002; Kohler & Field, 2003;

Morningstar & Benitez, 2004; Pleet, Wandry, & Gursch, 2004). Finally, interagency cooperation and collaboration are cited as important to successful transition (Finn & Kohler, 2010; Morningstar & Benitez, 2004).

### Statement of the Problem

Through the mandates in IDEA (1990; 1997) and IDEIA (2004), the federal government set a goal for students with disabilities to achieve positive post-high school outcomes. While the mandates accelerated research and the utilization of best practices in transition planning, outcomes for students with disabilities still lag behind their peers without disabilities; this is especially true for students with emotional and behavioral disorders (EBD). Youth with EBD have a pattern of continued poor outcomes which is indicative that there needs to be an increased focus on intensified supports with an aim of improving their outcomes.

In 1994, the Office of Special Education Programs (OSEP) of the U.S. Department of Education developed a national agenda for achieving better results for students with EBD (Chesapeake Institute, 1994). This agenda was developed because of the magnitude of problems faced by the EBD population (e.g., lower grades, lower high school completion rates, high absenteeism, involvement with the juvenile justice system, restrictive placements). The agenda outlined seven strategic targets to help improve the outcomes for youth with EBD: (a) expanding positive learning opportunities and results, (b) strengthening school and community capacity, (c) valuing and addressing diversity, (d) collaborating with families, (e) promoting appropriate assessment, (f) providing ongoing skill development and support, and (g) creating comprehensive and collaborative systems.

In 2011, more than a decade since the national agenda was developed, the United States Department of Education in its *Thirtieth Annual Report to Congress on the Implementation of*

*IDEA* indicated that children and students ages 3 through 21 who were served under *IDEA*, Part B, under the category of emotional disturbance (a) consistently had the lowest graduation percentages from 1996–97 through 2005–06, (b) had substantially higher dropout rates than the next highest disability category, (c) had the highest rates of removal to an interim alternative educational setting by school personnel for drug or weapon offenses in school year 2005–06, compared to children and students in all other disability categories, (d) had the highest rates of removal to an interim alternative educational setting by a hearing officer for likely injury to themselves or others in school year 2005–06, compared to children and students in all other disability categories, and (e) were more likely to be suspended or expelled for more than 10 days than children and students with other disabilities. Moreover, the research literature indicates that two years after leaving school, 50% of students with EBD were employed, and 17% were enrolled in post-secondary education programs (Cheney, Martin & Rodriguez, 2004; Wagner, Kutash, Duchnowski & Epstein, 2005). In addition, 62% of students with EBD exited high school without documentation (Test, Fowler, White, Richter, & Walker, 2009) and many are involved with the justice system with an arrest rate of 58% (Smith, Katsiyannis, & Ryan, 2011).

#### Purpose of the Study

Using data from the National Longitudinal Transition Study-2 (NLTS2; Wagner et al., 2005), this study analyzed the relationship between access to services and outcomes for youth with EBD. The purpose of this study was to show a relationship between utilization of multiple services and the attainment of paid employment, and/or attending post-secondary education.

#### Significance of the Study

Best practices in transition planning indicate that interagency collaboration is critical to the success of youth with EBD. Collaboration may help streamline the movement of students

from secondary services to adult services. The assumption is that the movement would be seamless and that these now young adults would have the supports needed to be successful. Current data indicate that youth with EBD lag behind their peers in employment and college attendance (Cheney et al., 2004; Wagner et al., 2005). This study illustrated the relationship between utilization of multiple services and the attainment of paid employment or post-secondary education attendance. A strong relationship between these factors may contribute to the evidence for the need for strong interagency collaboration and the development of systems of care for youth with EBD.

### Research Questions

This study was guided by three research questions.

- Research Question 1: What is the relationship between accessing services during high school/post-secondary or both, and paid employment or attending post-secondary education?
- Research Question 2: What is the relationship between types of services accessed during high school/post-secondary and paid employment or attending post-secondary education?
- Research Question 3: As it applies to post-secondary services, what is the relationship between the age of the youth, the timing of the service, and the amount of services to achieving paid employment or attending post-secondary education?

### Limitations and Assumptions

This study was a secondary analysis and utilized data collected by the NLTS2 which was conducted by SRI International for the United States Department of Education (National Longitudinal Transition Study-2, 2001-2010). It is limited by collection procedures delineated by the designers of the study. The study was conducted under the assumption that data entry and

coding were inputted correctly. It is limited by the number of subjects who were inputted as EBD. The focus of this present study was the utilizations of services. Although there are a variety of services for youth reported in the literature. This study was limited in its analysis to only services discussed by original researchers.

#### Definition of Terms

- Age of majority: The legal age established under State law at which an individual is no longer a minor and, as a young adult, has the right and responsibility to make certain legal choices that adults make (National Center on Secondary Education and Transition, 2002a).
- Best practices: A technique or methodology that, through experience and research, has proven to reliably lead to a desired result (Search Soft Quality, 2000).
- Disability: In regard to an individual, the term means (a) physical or mental impairment that substantially limits one or more major life activities of such individual, (b) a record of such an impairment, or (c) being regarded as having such an impairment. Major life activities include, but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working (Americans with Disabilities Act, 2008).
- Federal definition of emotional and behavioral disorders: A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c)

inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; and (e) a tendency to develop physical symptoms or fears associated with personal or school problems (Code of Federal Regulations, Title 34, Section 300.8(c)(4)).

- Interagency coordination: A fluid process through which a group of diverse and autonomous actors (i.e., organizations or individuals) undertakes a joint initiative, solves shared problems, or achieves common goals (Abramson & Rosenthal, 1995).
- Mental health definition of emotional and behavioral disorders: A person from birth to up to age 18 who currently, or any time during the past year, has had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria specified within the DSM. The diagnosis had to have resulted in functional impairment that substantially interferes with or limits the child's role of functioning in family, school, or community activities (Wagner et al., 2005).
- Self-determination: A combination of skills, knowledge and beliefs that enables a person to engage in self-regulated, goal directed, and autonomous behavior (King, Baldwin, Currie, & Evans, 2006).
- Systems of care: A comprehensive spectrum of mental health and other services, which are organized in a coordinated network to meet the multiple needs of emotionally disturbed children and adolescents (Stroul & Friedman, 1986).
- Transition services: A coordinated set of activities for a child with a disability that (a) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including post-secondary education,

vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; (b) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and (c) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation (IDEIA, 2004).

- Wraparound: An approach to individualized service planning and case management for children with EBD and their families (Scott & Eber, 2003).



## CHAPTER 2

### REVIEW OF THE LITERATURE

In 1975, the Education of All Handicapped Children Act (EAHCA) was passed. This Act was seminal in that it mandated free and appropriate public education (FAPE) for children with disabilities. Prior to the passing of EAHCA, children with disabilities were often excluded from school and some placed in institutions. EAHCA made it mandatory that school districts include and educate students with disabilities using the individual education plans (IEP). In 1990, EAHCA was renamed the Individuals with Disabilities Education Act (IDEA). After decades of students with disabilities being served in a public school setting, the federal government looked to strengthen their supports and services. In subsequent years, IDEA was reauthorized to align with current research and best practices for working with students with disabilities.

Unfortunately after years of mandates and empirically based results, students with disabilities still are not achieving success equal to their same age peers. This is especially true for students classified as emotionally or behaviorally disordered (EBD). The present literature review examines (a) the characteristics of students with EBD, (b) the outcomes of students with EBD, (c) the legal mandates that protect the civil rights of young adults with disabilities when they attain the age of majority, (d) several best practices in working with students with EBD, and (e) interagency collaboration. Finally, this review details the systems of care philosophy with a focus on wraparound services.

#### Methods of this Review

A search of Academic Search Premier, ERIC, PSYLIT, and Education Research Complete via EBSCO host was conducted to locate relevant journal articles on the subject matter. Key words used were transition planning, students with EBD, postsecondary planning,

Rehabilitation Act, National Longitudinal Transition Study, transition to adulthood, Americans with Disability Act, Section 504, employment, systems of care, and interagency collaboration. A search of my personal library was also conducted to locate relevant books and articles. After reading information in my personal library and the abstracts of journal articles, an outline was drafted. All information was then read, important information highlighted and categorized based on the outline. Articles were put into the categories of the characteristics of EBD, legal mandates, outcomes, and best practices. Articles that did not fit under any of these categories were set aside. A second search using EBSCO host was conducted reversing the order of words to locate any missed journal articles. These articles were also put into categories. Based on the information accessed, the literature review was written.

#### Characteristics of Youth with EBD

In the United States, approximately 1% of school age children receive special education services under the label of emotionally disturbed (ED). The youth with ED are referred to as students with EBD for the remainder of this paper (Lane, Wehby, & Barton-Arwood, 2005). Denoted in Chapter 1, students classified as having EBD display to a marked degree over a long period of time, one or more of several characteristics. First, they tend to demonstrate an inability to learn that cannot be explained by intellectual, sensory or other health factors. Youth with EBD have more problems in mathematics and reading as compared to students without disabilities and are more likely to fail courses compared to students with learning disabilities and students without disabilities (Cullinan & Sabornie, 2004). Second, they often lack the ability to build or maintain satisfactory interpersonal relationships with peers and teachers. Youth with EBD are more likely to be rejected than any other group of students (Cullinan & Sabornie). Third, students with EBD often display inappropriate types of behavior or feelings under normal

circumstances. Compared to their peers, they tend to display higher rates of inappropriate behavior (e.g., classroom disturbances) and low rates of positive behavior (e.g., on-task). They also tend to experience academic difficulties that are related and/or causally linked to their behavioral excesses and deficits (Landrum, Tankersley, & Kauffman, 2003). Fourth, they often show a pervasive mood of unhappiness or depression. In addition, Cullinan and Sabornie indicate that adolescents with EBD report more suicidal ideation and attempts than their peers. Fifth, students with EBD have a tendency to develop physical symptoms or fears associated with personal or school problems. They often report more feelings of anxiety than their peers without disabilities (Cullinan & Sabornie). Within the above descriptions, students with EBD may also display externalizing behaviors (e.g., persistent aggression, acting-out, non-compliance, fire setting, assaults, cruelty) or internalizing behaviors (e.g., withdrawal, anxiety, depression, obsessions and compulsions, poorer social skills, tendency to blend into the background when in a group). Students with externalizing behaviors are more likely to be referred for special education services than students with internalizing behaviors because they are more likely to cause a disturbance in the classroom (Hallahan, Kauffman, & Pullen, 2009).

According to Hallahan et al. (2009), students with EBD are classified in different categories of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychological Association (APA). Some of the classifications include, but are not limited to, having an anxiety disorder, mood disorder, oppositional defiant disorder (ODD), conduct disorder, and schizophrenia. Using the DSM-IV-TR classification, the estimates of those labeled EBD rises to between two and sixteen percent. This estimate includes students with conduct disorder and ODD who may be considered socially maladjusted under the federal definition and thus not EBD (Lane et al., 2005). Notwithstanding estimates, students identified as having

behavior problems are addressed more negatively by teachers regardless of whether or not there is a difference in their behavior compared to their peers. Students identified with EBD may suffer diminished self-concept and have poor postsecondary outcomes (Hosp & Madyun, 2007). Children with EBD performed one or more standard deviations below their non-disabled peers in vocabulary, listening comprehension, spelling, social studies, and science (Nelson, Benner, Lane, & Smith, 2004).

According to Wagner and Cameto (2004), three-fourths of youth with EBD are male, have a higher likelihood of being African American, and live in poverty. They are less likely to live in two parent households. Half the students with EBD do not receive special education services until they are age 9 or older and are often held back a grade level. Students with EBD often have difficulty in developing a healthy identity because of their emotional or behavioral disorder which may be linked to genetic factors and life experiences. Students with EBD often have low self-efficacy and lack the perseverance to handle difficult situations, which sometimes causes them to give up (Solar, 2011). Young adults with EBD, compared to their peers, have fewer social skills and lower academic achievement. These characteristics are also linked to lower graduation rates, limited post-secondary outcomes, less financial independence, and limited interpersonal relationships (Armstrong, Dedrick, & Greenbaum, 2003).

#### Outcomes of Youth with EBD

Students with EBD have a long history of poor post-high school outcomes in the areas of education, employment, and social relationships (Cooper & Pruitt, 2005). In 1985, the Office of Special Education Programs (OSEP) funded the National Longitudinal Transition Study (NLTS), which was nationally representative cohort of 8000 students with disabilities. These students were followed from 1985 to 1993, which started in their tenth grade year until 5 years after high

school. The data revealed that youth with disabilities were not successfully transitioning into life after high school (Wilson, Hoffman, & McLaughlin, 2009). Outcomes studies related to the 1985-1993 data set revealed not so positive results: two years after leaving school 50% of students with EBD were employed, 59% dropped out of school, and 17% were enrolled in post-secondary education programs (Cheney, Martin, & Rodriguez, 2004; Wagner et al., 2005). NLTS also found that only 29% of youth with EBD, compared to 37% of youth with LD, had accessed additional schooling (Zigmond, 2006). NLTS found that 50% of participants with EBD were arrested while in school, and 73% of the participants with EBD who dropped out of school had been arrested at least once (Bullis & Cheney, 1999).

As noted, the literature has indicated negative outcome for students with EBD. For example, young adults with EBD were more likely than their same age peers to drop out of school, be arrested (Armstrong et al., 2003; Eber, Sugai, Smith, & Scott, 2002), have less competitive employment, and have low rates of attendance in postsecondary school (Armstrong et al., 2003). Compared to typical students and those with other disabilities, students with EBD have disproportionately higher rates of academic failure, are more likely to be involved with illicit drugs, and to become teenage parents. These youth are more likely to spiral through multiple systems including special education, mental health, juvenile justice, and child welfare services and other agencies and to have a poor prognosis for success (Eber et al., 2002). As it relates to competitive employment, Carter and Wehby (2003) cite unemployment rates for youth with EBD in the range of 42 to 70% during the first five years after leaving high school.

The second NLTS collected data from students with disabilities who were between the ages of 13-16 years old during the 2000-2001 school year. These participants were tracked for 10 years. NLTS2 included a number of variables pertaining to high school experiences, services

provided to these students, and post-high school status (Shaw, 2009; Wilson et al., 2009). NLTS2 reported that overall, 28% of students with disabilities did not complete school, whereas 35% of students with specific learning disabilities and 61% of students with EBD exited high school without documentation. NLTS2 data indicated that 2003 school completion rate for students with disabilities were 72% which was a 17% increase from 1987 (Test, Fowler, White, Richter, & Walker, 2009). As in applies to employment, 53% of youth with EBD were employed one year after high school which is similar to their general education peers; in terms of earnings, youth with EBD were less likely to earn minimum wage as compared to their peers (Wagner & Cameto, 2004). NLTS2 indicates that students with EBD have a disproportionate involvement with the justice system with an arrest rate of 58% (Smith, Katsiyannis, & Ryan, 2011).

### Legal Mandates

Along with IDEIA (2004), other federal mandates provide protection for youth with disabilities. Two such mandates are the Rehabilitation Act Amendments of 1997 and the American with Disabilities Act (2008). Combined, all three Acts provide coverage for people with disabilities from birth to death. The Acts cover education, employment, and general living issues.

#### The Rehabilitation Act

The Rehabilitation Act prohibits discrimination by federal agencies and by federally funded programs. The language used by the Act is

. . . no otherwise qualified individual with a disability in the United States, . . . solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive

agency or by the United States Postal Service. (Rehabilitation Act Amendments, section 504, 1997)

The original Rehabilitation Act (1973), passed during the civil rights era, reflects the focus on access and inclusive participation in publicly funded institutions (Cawthon & Cole, 2010).

The main purpose of the Rehabilitation Act of 1997 is to empowerment of individuals with disabilities to maximize employment and facilitate economic self-sufficiency, independence, inclusion, and integration into society. Because most school districts and universities in the United States of America receive federal aid, Section 504 of the Rehabilitation Act effectively protects all students in public education from discrimination or limited access to services on the basis of a disability (Cawthon & Cole, 2010). Part E of Section 504 requires that post-secondary institutions provide equal access to academic programs through appropriate accommodations that promote successful learning (Rothman, Maldonado, & Rothman, 2008). Unlike IDEIA, the Rehabilitation Act does not require the student to be designated as a special education student in order to receive services, nor does it require the district or university to pay for these services (Cawthon & Cole).

The Rehabilitation Act of 1997 provides federal grants to states to operate a comprehensive vocational rehabilitation (VR) program designed to assess, plan, develop, and provide VR services to eligible individuals with disabilities to prepare for and engage in, gainful employment (National Council on Disabilities, 2008). Employees, therefore, must be aware of their rights and responsibilities under the law. Services are provided by VR based on eligibility criteria. In order to receive services, the individual must have a physical or mental disability that constitutes or results in substantial impediment to employment; be able to benefit in terms of an employment outcome from vocational rehabilitation services; and requires vocational

rehabilitation services to prepare for, secure, retain, or regain employment. For those who are deemed eligible, a VR counselor is responsible for coordinating all services and helping to develop an individual plan for employment (IPE; National Council on Disabilities, 2008). VR funds Centers for Independent living to provide consumer-directed services (e.g., information and referrals to housing and shelter, peer counseling, independent living skills training, advocacy; Sitlington, Neubert, & Clark, 2010).

Additionally, the Rehabilitation Act authorized supported employment as a service option. Specific emphasis was placed on integrated settings, competitive wages, and the provision of ongoing supports so that individuals with severe disabilities could maintain integrated employment. Title VI, Part C, authorizes grants to assist States in developing collaborative programs with appropriate public agencies and private nonprofit organizations for training and short-term post-employment services leading to employment for individuals with severe disabilities (Metzel, Foley, & Butterworth, 2005).

#### The Americans with Disabilities Act

At the age of majority, individuals with disabilities become eligible for protection against discrimination and for reasonable accommodations under Title 1 of the Americans with Disabilities Act (ADA; Madaus, Gerber, & Price, 2008). The purpose of the ADA is “to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities” (American with Disabilities Act, 2008, p. 5). The ADA mandates the use of reasonable accommodations. Reasonable accommodations include (a) making existing facilities readily accessible to and usable by individuals with disabilities; (b) restructuring the job (e.g., part-time or modified work schedules, reassigning to a vacant position); (c) acquisition or modifying equipment or devices; (d) adjusting or modifying examinations, training materials



or policies; (e) providing qualified readers or interpreters, and (e) making other similar accommodations.

According to Madaus et al. (2008), the ADA is a civil rights law that places the responsibility for self-disclosure and subsequent accommodation requests on the individual with disabilities. Under ADA, students must initiate this process, and are not entitled to protection if they fail to inform the school of their disability. Unfortunately, ADA does not provide precise guidelines on how to determine if a person has a disability or who makes that determination. Once persons are considered to have a disability, they are entitled to accommodations that enable them to engage in activities at the same level as their nondisabled peers. ADA accommodations are not always educationally focused, but are flexible in the kinds of services that can be obtained (Cawthon & Cole, 2010).

#### Best Practices in Working with Youth with EBD

Best practices are those that have evidence of consistently working and achieving the desired goal. Among the best practices designed to assist students with disabilities in transitioning to adulthood are interagency cooperation and collaboration (Goupil, Tasse, Garcin, & Dore, 2002; Morningstar & Benitez, 2004), functional vocational assessment, vocational/technical skills training, social skills training, career education, paid work experience during high school (Goupil et al., 2002; Krieg, Brown, & Ballard, 1995), and individual, parent and family involvement in development of written transition plans (Goupil et al.; Krieg et al.; Kohler & Field, 2003; Morningstar & Benitez, 2004; Pleet, Wandry, & Gursch, 2004). Several specific strategies have been documented for facilitating successful transition in the taxonomy for transition programming (Finn & Kohler, 2010). The five categories of this taxonomy are

student-focused planning, student development, interagency collaboration, family improvement, and program structure and attributes.

To improve outcomes for adolescents with EBD, the students' skills and supports must be increased (e.g., Carter & Lunsford, 2005; Gaylord, Quinn, McComas, & Lehr, 2006). Several secondary practices are associated with students' greater retention and success while in high school and better employment and education outcomes after leaving school: (a) direct, individualized tutoring and support to complete homework assignments, attend class, and stay focused on school; (b) participation in vocational education classes during the last two years of high school, especially classes that offer occupationally specific instruction (Carter & Lunsford); (c) participation in paid work experience in the community during the last years of high school (Carter & Lunsford; Carter et al., 2010; Eisenman, 2003); (d) competence in functional academics (e.g., reading, math, writing, problem-solving) and transition skills (e.g., money management, personal social skills, career awareness, self-advocacy, goal setting); (e) participation in transition planning processes that encourages self-determination (Carter & Lunsford; Morningstar & Benitez, 2004); and (f) direct assistance to understand and connect with resources related to post high school goals (e.g., two-year colleges or universities, community colleges, vocational rehabilitation; Carter & Lunsford). Shandra and Hogan (2008) argued that the challenges of providing transition services are the young adult's lack of a career goal, referrals to proper employment agencies, ability to self-advocate, access to a mentor, and follow-through. In the sections that follow, selected best practices are highlighted.

### Student Involvement

Students should be directly involved in planning for their transition by (a) identifying their own strengths, interests, and needs, (b) making informed decisions regarding their future

goals and interests, and (c) being actively involved in developing vocational, educational, and independent living opportunities (Morningstar & Benitez, 2004). One way to help students become involved in transition is through teaching self-determination. Self-determination is a combination of skills, knowledge and beliefs that enables a person to engage in self-regulated, goal directed, and autonomous behavior. Skills in self-determination include choice-making, decision-making, goal-setting, critical thinking, self-awareness, self-efficacy, problem-solving, and self-advocacy (King, Baldwin, Currie, & Evans, 2006).

Madaus et al. (2008) found that for adults with disabilities, self-determination is a vital need. Carter, Trainor, Sun and Owens (2009) report a strong association between greater self-determination skills and improvement in post-school outcomes. Zhang and Katsiyannis (2002) list recommended practices for self-determination skills as (a) making decisions on issues regarding academic, career, and home life, (b) linking goals to these decisions, (c) managing goals, and (d) determining needed supports. Researchers (e.g., Field & Hoffman, 1998; Wehmeyer, Palmer, Agan, Mithaug, & Martin, 2000) have shown that students who are taught self-determination skills develop the ability to monitor and regulate their own behavior. Self-determination skills help students with EBD reduce their aggressive behavior. Field and Hoffman convey that when transition plans are self-determined, students are more committed to the process, take greater ownership for the outcomes, and adjust to new situations in a personally meaningful and lasting way.

### Social Skills Training

Research findings recommend social skills training with emphasis on interpersonal communication, self-awareness, self-advocacy, and job-keeping skills in order to facilitate the transition from high school to college for adolescents with disabilities (Webb, Patterson,

Syverud, & Seabrooks-Blackmore, 2008). Many adolescents with EBD, because of the nature of their disability, lack the social interaction skills essential to maintaining competitive employment. Appropriate social skills impact employment success, coworker acceptance, and job satisfaction. Thus, one of the most important intervention components for students with EBD in transition is social skills instruction (Carter & Wehby, 2003; Landrum et al., 2003; Maag & Katsiyannis, 1998). Social skills training should be delivered in multiple settings (Carter & Lunsford; Carter & Wehby; Webb et al., 2008) (i.e., regular and special education classrooms, vocational education classrooms, and community-based work settings), to enhance skill generalization beyond the training setting; skills acquired exclusively in self-contained classrooms may not readily transfer to the workplace (Carter & Lunsford; Carter & Wehby). Landrum et al. (2003) assert that social skills interventions for students with EBD must be based on individually targeted behaviors that serve to promote skill acquisition, enhance skill performance, remove competing problem behaviors, and/or facilitate generalization.

Prior to implementing social skills interventions, assessments need to be conducted to identify the skills that the student already possesses, such as his or her social skills strengths, acquisition deficits, and performance deficits. The extent to which strengths and deficits occur in the presence or absence of problem behaviors must also be identified (Webb et al., 2008). In terms of social skills for transition, Maag and Katsiyannis (1998) assert that youth with EBD should be taught socially valid behaviors that allow these youth to function competently in the workplace, attend postsecondary school, and engage in community activities. Carter and Lunsford (2005) give recommendations for social skills training that include (a) social skills training being linked directly to students' social skill deficits, (b) instruction targeting skills that are socially valued within the workplace, (c) social skills training being both frequent and

intense, and (d) social skills instruction addressing students' acquisition, performance, and/or fluency deficits.

### Work Experience

School-directed vocational training has been associated with lower absenteeism and dropout rates, and increased competitive employment. Karpur, Clark, Caproni, and Sterner, (2005) found that young adults with EBD who had paid and unpaid work experiences in high school, graduated and did not have involvement with foster care or the juvenile justice system. According to Carter and Lunsford (2005), schools can equip students with vocational skills in two primary ways. First, students interested in entering the job market should be encouraged to participate in vocational education courses throughout high school. Secondly, students can benefit from receiving on-the-job training with support prior to leaving high school. Such experiences afford students the opportunity to learn firsthand about workplace norms, job responsibilities, and employer expectations which is information that is difficult to convey within a classroom context. Students can gain valuable work experience such as job shadowing, internships, apprenticeships, and supervised work experiences.

Obtaining work experience during high school is among the well-documented predictors of favorable post-school employment outcomes for youth with disabilities (Carter et al., 2010; King et al., 2006). Working during high school can also contribute to the development of autonomy and influencing vocational identity (Carter et al.). Community-based jobs during high school can elevate expectations of parents, educators, employers and the student (Carter et al.). School-based work programs are positively associated with having an annual income, having stable employment, and full-time work. The association between school-based work programs and annual income is consistent over race/ethnicity, gender, severity of disability, household

poverty, educational attainment, and school enrollment status (Shandra & Hogan, 2008). Work opportunities can make important contributions to adolescents' development by helping them formulate future goals and plans, as well as helps them explore their strengths and interests, develop workplace skills and establish relationships in the community (Carter et al., 2010).

### Academic Preparation

Bost and Riccomini (2006) and Webb et al. (2008) delineated principles of evidence-based instruction that increase the opportunities for students with disabilities to have successful outcomes: (a) actively engaging students, (b) providing ways for students to experience success, (c) covering the content and (d) giving students the opportunity to learn, (e) grouping students for instruction, (f) scaffolding instruction, (g) addressing forms of knowledge, (h) organizing and activating knowledge, (I) teaching strategically, (j) giving explicit instruction, and (k) teaching sameness. Niesyn (2009) indicated that direct instruction is an effective instructional technique when working with children with EBD. Niesyn also cites student choice, peer tutoring, teacher's praise, independent work that is scaffold, and increased opportunity to provide correct responses as instructional practices that are effective with students with EBD. Izzo, Yurick, Nagaraja, and Novak (2010) state that educational curriculum must be developed to high academic standards and prepare students for college and careers. Moreover, these authors assert that comprehensive instruction needs to be integrated into core classes as well as into career development and transition. They feel that in the end a portfolio should be developed to guide students from high school to employment or college.

## Transition Assessment

The Division on Career Development and Transition (DCDT) of the Council for Exceptional Children (CEC) views transition assessment as an umbrella term that includes varied assessment practices. It endorses the following definition:

Transition assessment is the ongoing process of collecting data on the individual's strengths, needs, preferences and interest as they relate to the demands of current and future working, educational, living and personal and social environments. Assessment data serve as the common thread in the transition process and form the basis for defining goals and services to be included in the individualized Education Program. (IEP; Sitlington et al., 2010, Neubert, 2003, p. 66)

Neubert (2003) indicates that the purpose of transition assessment is to (a) identify the students' needs, preferences, interests, and abilities in relation to postsecondary goals that may include employment opportunities, postsecondary education and training, independent living, community involvement, and personal or social goals; (b) identify the student's career development to facilitate the planning of appropriate career education and coordinated transition activities; (c) determine an appropriate focus of study and appropriate placement within vocational educational and community settings that will facilitate goal attainment; (d) determine what self-determination skills are needed to participate in regular education and to pursue postsecondary goals, and (e) identify supports, services, accommodations and interagency linkages that the student will need to attain and maintain their postsecondary goals. Transition assessment is designed to provide education teams with information to align supports and services to the individual needs of students with disabilities. It will also assist progress monitoring and educational decisions (Carter, Trainor, Ditchman et al., 2009).

Sitlington and Neubert (1998) list steps to the development of the transition assessment plan. These steps are to (a) determine what information about the student is available, (b) determine what additional information is needed about the student; (c) determine which environments need to be analyzed (e.g., a community college, service job or community recreation facility), and (d) decide how the data will be collected and what formats will be used to organize and present assessment data for use in IEP planning.

A variety of assessment data need to be collected in order to make decisions about placement and services for students. The most critical use of the assessment information is to demonstrate the present level of educational performance (PLEP) on the student's IEP. Transition goals and objectives should come from the results of assessment and PLEPs. These data should have direct implications for instructional programs (Sax & Thoma, 2002). According to Carter, Trainor, Sun, and Owens (2009), studies have reinforced the linking of transition planning with meaningful assessment. Carter and his colleagues (2009) recommend several practices in transition assessment; it should (a) be comprehensive and address a wide range of areas related to post-school activities, (b) be strength-based, (c) incorporate multiple perspectives of individuals who know the student in different contexts, and (d) involve the youth with disabilities in providing information about their strengths and needs across different contexts.

#### Family Involvement

Social support is important in relieving stress associated with changes that occur during transition. Social support has been linked to increased self-esteem (King et al., 2006). Several authors (e.g., Geenen, Powers, & Lopez-Vasquez, 2001; Kohler & Field, 2003; Pleet et al., 2004) indicate that involving families and parents in the IEP process is an essential component of transition programs for students with EBD. Family involvement in school has been shown (a) to



improve attendance, (b) increase higher education attendance, (c) increase assessment scores, (d) improve students' self-esteem and confidence, and (e) reduce dropout rates. According to Pleet et al., families make four critical contributions to the transition planning process: families (a) are the storehouse of information about their son and daughters, (b) can collaboratively coordinate linkages with multiple systems, (c) can support their young adult to develop self-management and self-determination skills and help generalize skills taught in school to other natural community settings, and (d) make valuable contributions to the system that services them.

Defur (2003) gives recommendations to facilitate active involvement of students and their families in the transition planning process. These recommendation are to (a) send home pre-meeting planning tools or the agenda for the meeting so families and students can prepare to share their ideas, (b) begin the meeting with a clear orientation to the transition planning process, the goals of the meeting, and how decisions are made, (c) give attention to and use the input of the family and student, (d) provide opportunities for questions and answers in a structured way, (e) adopt the value that the student is the central agent in the transition planning, and (f) offer opportunities for shared leadership within the meeting. Defur, Todd-Allen, and Getzel (2001) convey that the importance of family involvement extends beyond students with disabilities. As an example, Defur and colleagues cite the standards of the National Parent Teacher Association (NPTA; 2012) as a way to promote school-home partnership. NPTA standards are to promote two-way home communication, support parenting skill development, recognize the integral role parents have in assisting student learning, and expect schools to welcome parents, seek their support and assistance, and expect parents to be treated as full partners in the decisions that affect their children and their families. King et al. (2006) assert that families need support in adjusting to changes that transitioning will bring for their child. Families

need information, emotional support, respite, practical assistance, and skill development. The involvement of family and a support network is important because the student's quality of life depends upon his or her ability to realize their goals with support of those who are closest to them (Morningstar & Benitez, 2004).

### Inter-Agency Collaborations

A key component of transition is coordination and collaboration with a wide range of services and agencies will help ensure that students are supported in achieving their desired outcomes (Morningstar & Benitez, 2004). Research has shown that better post-school success is achieved by youth with disabilities when links between school and post-school services are in place (King et al., 2006; Kohler & Field, 2003) and that weak links are a transition barrier (Kohler & Field; Lehman, Clark, Bullis, Rinkin, & Castellanos, 2002). Other researchers (e.g., Lehman et al., 2002; Morningstar & Kleinhammer-Tramill, 1999) indicate that because schools take the lead in implementing transition planning, teachers and related staff must be informed about different agencies they may call on for assistance. In addition, youth and families need to be provided information and connections that would facilitate accessing adult services such as vocational rehabilitation, adult mental health, drug and alcohol treatment, medical care, and other entitlement programs.

Oertle and Trach (2007) state that one barrier to collaboration is the lack of a relationship development between agencies (e.g., the lack of relationship between special education and rehabilitation counselors that leads to little or no interagency collaboration). Moreover, Oertle and Trach acknowledge that despite evidence that rehabilitation counselors are important to successful transition, they are often underutilized or nonexistent in the planning process. Further,

Oerte and Trach reiterate that collaborative efforts to facilitate transition are often lacking and assert that a commitment to collaboration is essential at all levels of an organization.

According to Anderson-Butcher and Ashton (2004), collaboration is working together to achieve a result through shared responsibility. These authors assert that no agency or professional can succeed in addressing the multiple needs of children and their families alone. Moreover, they contend that collaboration is rooted in the understanding of how children, families, and agencies that serve them are interdependent. Consequently, if the desired result is healthy children and youth, then professionals, community members, families, and the student need to coordinate, communicate and cooperate.

#### Transition Coordinator

According to Maag and Katsiyannis (1998), a major ingredient for making interagency collaboration effective is a strong transition coordinator. These authors suggest that the transition coordinator has seven responsibilities to interagency linkages. Transition coordinators need to (a) identify, establish, and maintain linkages with community agencies, (b) educate adult services about agencies, and school programs and procedures, (c) write cooperative agreements, (d) facilitate referrals to other agencies, (e) lead interagency transition meetings, (f) initiate and maintain collaboration between and among different local education agencies, and (g) link students with postsecondary special support coordinators. According to Lehman et al. (2002), in order for students to succeed in their communities it is important to identify sources of support. These researchers assert that in order to build supports, there must be one individual who is responsible for sustaining a trusting relationship with the young person and helps the youth identify a support team who can best assist the student in accomplishing personal goals.

## Systems of Care

Educators of children with EBD acknowledge that special education alone is not solving the problems of these children and their families. Professionals see the need for a cost effective, integrated network of services at the community level to better support the needs of children with EBD (Dierker, Nargiso, Wiseman, & Hoff, 2001). A goal is to integrate social services into a system of care (Skiba, Polsgrove, & Nostrom, 1996; Stroul & Friedman, 1986). Skiba et al. emphasize several factors that demonstrate a need for a system of care approach to service delivery: (a) the origins of EBD are complex and expressed in different ways, (b) there is a poorer prognosis of success for students with EBD because of poorer social skills, lower academic achievement and higher incidences of psychiatric conditions compared to their peers without EBD (Armstrong et al., 2003), (c) students with EBD tend to be overly represented more in restricted placements (e.g., residential settings, self-contained classes), and (d) students with EBD often “fall through the cracks” due to conflicting requirements, insufficient resources, and difficulties accessing service because of regulations and requirements. The federal definition for diagnosing students with EBD requires that their problems have educational implications because it is intended to determine eligibility for special education services funded under IDEA, whereas, the definition for the mental health system is used as a basis for comprehensive community planning (Wagner et al., 2005).

There are ten guiding principles for the system of care (Freeman, Dogs, Novins, & LeMaster, 2004; Stroul & Friedman, 1986). Children with or at risk for EBD should (a) have access to a comprehensive array of services that address the child’s physical, emotional, social, and educational needs, (b) receive individualized services in accordance with the unique needs and potentials of each child and guided by an individualized service plan, (c) receive services

within the least restrictive, most normative environment that is clinically appropriate, (d) receive services that are integrated, with linkages between child-servicing agencies and programs and mechanisms for planning, developing, and coordinating services, (e) be provided with case management or similar mechanisms to ensure that multiple services are delivered in a coordinated and therapeutic manner and that they can move through the system of services in accordance with their changing needs, (f) be ensured smooth transitions to the adult service system as they reach maturity, (g) receive services without regard to race, religion, national origin, gender, physical disability, or other characteristics, and services should be sensitive and responsive to cultural differences and special needs. Moreover, (h) the families and surrogate families of children with or at risk for EBD should be full participants in all aspects of the planning and delivery of services, (i) early identification and intervention for children with or at risk for EBD should be promoted by the system of care in order to enhance the likelihood of positive outcomes, and (j) the rights of children with or at risk for EBD should be protected and effective advocacy efforts for children and youth with EBD should be promoted. The framework for the system of care consists of eight dimensions of services that are organized into a coordinated network to meet the many and changing needs of adolescents with EBD. The components are all interrelated and the effectiveness of any component is related to the availability of the other (Smith, 1998). Services within the system should be child- and family-centered, based within the community and integrated with linkages between the agencies and components, and culturally competent (Garland, Hough, Landsverk, & Brown, 2001).

### Wraparound

Because of their multiple needs and negative outcomes, adolescents with EBD may be involved in multiple systems. These systems may include the school, mental health, social

services, and juvenile justice, so these linkages are very much needed and are important to the success of these students. Lehman et al. (2002) relay that a growing number of professionals, along with parents and youth, agree that transition support for youth with EBD requires the collaboration between the systems. These researchers also assert that in order to increase the chances for youth with EBD to succeed, it is imperative that sources of support be identified. One suggestion is to use the wraparound approach to identify supports and link the different systems (Bruns, Burchard, Suter, Leverentz-Brady, & Force, 2004; Eber et al., 2002).

The wraparound model has been described as the primary vehicle for applying the system of care philosophy to individual families (Bruns et al., 2004; Scott & Eber, 2003). Wraparound incorporates the core values of the system of care by maintaining a child-centered approach and focusing on family, community, and cultural competence. Wraparound service differs from traditional service delivery systems in that it (a) focuses on strengths of the youth, school, and community, (b) is driven by the needs of the youth, (c) deals with all aspects of the youth's life, (d) provides services in the natural setting with supports from family and friends, and (e) focuses on needs that are basic to all individuals (Mallory, Cheney, & Cormier, 1998). Wraparound has been successful in improving the social behavior and school functioning of youth with EBD. It has also been shown to prevent restrictive placements in mental health, juvenile justice, child welfare, and special education (Scott & Eber, 2003).

According to Hernandez and Hodges (2003), there are three challenges affecting the implementation of systems of care as a clear and consistent package. First, the system of care requires large investments of time and energy and building upon its own successes and failures. Second, the clarity and consistency in the implementation of systems of care is that leadership, staffing, and political support vary over time. Third, agencies are typically loosely linked, even

with the support of formal collaborative mechanisms such as memoranda of understanding or legislated interagency councils.

The effectiveness of the system of care has been researched since its inception. Eber et al. (2002) assert that community-based transitional programs for young adults have increased rates of school completion, career focus, and job performance. These authors also relate that the direct application of wraparound in schools has led to improved outcomes for students with EBD in a variety of educational settings, including general education classrooms. Dierker et al. (2001) reported on two evaluation projects, namely the Fort Bragg evaluation project, and the Ohio student projects. The Fort Bragg project resulted in improved access to services, decreased attrition, and improved family satisfaction and decreased use of inpatient hospitalization. In the Ohio study, there was improved access to community-based services among the children and adolescents who received the systems of care approach. Farmer (2000) asserts that as more youth have been served, agencies within systems have come together to work in more coordinated and integrated ways to meet the needs of children and families. As a result, these youth are less likely to drop out of services prematurely, families express greater satisfaction with services, and changes in how the system is coordinated reduces system-level costs of services.

Anderson, McIntyre, and Somers (2004) described the experiences of three youths and their families in a system of care and indicate that research on outcomes of systems of care initiatives show a reduction in residential placement, improved functional behavior, improved attendance, and improved school behavior. The youth in their study were successful in home environments despite behavioral challenges because the wraparound process was used to address the needs of the child in the home, school, and community instead of using traditional interventions.

Anderson, Houser, and Howland (2010) discussed a program called a Full Purpose Partnership (FPP), a model that integrates wraparound and systems of care with positive behavior supports and interventions. The goal of the program is to address students' health, social, and psychological needs, while building the school's capacities. These authors acknowledge that the school has become the de facto system for mental health and other services, but it is clear that the traditional educational system is not designed to handle the range of health, mental health, social, and psychological problems that children experience. Emerging results of the implementation of the FPP model reveals positive changes to school and school district.

On the other hand, Rosenblatt and Woodridge (2003) indicated that the results of the research on systems of care are contradictory and controversial. But, they assert that even without convincing evidence, the systems of care model has altered the landscape of children's mental health in the United States. Wagner et al. (2005) express that some innovative and effective programs have been developed, but efforts to scale up these programs has not yet succeeded. These authors assert that the education and mental health systems have not established the effective partnerships to improve the outcomes from children with EBD. Kutash, Duchnowski, and Friedman (2005), in evaluating the systems of care 20 years after its inception, report that the systems of care has shown an increase in access to and use of services but clinical and functional outcomes of children served remain unclear. According to Kutash et al., there is a serious dissatisfaction with the efforts to address the mental health of children, adolescents, and their families.



## Discussion

In response to the negative outcomes that were found by NLTS and other research, OSEP in 1994, developed the national agenda for better results for children with serious emotional disturbance (Chesapeake Institute, 1994). This agenda included seven targets. The seventh target was to create comprehensive and collaborative systems by promoting the development of coherent services built around the needs of the individual child or youth. While this is an important target, it has not been fully achieved. Once the youth graduate high school, they are no longer covered under IDEA, but under ADA and Section 504. While best practices say that linkages should be developed before students leave high school, there is seldom a way for schools to follow-up on whether students are following through with transition plans. This is where wraparound and the transition coordinator come into play. Students with EBD need someone to coordinate services after they leave high school. If they are involved in a system of care, this service coordination can continue until they have the skills to advocate and manage for themselves.

On another note, Cooper and Pruitt (2005) suggest that a college campus may be the ideal place for students with EBD to receive well-rounded services that can help them overcome their academic difficulties and address their social and emotional needs. The idea has merit. College campuses can become the center to provide multiple services and case management to students who are enrolled and non-students who need wraparound. As Cooper and Pruitt (2005) noted, college campuses have facilities and personnel, and they can develop relationships with other agencies that serve students.

Youth with EBD are a diverse population with vast issues. They are defined by their characteristics which oftentimes defines their outcome. When compared to youth with other

disabilities, youth with EBD have poorer outcomes and when compared to their same aged peers, youth with EBD have poorer outcomes. In the last decades, there has been slight improvement in outcomes for students with EBD, but they are still involved in the juvenile justice system at a disproportionate rate. As a result, more intensive services are needed to alleviate some of the issues youth with EBD face, especially after they exit high school. Youth with EBD are often involved in multiple systems who need to work together to ensure positive outcomes.

## CHAPTER 3

### METHODOLOGY

This chapter discusses the methods that were utilized to answer the research questions. First, the purpose of the study, statement of the problem, and research questions are revisited. Further, the data source, along with the sampling and data collection methods are presented. Then, the variables examined in the study and the statistics procedures will be delineated.

#### Purpose of the Study

Using data from of the National Longitudinal Transition Study-2 (NLTS2; Wagner et al., 2005), this study analyzed the relationship between access to services and outcomes for youth with emotional and behavioral disorders (EBD). The purpose of this study was to show a relationship between utilization of multiple services and the attainment of paid employment, and/or attending post-secondary education.

#### Statement of the Problem

Through the mandates in Individual with Disabilities Education Act (IDEA) (1990; 1997) and the Individual with Disabilities Education Improvement Act (IDEIA) (2004), the federal government set a goal for students with disabilities to achieve positive post-high school outcomes. While the mandates accelerated research and the utilization of best practices in transition planning, outcomes for students with disabilities are still lagging behind their peers without disabilities; this is especially true for students with emotional and behavioral disorders (EBD). Youth with EBD have a pattern of continued poor outcomes which is indicative that there needs to be an increased focus on intensified supports with an aim of improving their outcomes.

In 1994, the Office of Special Education Programs (OSEP) of the U.S. Department of Education developed a national agenda for achieving better results for students with EBD

(Chesapeake Institute, 1994). This agenda was developed because of the magnitude of problems faced by the EBD population (e.g., lower grades, lower high school completion rates, high absenteeism, involvement with the juvenile justice system, restrictive placements). The agenda outlined seven strategic targets to help improve the outcomes for youth with EBD: (a) expanding positive learning opportunities and results, (b) strengthening school and community capacity, (c) valuing and addressing diversity, (d) collaborating with families, (e) promoting appropriate assessment, (f) providing ongoing skill development and support, and (g) creating comprehensive and collaborative systems.

In 2011, more than a decade since the national agenda was developed, the United States Department of Education in its *Thirtieth Annual Report to Congress on the Implementation of IDEA* indicated that children and students ages 3 through 21 who were served under IDEA, Part B, under the category of emotional disturbance: (a) consistently had the lowest graduation percentages from 1996–97 through 2005–06; (b) had substantially higher dropout rates than the next highest disability category; (c) had the highest rates of removal to an interim alternative educational setting by school personnel for drug or weapon offenses in school year 2005–06, compared to children and students in all other disability categories; (d) had the highest rates of removal to an interim alternative educational setting by a hearing officer for likely injury to themselves or others in school year 2005–06, compared to children and students in all other disability categories; and (e) were more likely to be suspended or expelled for more than 10 days than children and students with other disabilities. Moreover, the research literature indicates that two years after leaving school, 50% of students with EBD were employed, and 17% were enrolled in post-secondary education programs (Cheney, Martin & Rodriguez, 2004; Wagner, Kutash, Duchnowski & Epstein, 2005). In addition, 62% of students with EBD exited high school

without documentation (Test, Fowler, White, Richter, & Walker, 2009) and many are involved with the justice system with an arrest rate of 58% (Smith, Katsiyannis, & Ryan, 2011).

### Research Questions

This study was guided by three research questions.

- Research Question 1: What is the relationship between accessing services during high school/post-secondary or both, and paid employment or attending post-secondary education?
- Research Question 2: What is the relationship between types of services accessed during high school/post-secondary and paid employment or attending post-secondary education?
- Research Question 3: As it applies to post-secondary services, what is the relationship between the age of the youth, the timing of the service, and the amount of services to achieving paid employment or attending post-secondary education?

### Description of the National Longitudinal Transition Study-2

The present study is a secondary analysis of the National Longitudinal Transition Study-2. NLTS2 was a follow up study to the original NLTS which was commissioned by the U.S Department of Education (National Center Secondary Education and Transition, 2002b). The original NLTS was a nationally representative cohort of 8000 students with disabilities who were followed from 1985 to 1993 which corresponded with their 10th grade year until five years after high school (Wilson, Hoffman, & McLaughlin, 2009). NLTS sampled in two stages. First a sample of 450 school districts was randomly selected from all school districts serving students in grade 7 or above in special education. Sampling was stratified by region of the country, a measure of district wealth involving the proportion of students in poverty, and student enrollment. Students were then selected from rosters compiled by districts, which were

instructed to include all students in special education in the 1985-86 school year who were in grades 7 through 12 or whose birthdays were in 1972 or before. Data were collect through school records, school surveys and parent telephone interviews. NLTS provided a wealth of knowledge on a wide range of outcomes including school performance and school completion, social integration, arrest rates, employment status and quality, and independent functioning (SRI International, 2007).

NLTS2 collected data from students receiving special education services who were between the ages of 13-16 years old during the 2000-2001 school year. These participants were at least in the 7<sup>th</sup> grade and were tracked for 10 years (Shaw, 2009; Wilson et al., 2009). SRI International conducted the study with the support of the Institute of Educational Science (n.d). NLTS2 focused on factors such as high school coursework and placement, academic performance, extracurricular activities, postsecondary education and training, adult services, employment, independent living, and community participation (National Center Secondary Education and Transition, 2002b).

### Sampling

NLTS2 sampling was conducted in two stages. In Stage 1, there was a random sampling of over 500 school districts or local education agencies (LEAs). This sampling was stratified to represent the nation according to geographic region, enrollment, socioeconomic status of the school district, and all of the special schools that provide services to students with visual and hearing impairments in the state. In Stage 2, the LEAs and state supported schools provided rosters of students to the study and from those rosters students were selected randomly within each of the 12 disability categories. Approximately 1,000 students made up most categories except for the low-incidence categories of traumatic brain injury and deaf/blindness. The study

utilized approximately 11,270 youths with disabilities and can be generalized to each disability category as well, as each age cohort. The sample was statistically weighted to represent the relative sizes of the disability categories nationally (National Center Secondary Education and Transition, 2002b).

#### Data Collection

NLTS2 collected data from parents, youth, teachers, and school administrators. The data collection methods used were telephone interviews, mail surveys, face-to-face assessments and transcripts collected from the schools. Data were collected in five waves. For this study, the parent and youth interviews are the focus of analyses. Appendix A includes a sample of questions asked via phone interview. A copy of the complete surveys is available at the NLTS2 website, [www.NLTS2.org](http://www.NLTS2.org) (NLTS2, 2001-1010). Parents and guardians were interviewed every two years from Waves 1 through 5. The interviews were conducted through computer-assisted telephone interviewing (CATI) or mailed surveys. The youths were interviewed in Waves 2 through 5.

The present analyses utilized Waves 4 and 5 data which were collected in 2006-2007 and 2008-2009 respectively (National Longitudinal Transition Study-2, 2001-2010). Wave 5 was the primary data set used while data pertaining to services while in-high school (np4F1a\_a to np4F1a\_u) came from Wave 4. All participants were out of high school by the time Wave 5 data were collected which necessitated using Wave 4 to answer questions about services while in-high school. Wave 5 had a sample size of 5,320. This study specifically focused on the participants in the EBD disability category ( $n = 410$  for Wave 5). Each disability category was weighted to reflect the population as a whole and the weighted sample matched known characteristics of the population (e.g., age, race, ethnicity). For each disability category, weights

were calculated by multiplying the number of students with that disability on the rosters of the school by the inverse of the proportion of state schools that submitted rosters. Weights differed in each Wave and in each instrument (Institute for Education Sciences, n.d.). This study used full sample weights for Wave 5.

## Variables

This study analyzed adult outcomes and service provisions for youth with EBD. The outcomes include attending post-secondary education and obtaining employment. For research questions one and two, the outcome variables used in the analysis were *young adult who had ever attended a postsecondary institution since leaving high school if reported in any Wave* (np5A3a\_A3e\_A3i\_ever) and *young adult had ever worked for pay other than work around house if reported in any Wave* (np5HadPdJob\_Ever). The post-secondary institution attendance variable is a combination of attendance at a 2-year/community college, a vocational/technical school, and a 4-year college/university. For research question three the outcome variables utilized were *young adult attended a post-secondary institution since leaving high school as reported in current Wave* (np5A3a\_A3e\_A3i) and *young adult had a paid job since leaving high school and/or in the past 2 years* (np5HadPdJob).

Study participants were asked questions about services they received during and after high school. Participants were able to pick from a list of services or write in services they received if they completed a paper survey (Institute for Education Sciences, n.d.; National Longitudinal Transition Study-2, 2001-2010). The independent variables for this analysis consisted of seventeen to twenty-one service type depending on whether the youth were receiving secondary or post-secondary services, (e.g., np5C1a\_a\_Ever to np5C1a\_u\_Ever). Specifically, the services were (a) vocational services/job training, (b) financial assistance, (c)



tutoring/educational assistance, (d) reader or interpreter, (e) occupational/life skills therapy/training, (f) childcare/parenting skills, (g) psychological/mental health services, (h) social work services, (i) physical therapy, (j) assistive technology/devices, (k) transportation services, (l) medical services for diagnosis/evaluation, (m) speech or language therapy, (n) audiology services, (o) orientation/mobility services, (p) respite care since leaving high school, (q) adult day program/adult recreation, (r) housing assistance/residential services, (s) personal assistant/aide, (t) nursing care, and (u) case manager. There was also an age variable (W5\_Age2009) and time of services variables that was broken down into services youth received in the past 2 years (np5C1a1\_a to np5C1a1\_u), services youth received since high school (np5C1a\_a to np5C1a\_u), and services youth currently receive (np5C1b\_a to np5C1b\_u). From Wave 4, services received while in-high school variables were used (np4F1a\_a to np4F1a\_q). A more detailed description of variables used in the analysis is located in Appendix B.

### Statistical Analysis for Research Questions

To answer the research questions, the following statistical procedures were utilized.

Research Question 1: What is the relationship between accessing services during high school, post-secondary, or both, and paid employment or attending post-secondary education?

For question 1, data were recoded to represent services received compared to the outcome measure. Data were aligned based on the participant's identification number. Each participant answered yes = 1 or no = 0 to whether they received a particular service. These answers were then totaled giving an amount of services total for each participant. The amounts were then grouped based on number of participants. This new variable was labeled "groupever." To assess the component of the question that dealt with services both in-high school and after high school, services were matched and recoded as a combination of in-high school and after high school

services (e.g., BothFin for financial services in-high school and post-secondary). Since data collected were dichotomous, a cross tab that utilizes the Pearson's chi square was used to test the significance of the relationships. Cramer's V coefficient was used to test the strength of the relationship. Cramer's V coefficient requires that a Pearson's chi square test be conducted first to test significance (Garson, 2008). The formula to calculate is  $V = \sqrt{X^2 / (n(k - 1))}$  where X squared is the chi-square and k is the number of rows or columns in the table.

Research Question 2: What is the relationship between type of services accessed during high school /post-secondary and paid employment or attending post-secondary education?

For question 2, each individual service was compared to the outcomes. A "both" variable was also calculated. A crosstab with Pearson's chi square was performed to test for significance. To test the relationship, a phi coefficient was utilized. The phi coefficient requires that chi square test be conducted first to test significance (Garson, 2008). The formula to calculate phi is below. The X squared is the chi square and n is the sample size.

$$\phi = \sqrt{\frac{\chi^2}{n}}$$

Research Question 3: As it applies to post-secondary services, what is the relationship between the age of the youth, the timing of the service, and the amount of services to achieving paid employment or attending post-secondary education?

To assess the effects of age, timing, and amount of services, a logistic regression was used. The timing and amount of services are combined variables. These variables include service amounts 2 years after high school, since high school, and currently. Logistic regression does not assume a linear relationship between the dependent and independent variables. Independent variables are not required to be in intervals, normally distributed, linearly related, or of equal

variance within each group. Each category or group must be mutually exclusive and exhaustive; a case can only be in one group and every case must be a member of one of the groups (Burns & Burns, 2009, p.571). The formula for logistic regression is:

$$f(z) = \frac{e^z}{e^z + 1} = \frac{1}{1 + e^{-z}}$$

#### Summary

Chapter 3 gave a description of the data set to be used in the analysis and its sampling methods.

It also discussed the variables used and the method for analysis. Chapter 4 discusses the results.

## CHAPTER 4

### RESULTS AND DISCUSSION

Chapter 4 presents the results derived from the secondary analysis of National Longitudinal Transition Study- 2 (NLTS-2, 2001-2010). The analysis was aimed at examining the relationship between services and post-secondary outcomes, that is, the relationship between utilization of multiple services and the attainment of paid employment, and/or attending post-secondary education. This chapter describes the subsample, examine each question, and discuss the results.

#### Demographics Information

The secondary analysis included only the subsample of participants designated as emotional disturbed by their school district (DIS\_ED district designated ED) in Wave 4 and Wave 5. Wave 5 was the primary data source along with data from Wave 4 being used for in-school variables only. Data from both waves were matched by identification number of participants. The analysis was completed using both unweighted and weighted samples. Weights are applied in order to estimate the population of youth with emotional or behavioral disorders (EBD). Weights were calculated by multiplying the number of students with that disability on the rosters of the school by the inverse of the proportion of state schools that submitted rosters. Weights differed in each wave and in each instrument (Institute for Education Sciences, n.d.). The subsample of participants in Wave 5 was  $n = 410$  and  $n = 233,512$  when the full sample weights were applied (see Table 1). The gender composition of the unweighted sample was 72% male and 28% female; weighted estimates were 73.4% males and 26.6% females (see Table 2). As seen in Table 3, the majority of the participants were White for both the weighted and unweighted samples. Weighted estimate was 62 % White with the next highest group being

African American at 26% (Table 3). Respondents' age range was from age 21 to age 25 (see Table 4).

Table 1

*Unweighted and Weighted Samples of District Designated Emotionally Disturbed Youth*

	Frequency	Percent
unweighted	410	100.0
weighted	233,512	100.0

Table 2

*Gender of Participants for Unweighted and Weighted Samples of District Designated Emotionally Disturbed Youth*

	Gender	Frequency	Percent
Unweighted	Male	300	72.0
	Female	110	28.0
	Total	410	100.0
Weighted	Male	171,346	73.4
	Female	62,165	26.6
	Total	233,512	100.0

Table 3

*Ethnicity of Participants for Unweighted and Weighted Samples*

	Ethnicity	Frequency	Percent
Unweighted	White	300	73.5
	African-American	60	15.1
	Hispanic	40	9.5
	Asian/Pacific Islander	0	.5
	American Indian/Alaska Native	10	1.2
	Missing	0	.5
Total		410	100.0
Weighted	White	146,089	62.6
	African-American	59,706	25.6
	Hispanic	22,451	9.6
	Asian/Pacific Islander	334	.1
	American Indian/Alaska Native	3,971	1.7
	Missing	960	.4
Total		233,512	100.0

Table 4

*Age of Youth at the Time of Wave 5 Interview*

	Age of Youth	Frequency	Percent
Unweighted	21	30	8.0
	22	100	24.1
	23	110	26.0
	24	100	23.8
	25	70	18.0
	Total	410	100.0
Weighted	21	21,694	9.3
	22	53,807	23.0
	23	55,675	23.8
	24	54,684	23.4
	25	47,652	20.4
	Total	233,512	100.0

Analysis of Data

A discussion of the finding based on each research question will be presented in this section.

Research Question 1: What is the relationship between accessing services during high school/post-secondary or both, and paid employment or attending post-secondary education?

Question 1 was posed to assess whether receiving services was related to the outcomes of attending post-secondary education or paid employment. Using the variable “groupever” which is the individual total number of services received, and “inschgroupever” which is total number of services received by participants who were in high school in Wave 4, Crosstabs with

Pearson's chi-square analysis was conducted using IBM SPSS. No significant relationships were found for any of the variables assessed. Table 5a reports results on those who attended a postsecondary institution with the individual total number of services received (groupever). Table 5b reports results for those who had paid employment with the individual total number of services received (groupever).

Specifically, there was no relationship between individual total number of services received and attending a post-secondary institution ( $\chi^2 (4) = 2.002, p = .735, \text{Cramer's } V = .082$ ). As noted in Table 5a, participants who received 4 to 5 services and 6 to 12 services represented 58.8 % and 61.8% of the participants who said that they attended a post-secondary institution. There was also no relationship between individual total number of services received and having had paid employment ( $\chi^2 (4) = 3.349, p = .501, \text{Cramer's } V = .106$ ). Table 5b shows that participants who received 4 to 5 services and 6 to 12 services represented 98% and 92.6% of participants who said they have had paid employment.

There was no relationship between total number of services received by participants who were in high school (inschevergroup) and attending a post-secondary institution ( $\chi^2 (7) = 9.031, p = .250, \text{Cramer's } V = .174$ ). There was also no relationship between total number of services received by participants who were in high school (inschevergroup) and having had paid employment ( $\chi^2 (7) = 13.232, p = .067, \text{Cramer's } V = .210$ ). The total number of participants accessing services who were in school in Wave 4 was very small. Table 6b reports results for *attended postsecondary institution* and Table 6a reports results for *had paid employment with total number of services received by participants who were in-high school* (inschevergroup).



Table 5a

*Attended a Post-Secondary Institution Since Leaving High School by Individual Total Number of Services Received (GroupEver)  
Crosstabulation*

Dependent Variable	Attended Post-Sec. Inst.	Comparison	GroupEver: Number of Services Received				
			1	2	3	4 to 5	6 to 12
Young adult ever attended a postsecondary institution since leaving high school (if reported in any Wave)	No	Count	30	30	20	21	30
		% within young adult ever attended a postsecondary institution since leaving high school	26.8%	21.1%	13.8%	17.1%	21.1%
		% within GroupEver	48.5%	40.0%	37.8%	41.2%	38.2%
		% of Total	11.1%	8.8%	5.7%	7.1%	8.8%
	Yes	Count	40	40	30	30	40
		% within young adult ever attended a postsecondary institution since leaving high school	20.1%	22.4%	16.1%	17.2%	24.1%
		% within GroupEver	51.5%	60.0%	62.2%	58.8%	61.8%
		% of Total	11.8%	13.1%	9.4%	10.1%	14.1%

*Note:*  $\chi^2(4) = 2.002, p = .735$ , Cramer's  $V = .082, n = 300$

Table 5b

*Young Adult Has Ever Worked For Pay Other Than Work Around House by Individual Total Number of Services Received (GroupEver) Crosstabulation*

Dependent Variable	Worked For Pay	Comparison	GroupEver: Number of Services Received					
			1	2	3	4 to 5	6 to 12	
Young adult has ever worked for pay other than work around house (if reported in any Wave)	No	Count	0	0	0	0	10	
		% within young adult has ever worked for pay other than work around house	15.4%	15.4%	23.1%	7.7%	38.5%	
		% within GroupEver	2.9%	3.1%	6.7%	2.0%	7.4%	
		% of Total	0.7%	0.7%	1.0%	0.3%	1.7%	
		Yes	Count	70	60	40	50	60
			% within young adult has ever worked for pay other than work around house	23.5%	22.1%	14.7%	17.5%	22.1%
	% within GroupEver		97.1%	96.9%	93.3%	98.0%	92.6%	
	% of Total		22.5%	21.1%	14.1%	16.8%	21.1%	

*Note:  $\chi^2(4) = 3.347, p = .501, \text{Cramer's } V = .106 \text{ } n = 300$*

Table 6a

*Young Adult has Ever Worked for Pay Other Than Work Around House by Total Number of Services Received by Participants Who Were in High School (Inschevergroup) Crosstabulation*

Dependent Variable	Worked For Pay	Comparison	Inschevergroup: Number of Services Received In-High School							
			1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00
Young adult has ever worked for pay other than work around house (if reported in any wave)	No	Count	0	0	0	0	10	0	0	0
		% within Young adult has ever worked for pay other than work around house	15.4%	15.4%	15.4%	7.7%	38.5%	7.7%	0.0%	0.0%
		% within inschevergroup	2.9%	3.0%	4.5%	2.1%	7.6%	50.0%	0.0%	0.0%
		% of Total	0.7%	0.7%	0.7%	0.3%	1.7%	0.3%	0.0%	0.0%
	Yes	Count	70	60	40	50	60	0	0	0
		% within Young adult has ever worked for pay other than work around house	23.6%	22.2%	14.6%	16.3%	21.2%	0.3%	1.0%	0.7%
		% within inschevergroup	97.1%	97.0%	95.5%	97.9%	92.4%	50.0%	100.0%	100.0%
		% of Total	22.6%	21.3%	14.0%	15.6%	20.3%	0.3%	1.0%	0.7%

Note:  $\chi^2 (7) = 13.232, p = .067, \text{Cramer's } V = .210 \text{ } n = 300$

Table 6b

*Attended a Post-Secondary Institution Since Leaving High School by Total Number of Services Received by Participants Who Were in High School (Inschevergroup) Crosstabulation*

Dependent Variable	Attended Post-Sec. Inst.	Comparison	Inschevergroup: Number of Services Received In-High School							
			1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00
Young adult ever attended a postsecondary institution since leaving high school (if reported in any wave)	No	Count	30	30	20	20	20	0	0	0
		% within attended a postsecondary institution since leaving high school	27.2%	20.8%	12.8%	16.0%	19.2%	1.6%	0.8%	1.6%
		% within inschevergroup	50.0%	39.4%	36.4%	41.7%	36.4%	100.0%	33.3%	100.0%
		% of Total	11.4%	8.7%	5.4%	6.7%	8.0%	0.7%	0.3%	0.7%
	Yes	Count	30	40	30	30	40	0	0	0
		% within attended a postsecondary institution since leaving high school	19.5%	23.0%	16.1%	16.1%	24.1%	0.0%	1.1%	0.0%
		% within inschevergroup	50.0%	60.6%	63.6%	58.3%	63.6%	0.0%	66.7%	0.0%
		% of Total	11.4%	13.4%	9.4%	9.4%	14.0%	0.0%	0.7%	0.0%

Note:  $\chi^2 (7) = 9.031, p = .250, \text{Cramer's } V = .174 \quad n = 300$

Research Question 2: What is the relationship between types of services accessed during high school/post-secondary and paid employment or attending post-secondary education?

Cross tabulation with Pearson's chi-squares analysis were conducted for all variables in relation to the two outcome variables--post-secondary institution attendance and paid employment. In-school services and post-secondary services were matched except for four variables--childcare, adult daycare, housing and case manager, and coded for the "both" variable and place in the analysis. The significant results follow.

*Services since leaving school with post-secondary institution attendance.* The first significant relationship was that of youth who ever attended a post-secondary institution and youth who received vocational services or job training since leaving high school. For this analysis the number of valid cases was 400,  $\chi^2 (1) = 19.460, p > .000, \phi = .220$ . A phi coefficient of .220 indicates a small positive relationship. Youth who said that they received vocational services or job training were 66% more likely to attend a post-secondary institution. Youth who said that they did not receive vocational services or job training was 73% less likely to attend a post-secondary institution (see Table 7).

Table 7

*Young Adult has Ever Had Vocational Services/Job Training and Young Adult Who Ever Attended a Post-Secondary Institution Since Leaving High School Crosstabulation*

Dependent Variable	Attended Post-Sec Inst.	Comparison	Young adult has ever had vocational services/job training since leaving high school	
			No	Yes
Young adult ever attended a postsecondary institution since leaving high school (if reported in any Wave)	No	Count	140	50
		% within young adult ever attended a postsecondary institution since leaving high school	73.1%	26.9%
		% within young adult has ever had vocational services/job training since leaving high school	56.6%	34.0%
		% of Total	35.1%	12.9%
	Yes	Count	110	100
		% within young adult ever attended a postsecondary institution since leaving high school	51.7%	48.3%
		% within young adult has ever had vocational services/job training since leaving high school	43.4%	66.0%
		% of Total	26.9%	25.1%

*Note:*  $\chi^2 (1) = 19.460, p > .000, \text{phi} = .220, n = 400$

The second significant correlation was that of attendance at a post-secondary institution and receiving financial assistance (e.g., aid, disability waiver, SSI, Medicaid). The number of valid cases for this analysis was 400. The chi square statistic was (1) 23.148,  $p > .000$  with  $\phi = .240$ . As indicated in Table 8, youth who said that they received financial assistance (e.g., aid, disability waiver, SSI, Medicaid) were 87.9% more likely to attend a post-secondary institution. Youth who said that they did not receive financial assistance (e.g., aid, disability waiver, SSI, Medicaid) was 93.8% less likely to attend a post-secondary institution. A phi coefficient of .240 indicates a small positive relationship.

The third significant correlation was that of attendance at a post-secondary institution and educational assistance. The number of valid cases for this analysis was 400. The  $\chi^2 (1) = 67.287$ ,  $p > .000$  with  $\phi = .409$  which is a moderate relationship. Table 9 is the crosstabs for this analysis which indicates that youth who said that they received tutoring/education/educational assistance were 87.8% more likely to attend a post-secondary institution. Youth who said that they did not receive tutoring/education/educational assistance were 97.4% less likely to attend a post-secondary institution.

Table 8

*Young Adult Has Ever Had Financial Services and Young Adult Who Ever Attended a Post-Secondary Institution Since Leaving High School Crosstabulation*

Dependent Variable	Attended Post-Sec Inst.	Comparison	Young adult has ever had financial assistance (aid, disability waiver, SSI, Medicaid) since leaving high school	
			No	Yes
	No	Count	180	10
Young adult ever attended a postsecondary institution since leaving high school (if reported in any Wave)		% within attended a postsecondary institution since leaving high school	93.8%	6.2%
		% within young adult has ever had financial assistance (aid, disability waiver, SSI, Medicaid) since leaving high school	59.5%	12.1%
		% of Total	44.9%	3.0%
	Yes	Count	120	100
		% within attended a postsecondary institution since leaving high school	58.6%	41.4%
	% within young adult has ever had financial assistance (aid, disability waiver, SSI, Medicaid) since leaving high school	40.5%	87.9%	
	% of Total	30.5%	21.6%	

Note:  $\chi^2 (1) = 23.148, p > .000, \phi = .240, n = 400$



Table 9

*Young Adult Has Ever Had Tutoring/Education/Educational Assistance and Young Adult Who Ever Attended a Post-Secondary Institution Since Leaving High School Crosstabulation*

Dependent Variable	Attended Post-Sec Inst.	Comparison	Young adult has ever had tutoring/education/educational assistance since leaving high school	
			No	Yes
Young adult ever attended a postsecondary institution since leaving high school (if reported in any wave)	No	Count	190	10
		% within young adult ever attended a postsecondary institution since leaving high school	97.4%	2.6%
		% within young adult has ever had tutoring/education/educational assistance since leaving high school	51.8%	12.2%
		% of Total	46.5%	1.2%
	Yes	Count	170	40
		% within young adult ever attended a postsecondary institution since leaving high school	82.9%	17.1%
		% within young adult has ever had tutoring/education/educational assistance since leaving high school	48.2%	87.8%
		% of Total	43.3%	9.0%

Note:  $\chi^2 (1) = 67.287, p >.000, \phi = .409, n = 400$

*Services since high school with paid employment.* There was one significant correlation for high school with working for pay; it was correlated with personal assistant/aide. The number of valid cases was 400. The  $\chi^2 (1) = 8.725, p >.003$  with  $\phi = -.147$  indicating a small negative

relationship. Youth who said that they had a personal assistant/aide were 82.6% less likely to have had paid employment. Youth who said that they did not receive personal assistant/aide were 78.9% more likely to have had paid employment (see Table 10).

Table 10

*Young Adult Has Ever Had Personal Assistant/Aide Since Leaving High School and Young Adult Has Ever Worked For Pay Other Than Work Around House Crosstabulation*

Dependent Variable	Worked for Pay	Comparison	Young adult has ever had personal assistant/aide since leaving high school	
			No	Yes
Young adult has ever worked for pay other than work around house (if reported in any Wave)	No	Count	20	0
		% within young adult has ever worked for pay other than work around house	78.9%	21.1%
		% within young adult has ever had personal assistant/aide since leaving high school	3.9%	17.4%
		% of Total	3.7%	1.0%
	Yes	Count	370	20
		% within young adult has ever worked for pay other than work around house	95.1%	4.9%
		% within young adult has ever had personal assistant/aide since leaving high school	96.1%	82.6%
		% of Total	90.6%	4.7%

Note:  $\chi^2 (1) = 8.725, p > .003, \text{Phi} = -.147, n = 400$

*Services in both high school and post-secondary with attending a post-secondary institution.* Services were matched using the participants' identification number and new variables were developed for services received both in-high school and post-secondary. While significant correlations were found for variables in the both in-high school and post-secondary categories, it must be taken with some caution because the in-high school sample size was very low.

A significant correlation was found between receiving vocational services in high school and after high school with attending a post-secondary institution. The number of valid cases was 400,  $\chi^2 (2) = 15.871, p > .000$  with Cramer's  $V = .199$  indicative of a small positive relationship. As indicated in Table 11, youth who received vocational services both in-high school (57.1%) and post-secondary (64.7%) were more likely to attend a post-secondary institution. Youth who said that they did not receive vocational services in both post-secondary and high school were 71% less likely to attend a post-secondary institution.

There was a significant correlation between attending a post-secondary institution and receiving educational services both in high school and post-secondary. The number of valid cases was 380. The  $\chi^2 (2) = 11.275, p > .004$  with Cramer's  $V = .172$  is indicative of a small positive relationship. Youth who received educational services both in high school (100%) and post-secondary (80%) were more likely to attend a post-secondary institution. Youth who said that they did not receive vocational services in both post-secondary and high school were 96.7% less likely to attend a post-secondary institution (see Table 12).

Table 11

*Young Adult Ever Attended a Post-Secondary Institution Since Leaving High School and Receiving Vocational Services In-High School and in Post- Secondary (Bothvoc) Crosstabulation*

Dependent Variable	Attended Post-Sec Inst.	Comparison	Bothvoc		
			.00	1.00	2.00
Young adult ever attended a postsecondary institution since leaving high school (if reported in any Wave)	No	Count	140	50	0
		% within attended a postsecondary institution since leaving high school	71.0%	27.5%	1.6%
		% within bothvoc	55.9%	35.3%	42.9%
		% of Total	34.1%	13.2%	0.7%
	Yes	Count	110	100	0
		% within attended a postsecondary institution since leaving high school	51.7%	46.4%	1.9%
		% within bothvoc	44.1%	64.7%	57.1%
		% of Total	26.9%	24.1%	1.0%

Note:  $\chi^2 (2) = 15.871, p > .000, \text{Cramer's } V = .199, n = 400$

Table 12

*Young Adult Ever Attended a Post-Secondary Institution Since Leaving High School and Receiving Educational Services In-High School and in Post- Secondary (BothED) Crosstabulation*

Dependent Variable	Attended Post-Sec Inst.	Comparison	BothED			
			.00	1.00	2.00	
Young adult ever attended a postsecondary institution since leaving high school (if reported in any wave)	No	Count	180	10	0	
		% within young adult ever attended a postsecondary institution since leaving high school	96.7%	3.3%	0.0%	
		% within bothED	50.6%	20.0%	0.0%	
		% of Total	46.5%	1.6%	0.0%	
		Yes	Count	170	20	0
			% within young adult ever attended a postsecondary institution since leaving high school	87.4%	12.1%	0.5%
	% within bothED		49.4%	80.0%	100.0%	
	% of Total		45.4%	6.3%	0.3%	

Note:  $\chi^2 (2) = 11.275, p > .004$ , Cramer's V = .172,  $n = 380$

A significant correlation was found between attending a post-secondary institution and receiving financial services both in high school and post-secondary. The number of valid cases was 400,  $\chi^2 (2) = 62.618, p > .000$  with Cramer's V = .394, which is a positive relationship. As

indicated in Table 13, youth who received financial services both in high school (100%) and post-secondary (86%) were more likely to attend a post-secondary institution. Youth who said that they did not receive financial services in both post-secondary and high school were 92.7% less likely to attend a post-secondary institution.

Table 13

*Young Adult Ever Attended a Post-Secondary Institution Since Leaving High School and Receiving Financial Services In-High School and in Post- Secondary (BothFin) Crosstabulation*

Dependent Variable	Attended Post-Sec Inst.	Comparison	BothFin		
			.00	1.00	2.00
Young adult ever attended a postsecondary institution since leaving high school (if reported in any Wave)	No	Count	180	10	0
		% within young adult ever attended a postsecondary institution since leaving high school	92.7%	7.3%	0.0%
		% within bothFin	59.3%	14.0%	0.0%
		% of Total	44.4%	3.5%	0.0%
	Yes	Count	120	90	0
		% within young adult ever attended a postsecondary institution since leaving high school	58.6%	41.0%	0.5%
		% within bothFin	40.7%	86.0%	100.0%
		% of Total	30.5%	21.3%	0.2%

Note:  $\chi^2(2) = 62.618$ ,  $p > .000$ , Cramer's V = .394,  $n = 400$

*Services in both high school and post-secondary with paid employment.* The next significant correlation examined receiving speech services during and after high school with paid employment. The number of valid cases was 390,  $\chi^2 (2) = 20.851, p > .000$  with a Cramer's V of .231, which is a positive relationship. As indicated in Table 14, youth who received speech services both in high school and post-secondary were more likely to have had paid employment. Youth who said that they did not receive speech services in both post-secondary and high school were 88.9% less likely to have had paid employment.

Table 14

*Young Adult Has Ever Worked For Pay Other Than Work Around House and Receiving Speech Services In-High School and in Post-Secondary (BothSpeech) Crosstabulation*

Dependent Variable	Worked For Pay	Comparison	BothSpeech		
			.00	1.00	2.00
Young adult has ever worked for pay other than work around house (if reported in any Wave)	No	Count	20	0	0
		% within young adult has ever worked for pay other than work around house	88.9%	5.6%	5.6%
		% within BothSpeech	4.3%	5.0%	100.0%
		% of Total	4.1%	0.3%	0.3%
	Yes	Count	360	20	0
		% within young adult has ever worked for pay other than work around house	94.9%	5.1%	0.0%
		% within BothSpeech	95.7%	95.0%	0.0%
		% of Total	90.6%	4.8%	0.0%

*Note:*  $\chi^2 (2) = 20.851, p > .000$ , Cramer's V = .231,  $n = 390$

A significant correlation was found between receiving respite services during and after high school and working for pay (see Table 15). The number of valid cases was 400,  $\chi^2 (1) = 11.139, p > .001$  with a Cramer's V = .166, which is a small positive relationship. Participants who indicated that they received respite services both in high school (66.7%) and in post-secondary (95.7%) were more likely to have had paid employment.

Table 15

*Young Adult Has Ever Worked For Pay Other Than Work Around House and Receiving Respite Services In-High School and in Post-Secondary (BothRES) Crosstabulation*

Dependent Variable	Worked For Pay	Comparison	BothRES	
			.00	1.00
Young adult has ever worked for pay other than work around house (if reported in any Wave)	No	Count	20	0
		% within young adult has ever worked for pay other than work around house	89.5%	10.5%
		% within BothRES	4.3%	33.3%
		% of Total	4.2%	0.5%
	Yes	Count	380	0
		% within young adult has ever worked for pay other than work around house	99.0%	1.0%
		% within BothRES	95.7%	66.7%
		% of Total	94.3%	1.0%

Note:  $\chi^2 (1) = 11.139, p > .001$ , Cramer's V = .166,  $n = 400$



A significant correlation was found between having a personal assistant/aide during and after high school and working for pay. The number of valid cases was 400,  $\chi^2 (1) = 13.086, p >.000$  with a Cramer's V = .180 which is a small positive relationship. As indicated in Table 16, participants who indicated that they has a personal assistant/aide both in high school (80.8%) and in post-secondary (96.3%) were more likely to have had paid employment.

Table 16

*Young Adult Has Ever Worked For Pay Other Than Work Around House and Having a Personal Assistant/Aide In-High School and in Post-Secondary (BothPersonal)  
Crosstabulation*

Dependent Variable	Worked For Pay	Comparison	BothPersonal	
			.00	1.00
Young adult has ever worked for pay other than work around house (if reported in any wave)	No	Count	10	0
		% within young adult has ever worked for pay other than work around house	73.7%	26.3%
		% within BothPersonal	3.7%	19.2%
		% of Total	3.5%	1.2%
	Yes	Count	360	20
		% within young adult has ever worked for pay other than work around house	94.5%	5.5%
		% within BothPersonal	96.3%	80.8%
		% of Total	90.1%	5.2%

Note:  $\chi^2 (1) = 13.086, p >.000$  , Cramer's V = .180,  $n = 400$

Research Question 3: As it applies to post-secondary services, what is the relationship between the age of the youth, the timing of the service, and the amount of services to achieving paid employment or attending post-secondary education?

For this question, the weighted coefficients will be given. For logistic regression analysis larger samples are needed because maximum likelihood coefficients are large sample estimates. A minimum of 50 cases per predictor is recommended (Burns & Burns, 2009, p. 571). Moreover, Osborne (2011) suggested that utilizing the appropriate weighting will lead to more reliable results. The time variable used in this question was a combination of variables grouped by amounts of services. The time variable was “groupcurrent”--the number of participants who received services at the time of the survey, or “groupyears”-- the number of participants who received services two years after leaving school, or “groupsince”--the number of participants who received services since high school. The amount of service variable was based on a grouping of the time variable: participants who received one service, participants who received two services, participants who received three or four services, and participants who received five or more services. The age category started with age 21 through ages 25. In the initial analysis groupyears odds ratio was extremely large so it was removed from the analysis and the bivariate regression was initiated again.

*Paid employment.* A logistic regression analysis was conducted using time of service, amount of service and age as predictors. A test of the model was statistically significant, indicating that the predictors contributed to youth who had a paid job ( $\chi^2 (11) = 12,896.034, p < .000$ ). A Nagelkerke's  $R^2$  of .421 indicated a moderate positive relationship. In the model all categories of predictors contributed to the predictor paid employment. Currently (Groupcurrently1) having three or four services contributed the most to the model with a

confidence interval between 247.702 and 320.178. Participants who currently received two services were the next group to contribute a larger amount to the model. In the age category group 3 (Age 24) contributed between 21.143 to 25.229 to this model. The overall percentage for the predictor was 87.5% (see Table 17).

*Attending a post-secondary institution.* A logistic regression analysis was conducted to predict post-secondary institution attendance using time of service, amount of service, and age as predictors. A test of the model was statistically significant, indicating that the predictors contributed to youth attending a post-secondary institution ( $\chi^2 (7) = 6211.790, p < .000$ ). Nagelkerke's  $R^2$  of .201 indicated a small positive relationship. Participants who currently received one to four services (groupcurrent1, groupcurrent2) had significant values that added to the model. Moreover those who currently received two services (groupcurrent1) contributed between 4.828 and 5.521, the highest of all the significant values. All age categories contributed to the model. The overall predictor percent was 69.9% (see Table 18).

Table 17

*Odds Ratio for Having Had Paid Employment with Time, Age and Amount of Service*

Predictors	B	Standard Error	Wald	df	Sig.	Odds Ratio	95% Confidence Interval for Odds Ratio	
							Lower	Upper
Step 1 <sup>a</sup>								
Groupcurrent(1)	4.180	.055	5700.691	1	.000	65.381	58.658	72.875
Groupcurrent(2)	5.641	.065	7421.908	1	.000	281.618	247.702	320.178
Groupcurrent(3)	2.916	.044	4381.729	1	.000	18.459	16.932	20.123
GroupSince(1)	-1.879	.055	1161.337	1	.000	.153	.137	.170
GroupSince(2)	-2.044	.044	2155.093	1	.000	.130	.119	.141
W5_Age2009(1)	-.368	.037	100.111	1	.000	.692	.644	.744
W5_Age2009(2)	.740	.037	392.253	1	.000	2.097	1.948	2.256
W5_Age2009(3)	3.140	.045	4853.762	1	.000	23.096	21.143	25.229
W5_Age2009(4)	1.322	.035	1413.973	1	.000	3.750	3.500	4.017
Constant	-1.414	.030	2250.588	1	.000	.243		

a. Variable(s) entered on step 1: Groupcurrent, GroupSince, W5\_Age2009.

b. Note:  $\chi^2(8) = 11589.337, p < .000$  Nagelkerke's  $R^2 = .421$

Table 18

*Odds Ratio for Post-Secondary Attendance with Time, Age and Amount of Service*

Predictors	B	Standard Error	Wald	df	Sig.	Odds Ratio	95% Confidence Interval for Odd Ratio	
							Lower	Upper
Groupcurrent(1)	1.642	.034	2,301.070	1	.000	5.163	4.828	5.521
Groupcurrent(2)	-.317	.031	107.637	1	.000	.729	.686	.774
Groupcurrent(3)	-.006	.028	.048	1	.826	.994	.940	1.050
GroupSince(1)	-.986	.034	834.120	1	.000	.373	.349	.399
GroupSince(2)	.177	.025	49.769	1	.000	1.193	1.136	1.254
W5_Age2009(1)	.189	.032	35.756	1	.000	1.208	1.135	1.285
W5_Age2009(2)	.515	.027	358.227	1	.000	1.674	1.587	1.766
W5_Age2009(3)	.043	.026	2.789	1	.095	1.044	.993	1.098
W5_Age2009(4)	1.269	.027	2,221.458	1	.000	3.556	3.373	3.748
Constant	-.629	.023	732.647	1	.000	.533		

a. Variable(s) entered on step 1: Groupcurrent, GroupSince, W5\_Age2009.

b.  $\chi^2(7) = 6211.790, p < .000$  Nagelkerke's  $R^2 = .201$

## Discussion

The goal of conducting this secondary analysis was to find statistical significance in how services were provided for youth with emotional and behavioral disorders. There were several significant correlations. There was a significant correlation between youth who ever attended post-secondary education and youth who received vocational services or job training since leaving high school and a combination of high school and post-secondary. This may be an indication that these youth received vocational rehabilitation (VR), which often pays for clients to go to college or technical training in order to obtain gainful employment. Vocational Rehabilitation programs are designed to assess, plan, develop, and provide services to eligible individuals with disabilities to prepare for and engage in, gainful employment (National Council on Disabilities, 2008).

The second significant correlation was found between attendance at a post-secondary institution and receiving financial assistance (e.g., aid, disability waiver, SSI, Medicaid). The chi square statistic was 23.148 with a phi of .240. This may be due to the fact that students who attend higher education often need financial assistance in order to attend. A significant correlation was also seen between attending a post-secondary institution and receiving financial services both in high school and post-secondary. Wagner and Cameto (2004) indicate that youth with EBD are likely to live in poverty. Consequently, these youth may be receiving government assistance to meet their basic needs. Higher education could be unattainable for those who are already struggling to meet basic needs. The fact that youth with EBD often live in poverty and have poorer outcome supports the need for continued financial assistance until they can secure employment that brings them out of poverty.

A significant correlation was found between attendance at a post-secondary institution and tutoring and educational assistance. The  $\chi^2 = 67.287$  with a phi of .409 is indicative of a moderate relationship. This may be due to the fact that a person in school may seek out academic help in order to be successful in college classes. Nelson, Benner, Lane and Smith (2004) indicate that children with EBD performed one or more standard deviation below their non-disabled peers in vocabulary, listening comprehension, spelling, social and science. These deficits may be equalized with the use of tutors and other educational assistance. A significant correlation was also found between attending a post-secondary institution and receiving educational services both in high school and post-secondary. These data indicate that academic assistance is important both in and out of high school. Armstrong, Dedrick and Greenbaum (2003) convey that youth with EBD have lower academic achievement compared to their peers. Youth with EBD not only receive special education services for their behavior deficits but also for their academic deficits. The continuation of these services into higher education increases the likelihood that they will attend.

There was a small correlation between having work for pay and having personal assistant/aide. The  $\chi^2 = 8.725$  with phi of -.147. Having a personal care attendant may be an indication of more complex disabilities that influence the ability to work. There was also a correlation between having respite care and working for pay. Respite care also may indicate more complex disabilities that also influence the ability to become employed.

The results of the logistic regression yield significant findings. The model indicated that age, timing, or amount of services statistically contributed to paid employment. Participants who received three or four services at the time the survey was given contributed more to the significance of the model. Those who utilized five or more services and all of the age groups also

contributed to the model. For those who attended post-secondary institution significant findings indicated that age, timing and amount of service contributed to this attendance. Those youth who at the time of the survey were receiving two services were more likely to attend a post-secondary institution. Youth that were the oldest in the age range were also more likely to attend a post-secondary institution.

### Summary

Chapter 4 used statistics to answer the research questions about relationships between services and outcome. Several services were related to attending a post-secondary institution and obtaining paid employment. Those services that were found to be related to the outcome were discussed. Chapter 5 will present a summary of the study, the implication of the results and future directions.



## CHAPTER 5

### SUMMARY, IMPLICATION AND RECOMMENDATIONS

Chapter 5 provides a brief summary of the study, delineates the implications of results, presents recommendations to support youth's attendance at post-secondary institutions, and makes suggestions regarding future research similar to this study. As stated in earlier chapters, the purpose of this study was to examine the relationship between utilization of multiple services and the attainment of paid employment, and/or attending post-secondary education.

#### Summary

Current data indicate that youth with emotional and behavioral disorders (EBD) lag behind their peers in employment and college attendance (Cheney, Martin, & Rodriguez, 2004; Wagner, Kutash, & Duchnowski, 2005). Youth with EBD also have a pattern of continued poor outcomes. Interagency collaboration is critical to improving the outcome of these youth because collaboration may help streamline the movement of students from secondary services to adult services. The results for question 1 indicated no relationship between amount of services and attending a post-secondary institution. There was also no relationship between amount of services and paid employment. For question 2 results indicated relationships between financial services, and educational services with attendance at a post-secondary institution. There were also relationships found between receiving respite services, having a personal attendant, and paid employment. For question 3, logistic regressions indicated that youth who were age 24 at the time of the data collection point and were receiving three or four services had a greater chance of having had a paid job. Youth currently receiving two services had a greater chance of attending a post-secondary institution.

## Implications

Principles of the systems of care philosophy include the need for a comprehensive array of services that address the physical, emotional, social, and educational needs of youth with EBD, as well as services that are integrated with linkages to agencies and programs (Stroul & Friedman, 1986). Although this study does not indicate a direct link to multiple services and better outcomes, it did indicate that youth with EBD who received educational and financial support and those who seek vocational assistance after high school are more likely to attend an institution of higher education. Data support the need for agency and program linkages. It is not only important in transition planning to refer students to agencies, but to establish the linkages before they leave high school. Students are more likely to attend an institution of higher education if they are receiving these services.

Moreover, we learn from the logistic regression that even in their early twenties youth with EBD can benefit from the use of support services. Supports are also needed for youth who have been out of school for several years. The more continued supports that are provided, the greater likelihood that the youth would attend a post-secondary institution or obtain paid employment. The results of the logistic regression also support the need for continuous and ongoing supports because of the multiple issues with which youth with EBD will be confronted.

## Recommendations

Youth with EBD have complex issues that require ongoing services and supports. One suggestion to help improve attendance at post-secondary institutions is to focus on establishing connections to vocational rehabilitation, financial aid and educational services while students are in high school. Moreover, Special Education needs to:

1. Ensure that students seek the assistance of vocational rehabilitation, if they qualify.  
Oertle and Trach (2007) communicates that the lack of a relationship between special education and rehabilitation counselors leads to little or no interagency collaboration which can be a barrier to successful transition because evidence indicate that rehabilitation counselor are important to successful transition (Sitlington, Neubert, & Clark, 2010).
2. Ensure that students register with the disability accommodations office at their chosen institution of higher education. In addition, ensure that the youth seek assistance from learning labs, study centers, and other student support services on campus.
3. Walk students through the financial aid process and show options for paying for their education. Carter and Lundsford (2005) indicate that in order to improve outcomes for youth with EBD direct assistance to understand and connect with resources related to post-high school goals is needed.
4. Make certain the disability documentation is authorized by the youth, is made available to other agencies, and is received by those agencies. The wait time for approval and for receiving services can be lessened if the proper documentation is sent in a timely manner. Wagner, Kutash, Duchnowsi, & Epstein (2005) assert that youth with EBD often “fall through the cracks” due to conflicting requirements, insufficient resources and difficulties assessing services because of regulations and requirements.
5. Provide systematic and organized supports for youth with EBD well into their twenties. Youth with EBD benefit from support after they leave high school; therefore, a coordinated and ongoing system needs to be established. Cooper and Pruitt (2005) suggest that a college campus may be the ideal place for youth with EBD to received

well-rounded services that can help them overcome their academic difficulties and address their social and emotional needs.

#### Future Directions

In the future, I suggest two alternative directions for research that may reveal more significant findings. First, utilize the whole sample (i.e., Waves 1 through 5) in order to produce larger numbers of in-high school participants and those who utilize services. The sample size for youth in-high school was very limited. As a result of the Waves selected in this analysis, most of the participants had already moved on from high school. The low sample size may have affected the results of the correlation. Because all students in the sample did not utilize all services, there were different sample sizes for services with some services having a small number of participants. As with the in-high school sample, more participants could have revealed more significant data.

Secondly, I would select only one dependent variable. Instead of attendance at a post-secondary institution being an outcome variable, it could be used as a predictor. The ultimate goal is for youth to become gainfully employed and self-sufficient. My suggestion is to use obtaining paid employment as the sole variable. Carter et al., (2010) and King, Baldwin, Currie, and Evans (2006) indicate that work experience during high school is among the well-documented predictors of favorable post-school employment outcomes for youth with disabilities. While Carter and Lunsford (2005) indicate that better employment outcomes may be achieved if students received direct, individualized tutoring and support to complete homework assignment, attend class and stay focused on school while in high school. Using paid employment as the outcome will help us answer questions about whether education improves the chance that the youth with EBD will be employed. Moreover, if attendance at a post-secondary

institution is dissected into attendance at a 2-year/community college, a vocational/technical school, and a 4-year college/university we can also delve into which type of program better assists youth with EBD in obtaining paid employment. The literature indicates that school directed vocational training being associated with lower absenteeism, lower dropout rates and increased competitive employment (Karpur, Clark, Caproni, & Sterner, 2005). This new research direction may illustrate that vocational training in post-secondary also leads to competitive employment.

APPENDIX A  
SAMPLE OF THE TELEPHONE QUESTIONNAIRE

IF YOUTH IS IN HIGH SCHOOL (A2b=1/NOT ASKED C1a), READ EACH ITEM TO CODE RESPONSE IN COLUMN A1.

ELSE READ ITEM C1a1[a-v] IF CORRESPONDING ITEM IN C1a[a-v] IS YES

FOR EACH YES IN C1a1, READ C1b IMMEDIATELY FOR THAT SERVICE AND CODE RESPONSE IN COLUMN B

NLTS2 PRIOR WAVE F14b

**C1b.** Is [he/she] getting that now?

Service	A. RECEIVED SERVICES ANY TIME SINCE HIGH SCHOOL				A1. RECEIVED SERVICES ANY TIME IN PAST 2 YEARS				B. RECEIVES SERVICES NOW			
	Y	N	DK	R	Y	N	DK	R	Y	N	DK	R
[a-i] ASK ALL RESPONDENTS												
a.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
b.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
c.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
d.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
e.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
f.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
g.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
h.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
i.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
j.	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2

Service	A. RECEIVED SERVICES ANY TIME SINCE HIGH SCHOOL				A1. RECEIVED SERVICES ANY TIME IN PAST 2 YEARS				B. RECEIVES SERVICES NOW			
	Y	N	DK	R	Y	N	DK	R	Y	N	DK	R
k. Transportation assistance because of a disability	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
l. Medical services for diagnosis or evaluation related to [his/her] disability	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
[m-u] ASK AS INSTRUCTED IN CHECKPOINT ABOVE												
m. Speech or language therapy, or communication services	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
n. Audiology services for hearing problems	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
o. Orientation and mobility services	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
p. Respite care	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
q. Adult day care												
r. Housing assistance or residential services or help with a supervised living arrangement, for example a group home	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
s. Personal assistant/or an in-the-home aide	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
t. Nursing care	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
u. A case manager or someone who coordinates the services YOUTH receives, this could include a family member or friend	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2
[v] ASK ALL RESPONDENTS												
v. Any other services (IF B1a [from any Wave] IS SOMETHING OTHER THAN 00 [REPORTED A DISABILITY] READ: because of [his/her] special needs) SPECIFY:	1	2	-1	-2	1	2	-1	-2	1	2	-1	-2

**CHECKPOINT:** IF GETTING ANY SERVICES NOW (ANY C1b [a-v] = 1 [i.e., ANY YES RESPONSES IN C1b) ASK C1c. ELSE GO TO C1d.



APPENDIX B  
LIST OF VARIABLES USED IN ANALYSIS

Variable Name	Explanations
(ID)	Randomized ID number
(Dis_ED)	District designated ED
np5Wt	Wave 5 parent/youth survey weight
	<u>Dependent Variables</u>
np5A3a_A3e_A3i_ever	Young adult ever attended a postsecondary institution since leaving high school (if reported in any wave)
np5HadPdJob_Ever	Young adult has ever worked for pay other than work around house (if reported in any wave)
	Logistic regression
np5A3a_A3e_A3i	Young adult attended a postsecondary institution since leaving high school (as reported in current wave)
np5HadPdJob	Young adult had a paid job since leaving high school and/or in the past 2 years
	<u>Independent Variables:</u>
np5YAge	Youth's age at time of Wave 5 interview
np5C1a_a_Ever	Young adult has ever had vocational services/job training since leaving high school (if reported in any wave)
np5C1a_b_Ever	Young adult has ever had financial assistance (aid, disability waiver, SSI, Medicaid) since leaving high school (if reported in any wave)
np5C1a_c_Ever	Young adult has ever had tutoring/education/educational assistance since leaving high school (if reported in any wave)
np5C1a_d_Ever	Young adult has ever had reader or interpreter since leaving high school (if reported in any wave)
np5C1a_e_Ever	Young adult has ever had occupational/life skills therapy/training since leaving high school (if reported in any wave)
np5C1a_f_Ever	Young adult has ever had childcare/parenting skills training since leaving high school (if reported in any wave)
np5C1a_g_Ever	Young adult has ever had psychological/mental health services since leaving high school (if reported in any wave)
np5C1a_h_Ever	Young adult has ever had social work services since leaving high school (if reported in any wave)
np5C1a_i_Ever	Young adult has ever had physical therapy since leaving high school (if reported in any wave)
np5C1a_j_Ever	Young adult has ever had assistive technology/devices since leaving high school (if reported in any wave)
np5C1a_k_Ever	Young adult has ever had transportation services since leaving high school (if reported in any wave)
np5C1a_l_Ever	Young adult has ever had medical services for diagnosis/evaluation since leaving high school (if reported in any wave)

Variable Name	Explanations
np5C1a_m_Ever	Young adult has ever had speech or language therapy since leaving high school (if reported in any wave)
np5C1a_n_Ever	Young adult has ever had audiology services since leaving high school (if reported in any wave)
np5C1a_o_Ever	Young adult has ever had orientation/mobility services since leaving high school (if reported in any wave)
np5C1a_p_Ever	Young adult has ever had respite care since leaving high school (if reported in any wave)
np5C1a_q_Ever	Young adult has ever had adult day program/adult recreation program since leaving high school (if reported in any wave)
np5C1a_r_Ever	Young adult has ever had housing assistance/residential services since leaving high school (if reported in any wave)
np5C1a_s_Ever	Young adult has ever had personal assistant/aide since leaving high school (if reported in any wave)
np5C1a_t_Ever	Young adult has ever had nursing care since leaving high school (if reported in any wave)
np5C1a_u_Ever	Young adult has ever had case manager since leaving high school (if reported in any wave)
	<u>Timing of Service</u>
	<u>Services Received in the Past 2 years</u>
np5C1a1_a	Services youth received in the past 2 years: vocational services/job training
np5C1a1_b	Services youth received in the past 2 years: financial assistance (aid, disability waiver, SSI, Medicaid)
np5C1a1_c	Services youth received in the past 2 years: educational assistance/supports/tutoring
np5C1a1_d	Services youth received in the past 2 years: reader or interpreter
np5C1a1_e	Services youth received in the past 2 years: occupational/life skills therapy/training
np5C1a1_f	Services youth received in the past 2 years: childcare or parenting skills training
np5C1a1_g	Services youth received in the past 2 years: psychological/mental health services
np5C1a1_h	Services youth received in the past 2 years: social work services
np5C1a1_i	Services youth received in the past 2 years: physical therapy
np5C1a1_j	Services youth received in the past 2 years: assistive technology/devices
np5C1a1_k	Services youth received in the past 2 years: transportation services
np5C1a1_l	Services youth received in the past 2 years: medical services for diagnosis/evaluation
np5C1a1_m	Services youth received in the past 2 years: speech or language therapy

Variable Name	Explanations
np5C1a1_n	Services youth received in the past 2 years: audiology services
np5C1a1_o	Services youth received in the past 2 years: orientation/mobility services
np5C1a1_p	Services youth received in the past 2 years: respite care
np5C1a1_q	Services youth received in the past 2 years: adult day program/adult recreation program
np5C1a1_r	Services youth received in the past 2 years: housing assistance/residential services
np5C1a1_s	Services youth received in the past 2 years: personal assistant/aide
np5C1a1_t	Services youth received in the past 2 years: nursing care
np5C1a1_u	Services youth received in the past 2 years: a case manager
	<u>After High School</u>
np5C1a_a	Services youth received since leaving high school: vocational services/job training
np5C1a_b	Services youth received since leaving high school: financial assistance (aid, disability waiver, SSI, Medicaid)
np5C1a_c	Services youth received since leaving high school: educational assistance/supports/tutoring
np5C1a_d	Services youth received since leaving high school: reader or interpreter
np5C1a_e	Services youth received since leaving high school: occupational/life skills therapy/training
np5C1a_f	Services youth received since leaving high school: childcare or parenting skills training
np5C1a_g	Services youth received since leaving high school: psychological/mental health services
np5C1a_h	Services youth received since leaving high school: social work services
np5C1a_i	Services youth received since leaving high school: physical therapy
np5C1a_j	Services youth received since leaving high school: assistive technology/devices
np5C1a_k	Services youth received since leaving high school: transportation services
np5C1a_l	(youth received since leaving high school: medical services for diagnosis/evaluation
np5C1a_m	Services youth received since leaving high school: speech or language therapy
np5C1a_n	Services youth received since leaving high school: audiology services
np5C1a_o	Services youth received since leaving high school: orientation/mobility services
np5C1a_p	Services youth received since leaving high school: respite care
np5C1a_q	Services youth received since leaving high school: adult day program/adult recreation program

Variable Name	Explanations
np5C1a_r	Services youth received since leaving high school: housing assistance/residential services
np5C1a_s	Services youth received since leaving high school: personal assistant/aide
np5C1a_t	Services youth received since leaving high school: nursing care
np5C1a_u	Services youth received since leaving high school: a case manager
	<u>Currently</u>
np5C1b_a	Services youth currently receives: vocational services/job training
np5C1b_b	Services youth currently receives: financial assistance (aid, disability waiver, SSI, Medicaid)
np5C1b_c	Services youth currently receives: educational assistance/supports/tutoring
np5C1b_d	Services youth currently receives: reader or interpreter
np5C1b_e	Services youth currently receives: occupational/life skills therapy/training
np5C1b_f	Services youth currently receives: childcare or parenting skills training
np5C1b_g	Services youth currently receives: psychological/mental health services
np5C1b_h	Services youth currently receives: social work services
np5C1b_i	Services youth currently receives: physical therapy
np5C1b_j	Services youth currently receives: assistive technology/devices
np5C1b_k	Services youth currently receives: transportation services
np5C1b_l	Services youth currently receives: medical services for diagnosis/evaluation
np5C1b_m	Services youth currently receives: speech or language therapy
np5C1b_n	Services youth currently receives: audiology services
np5C1b_o	Services youth currently receives: orientation/mobility services
np5C1b_p	Services youth currently receives: respite care
np5C1b_q	Services youth currently receives: adult day program/adult recreation program
np5C1b_r	Services youth currently receives: housing assistance/residential services
np5C1b_s	Services youth currently receives: personal assistant/aide
np5C1b_t	Services youth currently receives: nursing care
np5C1b_u	Services youth currently receives: a case manager
	<u>In-High School</u>
np4F1a_a	Youth received speech or language therapy in the past year (if in-HS in past year)
np4F1a_b	Youth received audiology services for hearing in the past year (if in-HS in past year)
np4F1a_c	Youth received psychological/mental health services in the past year (if in-HS in past year)

Variable Name	Explanations
np4F1a_d	Youth received physical therapy in the past year (if in-HS in past year)
np4F1a_e	Youth received social work services in the past year (if in-HS in past year)
np4F1a_f	Youth received occupational/life skills therapy/training in the past year (if in-HS in past year)
np4F1a_g	Youth received orientation/mobility services in the past year (if in-HS in past year)
np4F1a_h	Youth received medical services for diagnosis/evaluation in the past year (if in-HS in past year)
np4F1a_i	Youth received services from a personal assistant/aide in the past year (if in-HS in past year)
np4F1a_j	Youth received services from a tutor in the past year (if in-HS in past year)
np4F1a_k	Youth received services from a reader or interpreter in the past year (if in-HS in past year)
np4F1a_l	Youth received nursing care in the past year (if in-HS in past year)
np4F1a_m	Youth received assistive technology/devices in the past year (if in-HS in past year)
np4F1a_n	Youth received transportation services in the past year (if in-HS in past year)
np4F1a_o	Youth received respite care in the past year (if in-HS in past year)
np4F1a_p	Youth received vocational services or job training in the past year (if in-HS in past year)
np4F1a_q	Youth received financial assistance (aid, disability waiver, SSI, Medicaid) in the past year (if in-HS in past year)

## REFERENCE LIST

- Abramson, J. S. & Rosenthal, B. (1995). Interdisciplinary and inter-organizational collaboration. In R. L. Edwards (Ed.), *Encyclopedia of Social Work* (pp.1479-1489) (19<sup>th</sup> ed.) Washington, DC: National Association of Social Workers Press.
- American with Disabilities Act Amendments, 42 U.S.C.A § 12101 et seq. (2008).
- Anderson-Butcher, D., & Ashton, D. (2004). Innovative models of collaboration to serve children, youths, families, and communities. *Children and Schools*, 26(1), 39-53.
- Anderson, J. A., Houser, J. W., & Howland, A. (2010). The full purpose partnership model for promoting academic and socio-emotional success in schools. *School Community Journal*, 20(1), 31-54.
- Anderson, J. A., McIntyre, J. S., & Somers, J. W. (2004). Exploring the experiences of successful completers of a system of care for children and their families through case narratives. *Journal of Family Social Work*, 8(1), 1-25.
- Armstrong, K. H., Dedrick, R. F., & Greenbaum, P. E. (2003). Factors associated with community adjustment of young adults with serious emotional disturbance: A longitudinal analysis. *Journal of Emotional and Behavioral Disorders*, 11(2), 66-76.
- Bost, L. W., & Riccomini, P. J. (2006). Effective instruction: An inconspicuous strategy for dropout prevention. *Remedial and Special Education*, 27(5), 301-312.
- Bruns, E. J., Burchard, J., Suter, J. C, Brady-Leverentz, K., & Force, M. (2004). Assessing fidelity to community based treatment for youth: The wraparound fidelity index. *Journal of Emotional and Behavioral Disorders*, 12(2), 79-89.
- Burns, R. P., & Burns, R. (2009). *Business research methods and statistics using SPSS*. Thousand Oaks: CA: Sage.

- Bullis, M., & Cheney, D. (1999). Vocational and transition interventions for adolescents and young adults with emotional or behavioral disorders. *Focus on Exceptional Children, 31*, 1-24.
- Carter, E. W., & Lunsford, L. B. (2005). Meaningful work: Improving employment outcomes for transition-age youth with emotional and behavioral disorders. *Preventing School Failure, 49*(2), 63-69.
- Carter, E. W., Trainor, A. A., Ditchman, N., Swedeen, B., & Owens, L. (2009). Evaluation of a multicomponent intervention package to increase summer work experiences for transition-age youth with severe disabilities. *Research & Practice for Persons with Severe Disabilities 34*(2), 1-12.
- Carter, E. W., Trainor, A. A., Sun, Y., & Owens, L. (2009). Assessing the transition-related strengths and needs of adolescents with high-incidence disabilities. *Exceptional Children, 76*(1), 74-94.
- Carter, E. W., Ditchman, N., Sun, Y., Trainor, A. A., Swedeen, B., & Owens, L. (2010). Summer employment and community experiences of transition-age youth with severe disabilities. *Exceptional Children, 76*(2), 194-212.
- Carter, E. W., & Wehby, J. H. (2003). Job performance of transition age youth with emotional and behavioral disorders. *Exceptional Children, 69*(4), 449-465.
- Cawthon, S. W., & Cole, E. V. (2010). Postsecondary students who have a learning disability: student perspectives on accommodations access and obstacles. *Journal of Postsecondary Education and Disability, 23*(2), 112-128.
- Cheney, D., Martin, J., & Rodriguez, E. (2004). Secondary and post education: New strategies for achieving positive outcomes. In H. B. Clark, & M. Davis (Eds.), *Transition to*



*adulthood: A resource for assisting young people with emotional or behavioral difficulties* (pp. 55-74). Baltimore, MA: Paul H. Brooks.

Chesapeake Institute. (1994). *National agenda for achieving better results for children and youth with serious emotional disturbance*. Washington, DC: Author.

Code of Federal Regulations, Title 34, Section 300.8(c) (4). Retrieved from

[http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title34/34cfr300\\_main\\_02.tpl](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title34/34cfr300_main_02.tpl)

Cooper, J. T., & Pruitt, B. (2005). Creating opportunities for success in college settings for students with emotional and behavioral disorders. *Beyond Behavior, 14*(3), 23-26.

Cullinan, D., & Sabornie, E. J. (2004). Characteristics of emotional disturbance in middle and high school students. *Journal of Emotional and Behavioral Disorders, 12*(3), 157-167.

DeFur, S. H. (2003). IEP transition planning- from compliance to quality. *Exceptionality, 11*(2), 115-128.

DeFur, S. H., Todd-Allen, M., & Getzel, E. E. (2001). Parent participation in the transition planning process. *Career Development for Exceptional Individuals, 24*(1), 19-36.

Dierker, L., Nargiso, J. Wiseman, R., & Hoff, D. (2001). Factors predicting attrition within a community initiated system of care. *Journal of Child and Family Studies, 10*(3), 367-383.

Eber, L., Sugai, G., Smith, C. R., & Scott, T. M. (2002). Wraparound and positive behavioral intervention and supports in the schools. *Journal of Emotional and Behavioral Disorders, 10*(3), 171-181.

Educational of All Handicapped Children Act of 1975, P. L. 94-142.

Eisenman, L. T. (2003). Theories in practice: School-to-work transitions for youth with mild disabilities. *Exceptionality, 11*(2), 89-102.

- Farmer, E. M. Z. (2000). Issues confronting effective services in systems of care. *Children and Youth Service Review*, 22(8), 627-650.
- Field, S., & Hoffman, A. (1998). Self-determination: An essential element of successful transition. *Reaching Today's Youth*, 2(4), 37-40.
- Finn, J. E., & Kohler, P. D. (2010). Transitions outcomes project: Perceptions of school personnel explored through a multiple case study. *Journal of Ethnographic & Qualitative Research* 4(2), 95-107.
- Freeman, B., Dogs, E. I. C., Novins, D. K., & LeMaster, P. L. (2004). Contextual issues for strategic planning and evaluation of systems of care for American Indian and Alaska native communities: An introduction to circles of care. *Journal of the National Center*, 11 (2), 1-29.
- Garland, A. F., Hough, R. L., Landsverk, J. A., & Brown, S. A. (2001). Multi-sector complexity of systems of care for youth with mental health needs. *Children's Services: Social Policy, Research, and Practice*, 4(3), 13-140.
- Garson, G. D. (2008). Nominal association: Phi, contingency coefficient, tschuprow's T, cramer's V, lambda, uncertainty coefficient. Retrieved from <http://faculty.chass.ncsu.edu/garson/PA765/assocnominal.htm>
- Gaylord, V., Quinn, M., McComas, J., & Lehr, C. (Eds.). (2005). *Impact: Feature issue on fostering success in school and beyond for students with emotional/behavioral disorders*, 18(2). Minneapolis: University of Minnesota, Institute on Community Integration. Available at <http://ici.umn.edu/products/impact/182/default.html>.
- Geenen, D., Powers, L. E., & Lopez-Vasquez, A. (2001). Multicultural aspects of parent involvement in transition planning. *Exceptional Children*, 67(2), 265-282.

- Goupil, G., Tasse, M. J., Garcin, N., & Dore, C. (2002). Parent and teacher perceptions of individualized transition planning. *British Journal of Special Education*, 29(3), 127-135.
- Hallahan, D. P., Kauffman, J. M., & Pullen, P.C. (2009). *Exceptional learners: An introduction to special education* (11<sup>th</sup> ed.). Boston, MA: Allyn & Bacon.
- Hernandez, M., & Hodges, S. (2003). Building upon the theory of change for the system of care. *Journal of Emotional and Behavioral Disorders*, 11(1), 19-26.
- Hosp, J. L., & Madyun, N. H. (2007). Addressing disproportionality with response to intervention. In S. R. Jimerson, M. K. Burns, & A. M. Vanderheyden (Eds.), *Handbook of response to intervention: The science and practice of assessment and intervention*. New York, NY: Springer.
- Hosp, M. K., Clark-Griller, H., & Rutherford, R. (2001). Incarcerated youth with disabilities: their knowledge of transition plans. *Journal of Correctional Education*, 52(3), 126-130.
- Individuals with Disabilities Education Act Amendments of 1990, 20 U.S.C. § 1400 et seq.
- Individuals with Disabilities Education Act Amendments of 1997, 20 U.S.C. § 1400 et seq.
- Individuals with Disabilities Education Improvement Act Amendments of 2004, 20 U.S.C. § 1400 et seq.
- Institute for Education Sciences. (n.d.). National longitudinal transition study-2 (NLTS2) training modules. Retrieved from <http://ies.ed.gov/ncser/projects/nlts2/training.asp>
- Izzo, M. V., Yurick, A., Nagaraja, H. N., & Novak, J. A. (2010). Effects of a 21<sup>st</sup> century curriculum on students' information technology and transition skills. *Career Development for Exceptional Individuals*, 33(2), 95-105.

- Karpur, A., Clark, H. B., Caproni, P., & Sterner, H. (2005). Transition to adult roles for students with emotional/behavioral disturbances: A follow up study of student exiters from steps-to-success. *Career Development for Exceptional Individuals*, 28(1), 36-46.
- Kohler, P. D. (1996). *Taxonomy for transition programming*. Champaign, IL: University of Illinois.
- Kohler, P. D., & Field, S. (2003). Transition-focused education: Foundation for the future. *Journal of Special Education*, 37(3), 174-183.
- King, G. A., Baldwin, P. J., Currie, M., & Evans, J. (2006). The effectiveness of transition strategies for youth with disabilities. *Children's Health Care*, 35(2), 155-178.
- Krieg, F. J., Brown, P., & Ballard, J. (1995). *Transition: School to work: Models for effective transition planning*. Bethesda, MD: National Association of School Psychologists.
- Kutash, K., Duchnowski, A. J., & Friedman, R. M. (2005). The system of care 20 years later. In M. H. Epstein, K. Kutash, & A. J. Duchnowski (Eds.), *Outcomes for children and youth with emotional and behavioral disorders and their families: Programs and evaluation best practices* (pp. 3-22). Austin, TX: Pro-Ed.
- Landrum, T. J., Tankersley, M., & Kauffman, J. M. (2003). What is special about special education for students with emotional or behavioral disorders? *Journal of Special Education*, 37(3), 1148-1156.
- Lane, K. L., Wehby, J. H., & Barton-Arwood, S. (2005). Students with and at-risk for emotional and behavioral disorders: Meeting their social and academic needs. *Preventing School Failure*, 49, 6-9.

- Lehman, C. M., Clark, H. B., Bullis, M., Rinkin, J., & Castellanos, L. A. (2002). Transition from school to adult life: Empowering youth through community ownership and accountability. *Journal of Child and Family Studies, 11*(1), 127-141.
- Madaus, J. W., Gerber, P. J., & Price, L. A. (2008). Adults with learning disabilities in the workforce: Lessons for secondary transition programs. *Learning Disabilities Research & Practice, 23*(3), 148-153.
- Maag, J. W., & Katsiyannis, A. (1998). Challenges facing successful transition for youths with E/BD. *Behavioral Disorders, 23*(4), 209-221.
- Mallory, J. M., Cheney, D., & Cormier, G. M. (1998). Interagency collaboration and the transition to adulthood for students with emotional or behavioral disorders. *Education & Treatment in Children, 21*(3), 303-319.
- Metzel, D. S., Foley, S. M., & Butterworth, J. (2005). State-level interagency agreements for supported employment of people with disabilities. *Journal of Disability Policy Studies, 16*(2), 102-114.
- Morningstar, M. E., & Benitez, D. (2004). Critical issues facing youth with emotional and behavioral disorder during transition to adulthood. In L. M. Bullock, & R. A. Gable (Eds.), *Fifth CCBD mini-library series: Meeting the diverse needs of children and youth with EBD: Evidence-based programs and practices*. Arlington, VA: Council for Children with Behavioral Disorders.
- Morningstar, M. E., & Kleinhammer-Tramill, P. J. (1999). Using successful models of students centered transition planning and services for adolescents with disabilities. *Focus on Exceptional Children, 3*(9), 1-19.

- National Council on Disabilities. (2008). *The Rehabilitation Act: Outcomes for transition age youth*. Washington DC: Author.
- National Center on Secondary Education and Transition. (2002a). *Age of majority: Preparing your child to make their own choices*. Minneapolis, MN: Author.
- National Center on Secondary Education and Transition. (2002b). *NLTS2 Data Brief: Introducing the NLTS2. A Report from the National Longitudinal Transition Study-2*. Available at [www.ncset.org/publications/viewdesc.asp?id=248](http://www.ncset.org/publications/viewdesc.asp?id=248).
- National Longitudinal Transition Study-2. (2001-2010). Available at <http://nlts2.org/index.html>
- National Parent Teacher Association. (2012). Family-School partnerships: National standards for family-school partnership. Available at [http://www.pta.org/national\\_standards.asp](http://www.pta.org/national_standards.asp)
- Nelson, J. R., Benner, G. J., Lane, K., & Smith, B. W. (2004). An investigation of the academic achievement of K-12 students with emotional and behavioral disorders in public school settings. *Exceptional Children, 71*, 59-73.
- Neubert, D. A. (2003). The role of assessment in transition to adult life process for students with Disabilities. *Exceptionality, 12*(2), 63-75.
- Niesyn, M. E. (2009). Strategies for success: Evidence-based instructional practices for students with emotional and behavioral disorders. *Preventing School Failure, 53*(4), 227-234.
- Oertle, K., & Trach, J. S. (2007). Interagency collaboration: The importance of rehabilitation professionals' involvement in transition. *Journal of Rehabilitation, 73*(3), 36-44.
- Osborne, J. W. (2011). Best practices in using large, complex samples: The importance of using appropriate weights and design effect compensation. *Practical Assessment, Research & Evaluation, 10*(1), 1-7.

Pleet, A. M., Wandry, D. L., & Gursch, A. R. (2004). Building partnerships with families of youths with emotional and behavioral disorders. In D. Cheney (Ed.), *Transition of secondary students with emotional or behavioral disorders: Current approaches for positive outcomes* (pp. 29-81). Arlington, VA: Council for Children with Behavioral Disorders.

Rehabilitation Act of 1973, P.L. 93-112. 29 U.S.C. 701, *et seq.*

Rehabilitation Act Amendments of 1997, P.L. 102-569, 34 C.F.R. § 104 *et seq.*

Repetto, J. B. (2003). Transition to living. *Exceptionality*, 11(2), 77-87.

Rothman, T., Maldonado, J. M., & Rothman, H. (2008). Building self-confidence and future career success through a pre-college transition program for individuals with disabilities. *Journal of Vocational Rehabilitation*, 28(2), 73-83.

Rosenblatt, A., & Woodbridge, M. (2003). Deconstructing research on systems of care for youth with EBD: Frameworks for policy research. *Journal of Emotional and Behavioral Disorders*, 11(1), 27-37.

Sax, C. L., & Thoma, C. A. (2002). *Transition assessments: Wise practices for quality lives*. Baltimore: MD: Paul H. Brooks.

Search Soft Quality (2000). *Definition: Best Practices*. Retrieved from <http://searchsoftwarequality.techtarget.com/definition/best-practice>

Scott, T., & Eber, L. (2003). Functional assessment and wraparound as systemic school processes: Primary, secondary and tertiary systems examples. *Journal of Positive Behavioral Supports*, 5, 131-143.

- Sitlington, P. L., & Neubert, D. A. (1998). Preparing youth with emotional or behavioral disorders for transition to adult life: Can it be done within standards-based reform movement? *Behavioral Disorders*, 29(3), 279-288.
- Sitlington, P. L., Neubert, D. A., & Clark, G. M. (2010). *Transition education and services* (5<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson.
- Shaw, S. F. (2009). Transition to postsecondary education. *Focus on Exceptional Children*, 42(2), 1-16.
- Shandra, C. L., & Hogan, D. P. (2008). School-to-work program participation and the post-high school employment of young adults with disabilities. *Journal of Vocational Rehabilitation*, 29(2), 117-130.
- Skiba, R., Polsgrove, L., & Nasstrom, K. (1996). *Developing a system of care: Interagency collaboration for students with emotional/behavioral disorders*. In L. M. Bullock, & R. A. Gable (Eds.), *Mini library series on emotional/behavioral disorders*. Arlington, VA: Council for Children with Behavioral Disorders.
- Smith, M. K. (1998). *Adolescents with emotional and behavioral disabilities transition to adulthood*. Lewiston, NY: Edwin Mellen Press.
- Smith, C. R., Katsiyannis, A., & Ryan, J., B. (2011). Challenges of serving students with emotional and behavioral disorders: Legal and policy considerations. *Behavioral Disorders*, 36(3), 185-194.
- Solar, E. (2011). Prove them wrong: Be there for secondary students with an emotional or behavioral disability. *TEACHING Exceptional Children*, 44(1), 40-45.
- SRI International (2007). *National Longitudinal Transition Study (NLTS)*. Retrieved from <http://policyweb.sri.com/cehs/projects/displayProject.jsp?Nick=nlts>



- Stroul, B. A., & Friedman, R. M. (1986). *A system of care for severely emotionally disturbed children and youth*. Washington, DC: Child and Adolescents System Service Program.
- Test, D. W., Fowler, C. H., Richter, S., White, J. A., & Walker, A. R. (2009). Evidence-based practices for enhancing school completion. *Exceptionality, 17*, 16-29.
- U.S. Department of Education (2011). *Thirtieth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 2008*. Washington, D.C: Author.
- Wagner, M., & Cameto, R. (2004). The characteristics, experiences and outcomes of youth with EBD. *NLTS2 Data Brief, 3*(2), 1-8.
- Wagner, M., Kutash, K., Duchnowski, A. J., & Epstein, M. H. (2005). The special education elementary longitudinal and national longitudinal transition study: Study designs and implications for children and youth with emotional disturbance. *Journal of Emotional and Behavioral Disorders, 13*(1), 25-41.
- Webb, K. W., Patterson, K. B., Syverund, S. M., & Seabrooks-Blackmore, J. J. (2008). Evidenced-based practices that promote transition to postsecondary education: Listening to a decade of expert voices. *Exceptionality, 16*(4), 192-206.
- Wehmeyer, M. L., Palmer, S. B., Agran, M., Mithaug, D. E., & Martin, J. E. (2000). Promoting causal agency: The self-determined learning model of instruction. *Exceptional Children, 66*, 439-453.
- Wilson, M. G., Hoffman, A. V., & McLaughlin, M. J. (2009). Preparing youth with disabilities for college: How research can inform transition policy. *Focus on Exceptional Children, 41*(7), 1-10.

Zhang, D., & Katsiyannis, A. (2002). Minority representation in special education: A persistent challenge. *Remedial and Special Education, 23*(3), 180-187.

Zigmond, N. (2006). Twenty-four months after high school: Paths taken by youth diagnosed with severe emotional and behavioral disorders. *Journal of Emotional & Behavioral Disorders, 14*(2), 99-107.