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Understanding Employment Preparedness Needs for College Students with Asperger's Disorder

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**UNDERSTANDING EMPLOYMENT PREPAREDNESS NEEDS FOR COLLEGE
STUDENTS WITH ASPERGER'S DISORDER**

A dissertation submitted to
the Graduate College of
Marshall University
In partial fulfillment of
the requirements for the degree of
Doctor of Education
in
Educational Leadership
by
Rebecca S. Hansen

Approved by
Dr. Michael Cunningham, Committee Chairperson
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DEDICATION

I've always been a social being. In fact, being around others helps me cope and provides me with a sense of self. Social skills come very naturally to me and I didn't know that was a learned skill for others until, at age 24, I began working for The West Virginia Autism Training Center. I was oblivious to the fact that—during my own transition into adulthood, wedged between undergraduate and graduate school—the experiences that resulted from my time there would transform into a rewarding career.

I've had the pleasure of meeting hundreds of people with Asperger's Disorder and their families through the establishment and evolution of The College Program at Marshall University. Through these experiences, I've learned what it means to be person-centered and how to provide individualized supports for college students with Asperger's Disorder. Students with Asperger's Disorder have allowed me to better understand the significant challenges they experience with the social world and the profound impact it has on their lives. I've shared in the joy of celebrating life milestones of great academic achievement and have begun to understand the increased challenges college graduates with Asperger's Disorder face as they transition to work. No longer do I take for granted the innate ability to read social cues from others or participate in reciprocal dialogue.

Over ten years later, I have the pleasure of writing this dedication to the individuals who have shaped my way of understanding social behavior and the impact it has on access to friendships, learning, and employment. Numerous high school students, college students, and college graduates with Asperger's Disorder have taught me how to be more flexible, patient, and accepting of the fact that life is meant to be experienced in variable ways that involve multiple

points of view. These brave individuals have paved the way for me to share my knowledge of supporting college students with Asperger's Disorder with other professionals in the field and have enabled me to provide hope to parents of adolescents with Asperger's Disorder.

I'd like to dedicate this dissertation to pioneering College Program students Lowell Austin, Bradley Delahaye, Andrew Reinhardt, Amy Goodman, Marion Bachrach, Jason Breslin, and Christopher Tucker for showing me how Asperger's Disorder affects their daily lives and being kind enough to teach me how to listen. This dissertation is also dedicated to future employers who are willing to provide people with Asperger's Disorder a chance for a successful career by being flexible enough to create a work environment suited for their individualized needs.

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I'd like to thank my committee members, Dr. Louis Watts, Dr. Kimberly Ramsey, Dr. Marc Ellison and committee chair, Dr. Michael Cunningham. Through each email and during every meeting, Dr. Cunningham provided me with the experienced-based insight and ongoing encouragement that I needed to press on. His words of wisdom and reassurance—shared with grace—will be forever remembered. Dr. Ellison sparked the idea of beginning the journey of doctoral work and continues to lead the way as an expert in the field of supporting individuals with autism and their families. He has embodied what it takes to be a professional, and I thank him for guiding the path. I'd also like to thank my graduate academic advisor and friend, Dr. David Hermon, for always believing in me and challenging me to create and pursue new goals.

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The primary acknowledgement belongs to my Lord and Savior, Jesus Christ. I am nothing without my salvation bestowed by His incessant grace and unconditional love. My faith in God provides an eternal perspective that carries me through this life and promises everlasting joy.

I will not boast in anything

No gifts, no power, no wisdom

But I will boast in Jesus Christ

His death and resurrection.

Why should I gain from His reward?

I cannot give an answer.

But this I know with all my heart

His wounds have paid my ransom.

PHILLIPS, CRAIG & DEAN

TABLE OF CONTENTS

DEDICATION.....	iii
ACKNOWLEDGEMENTS	v
LIST OF TABLES	ix
LIST OF FIGURES	x
ABSTRACT.....	xi
Chapter 1: Introduction	1
Background.....	1
Statement of the Problem	12
Research Questions	14
Chapter 2: Review of the Literature	15
Chapter 3: Research Methods	30
Research Design.....	32
Population	33
Data Collection	34
Chapter 4: Presentation and Analysis of Data	37
Major Findings	43
Ancillary Findings – Disclosure of Asperger’s Disorder	64
Chapter 5: Summary, Discussion of Findings, and Recommendations.....	71
Summary of the Study	71
Discussion of the Findings	72
Conclusions	84
Implications.....	85
Recommendations for Further Study.....	86
References	87
APPENDIX A: Institutional Review Board Approval Letter	92
APPENDIX B: Survey Consent and Instruments and Marshall University IRB	93
APPENDIX C: Panel of Experts.....	117

APPENDIX D: Verbatim Responses of College Students	118
APPENDIX E: Verbatim Responses of Employers.....	120
APPENDIX F: Verbatim Responses of Parents	123
VITA.....	134

LIST OF TABLES

Table 1 <i>Demographic Data from First Population (College Students N=42)</i>	38
Table 2 <i>Demographic Data from Second Population (Employers N=37)</i>	40
Table 3 <i>Demographic Data from Third Population (Parents N=97)</i>	42
Table 4 <i>Student Perceptions of Importance of Employment Needs</i>	44
Table 5 <i>Employer Perceptions of the Extent to Which Individuals with Asperger's Disorder Have Difficulty with Employability Issues</i>	50
Table 6 <i>Employer Perceptions of the Extent to Which Individuals with Asperger's Disorder Understand Work-Related Issues</i>	52
Table 7 <i>Employer Perspectives of the Beneficial Aspects of Employing an Individual with Asperger's Disorder</i>	53
Table 8 <i>Employer Perceptions on the Benefits of Employing an Individual with Asperger's Disorder</i>	55
Table 9 <i>Employer Perceptions of the Barriers Related to Employing an Individual with Asperger's Disorder</i>	57
Table 10 <i>Parent Perceptions of Employment Preparedness</i>	60
Table 11 <i>Parent Perceptions of Students' Extent of Understanding Work-Related Issues</i>	62
Table 12 <i>Ranking of Employment Preparedness Issues by Population</i>	68
Table 13 <i>Ranking of Student's Understanding of Work-Related Issues by Employer and Parent Populations</i>	69

LIST OF FIGURES

Figure 1 Ranking of Importance of Work Related Issues by Population	74
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ABSTRACT
**UNDERSTANDING EMPLOYMENT PREPAREDNESS NEEDS FOR COLLEGE
STUDENTS WITH ASPERGER'S DISORDER**

About 1 in 68 children has been identified with Autism Spectrum Disorder and nearly half of those individuals have average to above average intelligence. A significant number of those individuals are currently earning college degrees. Regardless of the escalating prevalence rates of individuals with Asperger's Disorder who have the intellectual capacity to obtain a college degree, there has been little attention on how to identify and provide the types of specialized supports these college graduates require as they prepare for finding and maintaining meaningful employment. The ways in which colleges are preparing students for employment must be examined to include the unique preparedness needs of college students with Asperger's Disorder. A review of the professional literature provides a general description of the strengths and challenges for college graduates with Asperger's Disorder related to transition to employment issues, but the information is lacking in what specific types of employment preparedness skills need to be addressed in order for this growing population of college graduates to become competitive candidates for employment. This study explored the preparedness needs for employment as expressed by college students with Asperger's Disorder, employers of individuals with Asperger's Disorder, and parents of individuals with Asperger's Disorder and provided a consensus inventory of employment preparedness needs that can serve as a guide for colleges, students, parents, employers and other parties interested in understanding how to provide specialized transition to work services for individuals with Asperger's Disorder.

Keywords: Asperger's Disorder, college, transition, employment

Chapter 1: Introduction

It is logical to presume that obtaining a college degree provides greater opportunities for employment; however, that is not always the case for college graduates with Asperger's Disorder. College-degree-holding students with Asperger's Disorder experience the transition out of college very differently than the typical college graduate, primarily due to social communication challenges (Jordan, 2001). College graduates with Asperger's Disorder have the intellectual capacity and intrinsic motivation that employers seek, but they often lack the charisma that networking with employers demands (Howling, Alcock, & Burkin, 2004). A difficult economy and increasing competition from others holding similar degrees create an aggressive environment where college graduates with Asperger's Disorder must possess employment-readiness skills to make themselves more desirable in the job market (Dostis, 2013). Given these circumstances, this study established a list of workforce-readiness needs for supporting college students with Asperger's Disorder as they prepare for employment.

Background

Although definitive statistics do not exist to track how many students at the college level have Asperger's Disorder, a recent study conducted by the U.S. Center for Disease Control and Prevention confirmed that 1 out of every 68 children has some form of Autism Spectrum Disorder ("Autism and Developmental," 2014). Because nearly half of these individuals being diagnosed with Autism Spectrum Disorder have average to above average intelligence, a significant number of those students are most likely entering college (Simmons & Davis, 2010). Therefore, the effect of and support for college students with Asperger's Disorder must be examined by higher education stakeholders (Ford & Townsend, 2009).

College graduates with Asperger's Disorder are facing the same 21st century job market as traditional college graduates who generally have the wherewithal to navigate the world of work. Nevertheless, the talents necessary to promote oneself and network with potential employers are not innate skills possessed by college students with Asperger's Disorder (Gerhardt, Holtz, Owings, & Resnik, 2006). However, through tailored instruction designed to meet the unique characteristics of individuals with Asperger's Disorder, college students in this population can be adequately prepared to enter a competitive workforce (Myles, Endow, & Mayfield, 2013).

Potential employers must also learn to understand and appreciate that employees with the characteristics of Asperger's Disorder can be beneficial to a work environment, as such individuals often exhibit very desirable traits such as attention to detail, trustworthiness, reliability, and low absenteeism (Gerhardt et al., 2006). Although the symptoms of the disorder may limit or impair everyday functioning, skills to offset these challenges can be learned and put into practice when navigating the workplace (Grandin & Duffy, 2008).

Understanding the Population: Changes in the Diagnostic and Statistical Manual

The American Psychiatric Association (APA) (2013) maintains *The Diagnostic and Statistical Manual of Mental Disorders (DSM)*, the standard classification of disorders used by mental health professionals in the United States. The manual is intended to be applicable in a wide array of contexts and is used by clinicians and researchers of many different orientations. *The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)* is the current edition and has been designed for use across clinical settings with community populations (APA, 2013). The DSM-5 criteria for Autism Spectrum Disorder (ASD) departs substantially from the previous DSM-IV criteria (Taheri & Perry, 2012). When the manual was updated in 2013, it

eliminated the diagnostic term “Asperger’s Disorder,” and created a new diagnosis named “Autism Spectrum Disorder” (ASD).

Individuals who demonstrate social, behavioral, and communication challenges common to the autism spectrum, but who experienced no cognitive or language delays and were not intellectually disabled, have been diagnosed with Asperger’s Disorder since 1994 when the disorder first appeared in the DSM-IV (M. Ellison, personal communication, February 14, 2014). Ellison acknowledged that this new term uses a hierarchical system to determine the level of need for each individual who receives the diagnosis, and in this new format, “Autism Spectrum Disorder – Level 1” most closely resembles the former Asperger’s Disorder (personal communication, February 14, 2014).

Evidence has demonstrated that individuals meeting DSM-IV criteria for Asperger’s Disorder differ significantly from individuals with Autistic Disorder in their social and communication functioning so as to warrant maintaining the separate diagnostic category (Grant & Nozyce, 2013). This functional distinction would be lost with the Asperger’s Disorder diagnosis made under Autism Spectrum Disorder (ASD) (Grant & Nozyce, 2013). The combining of previous subgroups into one broad category of Autism Spectrum Disorder has caused debate; however, for the purposes of this research, the study solely focused on individuals with Asperger’s Disorder.

Regardless of the prevalence of individuals with Asperger’s Disorder who have the intellectual capacity to obtain a college degree, little attention has focused on how to identify and provide the types of specialized supports they require as they prepare for finding and maintaining meaningful employment. Employment is a critical component for most adults to build full and

productive lives, and individuals with Asperger's Disorder deserve the same opportunity to contribute as productive workers in appropriate employment settings to improve their quality of life (Grandin & Duffy, 2008).

Currently, no working definition exists for how college graduates with Asperger's Disorder can adequately prepare to earn gainful employment. Research outcomes have revealed the unique strengths and challenges for college graduates with Asperger's Disorder related to employment issues as compared to traditional college graduates, but a better understanding of the types of specific supports that are necessary for college students with Asperger's Disorder is necessary. The ways in which colleges are preparing students for employment must be examined to include the unique preparedness needs of college students with Asperger's Disorder so that they may be equipped with the employment-readiness skills necessary to become competitive candidates for employment (Myles et al., 2013).

Navigating College with Asperger's Disorder

For college students with Asperger's Disorder, the transition to college often means the loss of the support systems that have been helping guide their daily lives for years (Palmer, 2006). Palmer (2006) contended that the degree of success or enjoyment of the college experience often depends on the student's ability to develop a new support system in college. Many college students with Asperger's Disorder have problems that are not academic related, but are related more to self-help, time management, interpersonal skills, or organizational skills. Regrettably, the supports available on campus for students with Asperger's Disorder may not be able to address these issues (Palmer, 2006).

Experts in the field of autism recognize the need for assistance in higher education that is tailored for a student with Asperger's Disorder; however, college students with Asperger's Disorder may not have the ability to verbalize the need for assistance, and, as a result, support strategies can become more reactive than proactive (Ozonoff, Dawson, & McPartland, 2002). The flexibility and resilience necessary to succeed in higher education does not come naturally for a student with Asperger's Disorder; therefore, support programs that meet the individualized needs of this population are in high demand (Harpur, Lawlor, & Fitzgerald, 2004). Harpur, Lawlor, and Fitzgerald (2004) have agreed that supports that are geared towards effectively helping students with Asperger's Disorder achieve their goals can greatly exceed the services delivered through traditional disability services.

Integral to providing effective support on a college campus is the recognition of and respect for the uniqueness of each student. According to the College Program for Students with Autism Spectrum Disorder (CPSASD) (2014), designing flexible supports to fit the personalized needs of college students with Asperger's Disorder as they progress through their college experience is vital for success. CPSASD has noted that few support programs nationwide are dedicated to helping students with Asperger's Disorder in higher education. However, a limited number of colleges provide student support programs that have trained staff to accommodate the individualized needs of students with Asperger's Disorder. CPSASD has explained that although some specialized support programs are solely dedicated to enhancing social skills, others focus on independent living skills. Because needs often change with experience and learning over time, providing individualized support campus-wide and within a framework of the mainstream means assistance must be provided from a holistic perspective that extends beyond

the basic areas of academics and include more peripheral supports such as skill building (CPSASD, 2014).

Contrary to popular misconceptions, college students with Asperger's Disorder care deeply about social connections (Prince-Hughes, 2002). Uninhibited intellectual activity and an environment to thrive in higher education are indispensable lifelines that can provide college students with Asperger's Disorder with the connections they need to succeed (Prince-Hughes, 2002). The development and implementation of skills-building groups can provide valuable information to assist college students with Asperger's Disorder as they navigate a college campus (CPSASD, 2014). Skills-building groups for students with Asperger's Disorder can also provide a social network through which students can connect with others, have a more productive and positive college experience, and ultimately, find assistance with the transition to work.

Preparing for Employment

Although increased awareness and sophisticated interventions have resulted in many individuals with Asperger's Disorder successfully completing post-secondary education, studies have yet to predict how the characteristics of Asperger's Disorder may impact post-college employment opportunities (Howlin et al., 2004). All college graduates are facing a grim job market with a slow economic restoration and competition from other graduates, but for college graduates with Asperger's Disorder, employment statistics remain even more dismal (Dostis, 2013). Given that 85% of individuals with disabilities are either unemployed or under-employed (Bissonnette, 2013), finding employment is not easy for individuals with Asperger's Disorder.

The number of college graduates with Asperger's Disorder with the proven skills and advanced degrees to be gainfully employed in competitive positions commensurate with their skills and education is as high as 800,000 adults ("Economic News Release," 2014). Regardless, college career services focus primarily on supporting traditional college students who may inherently have the skills for employment (Bissonnette, 2013). Campus-based career services centers are not typically designed to address the characteristics of Asperger's Disorder in relation to employment readiness because they do not recognize, understand, and sufficiently prepare college students with disabilities for the transition to work (Baker, 2005). College graduates with Asperger's Disorder share common barriers to employment that differ from traditional college graduates and warrant further observation and understanding (Bissonnette, 2013).

Important services and opportunities such as résumé and cover letter development, cooperative learning projects, or internship experiences for college students may be provided through the career services center, though college students with Asperger's Disorder may not possess the self-advocacy or executive functioning skills necessary to access the supports and may require individualized training on how to navigate the services (Myles et al., 2013).

Employment preparation is especially important for individuals with Asperger's Disorder because characteristics of the disorder such as the inability to recognize social expectations or difficulties adapting to a changed routine can be barriers to employability, and the inflexibility of behavior can cause interference with functioning in a work environment (Gerhardt et al., 2006). Grandin and Duffy (2008) illustrated how individuals with Asperger's Disorder can transition successfully into work by making the transition gradual, seeking out supportive employers, and

finding coworkers who can serve as mentors to help them understand social etiquette in a work environment.

Transitioning to Work

As Grandin and Duffy (2008) have stated, academic achievement, social skill integration, and independent-living-skill development are important, but a significant element of life is work. Typically, many young people learn and develop as employees based on previous work experiences such as summer and after school jobs, or based on career development activities such as job shadowing and volunteering. Oftentimes, individuals with Asperger's Disorder have limited opportunities for career development and work experience, even though many are very gifted in disciplines that are important to society (Grandin & Duffy, 2008). College students with Asperger's Disorder may need some guidance in understanding that an ideal job may not be available, and working in a related area may be necessary in order to gain needed experience before being able to get the job they would ultimately like to pursue (Palmer, 2006).

Multiple interventions may be required for someone with Asperger's Disorder to be able to be successful at work because difficulties switching between work tasks and problems with time management, organization, and planning can hamper independence (Grandin & Duffy, 2008). Persons with Asperger's Disorder may struggle with social communication and may exhibit restricted or repetitive behaviors (APA, 2000). The apparent decreased interest in social interactions can cause difficulty in earning gainful employment, and without supports in place, deficits in social communication can cause noticeable impairments (Gerhardt et al., 2006). Since people with Asperger's Disorder may be socially inept, they must learn to flaunt their abilities instead of their personalities (Simmons & Davis, 2010).

Inside the Workplace

How we behave at work depends not only on the people we are with, but also on the hidden rules and social expectations that the workplace demands (Grandin & Duffy, 2008). Although relating to coworkers is of prime importance for effective teamwork, how to do so is not made explicit (Winner & Crooke, 2011). Winner and Crooke (2011) have explained that without concrete direction provided by someone who understands the condition, employees with Asperger's Disorder may be unable to recognize or comprehend how to properly navigate such environments.

Winner and Crooke (2011) have recognized that employees with Asperger's Disorder are expected to be constantly aware of who is around them and anticipate what coworkers plan to do in their shared space. The mental energy required to be incessantly aware of such variable social surroundings can be strenuous for a person with Asperger's Disorder and can hamper his or her ability to focus on work tasks (Gerhardt et al., 2006). This relentless level of self-awareness can also produce anxiety that traditional employees do not have to endure and overcome (Winner & Crooke, 2011).

One characteristic of persons considered to have good social skills is the ability to understand that others may have thoughts, beliefs, desires, and intentions that may be different than their own. Winner and Crooke (2011) have observed that the absence of this instinctive skill in individuals with Asperger's Disorder, commonly known as "theory of mind," is important to understanding the difference in social competence between neurotypical individuals and individuals with Asperger's Disorder. The ability to recognize Theory of Mind issues and appropriately relate to coworkers is a key indicator to vocational success (Gerhardt et al., 2006).

No matter how intelligent or accomplished employees with Asperger's Disorder may be in their chosen field of work, if their social mind is not functioning in tandem with their professional mind, they may have trouble operating in the workplace (Winner & Crooke, 2011).

Employer Perspectives

As more individuals living with Asperger's Disorder are graduating from college, the knowledge of the qualifications and unique skills that this population has to offer is beginning to be recognized by employers (Dostis, 2013). Dostis (2013) has maintained that the unique intellectual capacity that students with Asperger's Disorder possess single-handedly helps businesses stay competitive in today's world economy. Companies who have hired individuals with Asperger's Disorder have shared their observations that these employees are often better performers at work than others and that these employees remain loyal to the position for longer periods of time (Scheiner, 2013).

As people with Asperger's Disorder are making up a growing portion of the labor pool, some employers are enhancing work environments for those on the spectrum because the employers recognize and value their workers' unique abilities (Simmons & Davis, 2010). Both employers and coworkers need to be educated about Asperger's Disorder so that they can understand the strengths and limitations employees with Asperger's Disorder may face while at work (Grandin & Duffy, 2008).

Employers and coworkers may need to change the way they speak with an employee with Asperger's Disorder because such employees may not understand typical jokes, sarcasm, or colloquialisms; however, with minor effort on the part of management, a person with Asperger's Disorder can be a highly valuable asset to a business (Simmons & Davis, 2010). Employees

with Asperger's Disorder can thrive at work when they are provided with well-defined expectations (Gerhardt et al., 2006).

College graduates with Asperger's Disorder must sell their skills, not themselves, which is the opposite of the way most businesses function (Grandin & Duffy, 2008). Employees with Asperger's Disorder bring extraordinary intelligence, advanced skills, immense interest in various components of a company, and a strong degree of visual, big-picture overviews which may ultimately lead to increased productivity (Simmons & Davis, 2010). Talent earns respect, and employers need those advanced skills to keep their businesses running (Grandin & Duffy, 2008). Simmons and Davis (2010) have asserted that by providing the proper supports for an employee with Asperger's Disorder, everyone in the organization can experience a higher-quality work environment with a productive and enjoyable work experience.

Parent Perspectives

Parents are the bridge between their student's needs and employers understanding Asperger's Disorder (Simmons & Davis, 2010). Grandin and Duffy (2008) have stated that parents play the most important role in the task of preparing individuals with Asperger's Disorder for the job world. Grandin and Duffy recommend that parents of students with Asperger's Disorder help to identify and cultivate strengths early by observing, listening, and reflecting on what makes their children happy. Even when strengths have been identified, determining how to use special interests and knowledge to build a future career can be a difficult task (Palmer, 2006).

Perhaps the staff at the college disability services office should have knowledge about the Asperger's Disorder, but typically, they have not been trained to provide career counseling or job

search guidance specifically for individuals with Asperger's Disorder (Palmer, 2006). Because of this gap in services, parents may find that they need to provide more support or guidance during this transition to employment (Palmer, 2006). Helping students choose a career according to strengths, interests, and aptitude and pairing them with a mentor to navigate the employment process can be beneficial (Simmons & Davis, 2010).

Palmer (2006) has observed that many college students with Asperger's Disorder cherish unrealistic expectations for a career. The career may be so specialized that the possibility of gaining employment in that area is improbable, or the student may not possess the necessary skills to be competitive for the career. Palmer has suggested that parents help their students evaluate their strengths and weaknesses with a career counselor so that the students can explore what they do well and what may be challenging to them; in addition, through this type of career exploration process, students can look through the requirements of the career they are considering and research the skills necessary for the job. This process may also clarify what are realistic expectations and what areas they may need to work on to gain the skills they will need. Palmer (2006) has affirmed that knowledge gained from these experiences will ultimately help the students better understand themselves and thus will lead to a better quality of life.

Statement of the Problem

Significant numbers of students with Asperger's Disorder are entering college, and higher education institutions have a responsibility to provide appropriate employment preparedness supports for them (M. Ellison, personal communication, April 17, 2014). The transition out of college for students with Asperger's Disorder differs from that of traditional college students. Therefore, increased understanding of the types of specific supports necessary for this growing

population of students to be adequately prepared for employment is needed. Research outcomes have revealed the unique strengths and challenges for college graduates with Asperger's Disorder related to employment issues as compared to traditional college graduates, but currently, an adequate process for preparing college graduates with Asperger's Disorder to earn gainful employment is undefined.

The assumptions that students with Asperger's Disorder in higher education can be supported through the current services available through offices of disability student services are not correct; indeed, the needs specific to this population demand more individualized attention and manpower to carry out the supports (CPSASD, 2014). An understanding of the perceptions of college students with Asperger's Disorder, employers who have supported individuals with Asperger's Disorder, and parents of college students with Asperger's Disorder is necessary to effectively determine preparedness needs for workforce readiness. This study will fill some of the lacunas within the current body of scholarly literature related to supporting college students with Asperger's Disorder as they transition to the workforce.

Addressing employment-preparedness issues for college students with Asperger's Disorder is important so that specialized supports related to workforce readiness can be understood and provided to college students with Asperger's Disorder. Information gained through surveys of the perspectives of these three groups (students, employers, and parents) can be used by college support personnel to generate workforce readiness programs that are geared towards effectively helping students with Asperger's Disorder achieve their employment goals. The goal of the study was to add to the body of scholarly literature so that professionals within the field have the knowledge to effectively support college students with Asperger's Disorder as these students

prepare for competitive employment. Research questions designed to produce a list of preparedness needs for workforce readiness measures for college students with Asperger's Disorder included the following:

Research Questions

1. What are the perceptions of college students with Asperger's Disorder in relation to preparedness needs for employment?
2. What are the perceptions of employers of individuals with Asperger's Disorder in relation to employment preparedness needs and work-related issues?
3. What are the perceptions of parents of college students with Asperger's Disorder in relation to preparedness needs for employment?

Chapter 2: Review of the Literature

The completion of a college degree is generally associated with acquiring and maintaining employment that provides a respectable working environment and a livable wage. For college-educated individuals with Asperger's Disorder, however, this is often not the case as they lack the understanding of workplace social etiquette skills necessary to promote themselves and to network with potential employers (Gerhardt et al., 2006).

It is apparent from the literature that the transition of students with disabilities from college to work is no better today than it was in previous decades (Brolin & Gysbers, 1989). Brolin and Gysbers surmised that the evidence is clear that the vast majority of students with disabilities do not attain a satisfactory level of career development consistent with their capabilities. This unfortunate outcome occurs despite the frequent proclamation that one of the most fundamental tenants of a college education is to develop to the maximum degree possible the abilities of all its students, so they can become employed and function as independent citizens in today's society (Brolin & Gysbers, 1989).

Defining Asperger's Disorder

The *Diagnostic and Statistical Manual* (DSM) of the American Psychiatric Association has long been the standard for diagnosing psychological disorders in children and adults (Grant & Nozyce, 2013). The manual has gone through several revisions to reflect scientific advances since its initial publication (Grant & Nozyce, 2013). In the 1980s, national estimates of autism—a disorder involving limited social and language skills—found that the condition occurred in only about four in 10,000 children (Dingfelder, 2004). But by 2014, a study conducted by the U.S. Center for Disease Control and Prevention confirmed that 1 out of every 68 children has some

form of Autism Spectrum Disorder (“Autism and Developmental,” 2014). Given that 46% of these individuals being diagnosed with Autism Spectrum Disorder have average to above-average intelligence, a significant number of those students have entered or will enter college (“Autism and Developmental,” 2014).

The practical distinction between Autistic Disorder and Asperger’s Disorder is found in social and communication functioning (Grant & Nozyce, 2013). Asperger’s Disorder is characterized by a qualitative impairment in communication skills and social interactions and by repetitive patterns of behavior (APA, 2000). Deficits in nonverbal communication such as facial expressions, eye contact, and body language are commonplace challenges for individuals with Asperger’s Disorder (APA, 2000). A deep immersion in a single field of interest and a strict adherence to a daily routine are also behaviors that individuals with Asperger’s Disorder may exhibit (Dingfelder, 2004).

The language of a person with Asperger’s Disorder is frequently quite idiosyncratic and may include archaic word forms or unusual and rarely used words or grammar (Dillon, 2007). Such language can become a social barrier, separating a person with Asperger’s Disorder from others (Dillon, 2007). Dillon (2007) proposed that the lack of social awareness coupled with the difficulty of establishing and maintaining relationships might prevent a person with Asperger’s Disorder from successfully using his or her advanced intellectual skills to excel in college. Despite the pervasive social and communication challenges symptomatic of Asperger’s Disorder, some experts within higher education have maintained that a place exists in college for students with Asperger’s Disorder (Jordan, 2001).

The concept of theory of mind has been proposed to explain the often divergent or socially unacceptable actions or thoughts of persons with Asperger's Disorder (Dillon, 2007). Theory of mind is the capacity to understand mental states such as beliefs, feelings, desires, and intentions of others (Winner & Crooke, 2011). Dillon (2007) acknowledged that people with Asperger's Disorder may be able to see only their own point of view and not understand that another person might have a differing perspective. Many professionals in the field of autism use this theory of mind concept to explain the unorthodox social behavior exhibited by some individuals with Asperger's Disorder (Dillon, 2007).

Scheiner (2013) sustained that the unique characteristics symptomatic of having Asperger's Disorder, such as Theory of Mind issues, can affect the ways in which individuals with the condition experience a work environment. One practical way in which Theory of Mind issues may occur in the workplace can be exemplified through the internship experience of "Alex". Alex was provided with a summer internship at his father's marketing company and noticed that many employees would get up from their desks every half hour or so to talk with other employees about topics that were unrelated to work tasks. Because individuals with Asperger's Disorder may exhibit difficulty initiating social interactions and understanding atypical or unsuccessful responses to the social overtures of others (APA, 2000), Alex thought that this type of social routine was odd. Alex asked his father why other employees were engaging these types of social communication exchanges and whether he was expected to model such behavior as well. Fortunately, Alex's father was able to serve as his mentor to guide him through the unwritten rules of workplace etiquette.

Social thinking demands that we negotiate virtually everything we do through an almost imperceptible thought process that considers other points of view, or perspectives, in addition to our own (Winner & Crooke, 2011). Our own thoughts and emotions and the thoughts and emotions of others are some of the most powerful social realities that employees with Asperger's Disorder have to deal with on a daily basis (Winner & Crooke, 2011). In order for individuals with Asperger's Disorder to have a positive work experience, they need to understand the rules and expectations created by a neurotypical society (Bissonette, 2013). Job shadowing, internship experiences, and frequent discussions of what other people are doing can help college students with Asperger's Disorder gain insight into the wide variety of employment options and expectations (Hillier, 2013).

The College Experience

Research studies conducted over the past decade have documented consistently that better employment could be attained through participation in postsecondary education (Flannery, Slovic, Benz, & Levine, 2007). Higher education provides the intellectual stimulation that many students with Asperger's Disorder desire. College students with Asperger's Disorder often have unique talents and abilities that can be challenged and developed to a very high level only in the college setting (Dillon, 2007). For many individuals with Asperger's Disorder, the college experience provides a sense of personal growth and self-esteem (Farrell, 2004). Even though a college student with Asperger's Disorder may possess the academic and intellectual skills needed to attend college, he or she may still retain social or behavioral issues that could prevent success (Dillon, 2007).

Dillon (2007) indicated that the use of a mentor to support challenges with executive functioning and social integration into the college environment can help college students with Asperger's Disorder be successful in college. One illustration of how trained mentors can support college students with Asperger's Disorder by interpreting and exploring social opportunities can be found in the college experience of "Jill" (Sarris, 2014). Sarris (2014) reported that Jill's college mentor accompanied her to her first extracurricular activity; a campus club meeting patterned on the *Mystery Science Theater 3000* television series. When the mentor and student arrived at the second meeting, the mentor was informed that "the student with Asperger's Disorder was accepted into the club, but she, alas, was not" (Sarris, 2014). Jill would likely have not attended the first club meeting without the guidance and companionship of her mentor, but through this form of social pairing, a positive experience—and one that could lead to future social opportunities—occurred (Sarris, 2014).

Many colleges offer a vast array of academic supports, yet for college students with Asperger's Disorder, these services do not address the social and behavioral difficulties they face (Farrell, 2004). Literature reveals that few support programs nationwide are dedicated to helping students with Asperger's Disorder in higher education (Dente & Coles, 2012). However, a limited number of colleges are beginning to provide individualized services for students with Asperger's Disorder across the United States as a result of parent and professional advocacy group actions and legislation such as the Higher Education Opportunity Act of 2008, which works to improve access to postsecondary education for students with disabilities (Hedrickson, Carson, Woods-Groves, Mendenhall, & Scheidecker, 2013). Ellison, Clark, Cunningham, & Hansen (2013) have reported that even if individuals with Asperger's Disorder seek out assistance in non-collegiate settings traditional disability service programs are typically

ineffective in supporting students with Asperger's Disorder due to a lack of resources, a lack of professional knowledge of Asperger's Disorder, and a rigid focus on academic adjustments and accommodations.

College Career Preparation

In order to maintain accreditation, institutions of higher education must evaluate the success of graduates. An accredited institution assures that the degree programs it offers as preparation for advanced study or employment can validate the success of its graduates (Higher Learning Commission, 2004). One of the six regional institutional accreditors in the United States, the Higher Learning Commission (2004) includes core components in its criteria for accreditation that require the institution to evaluate the accomplishments of its graduates through indicators deemed appropriate to its mission, such as employment rates, admission rates to advanced degree programs, and participation rates in internships. Colleges must not only be providers of academic instruction, but also providers of career and workforce development (Flannery et al., 2007). Flannery et al. (2007) reported that workforce development has expanded beyond the notion of employment or vocational training to include specialized training programs for special populations provided in college settings.

Many college administrators concerned about the education of students claim to recognize the need for career development, yet employment readiness programs and services are still not major priorities in most colleges (Brolin & Gysbers, 1989). Brolin and Gysbers (1989) have asserted that if gainful employment and living successfully in the community are major educational goals for colleges, then colleges must offer a curriculum that will lead to these accomplishments. Accredited colleges are obligated to update their curriculums to include

employment preparedness measures that exceed résumé workshops and career postings (Dostis, 2013). A major change in postsecondary education for students with disabilities is urgently needed—a shift in focus to a more functional approach that will give these students the competencies they need to survive in a 21st century job market (Brolin & Gysbers, 1989).

Palmer (2006) found that campus-based career service departments predominantly focus on preparing traditional college students who inherently have the skills for workforce readiness and are already equipped with basic work preparedness tools such as résumé and cover letter development. Baker (2005) agreed that most traditional college students already have the skill set necessary to navigate career service supports provided by college campuses from the time they enroll in higher education.

Although many colleges are working to improve career counseling supports for students with disabilities, most are ill-informed about how to best provide such tailored services, and they do not have employment preparedness curriculums specific for students with Asperger's Disorder (Palmer, 2006). Even if colleges make experiential learning readily available, students still need to have the initiative to network with potential employers. Networking skills demand reciprocal conversation, and this is where individuals with Asperger's Disorder struggle the most because of their overall lack of social awareness (Jordan, 2001). College-educated adults living with Asperger's Disorder often have difficulty seeking and maintaining employment because they do not possess the social skills necessary to navigate and adapt to a work environment, and their educational programs did not equip them to do so (Dostis, 2013).

College students with Asperger's Disorder need to begin planning for a career as early as their freshman year of college by exploring different courses and fields of study to discover their

interests and strengths (Palmer, 2006). Palmer (2006) suggests that during the college years, students with Asperger's Disorder help build their résumé by working or volunteering in jobs related to their career choice. Any work experience, volunteer or paid, will add to their résumé, and meeting people in the field who may be good references for future employment is a second beneficial aspect of career development (Palmer, 2006).

At its core, college prepares one to manage time, to work independently, and to work in a team to solve problems, but being gainfully employed requires that and so much more (Dostis, 2013). Gainful employment is a proven factor in improving self-esteem, reducing instances of depression, and promoting financial independence (Jordan 2001). However, discrimination continues to exist in denying equitable employment opportunities to college graduates with Asperger's Disorder (Dostis, 2013). Butterworth, Migliore, Nord, and Gelb (2012) reported that fewer than 24% of adults with Asperger's Disorder are employed, and those who hold jobs are typically under-employed and earn lower wages than peers without disabilities. Given the statistics reported by Butterworth et al. (2012), attending college certainly provides an alternative to immediate post-high school underemployment or unemployment to individuals with Asperger's Disorder.

Transitioning to Work

Most studies indicate that 75-85% of adults with Asperger's Disorder do not hold a full-time job (Scheiner, 2013). Scheiner (2013) found that in a 2008 study conducted by the University of Miami/Nova Southeastern University's Center for Autism and Related Disabilities of 200 families with transition-age and adult children with Asperger's Disorder, 74% of the respondents were unemployed, and 74% of those employed worked less than 20 hours a week. These

statistics greatly underestimate the overall number of individuals with Asperger's Disorder because many adults with Asperger's Disorder have never been diagnosed (Scheiner, 2013). Underestimated or not, these statistics foreshadow a wave of individuals with Asperger's Disorder entering adulthood who are labor-ready over the next ten years (Scheiner, 2013).

Even individuals with Asperger's Disorder who have four-year and advanced college degrees face significant challenges in finding and retaining employment (Bissonnette, 2013). Although the potential for gainful employment is high and websites, social skills classes, job coaches, and books instructing college graduates with Asperger's Disorder about how to behave in the workplace abound, Bissonnette (2013) and Scheiner (2013) have agreed that individuals with Asperger's Disorder may struggle with, or even resist, asking for assistance in requesting services for themselves. Many college graduates with Asperger's Disorder find advice concerning earning employment to be confusing (Bissonnette, 2013). The process of trying to find a job may seem fraught with contradictions and rituals that do not make sense to them; the job search process needs to be demystified so that individuals with Asperger's Disorder can find work that is both satisfying and manageable (Bissonnette, 2013).

It is important for individuals with Asperger's Disorder to understand that questions, concerns, and confusion over exploring the world of work have nothing to do with intelligence, qualifications, or the desire to work, but rather a fundamental difference in the way that the brain processes information is the primary difficulty in navigating employment (Bissonnette, 2013). Hiring practices in America have become standardized to fit a neurotypical society, but the road to successful employment for individuals with Asperger's Disorder is difficult (Bissonnette, 2013). Because the majority of employers primarily responsible for making hiring decisions in

organizations do not have Asperger's Disorder, Bissonnette (2013) ascertained that in order to find a job, individuals with Asperger's Disorder need to communicate personal strengths and abilities in a way that neurotypicals understand.

Although employers evaluate job candidates based on their education, experience, and skills, the decision about whom to hire is driven largely by how well an individual will be able to work with other people in the organization; in addition, how an employer feels about a job candidate is also a powerful determinate in the decision-making process (Winner & Crooke, 2011).

Responses to the interview process and the visible stress that it may cause for an individual with Asperger's Disorder can often lead to the employer not seriously considering the applicant for the position. However, Bissonnette (2013) has averred that employers are willing to overlook personal eccentricities if the job candidate with Asperger's Disorder has skills that are in demand or demonstrates exceptional work performance. Regardless, individuals with Asperger's Disorder must be prepared to compete in a job market dominated by neurotypicals (Bissonnette, 2013).

Scheiner (2013) and Dillon (2007) recognized that the social interactions required of a work environment are often the biggest challenge for an individual with Asperger's Disorder, so that supports designed to encourage appropriate social behavior in the workplace are vital.

Identifying a coworker who can serve as a mentor can be an effective technique for employees with Asperger's Disorder who are challenged with social communication (Dillon 2007).

Additional issues ranging from sensory overload to challenges with interpersonal communication can cause employees with Asperger's Disorder to be unsuccessful in the workplace (Myles, Endow, & Mayfield, 2013). Asperger's Disorder is not fully understood in the workplace,

and support systems for adults on the job are virtually non-existent (Scheiner, 2013). Scheiner (2013) stated that these factors leave individuals with Asperger's Disorder—who often have unique talents and capabilities—as a largely untapped workforce.

Employer Perspectives

Corporate America is certainly aware of autism, with the majority of companies demonstrating their support through sponsorship of autism awareness events and donations to autism-related non-profits (Scheiner, 2013). Less common, however, are strategic initiatives to include individuals with Asperger's Disorder in corporate diversity hiring practices (Scheiner, 2013). Like other distinctive population groups, individuals with Asperger's Disorder and their families can be issue-sensitive consumers. Individuals with Asperger's Disorder comprise a meaningful market share to companies, and their loyalty can be earned by being an employer of individuals with Asperger's Disorder (Scheiner, 2013).

Scott Badesch, CEO of the Autism Society of America (personal communication, January 15, 2013) asserted that many employers are merely unaware of the types of accommodations needed to assist individuals with Asperger's Disorder so that they may succeed in the workplace. Badesch (personal communication, January 15, 2013) states, “It's troubling to see the lack of employment opportunities for college graduates with Asperger's Disorder, given that they are far too often not provided ample opportunity to work in a job where their skills and education are matched with the responsibilities of the position.”

Individuals with Asperger's Disorder bring many strengths to the workplace, such as attention to detail, trustworthiness, reliability, and low absenteeism (Hillier, 2013). Hillier (2013) acknowledged that some aspects of jobs that other employees may find unappealing such

as independent assignments or repetitive tasks often appeal to persons with Asperger's Disorder. The preoccupation with specific interests that is characteristic of Asperger's Disorder can often lead to gaining great expertise in a particular field of work (Farrell, 2004).

Although the culture of employment is slowly shifting as autism awareness is spreading, individuals with Asperger's Disorder must ready themselves to enter a competitive job market (Bissonnette, 2013). To date, the responsibility for fitting into the workplace has fallen largely on the shoulders of the individual with Asperger's Disorder. As a result, many of the resources for individuals with Asperger's Disorder focus on what they need to do to "fit in," with little or no attention given to what the employer can do to accommodate the individual, and why it should (Scheiner, 2013). Scheiner (2013) had maintained that the need to educate employers on how to hire and retain employees with Asperger's Disorder is as critical as the need to educate individuals with Asperger's on how to seek employment and meet their employer's behavioral expectations.

Scheiner (2013) found that employers admit to feeling woefully unprepared to manage the issues that arise with employees with Asperger's Disorder. Scheiner (2013) has worked to create opportunities to help employers better understand the strengths and challenges of employing individuals with Asperger's Disorder and to assist employers in developing strategies to hire individuals with Asperger's Disorder through the Asperger Syndrome Training and Employment Partnership (ASTEP) she founded in 2000. Education on Asperger's Disorder involves making employers aware of the particular challenges faced by the employee with Asperger's Disorder—his or her communication style, social understanding, behavioral challenges, and potential sensory issues (Scheiner, 2013).

Scheiner (2013) mandated that communications training should include teaching employers, co-workers, and employees with Asperger's Disorder how to best communicate information and expectations in a clear fashion. Scheiner (2013) considered that the benefits of communications training extend well beyond the individual with Asperger's Disorder because all individuals who are trained can enhance aspects of their interactions in the work environment.

Many companies experience high turnover rates during the early years of employment of recent college graduates. Scheiner (2013) suggested that employers can offset that undesirable rate by hiring individuals with Asperger's Disorder because the unique characteristics of these individuals—loyalty, desire for stability and routine, extreme focus—cause them to be less likely to “job hop” during the early years of their careers. Scheiner (2013) illustrates this point through a program instituted in 1997 by the internationally-recognized corporation Home Depot. Home Depot created a program to hire individuals with developmental disabilities, including Asperger's Disorder, in its stores and found that the retention rate for individuals with a developmental disability was 50%, versus 34% for other employees (Scheiner, 2013). Better employee retention rates resulted in reduced costs for the employer.

Parental Role in Workforce Readiness

Many college graduates with Asperger's Disorder live at home, are unemployed or underemployed, or participate in programs that are inappropriate or unhelpful, leaving parents worried about what the future holds for their adult children (Hillier, 2013). Hillier believes that critical issues for helping adults with Asperger's Disorder understand the importance of employment and the magnitude of the role it will play in their life can be best communicated through family members. People who are invested in the life of the individual with Asperger's

Disorder and who understand how to best communicate the fundamentals of employment to them are vital to the student's transition to the workforce (Hillier, 2013).

Communication tools such as Social Stories, scripting, and role-playing can be used by parents and family members to help individuals with Asperger's Disorder build a confident attitude about getting a job and to reinforce how this transition can be positive (Simmons & Davis, 2010). Assisting college graduates with Asperger's Disorder in understanding the purpose of employment is critical for ensuring enthusiasm and motivation for the transition to the world of work (Hillier, 2013). Seeking employment may prove to be a difficult task because the individual with Asperger's Disorder is putting himself or herself entirely on the line, exposing some limitations and risking possible rejection, so limiting any pressure to perform or succeed is critical (Simmons & Davis 2010).

Due to the abstract nature of imagining what a particular career may be like, any individual may experience difficulty in deciding what job might be a good match, but if the individual with Asperger's Disorder does not fully grasp the fundamentals such as how important being employed is going to be and why, a successful transition may be much harder to achieve (Hillier, 2013). Parents and educators can make the transition into work gradual by taking the time to help individuals with Asperger's Disorder find and take advantage of job shadowing or volunteer opportunities at an early age (Grandin & Duffy, 2008).

Families that have children with Asperger's Disorder in college have needed to prepare for the more complex and less structured educational setting that college requires and the greater independence and flexibility that navigating a workplace environment demands (Ozonoff, Dawson, & McPartland, 2002). By reinforcing how employment can lead to earning money,

meeting new people, learning new skills, increasing self-confidence, and improving self-image, Hillier (2013) exemplified how parents can help alleviate the stress of navigating the employment process. Parents and family members can help empower college graduates with Asperger's Disorder to achieve rewarding, satisfying employment and make meaningful contributions to their community and to society as a whole (Hillier, 2013).

Chapter 3: Research Methods

A significant number of individuals included in the demographic landscape on college campuses today are students with Asperger's Disorder (Ford & Townsend, 2009). Despite the pervasive and often debilitating social, emotional, and communication challenges that individuals with Asperger's Disorder face, evidence suggests many have the intellectual capacity to learn within a typical educational environment (Baron-Cohen, Wheelwright, Burtenshaw, & Hobson, 2007). However, Wolf, Brown and Bork (2009) suggested that being a successful college student requires more than intellectual ability.

VanBergeijk, Klin, and Volkmar (2008) postulated that between 284,000 and 486,000 individuals under the age of 20 diagnosed with Asperger's Disorder were potentially preparing to enter American colleges and universities in 2008. The increasing prevalence of Asperger's Disorder may create difficulties for colleges unprepared for a growing number of students who have normal to superior intellectual ability, but severely impaired social and communication skills. VanBergeijk et al. (2008) pointed out the lack of research into effectively teaching and supporting individuals diagnosed with Asperger's Disorder, especially within higher education, because the main thrust of the academic literature has been focused upon the more severe forms of Autism Spectrum Disorder.

Many college students diagnosed with Asperger's Disorder experience clinically significant impairment in social interaction, exhibit fixed perseverative interests and ritualized patterns of behavior, and live with heightened levels of anxiety. Regardless of the severe challenges in learning and independent living skills that result from symptoms associated with Asperger's Disorder, many individuals with Asperger's Disorder possess the intellectual capacity and

adaptive skills necessary to attend a typical institution of higher education and move into the workforce upon graduation (Ferrell, 2004).

The flexibility and resilience necessary to succeed in higher education does not come naturally for a student with Asperger's Disorder; therefore, support strategies designed to meet the individualized needs of this population are in high demand. Because the transition out of college for students with Asperger's Disorder differs from traditional college students (Jordan, 2001), a need exists for increased understanding of the types of specific supports necessary for this growing population of students to be adequately prepared for employment. Wolf et al. (2009) described how a planned transition out of college, the ability to develop social networking, personal flexibility, the ability to structure free time, and the ability to plan for and carry out self-advocacy needs are necessary for a successful transition into employment.

Dente and Coles (2012) found that some of the reasons why students with Asperger's Disorder have struggled with the transition from college to employment paralleled the symptoms of the condition, such as difficulty with self-advocacy, advanced executive functioning skills, and social networking. Other differences that can affect the transition from college to the workforce were based in the structure and support of each environment (Dente & Coles, 2012). Research outcomes reveal the unique strengths and challenges for college graduates with Asperger's Disorder related to employment issues as compared to traditional college graduates, but no specific guidelines currently exist as to how college graduates with Asperger's Disorder can highlight their strengths and address their challenges to become better prepared to solicit and maintain gainful employment.

Few specialized employment services for adults with Asperger's Disorder are currently available because not much is known about how to best support those with Asperger's Disorder in the workplace (Hillier, 2013). Nevertheless, addressing employment-preparedness issues for college students with Asperger's Disorder so that specialized supports related to workforce readiness can be understood and provided to them is a priority. Perhaps the best sources of this information about proper workplace preparation are held by college students and graduates with Asperger's Disorder, along with their employers and parents.

By surveying these students, graduates, employers, and parents, information can be gained that will assist college support personnel in generating workforce readiness programs to help students with Asperger's Disorder achieve their employment goals. The goal of the study was to add to the body of scholarly literature so that professionals within the field have the knowledge to effectively support college students with Asperger's Disorder as they prepare for competitive employment.

Research Design

This mixed-methods research study was designed to examine perceptions and experiences of individuals with Asperger's Disorder in order to inspire further studies of the population (Bogdan & Biklen, 2007). Providing appropriate transition to work supports to college students with Asperger's Disorder is a relatively new topic in the field of higher education; therefore, little is known about the phenomenon. The three research questions were designed to explore the multiple areas of support deemed necessary for the effective transition from college to work for an individual with Asperger's Disorder.

To more fully understand individual experiences and gain insight into the types of supports needed for a more seamless transition from college to employment, information gathered from first-hand accounts of college students with Asperger's Disorder is needed. Data collected from these populations coupled with the perspectives of parents of college students with Asperger's Disorder and employers of individuals with Asperger's Disorder help specify the preparedness needs for employment for college students with Asperger's Disorder.

Methods to answer each of the three research questions were designed to establish a list of preparedness needs for workforce readiness measures for college students with Asperger's Disorder. Data geared at understanding the workforce preparedness needs for college students with Asperger's Disorder were collected by surveying each population about perceptions on employment readiness. Survey research methods (Fink, 2013) were employed to collect survey data from 83 college students with Asperger's Disorder, 64 employers who have hired individuals with Asperger's Disorder, and 146 parents of college students with Asperger's Disorder.

Population

Purposive sampling (Fink, 2013) was used to select participants for this study, and a phenomenological perspective guided the inquiry and data analysis due to the presumption that perspectives play a key role in how experiences are interpreted (Bogdan & Biklen, 2007). Explicit agreements were communicated to the research participants about how the study would be conducted; these agreements included details concerning participating, including how the results would be used and reported. This agreement was outlined in writing so the participants could see and understand what they were agreeing to do.

The co-investigator collected data from three groups of populations which served to best address the three research questions. The first population represented 83 currently enrolled students or students who formerly attended Marshall University who have been diagnosed with Asperger's Disorder. The second population represented 64 employers from across the United States who have provided work experiences for individuals with Asperger's Disorder. The third population represented 146 parents of college students with Asperger's Disorder who are currently attending or formerly attended Marshall University.

Data Collection

The data to provide answers for the study's three research questions were gathered using appropriate quantitative and qualitative survey tools. Survey instruments were aimed at identifying specific issues related to the employment needs of individuals with Asperger's Disorder. Electronic surveys (see Appendix B) featuring open-ended questions used for data collection were designed to provide information and insight into the types of supports believed necessary for a successful transition to and preparedness for employment.

An informed consent letter and a link to the electronic survey were delivered to participants via email. The informed consent letter detailed the survey process, provided instruction regarding risks and benefits, and explained that participation was designed to keep the identity of the participants anonymous. The consent letter also instructed participants on how to leave the study if desired, provided contact information for the principal investigator, and explained the study as part of the dissertation project. The survey instrument was accessed through Survey Monkey. A master list of participants and their contact information will be maintained for three years past the conclusion of the study in a secure location.

Data Analysis

Emergent category analysis was used to ascertain information related to the three research questions. Descriptive statistics were used to analyze the demographic data. This form of data analysis was appropriate for this research because it allowed for themes and patterns to emerge from multiple sources of evidence. A panel of experts consisting of individuals who have experience supporting college students with Asperger's Disorder provided evidence for establishing content validity and readability for the instruments.

Limitations and Delimitations

Because of the limited access to college students with Asperger's Disorder, caused by confidentiality restrictions, this study was limited to the researcher's access to college students with Asperger's Disorder. This population consisted of those who were currently participating in or had received support services from The West Virginia Autism Training Center's College Program for Students with Autism Spectrum Disorder at Marshall University. Due to the dual relationship that the co-investigator shared with some research participants, it was critically important that roles were identified and clarified in each setting. College students with Asperger's Disorder included in this study were invited to participate on a voluntary basis. Following recommendations from Bogdan and Biklen (2007), the co-investigator discussed with participants the purpose of the study, informed them that data would be collected through surveys, and explained how confidentiality would be maintained by the use of pseudonyms.

Any potential bias was realized and eliminated early on in the study, and any remaining or unavoidable validity threats have been presented in the conclusions of the study. Assumptions or stereotypes about college students with Asperger's Disorder are prevalent in today's society, and

researchers may have been biased in assuming that all college students with Asperger's Disorder would have some type of barrier to overcome that may slow down or prevent how quickly they acclimate to a college environment and transition into the workforce. Another limitation of this study was generalizability (Bogdan & Biklen, 2007). Whether this phenomenon can be applied to students who demonstrate more severe symptoms of Asperger's Disorder is unknown.

Chapter 4: Presentation and Analysis of Data

This cross-sectional study examined the unique employment preparedness needs for college students with Asperger's Disorder as perceived by college students, employers, and parents. Findings are organized accordingly: (a) data collection and participant characteristics, (b) major findings, (c) ancillary findings, and (d) summary of the findings.

Data Collection and Participant Characteristics

Three populations provided data for this study. Each of the three populations was invited to participate in the study, approved by Marshall University's Institutional Review Board (IRB), to determine their understanding of preparedness needs for employment specific to individuals with Asperger's Disorder.

One population consisted of college students with Asperger's Disorder ($n=83$) who had received or were currently receiving support services from The West Virginia Autism Training Center's College Program for Students with Autism Spectrum Disorder at Marshall University. Fifty-one percent ($n=42$) of the college student population returned the completed survey. The student respondents were predominately male (80%), and their average age was 25 years old. Fifty percent of the student respondents were currently enrolled in college; 5% had earned some college credits but were not currently enrolled; 31% had graduated from college; and 14% had graduated from college and were seeking additional education. Of the 42 respondents, 54% had worked part-time; 33% had worked full-time; 12% had a paid internship; 35% had an unpaid internship; 65% had volunteer work experience; and 10% had no work experience. If the student respondent had work experience, the longest period of time the student had maintained employment included less than 1 month (10.5%), 1-3 months (21%), 4-6 months (23.6%), 7-9

months (5.2%), 10 months to 1 year (10.5%), and more than 1 year (28.9%). Thirty-eight percent of the student respondents were currently employed, and 62% were currently unemployed. Table 1 summarizes the demographic data from the first population.

Table 1 *Demographic Data from First Population (College Students N=42)*

Enrollment Status	Work Experience	Time Sustaining Employment	Current Employment Status
50% currently enrolled in college	54% Part time work	10.5% less than 1 month	38% currently employed
5% some college credits	33% Full time work	21% 1-3 months	62% currently unemployed
31% graduated from college	12% Paid Internship	23.6% 4-6 months	
14% graduated and seeking additional education	35% Unpaid Internship	5.2% 7-9 months	
	65% Volunteered	10.5% 10 months to 1 year	
	10% No work experience	28.9% more than 1 year	

The second population to provide data consisted of employers ($n=64$) of businesses from across the United States who had employed or were currently employing an individual with Asperger's Disorder. Fifty-eight percent ($n=37$) of the employer population returned the completed survey. Prior to hiring, 74% of the employer participants had previous knowledge or training specific to supporting an individual with Asperger's Disorder in the workplace, and 26% did not have any previous knowledge or training. Of these 37 responding employers, 52% had provided part-time work, 55% had provided full-time work, 3% had provided a paid internship, 29% had provided an unpaid internship, and 29% had provided volunteer work experience for individuals with Asperger's Disorder. The longest period of time the employer had supported an employee with Asperger's Disorder included less than 1 month (3.2%), 1-3 months (9.6%), 4-6 months (16%), 7-9 months (12.9%), 10 months to 1 year (6.4%), and more than 1 year (51.6%). Table 2 summarizes the demographic data from the second population.

Table 2 *Demographic Data from Second Population (Employers N=37)*

Knowledge of Asperger's Disorder	Type of Work Provided	Time Sustaining Employment
74% had previous knowledge or training related to Asperger's Disorder	52% Part time work	3.2% less than 1 month
26% no knowledge of Asperger's Disorder prior to hiring	55% Full time work	9.6% 1-3 months
	3% Paid internship	16% 4-6 months
	29% Unpaid internship	12.9% 7-9 months
	29% Volunteering	6.4% 10 months – 1 year
		51.6% more than 1 year

The third population consisted of mothers, fathers or grandparents ($n=146$) of college students with Asperger's Disorder who were currently attending or had formerly attended Marshall University. Sixty-six percent ($n=97$) of the parent population returned the completed survey. Of these 97 parent respondents, 66% were mothers, 32 % were fathers, and 2% were grandparents of students with Asperger's Disorder. Sixty-seven percent of the parents responded that their students were currently enrolled in college, 15% had graduated from college, 9% had

some college credits but were not currently enrolled, and 4% had graduated with a degree and were currently enrolled in additional coursework. Fifty-eight percent of the parent responders reported that their students had worked part-time; 20% had worked full-time; 12% had a paid internship; 20% had an unpaid internship; 45% had volunteer work experience; and 16% had no work experience. If the student had work experience, the parents reported that the longest period of time the student had maintained employment included less than 1 month (8%), 1-3 months (38%), 4-6 months (10%), 7-9 months (8%), 10 months to 1 year (7%), and more than 1 year (30%). The parents reported that 22% of their students were currently employed, and 78% were currently unemployed. Table 3 summarizes the demographic data from the third population.

Table 3 *Demographic Data from Third Population (Parents N=97)*

Student's Enrollment Status	Student's Work Experience	Student's Time Sustaining Employment	Student's Current Employment Status
67% currently enrolled in college	58% Part time work	8% less than 1 month	22% currently employed
15% had graduated from college	20% Full time work	38% 1-3 months	78% currently unemployed
9% had some college credits	12% Paid internship	10% 4-6 months	
4% graduated and seeking additional education	20% Unpaid internship	8% 7-9 months	
	45% Volunteered	7% 10 months to 1 year	
	16% No work experience	30% more than 1 year	

All participants were sent a copy of the Marshall University Human Subjects IRB approval letter for the study (Appendix A) and a link to the electronic survey including survey instructions via email on August 25, 2014, and September 8, 2014 (Appendix B).

Major Findings

Major findings are presented within the framework of the research questions that guided this study. These questions explored employment preparedness needs for college students with Asperger's Disorder. Tables displaying the data appear after each narrative description.

Research Question 1: What are the perceptions of college students with Asperger's Disorder in relation to preparedness needs for employment?

Perceptions on employment preparedness needs from college students with Asperger's Disorder were measured by the responses to items 9-18 on the survey *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder*. College students were asked to rate their perceptions of 13 work issues as to their importance in obtaining and maintaining employment. The issues were writing a cover letter, developing a résumé, networking skills, the interview, work attire, personal hygiene, time management and organization skills, self-advocacy skills, co-worker relationships, tolerance of others, understanding non-verbal behavior, social communication, and stress management. Based on the mean scores, where 1 was "very unimportant" and 5 was "very important," college student respondents perceived that personal hygiene (4.74), the interview (4.71), time management and organization skills (4.66), and having a résumé (4.66) were work issues of significant importance in obtaining and maintaining employment. The mean statistics for each work related issue from survey item 9 are reflected in Table 4.

Table 4 *Student Perceptions of Importance of Employment Needs*

Work-Related Issue	Mean
Personal Hygiene	4.74
Interview	4.71
Resume	4.66
Time Management and Organization Skills	4.66
Stress Management	4.58
Work Attire	4.49
Social Communication	4.46
Self-advocacy	4.39
Tolerance of Others	4.34
Networking	4.29
Understanding Non-verbal Behavior	4.15
Co-Worker Relationships	3.88
Cover Letter	3.71

Scale: 1 = very unimportant, 5 = very important (n=41)

Moving beyond employee preparedness to issues related to actual employment, college students were asked to rate their perceptions on what issues could be problematic for them as employees. The literature identified several common issues for employees with Asperger's Disorder, and six of them were consistent across the literature. These issues were addressed in the remaining survey items. The first of these was related to the use of specialty language (i.e., jargon), metaphors, sarcasm, or shortcut words (i.e., slang) in the workplace, and 34% of students responded that they understood its importance to some extent. Thirty percent understood its importance to a moderate extent, 22% understood its importance to a large extent, 7% understood its importance to a small extent, and 7% did not understand the question. The mean response of 4.44 on a scale where 1 was "I do not understand this question" and 6 was "to a large extent" indicated that students perceived that they understood the use of specialty language (i.e., jargon), metaphors, sarcasm, or shortcut words (i.e., slang) in the workplace.

Student respondents were also asked to what extent they understood the types of conversation topics that were inappropriate in the workplace environment. Forty-two percent responded that they understood the types of conversation topics that were inappropriate in the workplace environment to a moderate extent, 39% understood the types of conversation topics that were inappropriate in the workplace environment to a large extent, 17% understood the types of conversation topics that were inappropriate in the workplace environment to a moderate extent, and 2% understood the types of conversation topics that were inappropriate in the workplace environment to a small extent. The mean response of 5.18 on a scale where 1 was "I do not understand this question" and 6 was "to a large extent" indicated that students perceived that they understood the types of conversation topics that were inappropriate in the workplace environment.

Student respondents were next asked how flexible they were when work tasks or expectations changed. Thirty-nine percent responded that they were somewhat flexible, 32% responded that they had average flexibility when work tasks or expectations changed, 17% responded that they were very flexible when work tasks or expectations changed, and 12% responded that they were somewhat inflexible when work tasks or expectations changed. The mean response of 3.57 on a scale where 1 was “very inflexible” and 5 was “very flexible” indicated that, overall, students perceived that they were flexible when work tasks or expectations changed.

Many students with Asperger’s Disorder have trouble knowing when they need help and may also struggle with self-advocacy in the workplace. Therefore, students with Asperger’s Disorder were asked if they knew whom to ask questions related to work tasks. Of the 41 respondents, 80% responded they knew whom to ask, 15% were unsure whom to ask, and 5% did not know whom to ask questions related to work tasks.

Next, student respondents were asked to what extent they knew how to manage their finances. Thirty-seven percent responded that they knew how to manage their finances to a moderate extent, 31% responded that they knew how to manage their finances to some extent, 17% responded that they knew how to manage their finances to a large extent, 10% responded that they knew how to manage their finances to a small extent, and 5% responded that they did not know how to manage their finances at all. Over half of the student respondents (54%) indicated that they knew how to manage their finances to a moderate extent or better, and the other student respondents indicated that they knew how to manage their finances to some extent or not at all.

Finally, student respondents were asked if they understood the specific degree programs and qualifications that are required for their careers of choice. Sixty-eight percent responded that they did understand the specific degree programs and qualifications that are required for their careers of choice, 24% were unsure, and 7% responded that they did not understand the specific degree programs and qualifications that are required for their careers of choice.

Additionally, student respondents were asked to list any fears or concerns they had regarding employment in an open-ended question. Thirty-five individual responses were received from 24 respondents. These responses were sorted into emergent categories by a panel of experts (listed in Appendix C). The verbatim responses are detailed in Appendix D. The expert panel established nine themes: career sustainability, perceptions from others, social anxiety/social communication, economy/job market, work expectations, lack of experience, concerns regarding disclosure, career satisfaction, and sensory issues. A percentage ranking of these emergent categories revealed that 20% were related to career sustainability, 17% reflected concerns about perceptions from others, 14% pertained to social anxiety and social communication, 14% focused on concerns about the economy and job market, 11% concerned work expectations, 8.5% were related to a lack of work experience, 8.5% suggested fears regarding disclosure, 2.8% concerned career satisfaction, and 2.8% concerned sensory issues.

Based on the data collected from the survey *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder*, college student respondents perceived that personal hygiene, the interview, a resume, and time management and organization skills are the most important preparedness needs for employment. College students with Asperger's Disorder

indicated that they understood what types of conversations were inappropriate for the workplace setting and also indicated that they could advocate for themselves in the workplace.

Data related to understanding the student respondents' perceptions about employability issues were also collected through an open-ended survey question. College students with Asperger's Disorder reported fears and concerns regarding employment; the main themes of these concerns involved career sustainability, perceptions from others, social anxiety and social communication, and the current economy and job market.

Research Question 2: What are the perceptions of employers of individuals with Asperger's Disorder in relation to employment preparedness needs and work-related issues?

Perceptions on employability issues specific to individuals with Asperger's Disorder were measured by the responses to items 6-13 on the survey *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder*. Employers who had experience supporting individuals with Asperger's Disorder were asked to rate the same work-related issues that the college student respondents did as to the extent that they perceived individuals with Asperger's Disorder had difficulty with each issue. The issues that the employer respondents were asked to consider were writing a cover letter, developing a resume, networking skills, the interview, work attire, personal hygiene, time management and organization skills, self-advocacy skills, co-worker relationships, tolerance of others, understanding non-verbal behavior, social communication, and stress management. Based on the mean scores where 1 was "not at all" and 5 was "to a large extent," the employer respondents perceived that individuals with Asperger's Disorder had difficulty with networking skills (4.04),

the interview (3.93), and social communication (3.77). The mean statistics for each work-related issue from survey item 6 are reflected in Table 5.

Table 5 *Employer Perceptions of the Extent to Which Individuals with Asperger’s Disorder Have Difficulty with Employability Issues*

Work-Related Issue	Mean
Networking Skills	4.04
Interview	3.93
Social Communication	3.77
Stress Management	3.65
Understanding Non-Verbal Behavior	3.63
Resume	3.58
Self-Advocacy Skills	3.50
Cover Letter	3.44
Co-Worker Relationships	3.35
Time Management and Organization Skills	3.06
Tolerance	2.93
Work Attire	2.42
Personal Hygiene	2.23

Scale: 1 = not at all, 5 = to a large extent (n=31)

Employers were next asked to rate work-related issues in relation to the extent that they perceived individuals with Asperger's Disorder understood the issue. The issues that the respondents were asked to consider were personal reputation; appropriate conversation topics; reciprocal dialogue; flexibility; resilience; personal space; unwritten work norms (i.e., small talk); appropriate behavior; sarcasm, jargon, or slang; and finance management. Based on the mean scores where 1 was "not at all" and 5 was "to a large extent," the employer respondents perceived that appropriate behavior (3.55), resilience (3.33), and personal space (3.30) were the primary issues that individuals with Asperger's Disorder had difficulty understanding in the workplace. The mean statistics for each work-related issue from survey item 7 are reflected in Table 6.

Table 6 *Employer Perceptions of the Extent to Which Individuals with Asperger's Disorder Understand Work-Related Issues*

Work-Related Issue	Mean
Networking Skills	4.04
Interview	3.93
Social Communication	3.77
Stress Management	3.65
Understanding Non-Verbal Behavior	3.63
Resume	3.58
Self-Advocacy Skills	3.50
Cover Letter	3.44
Co-Worker Relationships	3.35
Time Management and Organization Skills	3.06
Tolerance	2.93
Work Attire	2.42
Personal Hygiene	2.23

Scale: 1 = not at all, 5 = to a large extent (n=31)

Employers were then asked to identify the beneficial aspects of employing an individual with Asperger’s Disorder. They could choose multiple responses from a list of work-related attributes including following the rules (90% agreed), paying attention to detail (87% agreed), arriving on time (77% agreed), thriving in a routine environment (77% agreed), having a strong work ethic (71% agreed), being highly productive (55% agreed), and having predictable behavior (55% agreed). The percentages of employers who agreed on each beneficial aspect of employing an individual with Asperger’s Disorder are reflected in Table 7.

Table 7 *Employer Perspectives of the Beneficial Aspects of Employing an Individual with Asperger’s Disorder (n=31)*

Employees with Asperger’s Disorder:	% of Agreeing Employers
Follow the rules	90%
Pay attention to detail	87%
Arrive on time	77%
Thrive in a routine environment	77%
Have a strong work ethic	71%
Are highly productive	55%
Have predictable behavior	55%

Qualitative data related to understanding the employer respondents’ perceptions on employability issues specific to individuals with Asperger’s Disorder were collected through two survey items. The survey items asked employer respondents to provide any potential barriers,

hesitations, or concerns they had regarding employing someone with Asperger's Disorder and to provide any additional comments they had concerning employability issues for individuals with Asperger's Disorder. A total of 52 responses were received from 37 respondents, and an emergent category analysis was performed by a panel of experts (see Appendix C). A list of the verbatim responses is in Appendix E. The expert panel established two categories of responses and sorted them by theme into benefits and barriers to employing individuals with Asperger's Disorder.

Fifteen responses indicated employers' perceptions regarding the benefits of employing individuals with Asperger's Disorder. A percentage ranking of the emergent categories revealed that 20% were related to productivity when given a routine, 20% involved having a strong skill set, 13% were related to a strong willingness to help, 6% involved being hard-working, 6% indicated boosting staff morale, 6% were related to confidence, 6% were related to promptness, 6% involved honesty, 6% involved disclosure, and 6% were concerned having unique perspectives. The ranked data are arrayed in Table 8.

Table 8 *Employer Perceptions on the Benefits of Employing an Individual with Asperger's Disorder (n=15 responses)*

Employees with Asperger's Disorder:	% of responses
Are productive when given a routine	20%
Have a strong skill set	20%
Have a strong willingness to help	13.3%
Are hard working	6.6%
Boost employee morale	6.6%
Are confident	6.6%
Are prompt	6.6%
Are honest	6.6%
Provide insight into necessary supports when they disclose their diagnosis	6.6%

Employer respondents provided 37 responses indicating their perceptions of the barriers related to employing an individual with Asperger's Disorder. The expert panel established emergent categories; 24.3% indicated the need for employers and coworkers to have a better understanding of and more education about Asperger's Disorder, 24.3% involved issues with social interaction and social communication, 16.2% involved understanding or meeting work expectations, 10.8% indicated a need for job coaching/mentoring in the workplace, 8.1% reported the lack of self-advocacy skills, 5.4% involved the lack of transportation, 5.4% indicated issues with anxiety, 2.7% indicated parental over-involvement, 2.7% indicated issues with disclosure, and 2.7% indicated sensory issues. The ranked data are arrayed in Table 9.

Table 9 *Employer Perceptions of the Barriers Related to Employing an Individual with Asperger's Disorder (n=37 responses)*

Employees with Asperger's Disorder:	% of responses
Need for employers and co-workers to have a better understanding of and more education about Asperger's Disorder	24.3%
Have issues with social interaction and social communication	24.3%
May not understand or meet work expectations	16.2%
Need job coaches or mentors in the workplace	10.8%
Lack self-advocacy skills	8.1%
Have issues with anxiety	5.4%
Have issues with disclosure	2.7%
Have sensory issues	2.7%
Have parents who are over-involved in the employment process	2.7%
Lack transportation	2.7%

In summary, based on the data collected from the survey *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder*, employer respondents perceived that individuals with Asperger's Disorder have the most difficulty with networking skills, the interview process, and social communication. Employer respondents also perceived that individuals with Asperger's Disorder did not fully understand appropriate workplace behavior, resilience, and the importance of personal space. Employer respondents indicated that there are beneficial aspects to employing individuals with Asperger's Disorder because they follow workplace rules, pay attention to detail, arrive on time, and thrive in a routine environment.

Data related to understanding the employer respondents' perceptions about employability issues were also collected through two open-ended survey questions. The qualitative data were separated by the expert panel into benefits of and barriers to employing an individual with Asperger's Disorder. Employer respondents perceived the benefits of hiring individuals with Asperger's Disorder to be that they are productive when given a routine, have strong skill sets, and have a strong willingness to help. Employer respondents indicated that the barriers to employing individuals with Asperger's Disorder included the need for coworkers to have a better understanding of and more education about the diagnosis, issues with social interaction and social communication, and the lack of understanding workplace expectations.

Research Question 3: What are the perceptions of parents of college students with Asperger's Disorder in relation to preparedness needs for employment?

Perceptions on employment preparedness needs from parents of college students with Asperger's Disorder were measured by the responses to items 9-14 on the survey *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder*. Parent respondents ($n=95$) were asked to rate work-related issues in relation to their students' current level of preparedness for those work-related issues. The issues that the respondents were asked to consider were writing a cover letter, developing a resume, networking skills, the interview, work attire, personal hygiene, time management and organization skills, self-advocacy skills, co-worker relationships, tolerance of others, understanding non-verbal behavior, social communication, and stress management. Based on the mean scores where 1 was "very unprepared" and 5 was "very prepared," parent respondents perceived that their students were unprepared for networking skills, understanding non-verbal behavior, and stress management in the workplace. The mean statistics for each work-related issue from survey item 10 are reflected in Table 10.

Table 10 *Parent Perceptions of Employment Preparedness*

Work Related Issue	Mean
Personal Hygiene	3.35
Work Attire	3.12
Tolerance of Others	2.72
Resume	2.68
Self-Advocacy Skills	2.53
Time Management and Organization Skills	2.44
Co-Worker Relationships	2.43
Cover Letter	2.42
Interview	2.32
Social Communication	2.24
Stress Management	2.18
Understanding Non-Verbal Behavior	2.09
Networking Skills	1.82

Scale: 1 = very unprepared, 5 = very prepared (n=95)

Parent respondents were then asked to rate work-related issues in relation to the extent that they perceived their students with Asperger's Disorder understood the issue. The issues that the respondents were asked to consider were personal reputation; appropriate conversation topics; reciprocal dialogue; flexibility; resilience; personal space; unwritten work norms (i.e., small talk); appropriate behavior; sarcasm, jargon, or slang; and finance management. Based on the mean scores where 1 was "not at all" and 5 was "to a large extent," parent respondents perceived that appropriate behavior, personal space, and appropriate conversation topics were primary issues that students with Asperger's Disorder had difficulty understanding to some extent in the workplace. The mean statistics for each work-related issue from survey item 10 are reflected in Table 11.

Table 11 *Parent Perceptions of Students' Extent of Understanding Work-Related Issues*

Work Related Issue	Mean
Appropriate Behavior	3.54
Personal Space	3.42
Personal Reputation	3.32
Resilience	3.14
Appropriate Conversation Topics	3.10
Flexibility	2.95
Sarcasm, Jargon, or Slang	2.89
Reciprocal Dialogue	2.88
Finance Management	2.70
Unwritten Work Norms	2.57

Scale: 1 = not at all, 5= to a large extent (n=94)

Qualitative data related to understanding the parent respondents' perceptions regarding employability issues specific to individuals with Asperger's Disorder were collected from survey items 9 and 18. Survey item 9 asked parent respondents ($n=50$) to provide their perspectives on why their students had been unsuccessful at obtaining employment. Survey item 18 asked parent respondents ($n=88$) to identify their primary concern for their students regarding preparedness for employment.

Both survey items generated a total of 259 responses which were reviewed by a panel of experts (see Appendix C) to perform an emergent category analysis. A list of the verbatim responses is in Appendix F. The expert panel recognized 17 emergent themes related to employing an individual with Asperger's Disorder reported by parent respondents, including the following: struggling with social awareness and social communication (17%), poor interviewing skills (11.5%), problems with executive functioning (10.8%), having employers and coworkers who do not understand Asperger's Disorder (7.3%), facing a poor job market and economy (6.9%), theory of mind issues (6.5%), social anxiety (5.4%), lacking initiative or motivation (5.4%), not attempting employment yet (4.2%), lacking networking skills (3.8%), trouble sustaining a career (3.8%), lacking work experience (3.8%), needing a mentor or job coach (3.4%), hygiene issues (2.7%), struggling with understanding workplace expectations (2.7%), lacking transportation (2.3%), and issues surrounding disclosure (1.5%).

Based on the data collected from the survey *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder*, parent respondents perceived that their students were unprepared for networking skills, understanding non-verbal behavior, and stress management in the workplace. Parent respondents also perceived that appropriate behavior,

personal space, and personal reputation were primary issues that students with Asperger's Disorder had difficulty understanding to some extent in the workplace. Parent respondents perceived that struggles with social awareness and social communication, poor interviewing skills, and problems with executive functioning were the primary barriers to employment for students with Asperger's Disorder.

Ancillary Findings – Disclosure of Asperger's Disorder

Given the paucity of research and literature surrounding disclosure and its effects on employment, data were also collected related to students disclosing their diagnosis to employers. Butler and Gillis (2011) examined whether young adults hold stigmatizing views towards individuals with Asperger's Disorder and if that stigmatization is elicited by behaviors or labels. Their study surmised that the atypical behaviors associated with Asperger's Disorder influence stigmatizing attitudes towards individuals with Asperger's Disorder, not the label of the disorder itself (Butler and Gillis, 2011). Butler and Gillis (2011) suggested that in order to offset potential stigmatization, time and effort should be invested in teaching appropriate social and independent living skills rather than prioritizing disclosure as the highest concern. In Butler and Gillis' study, the label "Asperger's Disorder" did not affect stigmatization to a significant level.

When student respondents were asked if they planned to disclose their diagnosis to their employers, 46% responded they planned to disclose their diagnosis, 34% were unsure, and 20% did not plan to disclose their diagnosis to their employers. A large majority of these students (81%) indicated that they would disclose verbally during employment as opposed to in writing prior to becoming employed.

Employers were also asked about disclosure of the diagnosis by their employees with Asperger's Disorder. Specifically, they were asked if the majority (50% or more) of the employees with Asperger's Disorder disclosed their diagnosis personally or if the employer had been informed by another person. The employers reported that 56% had been informed by the individual with Asperger's Disorder, and 45% were informed of the employee's diagnosis by another person. Although the student population reported that they waited until they were employed to disclose, the employer population reported that 86% of their employees disclosed prior to employment. Employer respondents ($n=30$) also reported that when employees with Asperger's Disorder disclosed their diagnosis, 83% ($n=25$) disclosed verbally and 17% disclosed in writing.

When parents were asked about student plans for disclosing to their employers, 38% responded that their students planned to disclose their diagnosis to their employers, 40% were unsure about their students disclosing their diagnosis to their employers, and 22% felt their students did not plan to disclose their diagnosis to their employer.

Summary of the Findings

College Students with Asperger's Disorder perceived that they were generally prepared for employment. The areas they indicated as being the most important in order to be prepared for employment were personal hygiene, writing a resume, participating in interviews, and time management and organization skills. They also indicated that they understood the use of specialty language (i.e., jargon) and the adverse implications of engaging in inappropriate conversation topics in the workplace.

College students with Asperger's Disorder indicated they knew whom to ask questions related to work tasks and were flexible when work tasks or expectations changed. They perceived that they knew how to manage their finances to a moderate extent and indicated that they understood the specific degree programs and qualifications required for their careers of choice. When asked to list any fears or concerns they had regarding employment, nine themes emerged: career sustainability, perceptions from others, social anxiety/social communication, economy/job market, work expectations, lack of experience, concerns regarding disclosure, career satisfaction, and sensory issues.

Employers revealed that employees with Asperger's Disorder had encountered difficulty most often with networking skills, the interview process, and social communication in the workplace. They also reported that appropriate behavior, resilience, and personal space were work-related issues that individuals with Asperger's Disorder had difficulty understanding. Employers reported several beneficial aspects to hiring individuals with Asperger's Disorder, including the considerations that individuals with Asperger's Disorder followed the rules, paid attention to detail, arrived on time, and thrived in a routine environment.

Parents of students with Asperger's Disorder perceived that their students were unprepared for networking skills, understanding non-verbal behavior, and managing stress in the workplace. They also reported that appropriate behavior, understanding personal space, and personal reputation were work-related issues that their students had difficulty understanding in the workplace. Parents agreed that the primary barriers to employment for students with Asperger's Disorder were issues with social awareness and social communication, poor interview skills, and problems with executive functioning. They also felt that employers and coworkers did not have

an adequate understanding of Asperger's Disorder and needed additional education and training related to the condition.

In order to review the findings from the three populations who provided data for this study of employment preparedness—college students with Asperger's Disorder, employers and parents—summary data are represented in Table 12 and Table 13 in a comparative format that features ranking of the employment issues based on the calculated mean.

Table 12 *Ranking of Employment Preparedness Issues by Population*

Work Related Issue	College Student Ranking	Employer Ranking	Parent Ranking
Personal Hygiene	1	13	13
Interview	2	2	5
Resume	3	6	10
Time Management and Organization Skills	4	10	8
Stress Management	5	4	3
Work Attire	6	12	12
Social Communication	7	3	4
Self-Advocacy Skills	8	7	9
Tolerance of Others	9	11	11
Networking Skills	10	1	1
Understanding Non-Verbal Behavior	11	5	2
Co-Worker Relationships	12	9	7
Cover Letter	13	8	6

Ranking order: 1 = highest concern, 13 = least concern

Table 13 *Ranking of Student's Understanding of Work-Related Issues by Employer and Parent Populations*

Work Related Issue	Employer Ranking	Parent Ranking
Sarcasm, Jargon, or Slang	1	4
Finance Management	2	2
Unwritten Work Norms	3	1
Flexibility	4	5
Reciprocal Dialogue	5	3
Appropriate Conversation Topics	6	6
Personal Reputation	7	8
Personal Space	8	9
Resilience	9	7
Appropriate Behavior	10	10

Ranking order: 1 = highest concern, 10= least concern

Although the college student population perceived personal hygiene, the job interview, and the resume to be the most important preparedness needs for employment, the employer and parent populations agreed that networking skills were the most important preparedness needs for employment.

In addition, employers and parents conveyed that individuals with Asperger's Disorder do not fully understand sarcasm, jargon, or slang in the workplace, nor do they have strong finance management skills. Employers and parents reported apprehensions about individuals with Asperger's Disorder not understanding unwritten work norms, reciprocal dialogue, and the ability to be flexible in the workplace.

Chapter 5: Summary, Discussion of Findings, and Recommendations

This chapter contains a discussion and conclusions of the findings of this study from the perspective of current professional literature and practice related to understanding employment preparedness needs for individuals with Asperger's Disorder. This chapter also includes a summary of the study's methods and populations.

Summary of the Study

The type of supports that individuals with Asperger's Disorder need in order to be prepared for a competitive workforce differ greatly from a neurotypical society. Therefore, an increased understanding of the types of specific supports for this growing population of students to be adequately prepared for employment is necessary. Research outcomes reveal the unique strengths and challenges for college graduates with Asperger's Disorder related to employment issues as compared to traditional college graduates, but a plan for how college graduates with Asperger's Disorder can be effectively prepared to earn gainful employment does not currently exist.

This mixed-methods research study surveyed college students with Asperger's Disorder, employers who have supported individuals with Asperger's Disorder, and parents of college students with Asperger's Disorder to effectively determine their perceptions on preparedness needs for employment. The research questions that guided the study were as follows:

1: What are the perceptions of college students with Asperger's Disorder in relation to preparedness needs for employment?

2: What are the perceptions of employers of individuals with Asperger's Disorder in relation to employment preparedness needs and work-related issues?

3: What are the perceptions of parents of college students with Asperger's Disorder in relation to preparedness needs for employment?

Data to address these research questions were obtained by identifying the perceptions held by members of three distinct populations (college students, employers, and parents) related to workforce readiness measures for college students with Asperger's Disorder. These perceptions were obtained via responses to the *Understanding Employment Preparedness Needs for College Students with Asperger's Disorder* survey. The population for this study consisted of 42 ($N=83$) college students with Asperger's Disorder, 37 ($N=64$) employers who have hired individuals with Asperger's Disorder and 97 ($N=146$) parents of college students with Asperger's Disorder.

Surveys were delivered electronically via Survey Monkey online survey software in two rounds on August 25, 2014, and September 8, 2014. Of the 293 contacted, 176 ($n=176$, 60%) responded to the survey request and agreed to participate. Qualitative data related to understanding the respondents' perceptions on employability issues specific to individuals with Asperger's Disorder were also collected, and emergent category analyses were performed by a panel of experts (see Appendix C) to establish themes of issues related to employing individuals with Asperger's Disorder.

Discussion of the Findings

Figure 1 provides a visual overview of how each population in the study reported its perception of the level of importance of 13 identical work-related issues. The college student

population was asked to rate the work-related issues in relation to their importance in obtaining and maintaining employment. Employers were asked their perception of the extent to which employees with Asperger's Disorder had difficulty with the work-related issues, and parents were asked their perceptions regarding their students' current level of preparedness for the work-related issues.

In addition to the quantitative data gathered for this study, qualitative information was obtained by asking each of the three populations open-ended questions on the survey related to their concerns about how Asperger's Disorder affects employment. The open-ended responses were overlaid on the quantitative findings, and this juxtaposition of quantitative and qualitative data provided an organizational model for reporting findings of this research.

Figure 1 - Ranking of Importance of Work Related Issues by Population (*ranked most important to least important*)

	Employer	Parent	College Student
	Ranking of Importance of Work-Related Issues	Ranking of Current Preparedness	Ranking of Importance to Employment
<i>MOST</i>	Networking Skills	Networking Skills	Personal Hygiene
<i>IMPORTANT</i>			
↓	Interview	Understanding Non-Verbal Behavior	Interview
	Social Communication	Stress Management	Resume
	Stress Management	Social Communication	Time Management & Organization Skills
	Understanding Non-Verbal Behavior	Interview	Stress Management
	Resume	Cover Letter	Work Attire
↓	Self-Advocacy Skills	Co-Worker Relationships	Social Communication
	Cover Letter	Time Management & Organization Skills	Self-Advocacy Skills
	Co-Worker Relationships	Self-Advocacy Skills	Tolerance of Others
	Time Management & Organization Skills	Resume	Networking Skills
	Tolerance of Others	Tolerance of Others	Understanding Non-Verbal Behavior
↓	Work Attire	Work Attire	Co-Worker Relationships
<i>LEAST</i>	Personal Hygiene	Personal Hygiene	Cover Letter
<i>IMPORTANT</i>			

Employers who have experience supporting employees with Asperger's Disorder and parents who understand the strengths and challenges of their child provided first-hand knowledge related to the workplace issues that are commonplace challenges for this population of individuals. Much of the literature related to employment preparedness surrounds traditional job applicants and does not address the unique needs of job applicants who have Asperger's Disorder. Because employers' and parents' perceptions of individuals with Asperger's Disorder on the job are a primary lacuna within the literature and because they arguably have the most experience in actual observation of workplace issues, this research focused heavily on understanding their perceptions. Because of the unique perspectives held by employers and parents, their observations have provided the hierarchy for the discussion of the findings, which incorporates both quantitative and qualitative data.

Networking Skills.

Employers and parents agreed that the primary need for employment preparedness was the ability to network with others. Networking skills are intangible concepts that many individuals with Asperger's Disorder struggle to fully understand. The ways in which potential employees interact with employers in order to prove themselves as the strongest candidate for employment depends heavily upon social skills, a dominant insufficiency for individuals with Asperger's Disorder. Networking skills ranked 10th in order of importance for the college student population, likely due to the misunderstanding of what networking skills entail or because they truly do not believe that networking skills are very important for obtaining and maintaining employment.

In addition, when the employer and parent populations responded to open-ended questions regarding potential barriers, hesitations, or concerns they had regarding the employment of individuals with Asperger's Disorder, their responses also included concerns involving the ability to network with others. Although college students with Asperger's Disorder did not report networking skills to be very important in obtaining and maintaining employment, they did provide responses to the open-ended question alluding to it being an area of concern. One college-student respondent stated that he was afraid "that non-merit-based factors—networking, popularity, charismatic self-presentation, etc. will prove to be more important for my career advancement than my abilities or my commitment to doing my job well."

Given that employers, parents, and, to some extent, college students all indicated that networking skills are of concern for individuals with Asperger's Disorder regarding employment preparation; this study clearly indicates the importance of developing networking skills as a high priority for workplace preparation programs for individuals with Asperger's Disorder.

Job Interviews.

The job interview ranked second in order of the extent to which employers thought individuals with Asperger's Disorder had difficulty with the task. Parents ranked it as fifth in order of importance. Interviewing skills weigh heavily on the ability to portray oneself as a worthy candidate for employment. Part of this process involves meeting the general requirements of the position while the other, possibly more important, aspect involves the natural ebb and flow of conversation, another chief concern for individuals with Asperger's Disorder. Engaging in reciprocal dialogue is difficult due to the nature of how Asperger's Disorder affects communication skills (Winner & Crooke, 2011). The ability to understand how to begin,

maintain, and end a conversation is a skill that may come naturally to others, yet participating in fluid communication is a learned skill for individuals with Asperger's Disorder.

The college student population also recognized the job interview as a top concern because they ranked it as second in order of importance to employment. This was one domain that each of the three populations reported as an important work-related issue. Qualitative data related to the job interview were also reported as an area of concern for each population. One parent responded that her student is "a very hard worker," but she was "not sure he will get through the interview process." The parent respondent added, "His lack of conversation and small talk is a very significant handicap." Due to struggles with self-advocacy and social anxiety that many individuals with Asperger's Disorder share, each population reported that the job interview may be a barrier to employment.

Social Communication.

The highest ranking concerns expressed by employers and parents for students with Asperger's Disorder regarding preparedness needs for employment all revolved, notably, around social communication issues. Social communication was the third most important work-related issue that employers indicated employees with Asperger's Disorder had difficulty executing, and parents ranked social communication as the fourth most important work-related issue. This finding is not surprising given that the primary symptom of Asperger's Disorder is difficulty understanding and applying social communication in daily exchanges with others. The atypical use of language and inept social awareness are ways in which the condition reveals itself (Dillon, 2013; Scheiner, 2013).

Additionally, researchers asked employers and parents to rank their level of concern regarding ten work-related issues that may occur while on the job. The top concerns aligned with social communication-related challenges, such as the use of sarcasm, jargon, or slang; the understanding of work norms; and the use of reciprocal dialogue in the workplace.

Although social communication in the workplace was reported by employers and parents as a chief concern, college students did not rank it as a primary challenge. College students with Asperger's Disorder indicated that they understood what types of conversations were inappropriate for the workplace setting. This discrepancy in ranking the importance of social communication as a significant workplace issue reveals that college students with Asperger's Disorder may be unaware of what challenges exist. Because of this obliviousness, college students with Asperger's Disorder may not seek out and participate in programs designed to enhance social communication skills.

Responses to open-ended survey questions provided by all three populations included a considerable amount of information related to difficulty with social skills. Interestingly, although the college student population did not list social communication as important to employment when given parameters to select from in the quantitative elements of the survey, they did report social communication as an area of concern when provided with the opportunity in the open-ended survey items to list any fears or concerns they had regarding employment. In fact, social anxiety and social communication were reported as primary areas of concern by college students with Asperger's Disorder. Employers and parents also provided qualitative data that reflected social awareness and social communication as principal barriers to employment for individuals with Asperger's Disorder.

Examples of social communication in the workplace include the use of sarcasm, jargon, metaphors, or slang, and the literature indicates that individuals with Asperger's Disorder do not fully understand such language, likely due to their inept social communication skills. Nevertheless, college students with Asperger's Disorder reported that they did understand the use of specialty language in the workplace, further enhancing the argument that they may not seek out programs designed to enhance these skills because they do not see them as a challenge.

Indeed, employers' top three workplace concerns were all related to social communication. Obviously, these skills all play major roles in employment preparedness and therefore must be learned in order for individuals with Asperger's Disorder to be competitive candidates for employment (Dostis, 2013). Gerhardt et al. (2006) contended that the current unemployment and underemployment of individuals with Asperger's Disorder can be largely attributed to these social skill-related deficiencies.

Stress Management.

Stress management ranked fourth in order of concern for employers, and the parent population ranked it as the third most important concern for sustaining employment. The ability to recognize and manage stress in the workplace is a highly individualized skill. However, identifying antecedents to stress and knowing the best methods to manage it is necessary for maintaining employment. How stress affects employees with Asperger's Disorder may differ greatly from how traditional employees may be affected.

Parents' perspectives on stress management were insightful because they have the ability to identify both overt and subtle ways in which stress impacts their students' lives. The parent population provided qualitative data regarding how stress and anxiety play a role in employment.

One parent testified, “It is stressful for him when others don’t realize the concentration and effort involved in acting neurotypical.” Another parent indicated, “A new job requires a change in his daily routine and this definitely caused him stress.” Parents can provide insight to professionals who work to support college students with Asperger’s Disorder about ways in which stress can be identified and regulated in the workplace. Qualitative data provided by the employer population also suggested that stress management was a barrier to employment for employees with Asperger’s Disorder.

College students reported that time management and organization skills were more important than stress management in the workplace—a finding which could be indicative of their lack of understanding of the effect stress has on daily functioning. Properly managing stress in the workplace requires the ability to be flexible when work tasks or expectations change. College students with Asperger’s Disorder reported that they were somewhat flexible when work tasks or expectations changed on the job, indicating that they could manage work stress. The college student population also did not report stress as a fear or concern regarding employment when questioned in an open-ended manner. This finding further supports the suggestion that college students with Asperger’s Disorder are unaware of how others, specifically employers and parents, view existing challenges.

Non-Verbal Behavior.

An individual in the workplace both gives and interprets thousands of non-verbal cues and behaviors, including body posture, facial expression, eye-contact, gestures, and voice inflection throughout the workday. These behaviors communicate who one is and how he relates to others. Understanding these non-verbal cues is a skill that is integrated into many of the other work-

related issues that have been discussed, and it is ranked second on the list of concerns for parents. Parents believed that their student struggled most with understanding non-verbal behavior, secondary to networking skills. Employers ranked understanding non-verbal behavior as fifth on the list of concerns. Traditional employees are more keenly aware of the ways in which non-verbal behavior plays a role in workplace interactions and expectations. However, employees with Asperger's Disorder may not recognize non-verbal behavior or be aware of the profound effect it may have on workplace dialogue and expectations.

College students with Asperger's Disorder ranked the understanding of non-verbal behavior as tenth in order of importance for workplace preparedness skills, a finding that reveals their lack of understanding of its importance on the job. The subtle nature of non-verbal behavior likely adds to the difficulty individuals with Asperger's Disorder have with recognizing it in the workplace. Employees with Asperger's Disorder lack the awareness of non-verbal communication and therefore may misunderstand workplace norms and expectations. College students did provide qualitative data related to the fear of misunderstanding workplace expectations, but did not relate this factor to the ability to understand non-verbal behavior in the workplace.

Significantly, each of the three populations in this study provided qualitative data indicating the need for a job coach or mentor in the workplace in addition to the need for more education and training related to Asperger's Disorder. Because employers and coworkers do not fully understand how Asperger's Disorder affects one's life, their tolerance and support in the workplace can be limited. This issue has an additional facet in that it involves educating employers. Such education is not the focus of this study, but it plays an important role in the

success of individuals with Asperger's Disorder in the workplace. By increasing the awareness and importance of non-verbal communication issues, college students with Asperger's Disorder can be better prepared for the workforce.

The remaining workplace issues were not primary issues of concern for employers and parents pertaining to preparedness for employment for individuals with Asperger's Disorder. Many of the lower-ranking issues also pertained to adaptations while on the job rather than a preparedness need for employment. Therefore, information on these issues did not contribute to the purpose of the study and is not a part of the discussions.

Additional Factors for Employment Preparation Programs.

The ability to advocate for oneself was an area of apprehension for all three survey populations. It was the one workplace issue that each population listed as a necessary skill for employment, yet the ways in which self-advocacy skills are warranted on the job may vary. Many college students with Asperger's Disorder have trouble knowing when they need help and may also struggle with self-advocacy in the workplace (Myles, Endow, & Mayfield, 2013). When 41 college students were asked if they knew whom to ask questions related to work tasks, 80% responded yes, yet employers and parents reported the need for job coaches or mentors in the workplace to assist with self-advocacy skills. Although some college students reported that they understood how to advocate for themselves in the workplace, many agreed that identifying a coworker to serve as a mentor would be beneficial to employment. Identifying a coworker who can serve as a mentor can be an effective technique for employees with Asperger's Disorder who are challenged with social communication (Dillon, 2007). The employer population also provided

qualitative data to indicate that parents and other advocates were overly involved in the employment process. Appendix E contains the raw data provided by the employer population.

Co-worker relationships are workplace concerns that encompass many of the other aspects of employment addressed in the survey due to their origins in social communication. Social interactions required of a work environment are often the biggest challenge for individuals with Asperger's Disorder. Employers ranked co-worker relationships lower on the list of concerns; however, employers did report that these on-the-job relationships were critical aspects to sustaining employment since many job descriptions involve working well with others. Co-worker relationships are the foundation to successful employment and demand effective social communication skills, a difficult task for individuals with Asperger's Disorder. The college student population ranked co-worker relationships as next to last, twelfth, on the list of importance of work-related issues, revealing their lack of understanding of its significance in the workplace.

Another central aspect of Asperger's Disorder involves impairment in time management and organization skills, otherwise known as executive functioning skills. Executive functioning skills are the domain of cognitive abilities that includes self-regulation, set maintenance, selective inhibition of responding, response preparation, cognitive flexibility, and organizing time and space. Employers and parents did not report time management and organization skills as high on the list of concerns for individuals with Asperger's Disorder, yet the ability to complete workplace tasks in an organized and efficient manner is an expectation of all employers. College students are aware of their challenges with executive functioning and ranked this workplace issue as fourth in order of importance.

Tolerance is a global issue that employees with Asperger's Disorder are not immune to experiencing in the workplace. Employers and parents listed tolerance of others as less of a concern than other workplace issues. Most individuals with Asperger's Disorder have had to face judgments by others since they were first aware of having the condition, and many experts in the field believe that because of this need to persevere, these individuals are more tolerant of others. The college student population also ranked it as low on the list of concerns for employment.

Workplace attire and personal hygiene are ranked last in order of importance for employers and parents, yet personal hygiene was listed as the number one most important work-related issue for college students with Asperger's Disorder. The literature attributes the top ranking of personal hygiene by college students to the incessant reminders by parents and support staff about the need to practice good hygiene throughout developmental years.

Conclusions

This study determined that the chief concerns regarding preparedness needs for employment for college students with Asperger's Disorder revolved around social communication issues. Difficulties with social awareness and understanding, poor networking and interviewing skills, executive functioning, social anxiety, and a perceived lack of motivation or initiative were all clearly delineated by this research.

The study also revealed that college students with Asperger's Disorder are unaware that they lack the skills critical to obtaining and sustaining employment. The misunderstanding of the most important employer expectations—the ability to network with others, possess effective job interviewing skills, and understand and adequately participate in social communication—supports

the need for employment preparation programs designed to address these primary workplace issues.

Implications

Significant numbers of students with Asperger's Disorder are entering college, and higher education institutions have a responsibility to provide appropriate employment preparedness supports for them. However, the literature supports that students with disabilities are not attaining greater vocational and independent living success than they did in previous years (Brolin & Gysbers, 1989).

Offset this trend with information from the employer population of this study when asked to highlight the beneficial aspects to employing individuals with Asperger's Disorder. Employers responded that employees with Asperger's Disorder frequently exhibited several positive workplace behaviors such as compliance with the rules, sharp attention to detail, promptness, thriving in a routine environment, strong work ethic, high productivity, predictable behavior, strong willingness to help, hardworking, boosting employee morale, honesty, confidence, and unique perspectives that their coworkers may not possess. This information makes it obvious that college students with Asperger's Disorder are not only just employable but also have the potential for making tremendous contributions to their workplaces.

Employment preparation programs are an imperative need for college students with Asperger's Disorder. However, as this study revealed, college students with Asperger's Disorder are unaware that employers seek skills that are oftentimes unrelated to a specific skill set and instead, compare job candidates based on intangibles such as networking ability and fluid social communication. This lack of awareness could prevent college students with Asperger's Disorder

from participating in such employment-preparation programs. One solution is to embed employment preparation programs that teach the transition to work skills that this study identified as areas of concentration for college students with Asperger's Disorder into the college curriculum. At a minimum, these employment preparation programs should concentrate on teaching proper social communication skills, techniques to manage social anxiety and stress, networking skills, effective job interviewing skills, and executive functioning skills.

Recommendations for Further Study

This study could provide the basis for a pilot employment preparation program which could be further studied to provide more detailed descriptors of the needs for college students with Asperger's Disorder to become more competitive candidates for employment. This study could also be replicated with a different population of individuals with Asperger's Disorder who have completed high school and are transitioning to employment as opposed to transitioning to college.

Although behavioral interventions are available to help address and manage issues with social communication, challenges may exist through the lifespan. The data found in this study should support a shift in attitudes toward the view that Asperger's Disorder is a difference rather than a disability that must be treated or cured.

References

- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision). Washington, D.C.: Author.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, D.C.: Author.
- Autism and Developmental Disabilities Monitoring Network (2014). Retrieved from *Center for Disease Control and Prevention* website: <http://www.cdc.gov/ncbddd/autism/addm.html>
- Baker, J. (2005). *Preparing for life: The complete guide for transitioning to adulthood for those with Autism and Asperger's Syndrome*. Arlington, TX: Future Horizons.
- Baron-Cohen, S., Wheelwright, S., Burtenshaw, A., & Hobson, E. (2007). Mathematical talent linked to autism. *Human Nature*, 18, 125-131. Retrieved from <http://ezproxy.marshall.edu:2536/ehost/pdfviewer/pdfviewer?vid=3&hid=12&sid=ee75be00-17ae-463d-8dec-b29bddfaeb2d%40sessionmgr10>
- Bissonnette, B. (2013). *The complete guide to getting a job for people with Asperger's Syndrome*. Philadelphia, PA: Jessica Kingsley.
- Bogdan, R., & Biklen, S. (2007) *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston, MA: Allyn and Bacon.
- Brolin, D. E., & Gysbers, N. C. (1989). Career Education for Students with Disabilities. *Journal of Counseling & Development*, 68(2), 155.
- Butler, R. C., & Gillis, J. M. (2011). The impact of labels and behaviors on the stigmatization of adults with Asperger's Disorder. *Journal of Autism & Developmental Disorders*, 41(6), 741-749.

- Butterworth, J., Migliore, A., Nord, D., & Gelb, A. (2012). Improving the employment outcomes of job seekers with intellectual and developmental disabilities: A training and mentoring intervention for employment consultants. *Journal of Rehabilitation, 78*(2), 20-29.
- College Program for Students with Autism Spectrum Disorder. (2014, complete blog date). Retrieved from <http://www.mucollegesupport.blogspot.com/>
- Dente, C. L., & Coles, K. P. (2012). Ecological approaches to transition planning for students with Autism and Asperger's Syndrome. *Children & Schools, 34*(1), 27-36.
doi:10.1093/cs/cdr002
- Dillon, M. R. (2007). Creating supports for college students with Asperger syndrome through collaboration. *College Student Journal, 41* (2), 499-504.
- Dingfelder, S. (2004, December). A dilemma of definition. *Monitor, 35*(11), 48. Retrieved from <http://www.apa.org/monitor/dec04/definition.aspx>
- Dostis, M. (2013, October). Degree alone not enough to prepare grads for workforce. *USA Today College*. Retrieved from <http://www.usatoday.com/story/news/nation/2013/10/31/more-than-a-college-degree/3324303/>
- Economic News Release* (2014). Retrieved from United States Department of Labor, Bureau of Labor Statistics website: <http://www.bls.gov/news.release/disabl.a.htm>
- Ellison, M., Clark, J., Cunningham, M., & Hansen, R. (2013, September). Academic and campus accommodations that foster success for college students with Asperger's Disorder. *Southern Regional Council on Education Yearbook: Jazzing it up*. Retrieved from http://srcea.us/yahoo_site_admin/assets/docs/SRCEA_Yearbook_September_2013_version3.303160733.pdf

- Farrell, E. F. (2004, October). Asperger's confounds colleges. *Chronicle of Higher Education*, 51(7), A35-A36.
- Fink, A. (2013). *How to conduct surveys: A step-by-step guide*. Thousand Oaks, CA: Sage Publications.
- Flannery, K., Slovic, R., Benz, M. R., & Levine, E. (2007). Priorities and changing practices: Vocational rehabilitation and community colleges improving workforce development programs for people with disabilities. *Journal of Vocational Rehabilitation*, 27(3), 141-151.
- Ford, C. D., & Townsend, B. K. (2009). *An investigation of support programs for college students with high functioning Autism or Asperger Syndrome*. Columbia: University of Missouri-Columbia.
- Gerhardt, P., Holtz, K., Owings, N., & Resnik, D. (2006). *Life journey through Autism: A guide for transition to adulthood*. Arlington, VA: Danya International, Inc., Organization for Autism Research and Southwest Autism Research & Resource Center.
- Grandin, T., & Duffy, K. (2008). *Developing talents: Careers for individuals with Asperger Syndrome and high-functioning Autism*. Shawnee Mission, KS: AAPC.
- Grant, R., & Nozyce, M. (2013). Proposed changes to the American Psychiatric Association diagnostic criteria for Autism Spectrum Disorder: Implications for young children and their families. *Maternal & Child Health Journal*, 17(4), 586-592. doi: 10.1007/s10995-013-1250-9
- Harpur, J., Lawlor, M., & Fitzgerald, M. (2004). *Succeeding in college with Asperger Syndrome: A student guide*. London, United Kingdom: Jessica Kingsley.

- Hendrickson, J. M., Carson, R., Woods-Groves, S., Mendenhall, J., & Scheidecker, B. (2013). UI REACH: A postsecondary program serving Students with Autism and Intellectual Disabilities. *Education & Treatment of Children, 36*(4), 169-194.
- Higher Learning Commission (2004). *Criteria for accreditation*. (Policy No. CRRT.B.10.010) Retrieved from the Higher Learning Commission website:
<http://policy.hlcommission.org/Policies/criteria-for-accreditation.html>
- Hillier, A. (2013). Employment and Asperger Syndrome. *Asperger's Association of New England*. Retrieved from
http://www.aane.org/asperger_resources/articles/adults/employment_and_as.html
- Howlin, P., Alcock, J., & Burkin, C. (2005). An 8 year follow-up of a specialist supported employment service for high-ability adults with Autism or Asperger Syndrome. *Autism: The International Journal of Research & Practice, 9*(5), 533-549.
doi: 10.1177/1362361305057871
- Jordan, I. (2001, September). Colleges can do even more for people with disabilities. *Chronicle of Higher Education, 47*(40), B14.
- Myles, B., Endow, J., & Mayfield, M. (2013). *The hidden curriculum of getting and keeping a job: Navigating the social landscape of employment*. Shawnee Mission, KS: AAPC.
- Ozonoff, S. Dawson, G., & McPartland. (2002). *A parent's guide to Asperger Syndrome & high-functioning Autism*. Guilford Press.
- Palmer, A. (2006). *Realizing the college dream with Autism or Asperger Syndrome*. London, United Kingdom: Jessica Kingsley.

- Prince-Hughes, D. (2002). *Aquamarine blue 5: Personal stories of college students with Autism*. Ohio University Press.
- Sarris, M. (2014). Autism and the college experience. *Interactive Autism Network*. Retrieved from <http://www.iancommunity.org/ssc/autism-college-experience>
- Scheiner, M. (2013). Tackling the unemployment crisis for adults with Asperger's Syndrome. *Asperger Syndrome Training and Employment Partnership, Autism Around The Globe*. Retrieved from <http://www.autismaroundtheglobe.org/countries/USA26.asp>
- Simmons, K., & Davis, B. (2010). *Autism tomorrow: The complete guide to help your child thrive in the real world*. Seattle, WA: Exceptional Resources.
- Taheri, A., & Perry, A. (2012). Exploring the proposed DSM-5 criteria in a clinical sample. *Journal of Autism and Developmental Disorders*, 42, 1810-1817.
- VanBergeijk, E., Klin, A., & Volkmar, F. (2008). Supporting more able students on the Autism Spectrum: College and beyond. *Journal of Autism & Developmental Disorders*, 38(7), 1359-1370. doi:10.1007/s10803-007-0524-8
- Winner, M., & Crooke, P. (2011). *Social thinking at work: Why should I care?* San Jose, CA: Think Social.
- Wolf, L., Brown, J., & Bork, R. (2009). *Students with Asperger Syndrome: A guide for college personnel*. Shawnee Mission, KS: Autism Asperger.

APPENDIX A: Institutional Review Board Approval Letter



Office of Research Integrity
Institutional Review Board
401 11th St., Suite 1300
Huntington, WV 25701

FWA 00002704

IRB1 #00002205
IRB2 #00003206

August 21, 2014

Michael Cunningham, EdD
Leadership Studies, MUGC

RE: IRBNet ID# 641356-1

At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Cunningham:

Protocol Title: [641356-1] UNDERSTANDING EMPLOYMENT PREPAREDNESS NEEDS
FOR COLLEGE STUDENTS WITH ASPERGER'S DISORDER

Expiration Date: August 21, 2015

Site Location: MUGC

Submission Type: New Project APPROVED

Review Type: Exempt Review

In accordance with 45CFR46.101(b)(2), the above study and informed consents were granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee for the period of 12 months. The approval will expire August 21, 2015. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Rebecca Hansen.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

APPENDIX B: Survey Consent and Instruments



Approved on:	8/21/14
Expires on:	8/21/15
Study number:	641356

MARSHALL UNIVERSITY IRB

You are invited to participate in a research project entitled “UNDERSTANDING EMPLOYMENT PREPAREDNESS NEEDS FOR COLLEGE STUDENTS WITH ASPERGER’S DISORDER” designed to explore perceptions of preparedness needs for college students with Asperger's Disorder to enter a competitive workforce.

The study is being conducted by Michael Cunningham, Ed.D., and co-investigator Rebecca Hansen from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). This research is part of a doctoral dissertation for the co-investigator.

This survey is comprised of 18 items, and should take no more than ten minutes to complete. Your replies will be anonymous, so do not type your name anywhere on the form. There are no known risks involved with this study. Participation is completely voluntary and there will be no penalty or loss of benefits if you choose to not participate in this research study or to withdraw. If you choose not to participate you can leave the survey site. You may choose to not answer any question by simply leaving it blank. Once you complete the survey you can delete your browsing history for added security. Completing the on-line survey indicates your consent for use of the answers you supply. If you have any questions about the study you may contact Michael Cunningham, Ed.D. at 304-746-1912, Rebecca Hansen at 304-696-2839.

If you have any questions concerning your rights as a research participant you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey you are also confirming that you are 18 years of age or older.

Please print this page for your records.

Sincerely,

Rebecca Hansen, M.A.

Doctoral Student, Marshall University

Online Survey Consent:

You are invited to participate in a research project entitled "UNDERSTANDING EMPLOYMENT PREPAREDNESS NEEDS FOR COLLEGE STUDENTS WITH ASPERGER'S DISORDER" designed to explore perceptions of preparedness needs for college students with Asperger's Disorder to enter a competitive workforce

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If you have any questions concerning your rights as a research participant you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey you are also confirming that you are 18 years of age or older.

Please print this page for your records.

Sincerely,
Rebecca Hansen, M.A.
Doctoral Student, Marshall University

***1. I agree to continue.**

Yes

No

***2. I have a diagnosis of either Autism, PDD-NOS, Asperger's Disorder or Autism Spectrum Disorder.**

Yes

No

Tell us about yourself:

3. What is your sex?

- Male
- Female

4. In what year were you born?

Please enter the year you were born in a 4 digit number. (XXXX)

5. Please select the option that best fits your educational attainment:

- I am currently enrolled in college courses.
- I have some college credits, but I am not currently enrolled.
- I have graduated from college.
- I have graduated from college and I am seeking additional education.
- Other (please specify)

6. My work experience includes (check all that apply):

- part-time work
- full-time work
- paid internship
- unpaid internship
- volunteer work
- no work experience
- Other (please specify)

7. If you have work experience, what is the longest period of time you have maintained employment?

- Less than 1 month
- 1 month - 3 months
- 4 months - 6 months
- 7 months - 9 months
- 10 months - 1 year
- More than 1 year

8. Are you currently employed?

- Yes
- No

Directions:

Please complete the survey items below, which are designed to ascertain your perception of the importance of certain issues in the workplace. After each survey item, choose the descriptor that best fits your current understanding of preparedness needs for employment. Do not provide information that identifies you. This survey is voluntary and your identity will remain anonymous.

9. Please rate the following work related issues in relation to their importance in obtaining and maintaining employment.

	Very Unimportant	Somewhat Unimportant	Average Importance	Somewhat Important	Very Important
A: A Cover Letter:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B: A Resume:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C: Networking skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D: The Interview:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E: Work Attire:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F: Personal Hygiene:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G: Time Management and Organization Skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H: Self-advocacy Skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I: Co-worker Relationships:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J: Tolerance of Others:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K: Understanding Non-verbal Behavior:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L: Social Communication:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
M: Stress Management:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. To what extent do you understand the use of specialty language (jargon), metaphors, sarcasm or shortcut words (slang) in the workplace?

- I do not understand this question
- Not at all
- To little extent
- To some extent
- To a moderate extent
- To a large extent

11. To what extent do you understand the types of conversation topics that are INAPPROPRIATE in the workplace environment?

- I do not understand this question
- Not at all
- To little extent
- To some extent
- To a moderate extent
- To a large extent

12. How flexible are you when work tasks or expectations change?

- Very Inflexible
- Somewhat Inflexible
- Average Flexibility
- Somewhat Flexible
- Very Flexible

13. Do you know who to go to for questions related to work tasks?

- Yes
- No
- Unsure

14. Do you plan on disclosing (or did you disclose) your diagnosis to your employer?

- Yes
- No
- Unsure

15. If yes, how will you (or how did you) disclose your diagnosis?

- N/A
- Verbally
- In writing
- Other (please specify)

16. To what extent do you know how to manage your finances?

- Not at all
- To little extent
- To some extent
- To a moderate extent
- To a large extent

17. Do you understand the specific degree program and qualifications that are required for your career of choice?

- Yes
- No
- Unsure

18. Please list any fears or concerns you have regarding employment.



Approved on:	8/21/14
Expires on:	8/21/15
Study number:	641356

Marshall University IRB

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The study is being conducted by Michael Cunningham, Ed.D., and co-investigator Rebecca Hansen from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). This research is part of a doctoral dissertation for the co-investigator.

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If you have any questions concerning your rights as a research participant you may contact the Marshall University Office of Research Integrity at (304) 696-4303.

By completing this survey you are also confirming that you are 18 years of age or older.

Please print this page for your records.

Sincerely,

Rebecca Hansen, M.A.

Doctoral Student, Marshall University

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Sincerely,
Rebecca Hansen, M.A.
Doctoral Student, Marshall University

***1. I agree to continue.**

Yes

No

***2. Have you ever employed or are you currently employing an individual with Autism, PDD-NOS, Asperger's Disorder or Autism Spectrum Disorder?**

Yes

No

Directions:

Please complete the survey items below, which are designed to understand your perceptions on employability issues for individuals with Asperger's Disorder. After each survey item, choose the descriptor that best fits your current understanding of employment related supports for employees with Asperger's Disorder. Do not provide information that identifies you. This survey is voluntary and your identity will remain anonymous.

3. What is the longest period of time you have supported an employee with Asperger's Disorder?

- Less than 1 month
- 1 month - 3 months
- 4 months - 6 months
- 7 months - 9 months
- 10 months - 1 year
- More than 1 year

4. Prior to hiring, did you have any previous knowledge or training specific to supporting an individual with Asperger's Disorder in the workplace?

- Yes
- No

5. The type of work experience that I provide for an individual with Asperger's Disorder is (check all that apply):

- part-time work
- full-time work
- paid internship
- unpaid internship
- volunteer work
- Other (please specify)

6. In your experience, to what extent do employees with Asperger's Disorder have difficulty with the following work related needs?

	Not Applicable (N/A)	Not at all	To little extent	To some extent	To a moderate extent	To a large extent
A: A Cover Letter:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B: Resume:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C: Networking skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D: The Interview:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E: Work Attire:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F: Personal Hygiene:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G: Time Management and Organization Skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H: Self-advocacy Skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I: Co-worker Relationships:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J: Tolerance of Others:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K: Understanding Non- verbal Behavior:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L: Social Communication:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
M: Stress Management:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. From your perspective, to what extent do employees with Asperger's Disorder understand the following work related issues?

	Not Applicable (N/A)	Not at all	To little extent	To some extent	To a moderate extent	To a large extent
A: Personal Reputation:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B: Appropriate Conversation Topics:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C: Reciprocal Dialogue:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D: Flexibility:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E: Resilience:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F: Personal Space:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G: Unwritten Work Norms (i.e. small talk):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H: Appropriate Behavior:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I: Sarcasm, Jargon or Slang:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J: Finance Management:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Please identify the beneficial aspects of employing an individual with Asperger's Disorder (check all that apply).

- Arrives on time
- Attention to detail
- Highly productive
- Strong work ethic
- Follows the rules
- Thrives in a routine environment
- Predictable behavior
- Other (please specify)

9. Do/Did the majority (50% or more) of the employees with Asperger's Disorder you support(ed) PERSONALLY disclose their diagnosis to you?

- Yes
- I was informed of the employee's diagnosis by another person.

10. When the employee(s) with Asperger's Disorder you support(ed) did disclose their diagnosis, when did the majority (50% or more) inform you?

- Prior to employment
- During employment

11. When the employee(s) with Asperger's Disorder you support(ed) did disclose their diagnosis, how did the majority (50% or more) do it?

- Verbal Disclosure
- Written Disclosure

12. Please provide any potential barriers, hesitations or concerns you may have regarding employing someone with Asperger's Disorder.

13. Please provide any additional comments you have concerning employability issues for individuals with Asperger's Disorder.



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Doctoral Student, Marshall University

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Sincerely,
Rebecca Hansen, M.A.
Doctoral Student, Marshall University

***1. I agree to continue.**

Yes

No

***2. Does your student have a diagnosis of Autism, PDD-NOS, Asperger's Disorder or Autism Spectrum Disorder?**

Yes

No

Directions:

Please complete the survey items below, which are designed to understand your perceptions on the current readiness needs of your student for employment. After each survey item, choose the descriptor that best fits your student's current understanding of preparedness needs for employment. Do not provide information that identifies you. This survey is voluntary and your identity will remain anonymous.

3. What is your relationship to the student?

- Mother
- Father
- Grandparent
- Other (please specify)

4. What year was your student born?

Please enter the year your student was born in a 4 digit number (XXXX)

5. My student:

- has some college credits, but is not currently enrolled.
- is currently enrolled to complete a degree.
- has graduated with a degree.
- has graduated with a degree and is enrolled in additional coursework.
- Other (please specify)

6. My student's work experience includes (check all that apply):

- part-time work
- full-time work
- paid internship
- unpaid internship
- volunteer work
- no work experience
- Other (please specify)

7. If your student has work experience, what is the longest period of time (s)he maintained employment?

- Less than 1 month
- 1 month - 3 months
- 4 months - 6 months
- 7 months - 9 months
- 10 months - 1 year
- More than 1 year

8. My student is currently employed:

- Yes
- No

9. If your student has been unsuccessful at obtaining employment, please provide your perspective on why:

10. What is your student's current level of preparedness for the following work related issues?

	Very Unprepared	Somewhat Unprepared	Average Preparedness	Somewhat Prepared	Very Prepared
A. Cover Letter:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Resume:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Networking skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D. The Interview:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E. Work Attire:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F. Personal Hygiene:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G. Time Management and Organization Skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H. Self-advocacy Skills:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I. Co-worker Relationships:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J. Tolerance of Others:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K. Understanding Non-verbal Behavior:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L. Social Communication:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
M. Stress Management:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. To what extent does your student understand the importance of the following work related issues?

	Not at all	To little extent	To some extent	To a moderate extent	To a large extent
A. Personal Reputation:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Appropriate Conversation Topics:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Reciprocal Dialogue:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D. Flexibility:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E. Resilience:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F. Personal Space:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G: Unwritten Work Norms (i.e. small talk):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H: Appropriate Behavior:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I: Sarcasm, Jargon or Slang:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J: Finance Management:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Does your student plan to disclose (or did your student disclose) their diagnosis when applying for employment?

- Yes
- No
- Unsure

13. If your student plans to disclose (or previously disclosed) their diagnosis, how will (did) s/he do it?

- N/A
- Verbal disclosure
- Written disclosure
- Other (please specify)

14. What is your primary concern for your student regarding preparedness for employment?

APPENDIX C: Panel of Experts

Hillary Adams, M.A.

Student Support Specialist

College Program for Students with ASD at Marshall University

Jackie Clark, M.A.T

Assistant Coordinator

College Program for Students with ASD at Marshall University

APPENDIX D: Verbatim Responses of College Students

Question #18 Please list any fears of concerns you have regarding employment.

1. being able to hack it in a "career" type of job.
2. Primarily concerned with the perceptions of a diagnosis by employers and co-workers and whether or not it would impede career promotion/advancement.
3. My lack of experience will keep me from getting employed.
4. That non-merit-based factors - networking, popularity, charismatic self-presentation, etc. - will prove to be more important for my career advancement than my abilities or my commitment to doing my job well.
5. Anxiety, Stress, Loud noises, harassment
6. Finding a job that is actually enjoyable without a college degree
7. Public speaking scenario's I am somewhat fearful of. I have obtained some experience, but even still, I can be quite "gun shy" in front of a audience.
8. Possible height discrimination? Possible lack of understanding that it may take me longer to answer a question?
9. Meetings, falling behind in work, misunderstanding social interactions, being to quiet.
10. My fear is not gaining necessary skills for a future career, not being able to hold onto an important job, and not being able to climb up in the job.
11. Having little to no work experience beforehand, the thought of being in charge of the fates of others, the continued education that follows my major, the fear of losing my license, the randomness of problems and the expected quick completion of said tasks.
12. I'm always going to be different, and unfortunately in my chosen field, aberrations are not looked upon fondly.
13. fear of being laid off or being terminated from my job.
14. I find the lack of entry level positions in my field to be very concerning.
15. I fear that I'll never be hired, keep a job, or even find the right job for me.

16. It's very difficult to get your foot in the door to even get an interview. Lack of experience often caused me to be turned away just from them seeing my resume alone.
17. The current economy and job market are poor, and I do not have a master's yet and need to save up in order to get one, but the job opportunities for someone with only a bachelor's degree in my field are very poor. I know how to dress formally and gear my attire toward that of my co-workers, and I'm pretty good with nonverbal language, so i'm (sic) not worried about that. But I am very worried about getting lost or forgetting where things like the copier are, as I have a poor sense of direction. I also having trouble with directions with multiple steps (I'll have to write stuff down and write myself reminders and set alarms, etc.). I'm also worried about losing track of time or not managing my time properly. Alarms can tell me when to switch tasks, but even so, if I pace myself poorly I could end up with jobs that are sloppy or half-finished by the time the alarm goes off. I am also worried about being slow at tasks.
18. That I will be treated differently from others, either in discrimination or special treatment.
19. Mainly, if I were to let my employer know about my Aspergers(sic), I do not know how differently they would treat me. People tend to treat you differently after you tell them you have a disability even if they already know you as a person.
20. Amount of work hours, completion of assignments
21. Not being employed, understanding the tasks that I'm assigned to do, and making sure I say the right things.
22. That I will work hard in school, make good grades, do all the right things, and still be unemployed. Nothing is guaranteed.
23. My supervisor having differing views (specifically politically) than me.
24. That I could be fired if I am not responsible in my actions and how I represent myself and my company
25. None really at this point, I am now very well prepared to face most of what I will face.

APPENDIX E: Verbatim Responses of Employers

Question #8 Please identify the beneficial aspects of hiring someone with Asperger's Disorder.

1. Pride in doing something well
2. Views himself as a hard worker
3. There was a significant positive impact on employee morale for those working in the office where we hired those with Asperger's / ASD
4. The perspectives provided and tactics and solutions are pragmatic, out of the box and effective.
5. Really excels in the area where their skills are strongest. Wants to do a good job and please.
6. Every person with Asperger's is different. While some may have these qualities, not everyone will.
7. Not focused on just making money, do well in area(s) that interest them, routine.
8. Honesty

Question #12 Please provide any potential barriers, hesitations or concerns you may have regarding employing someone with Asperger's Disorder.

1. Social work requires an employee to be social, to interact with others on a frequent basis. A potential barrier for someone with Asperger's would be this social requirement.
2. Person's anxiety takes extra time to manage.
3. Among the employees we have had who have ASD, they have not done well without very clear rules and guidelines about their work, and so I might be hesitant to hire someone who needed to be very adaptable and be able to deal with new or different work-related issues "on the fly."
4. The person employed migrated to only one employee and seemed to only take direction from them. In a work setting would need to be able to work or take direction from multiple people.
5. The work environment is specifically set up to support young women on the spectrum but in other environments the employee could need additional supervision or a coach
6. Too self-oriented... fail to see themselves in the context of a community
7. NONE if placed in an appropriate job

8. Having the right manager in place to support ASD individuals. Related to this, turnover in managers (initial manager may have been perfect, new manager does not have the right training/personality to manage ASD individuals) Acceptance by the team with whom ASD individuals will work - we have a formal introduction and set expectations for the team so that they would know how to interact/respond to ASD individuals nonperformance and potential challenges in dismissing
9. lack of understanding by other non-autistic employees
10. interpersonal relationships social communication
11. Preparing the recruiting department and hiring managers on what to expect and on the modest workplace accommodations that may be needed.
Once through the initial two week transition it was really not much different from managing neuro-typical employees
12. Clarity in communication and tangible plans and training are key.
13. The individual's skill sets need to match very closely to the job requirements. To the extent the job requires tasks that the individual is not strong in, you need to adjust your expectations of performance in those areas.
14. Self-centered--but not selfish.
15. Employers in general lack of understanding of the disorder, willingness to accommodate in a for-profit, stressful environment; very difficult for many of them to work an entire day, complete assigned tasks in set time; comorbidity challenges, often undisclosed.
16. Lack of knowledge and or understanding about ASD from others at the work site: managers, Colleagues and or just those they may come across during the day: bathrooms, vending machines, lunch rooms
17. Social interaction with co-workers, 2) Organization skills, 3) Understanding directions, 4) Self-advocacy skills, 5) Ability to report problems timely

Question #13 Please provide any additional comments you have concerning employability issues for individuals with Asperger's Disorder.

1. We had a wonderful experience. Our volunteer was polite, on time, willing to do anything to help, and allowed us to push his limits (was willing to try new things and gain new experiences).
2. People with AS should learn advocacy skills early so they can tell employers, "I need ..."
3. transportation is an issue
4. When they are in their comfort zone, they are tremendous. But the smallest things can create paralyzing anxiety. They sweat the small stuff.
5. allowing trial periods or mentoring until individual is comfortable with the requirements of the position

6. You must do the same level of screening for the needed skills and capabilities as you do for neuro-typicals.
7. Parents can be too involved.
8. Each person needs a good advocate to help them prepare for success in the workplace...whether that is prior to employment or during employment.
9. The current work environment with noise and lights often is non sensitive to autistic individuals. And, far too many employers use processes that are just not sensitive to autistic employees.
10. The barriers to employment and the degree of the barrier are dependent on the individual employed. While there are commonalities of the type of social or executive functioning barriers to the disability population gross generalizations are not tangibly actionable by any employer.
11. To the extent an employee discloses, the individual is aware of their strengths and challenges, and the employer is willing to work with the individual, I would encourage anyone to hire someone with Asperger's. In college, it is important to work with the individual on the spectrum to make sure they understand (and accept) their challenges, as well as their strengths, and that they know how to talk about that with their employer.
12. They do have talents, gifts and passions like most neuro-typical people, and can be productive given proper supports and environment. However, due to the deficits (social, communications, hygiene, etc.), it will be difficult for many to find meaningful, living wage employment.
13. Not changing the person with ASD but helping them take the target off their back by: providing time to get comfortable with the space, Colleagues, workplace appropriate details, the job itself, and providing knowledge to those they will work with.

APPENDIX F: Verbatim Responses of Parents

Question #9 If your student has been unsuccessful at obtaining employment, please provide your perspective on why.

1. Every job that our son has had has been obtained through our support in looking for available jobs, completing resumes, and getting to interviews. All these jobs have been entry level jobs during the summer or part-time work during school. When our son gets the job, he has been a good employee who has been hired back for succeeding summers. He is on time and doesn't miss work. Thus I see his biggest difficulty is the executive functioning skills to obtain employment. Other issues that I see as affecting his employment will be lack of work experience of a more professional nature and interview skills relegated to social presentation.
2. My son's Asperger condition is severe enough that he is unable to go through a normal interview process in the field in which he's most interested and in which he's studying (i.e, software programming). Our experience is that it's difficult to find an "advocate" that can help him find an employer that could provide the necessary accommodations, and then prepare for and successfully negotiate an interview.
3. She was successful, but only because the state programs and other programs available were able to get her foot in the door through their contacts and contracts.
4. He was not able to pass oral interview. The job market is extremely competitive here where we live, he was told repeatedly that he needed prior experience.
5. This student was able to hold a job at a retail store before returning to college.
6. My son will have difficulties responding to interview questions for white collar positions.
7. too overwhelmed with school responsibilities to seek employment
8. Because of my child's time management difficulties, my child was not able to accrue valuable, resume-strengthening experiences, which hurts job prospects. My child's inability to get up and get ready for the day in a timely way makes work activities, even volunteer activities, difficult to engage in. My child's social skill difficulties hinder the job interview.
9. Has not tried to find employment yet
10. Currently employed part time but has been turned down for full time positions...not sure why.
11. Focus on school and downtime
12. Anxiety and rigidity prevent him from taking direction
13. he has not been interested in obtaining employment

14. the class. That is probably true, but I suspect his interview skills also made it readily apparent that he was not suitable as the sole teacher for a group of students at a technology camp.
15. poor appearance, personal hygiene
16. He is afraid and doesn't do well in the interview
17. Social skills remain a challenge and present barriers to being successful in the traditional recruiting process.
18. Inappropriate comments while at the work place, did not dress appropriately for the interview
19. Works part-time in minimum wage position
20. Can't get past interview process.
21. He has trouble answering ads and getting himself to the location to ask about employment. For his last job, he was recommended by a family friend, a vice president with the company. Before that, his father drove him to a beachfront shop and told him to go in and apply. He avoids job searches whenever possible. His other jobs were acquired through friends.
22. Has been enabled much of her life. She has erratic self-regulation on sleep cycles, erratic ability to get up and dressed without prompting, reluctance to use socially acceptable hygiene routines. Hyper-focus on video/online games.
23. He has applied for several jobs in our neighborhood, but has yet to be hired. For those employers who know him, I think it's because he's friendly, but obviously different. For those that don't, I think our zip code is a factor (even though we live on a college campus).
24. Does not know how to interview and called attentions to his faults. At a Tuesday Morning Interview he said that he would not be certain that he could be there on time because he could not drive and he had to depend on others, even though we had assured him that we would get him there. At a McDonald s interview he started off by saying he had a social disability and was not good with people.
25. He has been unsuccessful in obtaining Full Time work - his degree received from te.
26. Limited amount of jobs in his field of training. His speech patterns and mannerisms are out of the typical range for persons of his age. He has limited job experiences and lacks the confidence to sell himself in job interviews. Phone interviews are a disaster.
27. She is too vulnerable emotionally and has the co-morbid condition of mild brain damage as well which complicates her capacity to make sound decisions, gets flooded with too much responsibility) understand directions and she cannot drive to a workplace.
28. He has attempted to obtain employment for the last 3 summers and has been unsuccessful until this summer when he got a job for 1 week through a temp service. It was the last week before heading back to school. Other work has been for family friends doing

landscaping. Even when I would advise the employer that my son had Asperger's Syndrome he would still not get hired. I believe his lack of social interaction is perceived as laziness or lack of interest.

29. Part of the issue was a lack of motivation or connection to how part time or volunteer work could help better my son. (What's in it for me concept). However, this summer I witnessed his willingness and a sense of enjoyment of having a routine and being part of the team at the bank. I believe that for him, being paid and having a dedicated workspace where definitely a plus. He did interview for other summer jobs, and I do believe that the interview process was overwhelming for my son. He missed what things he was to follow up with and do next (due to his lack of executive functioning)
30. Joe seems to be overwhelmed with "the next step." He is willing to put himself out there, but he doesn't know what to do. He is not intuitive and gets easily overwhelmed with a job search that has no support.
31. No work ethic, narcissistic issues
32. Not really relevant yet but when he looks for a job I imagine over-eagerness/anxiousness, and the delay in reaction time will be challenges.
33. The interview process was extremely challenging along with the process of applying for jobs via the internet.
34. He never applied, largely due to my lack of confidence that he would be able to succeed-maturity being the single largest factor. I also emphasized that school was his job in high school which he still holds on to.
35. He does not want to work. Until he can work in his chosen field, he is not at all interested in working.
36. I believe he needs a "go to" person in the work environment who is aware that he is autistic and this is difficult to find. This person could assist in providing a safe haven when the environment is too overwhelming or the social interactions are stressful. Another reason for not being able to maintain employment is unrealistic expectations on my son's part. His thought process and rational thinking is unrealistic at times which hinders his ability to maintain work. The stress of a new environment, a new routine and new people make it difficult for him because of the difficulty that he has dealing with these factors.
37. My son was unable to answer questions in interviews.
38. Limited opportunities for people with autism
39. She has been only going to school.
40. weak job market, severe competition for entry level jobs, being misunderstood.
41. He is currently working one day a week but we would like for him to work full time. Problems with getting more hours appear to be a lack of jobs in our area; lack of

motivation on his part, inability to drive, lack of pushing on our (parents part) but total lack of interest on his part....

42. My student has been unsuccessful at obtaining any type of full-time employment or employment within his career field due to social skills issues and lack of motivation/poor attitude about specific types of jobs.
43. Has not attempted yet
44. Has had no problem obtaining employment
45. We as parents have been aggressive in using our network of friends and acquaintances to help initially. For his current fulltime job, he worked with a job counselor through the Virginia Dept. of Rehabilitative Services.
46. Currently not capable of working due to social issues/ anxiety
47. My son had difficulty in finding employment doing anything but menial labor. He did not understand the need for organization, persistence, and follow-thru nor how to present himself in applications or interviews. Although he has above average intelligence and many adaptable writing, speaking, and computer skills, he was unable to communicate these facets of himself during job interviews. He answers questions in as few words as possible. Also, jobs have been very scarce in our area since 2007 as well as highly competitive. He did not understand the nature of the competition, He was also inhibited by fear of driving on busy highways to workplaces more than a half hour away from home.
48. Lack of drive to pursue a part time job and poor communication skills. Also, lack of understanding the process of applying, following through and the time frame involved in securing a job.
49. (1) Lack of jobs; (2) Lack of mentoring program for employees with Aspergers
50. maintaining a schedule/need for some type of challenging work
51. He has had a hard time but finally got a job at McDonalds. He has a hard time with interviews. But, also with keeping the job- following directions.
52. He really doesn't like to work, but interestingly he loves to volunteer.
53. Interview skills I believe are a factor
54. Our son has not attempted employment.

Question #14: What is your primary concern for your student regarding preparedness for employment?

1. Social skills
2. Skills to get a job

3. Finding the right environment where he can be happy and feel successful.
4. Having the employer give her the opportunity to succeed. Transportation
5. My concern is for his co-workers bullying him. This happened at the volunteer job where his co-workers made him do the bulk of the physical labor, locked him out of the building purposely and immediate supervisor asked him to spy on other co-workers.
6. His organizational skills need the most improvement. Also, he sometimes thinks too highly of himself.
7. Helping him understand the effort and work required to find employment, as well as the attention to detail required on a cover letter, resume, interview preparation, etc. We have done some of this with our son. He has not done it independently.
8. Same as everyone else, availability of work in field.
9. Handling multiple tasks at once and meeting deadlines; patience and flexibility with changing directives from bosses (especially if the boss' directives are illogical) ; moving at a face pace (student is slow, methodical, and detail oriented and work often demands quick replies that provide surface summaries); being able to distinguish task priorities and recognizing that some tasks should be completed with minimal effort and time and some tasks should be completed over a long period of time and with more precision (student current puts huge effort and meticulous attention, and large amount of time to all tasks as it is a struggle to allow self to do the prioritizing); the interview process will be stressful for this student and the student may miss important and subtle cues from the person conducting the interview when answering questions
- 10 That he doesn't know how to communicate his skills with sufficient strength to make himself the candidate of choice. Also, I am worried that he will struggle to retain employment without a support network in place.
- 11 Organization of time and tasks
- 12 Decision about whether to disclose diagnosis or not
- 13 That he won't have the stamina to hold a full time job. He has a very short attention span for anything that is not of particular interest. While he is fairly aware of social expectations, living up to them is exhausting. It is a lot of work to understand people, be understood, react in a way that is expected and not your natural reaction, suppress the urge to talk about special interests, and figure out solutions to problems that seem easy to others. It is stressful for him when others don't realize the concentration and effort involved in acting neurotypical. In the workforce, you are judged more often on what you did wrong, than what you did right. No employer is going to care that he has come so far or that he has to work extra hard just to be an average employee.
- 14 That my child will get that first job at all with such a thin resume. Then, if one is obtained, keeping it by showing up on time, not getting lost in the minutia, not getting

overwhelmed by competing demands, and not alienating coworkers because of poor social skills.

- 15 Stamina -- work takes a lot of energy, this will be an issue. Perseverance-- work often sucks, will have trouble plowing through that Maintaining calm at all times
- 16 Ability to interact with employer and fellow employees; ability to successfully problem solve on the job
- 17 Appearance and interactions with co-workers. Adequate in dress and hygiene but does not see importance. Needs to work at developing relationships at work even if just casual friendly conversations. Is somewhat unsure about how they are perceived by their supervisor. I am not sure if it is because they are not good at picking up on body language and other subtleties between people.
- 18 The interview and tolerance of others. He is going to start participating in "Social Thinking" clinic every week at his college so we are hopeful this will get him more prepared for the world after college.
- 19 Ability to maintain employment.
- 20 That there hasn't been much discussion or planning (that I know of) about what my child will do after graduation.
- 21 Understanding that you can't just give up if it does not go well in the beginning.
- 22 I stated in my prior answer that my child has a moderate understanding of all those issues that are important in the work place. HOWEVER, his ability to actually behave in a way that demonstrates his understanding of those issues is severely limited. Despite the fact that he knows he needs to be aware of his tone of voice and his use of sarcasm or comments that are "soto voce" his ability to contain himself in real time is somewhat limited.
- 23 The interview - he gets nervous, and that's the biggest gateway to employment. Worried also as to how he'll come off to prospective employers.
- 24 will he be able to handle a full time job or two part time jobs
- 25 He refuses to get a haircut and it's extremely unruly and does not wish to brush his teeth. He also doesn't wish to wear appropriate office attire. Although there are obvious obstacles in gaining employment, I believe that appearance should be manageable.

- 26 His difficulty following verbal instructions. He is very concrete. All instructions need to cover each and every step and even then he has difficulty completing tasks as required.
- 27 Personal appearance, financial management, continued growth to being a fully contributing adult
- 28 He doesn't grasp the reality of the need to work and eventually support himself
- 29 Navigating the employment process and finding work environments / companies that are sensitive to the needs of those on the spectrum and the minor accommodations they may require
- 30 He needs the assistance of supported employment to get a job. There's no way he can compete with a typical person for the same job in today's environment. If he makes "too much" \$ in a job, he loses the ability to get Medicaid and supported employment
- 31 networking, self-promotion, self confidence
- 32 He cannot get a job anywhere except a supermarket, he does not interview well. He is also over weight and sometimes unkempt, part of being unsuccessful in what he wants to do with his life.
- 33 Essential to be successful after graduation
- 34 the face-to-face interview, speaking professionally, providing appropriate answers, and asking appropriate questions
- 35 tolerating others and knowing what to say and when NOT to say what is on his mind
- 36 skill level
- 37 Getting motivated to search for a job and then being as comfortable as possible with the interview process. He does not need to tell people he is on the spectrum. Once he gets a job he does well.
- 38 Thankfully, my daughter is high-functioning, and realizes her workplace limitations. She will graduate in December and wants to secure a job in which she can work primarily from home or a virtual space.
- 39 For as far as he has come, he still has challenges to sequencing and timing to get a project done. Does not usually think ahead as to the consequences of his actions. He is not a great reader. Was an auditory learner in college. He has learned to smile and interact quite well with his superiors and this has helped him in current employment.

- 40 Getting to work on time independently.
- 41 That because he is so eager to please and be liked, he will be taken advantage of by others. Also, that his inability to deal with teasing might affect his relationship with colleagues.
- 42 While looking for a paid summer job in addition to his 2 day a week volunteer work this summer, I saw a big problem with him not being flexible as to what type of temporary summer job he could get (mostly working with food). The biggest hindrance I saw in the job search was that after filling out an on line application, he did not want to follow through by visiting the actual work site and introducing himself and asking if they received his application. A new job requires a change in his daily routine and this definitely caused him stress. Keep in mind as well that summer time has little structure without a job. He has been an easy target to be picked on and teased when he has had part time jobs. In other words, it does not take long for fellow employees to see how easy it is to push his buttons.
- 43 He is intelligent, but has gaps in his abilities such as difficulty organizing his writing and interpersonal skill.
- 44 He should have been tracked in a degree where there is limited interaction with co-workers and the skill sets are needed by many employers - something in the IT field or Medical lab field would have been best
- 45 I feel that it may be difficult for my son to keep a job. His social skills and vocal quality are not within the normal range making it difficult to get past the 1st. interview and if hired past the approval of his co-workers.
- 46 She understands conceptually what she would like to do and the vast discrepancy between that and what she is able to do. She is sad that she cannot accomplish in life her dream job but is realistic that she will have to be a volunteer instead. She manages her sadness but it is hard for her.
- 47 Social skills.
- 48 He is a very hard worker but I am not sure he will get through the interview process. His lack of conversation and small talk is a very significant handicap.
- 49 I am concerned that he could have a lack of motivation or connection to any job. It is a hope that the “upside of” ASPERGER'S DISORDER is a student’s obsession or focus that could be parlayed into meaningful work. However, that isn’t always the case. It is hard to know if it is part of the disability, or if it is being spoiled or lazy, but it is hard to parlay an obsession to play video games into meaningful career. Even when the student has what

teachers have told me are “gifts”. High intellect; photographic memory, musical acuity, good at math – the interpersonal and social deficits are in the forefront. I have witnessed that these deficits as being the first thing that one sees. Possibly, this has been the reason why his lack of social or community activities is something that is a frustration to his family and maybe even to him. The majority of work is a team – a community and even the solo employee has be part of the group for some of the time.

- 50 Inability to speak candidly about Asperger's Syndrome and how it affects her and how her employer can understand what actions will increase her success and the benefits of understanding.
- 51 I want Erich to have the real life long term feel for a job...not the hourly scooping ice cream kind of job. This should be v helpful to target their career choice even and tweak the resumes...or to help them get a campus job while they are there. PRACTICE the skills first hand!
- 52 How to get the first job. Once he is in place, I believe that he will be successful.
- 53 lack of work ethic
- 54 He can overwhelm others easily and is very trusting. Concerned w workplace relations.
- 55 interview skills, adapting to a changing environment day to day, anxiety management, multi-tasking abilities, awareness of behavior on other co-workers
- 56 A major concern is increasing his maturity to understand that he will be responsible to provide for himself and that the world is a competitive place.
- 57 Will he be able to handle the rigor of the workday and be able to manage his anxiety levels...is he employable
- 58 That he is able to make and maintain friendships with co-workers. That he is able to work well with co-workers.
- 59 He doesn't interview well and he freezes up on any admissions testing
- 60 My primary concern is that he won't be successful which in turn will be very difficult for him to accept and deal with.
- 61 Finding a way to get the technical skills needed for a career as well as the executive function skills required to sustain employment.

- 62 Understanding interactions between him and workers. He will want to over talk since he does not have any friends
- 63 I'm afraid she'll tell off her boss and get fired.
- 64 Ability to interact with others.
- 65 finding something he can excel in, take an interest in, work steadily in.
- 66 ability to manage his own finances
- 67 Student has only done vol. work in an environment which is comfortable and supportive. Main concern is being able to make it through the interview process in order to land a job in field of study. Then the concern would be if the student would be able to keep the job due to issues with starting and maintaining a conversation. If hired, student's work ethic would be strong.
- 68 She doesn't "present" as capable as she is and that she won't be given a chance
- 69 Behavior and stress management
- 70 Social skills, how he presents himself during the application/interview process, self-awareness, maintaining a positive attitude towards jobs he considers to be "beneath" him.
- 71 Interview, being underestimated by employer
- 72 Missing social cues, not understanding unwritten rules, having difficulty adapting to changes in the work environment
- 73 A challenging enough environment for his/her capabilities
- 74 He'd like to work elsewhere in government or the private sector. The issue of whether to disclose his Asperger's Syndrome will come up again. The worry is that it will weigh against him getting other more challenging jobs that pay more and offer opportunities for advancement.
- 75 There is no substitute for actual experience and my hope is to have my son have extensive experience in a variety of workplaces and to have those experiences supported by a job coach.
- 76 Social issues
- 77 I'm afraid that he will be unable to be flexible enough to adapt himself to the job market as it will exist when he graduates. He won't be able to systematically put it all together to

actively prepare for all aspects of seeking employment. He will have unrealistic expectations. He will believe that simply because he has a college degree that a job will be presented to him--that he won't have to work at the process of discovering suitable possibilities, networking and utilizing job search venues, matching his qualifications to them and revising resumes and cover letters to suit the offered position, etc. Most of all I'm afraid that he won't be persistent enough and I think that handling continual rejection will be especially difficult and daunting.

78 will working full time be too much stress

79 There are many concerns including communication skills, desire to put forth the effort to get a job, networking, professional maturity among other things. An education is great, but there needs to be a connection between what he is doing now and a future as an independent young man.

80 Coping with change and tolerance of differences in fellow workers

81 More employers need to recognize the value of hiring people with Aspergers, which can be maximized with a mentoring program.

82 Understanding expectations from the employer.

83 interviewing skills

84 building the appropriate expectation level so she knows what will be expected going in

85 Getting a job and KEEPING the job

86 His accepting work and then getting into a routine at work.

87 87. interview skills whether to disclose the ability to be a self-starter

88 He is Autistic! There is no part of him having and keeping a job that is not a concern. The trick is finding a job that "fits him".

89 My primary concern is his ability to fit in the workplace environment socially. His desire to be liked by everyone is very important to him and can sometimes be very stressful.

90 stress

VITA

Rebecca S. Hansen

EDUCATION

Marshall University, May 2015
Ed.D., Educational Leadership
Area of Emphasis: Student Affairs

Marshall University, May, 2006
M.A., Counseling (3.9 GPA)
Concentration: Student Affairs Counseling

Marshall University, May, 2003
B.S., Biology, Cum Laude (3.4 GPA)
Minor: Chemistry, Area of concentration: Cancer cell research

PROFESSIONAL EXPERIENCE

September 2010 to present

Program Coordinator, College Program for Students with ASD

- Facilitate the application and admissions process for the CPSASD
- Provide supervision and services to over 50 college students with ASD
- Provide professional advice and technical assistance to professors at Marshall University and design behavioral strategies that support students with ASD in the classroom
- Oversee 7 full time staff and 18 graduate assistants who, in turn, work closely with enrolled students with ASD
- Consult with universities and colleges from across the nation on how to develop and implement services for college students with ASD
- Collaborate with Offices of Vocational Rehabilitation to provide financial assistance to college students with ASD
- Present at local and national conferences on the topic of transitioning to and from the college environment for an individual with ASD, including how to provide individualized supports for students with ASD during the college journey.

2006-September 2010, Marshall University

Assistant Coordinator, College Program for Students with ASD

- Scheduled, interviewed and co-facilitated visits for prospective students
- Co-facilitated Person-Centered Planning techniques used to establish goals and support strategies for college students with ASD
- Supervised a team of graduate assistants to implement mentoring services for students enrolled in the CPSASD

2004-2006, Marshall University

Intake Coordinator, West Virginia Autism Training Center

- Made initial contact with new clients via telephone

- Counseled and educated parents with children who have been diagnosed with Autism Spectrum Disorder
- Maintained the agency's website and perform payroll duties

2004-2006, Marshall University

Graduate Assistant, College Program for Students with ASD

- Mentored and tutored students with Asperger's Disorder
- Assisted program coordinator by organizing social activities for the program
- Interviewed prospective students and graduate assistants for upcoming academic years

2001-2003, Marshall University

Computing Services Technologist/Manager

- Worked extensively with Microsoft Office Suite 2000, XP
- Supervised and evaluated student assistants
- Helped library patrons with questions and technical support

2001-2002, St. Mary's Medical Center, Cabell Huntington Hospital

Volunteer (100+ hours)

- Extensive Emergency Room experience
- Coordinated interdepartmental supplies
- Provided direction for the public to meet their needs

ACTIVITIES AND HONORS

- Jefferson Whitney Foundation, Board Member, 2013-2015
- Marshall University's Employee of the Month, September 2013
- Junior League of Huntington, President, 2011-2012
- Chi Sigma Iota, Vice President, 2006
- Student Affairs Internship, 2005-2006
- Tuition Wavier for Cancer Cell Research, 2002-2003
- Marshall University Dean's List, 1999-2003, 2004-2006
- Marshall University Student Advisory Committee, 2000-2003

PRESENTATIONS AND PUBLICATIONS

- **AACRAO's College & University Journal Publication**, Spring 2010 – *The Trifecta of Student Support Services: Helping Students with Autism Spectrum Disorders Achieve Success in Post-Secondary Education*
- **Autism Symposium**, March 2010, University of Arkansas – “Using Positive Behavioral Support Methods to Support Students with Asperger's Syndrome in a College Setting”
- **WVCCA/WVADE Joint Annual Conference**, October, 2011 – Co-presentation with Dr. Cunningham: “Preparing Students with Asperger's Syndrome for the Transition from High School into College”
- **Co-teaching EDF 625**, Spring 2011 – *Qualitative Research in Education* with Dr. Linda Spatig
- **SRCEA Yearbook Publication**, October 2013 – Dr. Cunningham, Dr. Marc Ellison, and Jackie Clark: “Understanding the Role of Classroom and Campus

Accommodations in the Effective Education of College Students with Asperger's Disorder"

- **Mountwest Community College**, March, 2013 – “Understanding and Supporting Students with Autism Spectrum Disorders Including Effective Teaching Strategies for Faculty and Staff”
- **iPED: Inquiring Pedagogies**, August 2013, Marshall University
- **Autism Society of Northwest Ohio**, February 2014, 2-day Workshop Series “Ready or Not, Here We Come”
- **43rd and 45th Autism Society of America National Conferences**, July 2012 and 2014 Pre-conference Workshop, Panel Discussions and Session Presentations