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Identification of An Asperger Syndrome Personality Profile For Postsecondary Transition Planning

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"Identification of An Asperger Syndrome Personality Profile For Postsecondary Transition Planning"

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By

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Identification of An Asperger Syndrome Personality Profile
For Postsecondary Transition Planning

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Abstract

Effective transition planning should address common stressors for college students with Asperger Syndrome (AS), such as social relationships and activities, academics and independence (Glennon 2001). Personality assessment can be used to identify and integrate student’s personality strengths in academic and/or career transition planning. The research objective was to identify common individual differences in students with AS that may contribute to the difficulty of transitioning to postsecondary education. Five primary factors and two global factors showed statistically significant differences between the two groups. These results suggest their personality style may hinder socialization, communication, and self-advocacy skills. Implications are geared towards school-based professionals who can utilize strategies to help mediate deleterious effects and enhance strengths associated with particular personality factors.
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Chapter One

Introduction

Many students find the transition to postsecondary education difficult and stressful (Compas, Wagner, Slavin & Vannatta 1986); however, research indicates that the process is especially difficult for student with disabilities (Madaus 2005). In efforts to ameliorate such difficulty, the Individuals with Educational Disability Act (IDEA) mandates transition plans to be:

- designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to postschool activities, including postsecondary education ...
- [602(34)A] and is based on the individual child’s needs, taking into account the child’s strengths, preferences and interests. [602(34)(B)].

Sitlington, Neubert, Begun, Lomard and Lecontee (2007) specify transition assessments are to assist students in “Identify[ing] their needs, strengths, interests and preferences in relation to postschool goals for living, learning and working … identify[ing] accommodations, supports, assistive technology and/or adult services to attain postschool goals” (p.3).

Personality assessments are one of the types of assessments possibly included in transition planning. Personality can be described as individual differences in the way one behaves, things and feels (Tackett, 2006). Thus, personality assessment can be used to identify and integrate student’s personality strengths in academic and/or career transition planning. Understanding of the student’s personality can also help inform practitioners on how to work best with the student.
IDENTIFICATION OF ASPERGER PERSONALITY PROFILE

Increasing prevalence rates of diagnosis, and subsequently enrollment in postsecondary education, students with Asperger’s Syndrome is a population of interest regarding transition planning. Though originally described as a personality disorder, Asperger’s Syndrome (AS) is considered to be at the more functional end of the Autism Spectrum and is one of five Pervasive Developmental Disorders. AS can be categorized by impairments in communication, behavior and social interaction. Deficits commonly experienced by students with AS can be seen in their personality; however, there is a paucity of research regarding personality and Asperger’s Syndrome.

Though normal personality has been highly research and associated with psychopathology, there is a scarcity of research on personality traits and AS (Ozonoff, Garcia, Clark & Lainhart, 2005). The purpose of this study is to determine if there is a profile of normal personality traits for students with AS. It is hypothesized there will be significant differences for this population when compared to non-Asperger’s Syndrome control group. Implications are geared towards school-based professional who can utilize strategies to help mediate deleterious effects and enhance strengths associated with particular personality factors.

A possible limitation is that it is not currently understood if those with AS have enough self-awareness to accurately answer questions about their personality. In a study by Johnson, Filliter and Murphy (2009), comparison was made between self-perceptions of children and adolescents with High Functioning Autism (HFA) and their parents’ perceptions. Comparisons were made between three measures that are associated with Autism related traits: Autism Spectrum Quotient (AQ), Empathy Quotient (EQ) and Systemizing Quotient (SQ). AQ measures the extent to which an individual exhibits Autism related traits. EQ measures the extent one can understand other people’s intentions, predict behavior and the ability to express emotion.
dependent on their perception of other people’s emotions. When compared to the control group of parents and children/adolescents without Autism, both children/adolescent with HFA and their parents indicated higher AQ and lower EQ scores. These results suggest that children/adolescents with HFA do have some degree of self-awareness. However, comparison within the HFA group indicates that there are limitations of self-awareness. Children/adolescents with HFA rated themselves to have lower AQ and higher EQ than their parents’ did. The control group did not demonstrate such within group differences. However, within the HFA group parents and children/adolescents did not significantly differ on SQ. Overall, students with HFA rated themselves to be more similar to the control group than their parents’ did. Authors of the study suggest that while children/adolescents do have some impairment regarding self-perception, the degree of impairment is related to the area being measured.

Definition of Terms

Asperger’s Syndrome (AS): AS is one of five Pervasive Developmental Disorders. Asperger’s Syndrome is on the high functioning end of the Autism spectrum. According to the American Psychiatric Association (DSM-IV-TR) diagnostic criteria includes impairment in social interactions and repetitive behaviors, interests or activities (2000).

Normal Personality: Influence how individuals organize their behavior to meet environmental demands and new challenges (Caspi 1998).

IDEA & IDEA of 2004: The Individuals with Disabilities Education Improvement Act (IDEA) is a law requiring education for children with disabilities. IDEA has been revised numerous times,
with the most recent revision in beginning in 2004 and resulting in The Individuals with Disabilities Education Improvement Act (IDEIA) ("IDEA" 2010). The most recent revision evaluated and clarified issues regarding eligibility, Individualized Education Program (IEP), related services, free and appropriate public education (FAPE) and least restrictive environment.

Transition Assessment: An ongoing process of collecting information on the student’s strengths, needs, preferences, and interests as they relate to the demands of current and future living, learning and working environments (Sitlington et al., 2007).

Transition Planning: As stated by the Individuals with Disabilities Education Improvement Act of 2004, transition planning consists of: "Coordinated set of activities ... based upon the individual student’s needs, taking into account the student’s preferences and interests, (including) instruction, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation".
Asperger’s Syndrome

Though originally described as a personality disorder, Asperger’s Syndrome (AS) is considered to be at the more functional end of the Autism Spectrum and is one of five Pervasive Developmental Disorders. The Center for Disease Control (2009), via the Autism and Developmental Disabilities Network, project that 1 in 110 children are diagnosed with Autism.

A relatively young area of research, Dr. Hans Asperger noted in 1944 a small group of “little professors” (Frith 1991). The boys were intelligent, socially impaired, and unusually interested in a specific topic that interfered with the acquisition of other skills. Asperger’s Syndrome was not officially included in the Diagnostic and Statistical Manual of Mental Disorders (DSM) until 1994.

AS can be categorized by impairments in communication, behavior and social interaction. The age of onset is typically by three years of age (Pomeroy 1998). The diagnostic criteria, as specified in the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition-Text Revision (APA 2000), specifies no delays in cognitive or adaptive functioning and:

- Qualitative impairment in social interaction, as manifested by at least two of the following: marked impairment in the use of multiple nonverbal behaviors, failure to develop peer relationships appropriate to developmental level, a lack of spontaneous seeking to share enjoyment, interests or achievements with other people, and lack of social or emotional reciprocity.
Identifying Asperger Personality Profile

Restricted, repetitive and stereotyped patterns of behavior, interests and activities manifested by at least one of the following: encompassing preoccupations with one or more stereotyped and restricted pattern of interest, apparently inflexible adherence to specific nonfunctional routines or rituals, stereotyped or repetitive motor mannerisms, or preoccupation with parts of objects. The disturbances cause clinically significant impairment in social, occupational or other important areas of functioning.

Asperger stated “Indeed their behaviour in the social group is the clearest sign of their disorder” (1944). The deleterious effects of deficits in communication, language and behavior are evident within the context of AS social interactions. Research suggests that 70%-80% of children diagnosed with AS will have significant social impairments during adolescence and adulthood (Fombonne 2003). At an early age those with AS have a salient absence of social interaction which as they grow older, during adolescence and adulthood, result in minimal quality peer relationships (Shriver et al., 1999). Previous research categorized individuals with AS social impairment to include the inability and lack of desire for peer interaction (Gillberg & Gillberg 1989). But, more recent research has suggested that many seek social contact but are limited by their communication and social deficits (Adreon & Durocher 2007).

Diagnostic criterion does not indicate a clinically significant delay in cognition or language; however, individuals with AS also demonstrate inadequate grasp of semantics, prosody and pragmatics. For example, the propensity for literal interpretation limits their ability to understand humor and other forms of nonliteral language. Many may also present with odd prosody and inappropriate volume.

Those with AS also exhibit a deficit in nonverbal communication (Tantam, 2000). Similar to others with Pervasive Developmental Disorders, individual with AS have difficulty
noticing and understanding emotional behaviors, such as facial expression and tone of voice (Raja, 2006). Abnormal gaze behavior is another known deficit of nonverbal communication. Oblivious to nonverbal cues and difficulty with self-regulation (often in regards to their special topic), an individual with AS also struggles to limit their irrelevant comments or the urge to constantly interrupt. Deficits in nonverbal communication may account for the lack of social reciprocity, as listed in the diagnostic criteria.

Along with social reciprocity is the lack of emotional reciprocity, or empathy. Those with AS are characterized by their “emotional immaturity” (Attwood, 2006b). In part affected by Theory of Mind and deficits in nonverbal communication, those with AS have difficulty identifying, expressing, and subsequently, regulating their emotions.

Engrossing, well-developed asocial interests and difficulty accepting change are identified impairments in behavior (Lord, 2000). Individuals with AS tend to have an intense fascination with a particular topic(s). They are captivated by the topic and vigorously consume as much information they can about it. The complexity of the topic is usually commensurate with their level of intelligence (Tantam, 2000). Besides finding their particular interest to be enjoyable, having a special interest can also serve other functions (Attwood, 2006a). Considering communication difficulties, talking about their special topic could be perceived a means to initiate and maintain conversation. Besides finding their interest to be enjoyable, it could also be means of establishing consistency and order.

For those with AS, repetition and consistency is of upmost concern. Alterations to established routines stereotypically result in heightened distress and anxiety. Tantam (2000) contends that routines are means of mastery through prediction. The consistency of routines
IDENTIFICATION OF ASPERGER PERSONALITY PROFILE

allows those with AS to master those routines and have a sense of control in a world they are otherwise unable to predict.

Though there are not definitive causes of AS, multiple studies has shown similar traits among family members and high concordance among monozygotic twins with AS (Fombonne, Bolton, Prior, Jordan & Rutter, 1997). Supporting Asperger’s observation of fathers demonstrating difficulties similar to their children with AS (Frith, 1991), research has suggested the possibility of a genetic basis to AS. Males are also ten times more likely to be diagnosed with AS than females; although there is current debate whether the large gender difference is correct (Attwood, 2006b). Individuals with AS are also vulnerable to numerous co-morbid conditions, such as Oppositional defiant disorder, Major depressive disorder, Anxiety disorder, Behavioral disorders and Tic disorders (Mattila et al., 2010).

Transition Planning

The Individuals with Disabilities Education Improvement Act (IDEA) is a law requiring education for children with disabilities. IDEA has been revised numerous times, with the most recent revision begun in 2004, resulting in The Individuals with Disabilities Education Improvement Act (IDEIA). (“IDEA” 2010). With the new provisions to The Individuals with Disabilities Education Act in 2004, IDEIA requirements for public school include: providing free, appropriate public education (FAPE), make Individualized Education Programs (IEP) for each student protected by IDEA - which are to be are to be implemented for a 3 year trial basis, students must be taught in the Least Restrictive Environment (LRE), be provided related services, the discipline of the student with a disability must take into account the disability, closer alignment with No Child Left Behind Act, and additional emphasis on transition planning.
Changes specific to IDEIA's Secondary Transition is the inclusion of “further education” in IDEIA’s purposes. A new requirement mandated by IDEIA was that at the age of 16, Individualized Education Plans (IEP) must contain an Individualized Transition Plan that includes:

- Appropriate measurable postsecondary goals based upon age appropriate transition assessments related to training, education, employment and, where appropriate independent living skills; the transition services (including courses of study) needed to assist the child in reaching these goals.

According to the U.S. Department of Education- Office of Special Education Programs (2007), IDEIA defines transition services as coordinated set of activities that:

- Is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child’s movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment); continuing and adult education, adult services, independent living, or community participation;

- Is based on the individual child’s needs, taking into account the child’s strengths, preferences, and interests; and

- Includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and functional vocational evaluation.

A multidisciplinary team is responsible for the formation and implementation of the transition plan. The team should be comprised of variety of professional to help create a well-
rounded assessment of the student’s needs (Polychronis & McDonnell, 2010). In addition to the student, and his or her parents/legal guardians, the team may include special education teachers, transition specialists, school psychologists, school counselors, community personnel and general education. The team is also responsible for monitoring the student’s progress towards his/her transition goals as stated in the IEP.

The emphasis on functionality and students’ preferences and interests in the criteria for transition planning has significant implications regarding the approach and execution of transition services. Kohler and Field (2003) noted that there is “a shift from disability-focused, deficit-driven programs to an education and service-delivery approach based on abilities, options and self-determination.” Therefore, educators should not only be aware of the student’s strengths, but should provide instruction accordingly (Iovannone, Dunlap, Huber & Kincaid, 2003).

Assessments for transition planning are expected to go beyond cognitive and academic achievement. Additional areas of assessment should at a minimum include the student’s interests, preferences, adaptive skills, interpersonal relationship skills, emotional development and mental health, employability/vocational skills and community participation (Clark, 2007). Effective transition planning should assist the student in increasing self-awareness, and subsequently help formulate his or her goals for the future (Henricks & Wehman, 2009).

The student focus has also drawn attention to the importance of self-advocacy and self-determination skills in transition planning (Field, 1996). Wehmeyer and Lawrence (1995) define self-determination as

An educational outcome referring to acting as the primary causal agent in one’s life and making choices and decision regarding one’s quality of life free
from undue external influence or interference.

Awareness of strengths and weaknesses, preferences and interests is not enough. Students must be able to advocate for themselves to obtain the services they need. Such skills become a necessity once the student attends a postsecondary school and the role of IDEIA and the legally mandated IEP/transition plans is no longer applicable.

Section 504 of the Rehabilitation Act and the Americans with Disability Act (ADA) are anti-discrimination laws that prohibit disability discrimination. Section 504 requires that “no otherwise qualified handicapped individual … shall, solely by reason of his/her handicap, be denied the benefits of, or be subject to discrimination, under any program or activity receiving Federal financial assistance (Rehabilitation Act of 1973, § 504, 29 U.S.C. 794). One of the subparts within the Rehabilitation Act, extended the protection of individuals with disabilities in post secondary settings. In 1990, the requirements of Section 504 became applicable to all programs and services, regardless of receiving Federal financial assistance (Linthicum, Cole & D’Alonzo, 1991).

IDEIA becomes no longer applicable once the student graduates from high school. However, students with disabilities are still provided protection from Section 504. Under Section 504 of ADA, students with disabilities must receive reasonable accommodations. By law the post-secondary school must make “academic adjustments” for the participation of student with disabilities and modify methods of evaluation (Section 104.44[c]); however, it is the student’s responsibility to disclose their disability to the school and request accommodation services.

Students have to become their own self-advocate and ask for services that are no longer automatically provided. Test, Fowler, Wood, Brewer & Eddy (2005) developed a conceptual framework for self-advocacy specific to students with disabilities. Their framework includes four
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inter-related components: knowledge of self, knowledge of rights, communication and leadership. Essentially for students to successfully self-advocate students should first have a foundation of knowledge of themselves. They should be aware of his/her own interests, strengths, needs, preferences, goals and characteristics of his/her disability. Students should also have knowledge of their rights as students with disabilities. Once the student develops adequate knowledge of him/herself and know what they want to specifically advocate for, then they must engage in effective communication. The final component of their framework is leadership. Once students are able to confidently and effectively advocate for themselves, then they can help advocate for others with similar issues. Considering the in-depth components of the framework, self-advocacy skills should be part of transition planning, as they are imperative to the successful transition into postsecondary education.

Asperger’s Syndrome & Issues in Transition Planning

Smith (2007) found that many students with AS in postsecondary institutions receive the same accommodations as students with other disabilities. The most common academic accommodations include: time and a half to double time on all exams, moderately reduced course loads, registration assistance, limited leaves of absence, assistance in applying for financial aid, preferential seating, taping and note-taking and specialized housing accommodations (Grossman 2001).

Smith reiterates IDEIA’s intention: “with a unique syndrome comes the need for unique accommodations just as unique accommodations must be made for the individual student. It is not the disability that must be accommodated but rather the individual needs of each student”
Specific to the needs of students with AS, there are several issues that should be addressed by the multidisciplinary team during transition planning to postsecondary education. The student’s preferences, strengths and weaknesses should be highly considered when choosing a college, especially in regards to the number of students in each class, campus layout, campus population size and proximity to home. Some students may also struggle with the social demands of living in a campus dormitory and/or sharing a dorm room. Assessments of independent living skills are also to be considered if the student decides to live on campus. Those with AS may have issues such as personal hygiene and getting to class on time (Adreon, 2004). If available, peer training programs have been shown to be effective for college-aged students living on campus (Adreon & Durocher 2007). Availability of specific supports and modification in the college should also be considered. Students with AS commonly need accommodations regarding the social, organization and communicative demands of postsecondary education (VanBergeijk, Klin, & Volkmar, 2008).

Considering that student with AS have difficulty with change and difficulty expressing emotions, it may be difficult to identify if they are stressed or are having difficulty coping with the transition. Therefore, plans for adjustment to postsecondary transition should also be included during transition planning. Students with AS may benefit from taking college courses during high school or in the summer before the beginning of their freshman year. To help alleviate discomfort or being overwhelmed with the new environment, students should visit and become familiar with the college campus before the school year begins. Transition education should also address common stressors for college students with AS, such as social relationships and activities, academics and independence (Glennon, 2001).
Personality

Trait theory of personality proposes that individuals' personalities are comprised of correlations of patterns of behaviors, thoughts and/or actions (Costa & McCrae, 2006). McCrae & Costa (1999) describe these consistent patterns, or traits, as “... simultaneously characterize individuals and differentiate them from others; and they allow the discovery of empirical generalizations about how others with similar traits are likely to act and react.”. Traits are essentially intercorrelated descriptions of individual differences that can be used to predict and describe consistencies in a person’s behavior (Fleeson 2004).

In 1936, Allport and Odbert documented all of the English adjectives in the dictionary that described a person. The comprehensive list of more than 17,000 adjectives was then used to list personality attributes. Using factor analysis method to simplify Allport’s initial taxonomy, Cattell (1943) identified sixteen personality factors and bipolar primary traits that comprise the five second-order traits. Numerous researchers have attempted to replicate Cattell’s findings or develop variations of trait theories of their own; however, each found similar results (Digman 1990). Goldberg (1981) summarized the years of trait theory research by stating “it should be possible to argue the case that any model for structuring individual differences will have to encompass-at some level–something like these 'big five' dimensions” (p. 159).

Numerous studies have found that the majority of the adjectives can be simplified into five personality factors – Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness (John et al. 1988). While there are different interpretations of the traits specific to each factor, generally all describe a similar idea. McCrae and John (1992) summarized the general consensus of the factors. Neuroticism is emotional stability and the differences in which people tend to experience distress. Openness to Experience has many
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interpretations; however, it is generally regarded as creativity, intellectual interests, appreciation for aesthetic, and unconventional values. Agreeableness is being caring and nurturing. Conscientiousness is categorized as being diligent, thorough, well organized and achievement oriented. McCrae & Costa (1989) described Extraversion as somewhere between dominance and warmth.

Personality Assessment & Transition Planning

The application of personality traits to transition planning is useful in that “they influence how individuals organize their behavior to meet environmental demands and new challenges” (Caspi, 1998). Personality assessments can help determine and anticipate degree of emotional and related behavioral adjustment that can later be used as interventions or transition activities (Clark, 2007).

Personality speaks to the individual differences in how people respond and cope with situations. Bolger and Zuckerman (1995) found that those high in Neuroticism are more likely to experience elevated levels of anger and depression when responding to interpersonal conflict. In an earlier study, Bolger (1990) evaluated coping as a mediator to Neuroticism’s effect on distress. The state-trait theory of anxiety postulates that individuals with high anxiety are more likely to exhibit increased situational anxiety under stress. Bolger found that when Neuroticism was equated to anxiety, those high on Neuroticism were also more likely to experience elevated levels of anxiety under stress. Results indicated that ineffective coping skills, which are associated with high Neuroticism, mediated the effect of Neuroticism on anxiety. Elevated distress levels were therefore not caused by the situation, but by ineffective coping strategies.
The use of personality assessments in vocational training and guidance is well established and widely used. Perhaps the most well known example is Holland’s Theory of Vocational Personalities and Work Environments (Holland 1985). Holland’s use of trait theory helps individuals assess their personality and in which work environment fits with best. The use of personality assessment in transition planning may provide useful information for those working with students with AS just as Holland’s theory “allow us to form impressions of people and to ascribe characteristic to people when we know nothing about them except the kind of work they do” (Levinson 1993).

Knowledge of a student’s personality traits also provides practical information for the multidisciplinary team in anticipating barriers and providing support. Numerous research studies, such as Clark, 2007; Furnham & Chamorro-Premuzic, 2004; Lidy & Kahn, 2006; Wintre & Sugar, 2000), have been conducted associating personality with multiple facets of postsecondary transitions, including time management, academic performance, college major and retention. Furnham and Chamorro-Premuzic (2004) highlighted the importance of personality indicating that “intellectual ability refers to what a person can do, whereas personality traits may provide information on what a person will do”. Knowing a student’s personality and which traits are associated with different areas of the transition process can serve as invaluable information.

Beyond the use as an assessment tool for preferences, interpersonal relationship skills and employability, personality has also been shown to be a predictor of college adjustment. Based on a sample of non-disabled college students, Lidy and Kahn (2006) used the 16PF in efforts to find factors that could predict first-semester adjustment to college. Results of the study found that greater level of Emotional Stability, Social Boldness and less Abstractedness and Apprehension were correlated with positive college adjustment.
The use of personality assessment not only aids students in the process, but it also provides invaluable information for those working along side the student in transition planning. Miller (1991) found that in clinical practice personality traits served as a useful profile illustrating client’s needs and feelings, aided the practitioner in understanding and anticipating problems and creating realistic treatment plans. McCrae and Costa (1986) found that those who reported themselves to be high in Openness used humor to cope with stress, while those low in Openness used faith. Such information allows for the use of personality assessment in tailoring interventions to complement an individual’s disposition and preferences.

McCrae and Costa (1991) also posit the benefits to the individual themselves. Awareness of one’s personality can provide an individual with a new perspective on himself or herself, including their strengths, which can ultimately lead to greater empowerment. Insight into aspects of personality would assist those working with students’ with AS in collaboratively creating a transition plan that are “based upon the individual student’s need, taking into account the student’s preferences and interests...”, as specified by IDEA.

Halpern (1994) emphasized that the importance of student self-reflection and evaluation in effective transition planning. Knowledge of an individual’s personality and understanding of the possible implications can help those on the multidisciplinary team choose more effective interventions. But, it can also empower the individual to be an integral participant in his or her transition planning.

Personality assessment can also directly guide interventions. In a study by Wintre and Sugar (2000), the Big Five personality factors were found to be predictive of aspects of postsecondary transition. Recruited from an introductory psychology class, 410 students participated in the study. The students completed numerous questionnaires, including the NEO-
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Five Factor Inventory and the Student Adaptation to College Questionnaire. The students’ GPA was also obtained at the end of the academic school year. The adjustment to university transition was measured according to academic adjustment, social adjustment, personal and emotional adjustment, institutional attachment and GPA. Conscientiousness was predictive of academic achievement for both males and female. Social adjustment was predicted by extraversion for males and females and agreeableness for males. Institutional attachment was correlated with conscientiousness and agreeableness for males and extraversion for females. Similar to academic adjustment, GPA was predicted by conscientiousness for males and females. None of the personality factors were positively correlated with personal and emotional adjustment. Overall, the study found that personality predicted multiple aspects of university adjustment. Personality factors that encourage adjustment to college can be used to further develop skills that may not be inherent in a student’s personality.

Asperger’s Syndrome & Personality

AS was initially described as a personality disorder (Frith, 1991) and subsequently misdiagnosed as schizoid personality disorder, narcissitic personality disorder or paranoid personality disorder (Tantam, 2000; Wolff, 2000). There has been significant research on personality traits associated with parents of children with Autism. Piven, Wzorek, Landa and Lainhart (1994) compared the personality traits of parents of children with Down Syndrome to those with Autism. Results shows that parents of children with Autism tend to be more aloof, lack tack, undemonstrative, rigid, anxious and hypersensitive to criticism. Murphy, Bolton, Pickles, Fonbonne, Piven and Rutter (2000) later confirmed the traits, but his factor analysis also included tendency to be withdrawn, difficult and tense. Considering the heritability of AS
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and personality traits (Health et. al., 1994), it could be inferred that children with AS are likely to possess similar personality traits to that of their parents.

In the Soderstrom, Rastam and Gillberg (2002) study, adults with AS were administered the Temperament and Character Inventory (TCI), a self-report personality assessment. The participants with AS provided results that were clearly different from the normative population they were compared to. The personality profile described “anxious personalities with coping difficulties in the areas of social interaction and self-directedness”. Those with AS scored high on harm avoidance, suggesting pessimism and shyness, and low on reward dependence, suggesting impairment in social sensitivity, attachment capacity and adaptability. Interestingly, 35.5% of the AS sample scored higher than the population mean on reward dependence. The elevated scores could imply that those individuals seek close interaction with others. Though the study did find personality associations with AS, they also found a variety of personality types among those with AS.

In Ozonoff et al. (2005), a group of college students with AS and a control group of comparable non-AS adults were administered the Minnesota Multiphasic Personality Inventory-Second Edition (MMPI-2), a self-report personality assessment of psychopathology. Many of the results of the personality assessment are concurrent with DSM-IV-TR diagnostic criteria. Those with AS endorsed scales that suggest social isolation, interpersonal difficulties, depressed mood and coping difficulties. A large group difference was found on a scale in which high scorers are described by Graham (1993) as:

A lifestyle characterized by withdrawal and lack of intimate involvement with other people is common. High scorers tend to be described as introverted, shy, retiring, timid, seclusive ... They ten to be aloof and to
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maintain psychological distance from other people … They often have a severely restricted range of interest (p. 59)

Another large group difference was found in a pattern of scales that suggest social discomfort and reservation, introversion and social anxiety. Another scale in which the AS group highly endorsed is associated with rigidity, inflexibility and resistance to change. The results of the study indicate that the MMPI-2, an assessment tool aimed at psychopathology, could be a valid tool for measuring AS personality.

Rationale for the Present Study

Determining if there is a distinct personality profile for students with AS that differs from their peers would provide additional insight to those working with students during the transition planning process. A personality profile can be used to tailor strategies and supports that will help to mediate the difficulty of transitioning to postsecondary education. Utilization of the personality profile can directly guide intervention and assist in understanding the students’ reaction to stress and coping. Ultimately, knowledge of an individual’s personality and understanding of possible implications can help those on the multidisciplinary team choose more effective interventions. It can also serve to empower the individual to be an integral participant in his or her transition planning. Awareness of their own personality profile allows students to understand themselves better. Better understanding of one’s self, self-reflection and evaluation will encourage students’ self-advocacy and subsequently help formulate their goals for the future. The purpose of the study is to identify common individual differences in students with AS that may contribute to the difficulty of transitioning to postsecondary education.
Chapter Three

Methodology

Participants

Archival data was analyzed for this study. Data was collected as part of a larger study. The sample consisted of 18 undergraduate students with Asperger’s Disorder (AS) and a control group of 37 undergraduate students without disabilities.

The students included in the AS group volunteered to participate in a transition pilot program, where they were provided a transition peer coach which consisted of school psychology graduate students. The students’ classification of AS was verified by the institute’s Disability Support office. The students in the control group consisted of volunteers from a previous study who volunteered to complete a personality questionnaire and stated that they did not have a disability. No other exclusionary criteria were used. Gender of the AS group is 83% male and 17% female. Gender for the control group is unknown, as this data was collected without identifying information.

Measurements

As part of the pilot program’s assessment, the students with AS were administered the 16 PF, 5th Edition (16PF) along with other measures as part of the larger project. The 16PF is a measure of normal personality based on factor-analysis of Allport & Odbert’s (1936) comprehensive personality descriptors. Based on Raymond B. Cattel’s findings, sixteen primary traits were identified. Each trait is assessed on a bi-polar scale, indicating how high or low the trait is endorsed. The traits are considered to “represent an underlying characteristic that influences the frequency of occurrence of certain types of behaviours” (Lord, 1999). The 16
primary factors are: Factor A (Warmth), factor B (Reasoning), Factor C (Emotional Stability), Factor E (Dominance), Factor F (Liveliness), Factor G (Rule-consciousness), Factor H (Social Boldness), Factor I (Sensitivity), Factor J (Vigilance), Factor K (Abstractedness), Factor L (Privateness), Factor M (Apprehension), Factor N (Openness to Change), Factor O (Self-reliance), Factor P (Perfectionism), and Factor Q (Tension). The sixteen traits are additionally grouped into five bi-polar global scales: Extraversion, Anxiety, Tough-Mindness, Independence and Self-Control.

Comprised of one hundred and eighty five multiple choice questions, participants are to choose one of two choices that best describes them or "?" if they are unsure. The questionnaire is intended for participants sixteen years of age and older and was written at a fifth grade reading level. Standard scores (sten scores) for each bipolar scale range from one to ten. The sten scores have a mean of 5.5 and a standard deviation of 2. Sten scores falling within the 5-6 range are considered to be average. Test-retest reliability of the primary factors range from .69 to .86 and internal consistency reliabilities average of .76 (Cattell & Schuerger, 2003). The 16PF also correlates with other personality measures such as Revised NEO, Personality Inventory and Myers-Briggs Type Indicator.

Procedures

The 16PF was individually administered to the students with AS by their peer coach. The peer coaches who administered the 16PF were School Psychology graduate students trained to administer, score and interpret the measure. Group administration was conducted for the control group. The control group received either a gift certificate for Ben and Jerry’s Ice Cream or extra credit for their psychology classes. The students with AS completed the 16PF with the
understanding that they would be given the results of the measure, while the control group did not.

Data analysis

Independent t-tests and group means were used to analyze comparisons between the AS group and the independent sample in order to determine group differences.
Chapter Four

Results

Descriptive statistics obtained for the two samples, students with Asperger’s group (n=18) and control group (n=37), are shown in Table 1. Independent samples t-tests were conducted on the group means for the 16 primary factors. Five of the primary factors showed statistically significant differences. The following primary factors are statistically significant: Warmth (t (53) = 3.87, p = .00), Liveliness (t (53) = 3.79, p = .00), Social Boldness (t (53) = 5.19, p = .00), Self-Reliance (t (53) = -2.68, p = .02) and Abstractedness (t (53) = -2.15, p = 0.03). The AS group scored significantly lower on Warmth, Liveliness and Social Boldness than the control group and significantly higher on Self-Reliance and Abstractedness.

Effect sizes for those that showed mean differences are shown in Table 2. Effect sizes range from 0.28 to 1.50, Warmth (Factor A) and Social Boldness (Factor H) respectively. According to Cohen’s D, an effect size of approximately 0.25 is considered small, approximately 0.50 is a medium effect size and approximately 1.0 or greater is a large effect size.

As seen in Table 3, the following global factors were also found to be statistically significant: Extraversion (t (53) = 4.31, p = .00) and Independence (t (53) = 2.29, p = .02). The results reported in Table 3 suggest that students with AS score lower in Extroversion and Independence than the control group. The effect sizes for these global factors were also calculated, as seen in Table 4.
The purpose of this study was to identify common individual differences in students with Asperger’s Syndrome to aid school-based professional utilize strategies to help mediate deleterious effects and enhance strengths associated with particular personality factors. Though normal personality has been highly research there is a paucity of research on personality traits and AS (Ozonoff et. al., 2009). It was hypothesized that when administered a personality assessment there would be significant differences for the AS group when compared to non-Asperger Syndrome control group.

Results of the study indicated that five of the sixteen primary personality factors showed statistically significant differences. The following primary factors are statistically significant: Warmth, Liveliness, Social Boldness, Self-Reliance and Abstractedness. Ranging from low to high, individuals within the AS group were found to self-report as being low in Warmth, Liveliness and Social Boldness, and high in Self-Reliance and Abstractedness.

Cattell and Schuerger (2003) describe individuals low in Warmth as inflexible and reserved, as well as objective and independent. They have a tendency to keep emotional distance from others, which can lead people to believe they are detached or impersonal. Individuals low in Warmth enjoy spending time alone and may not find social interactions as rewarding as those high in Warmth. Those low in Warmth also have the tendency to be uncomfortable exhibiting affection or salient caring. A strength for those in this category is their ability to work independently and complete tasks.
Cattell and Schuerger (2003) also indicated that those low in Liveliness are considered to be more serious with a propensity for extensive knowledge of limited interests. A contributing factor to Introversion, individuals low in Liveliness have the proclivity to be more serious, reserved and cautious. They can work fastidiously on a task for extended periods of time with methodical focus. In social situations, they tend to be more restrained than their high in Liveliness counterpart. Low Liveliness can be indicative of social withdrawal if combined with the reservation of low Warmth, the shyness of Low Social Boldness and high Self Reliance (which are the other statistically significant factors for students with AS).

Individuals high in Self-Reliance generally seek autonomy and value their independence (Cattell & Schuerger, 2003). Working with others may be more difficult as individuals high in Self-Reliance commonly make decisions independently, neglecting interpersonal expectations. Their preference for self-sufficiency is often paired with introversion and the proclivity to work alone. Individuals high in Self-Reliance and low in Warmth are often perceived as being withdrawn, with minimal connections to others. The repeated absence of external assistance can hinder the likelihood of relying on others when needed. Knowledge of the predilection for autonomy, indifference towards others and the reduced probability of relying on others even when needed provides useful insight that could be used during the development of transition plans.

Individuals high in Abstractedness are commonly characterized as an “absent minded professor” (Cattell & Schuerger, 2003). They are associated with being highly imaginative and idea oriented. These individuals also appear to be preoccupied by their thoughts or ideas to the point of neglecting practical issues such as details, losing track of time, etc. High Abstractedness can frequently be misinterpreted as aloof (low Warmth) due to inattentiveness to social
situations. It has also been noted that individuals high Abstractedness has the tendency to retreat to their thoughts as means of escaping an uncomfortable situation. These individuals also tend to be open and benefit from more creative counseling strategies.

The primary factor with the largest effect size was Social Boldness. Individuals low in Social Boldness are described as being shy in social situations, with difficulty initiating social interaction with strangers. Those low in Social Boldness also tend to engage in limited social activities, are more timid and have fewer friends. They have the tendency to be more agreeable to others and avoid becoming the center of attention. They also prefer to socialize with a small group of friends. Since individuals low in Social Boldness tend to be more sensitive to criticism, they take fewer social risks which often results in limiting their social interactions. Shy individuals can mistakenly be perceived as being uninterested in others (low Warmth) or preferring to participate in activities alone (high Self-Reliance). But, as Cattell and Schuerger highlight individuals low Warmth and high in Self-Reliance may be reluctant to begin social interactions due to their low Social Boldness (shyness). Lord (1999) suggests that individuals low on Social Boldness may use the avoidance of social situations as a coping strategy to reduce social anxiety.

The combination of primary factors is statistically significant in two global factors Extroversion/Introversion and Independence/Accommodation. Introversion is characterized by being less social and preferring to spend time alone (Cattell & Schuerger, 2003). Contributing the largest effect size, it is important to evaluate and understand the implications of Introversion. Introversion is comprised of Warmth (Factor A), Liveliness (Factor F), Social Boldness (Factor H), Privateness (Factor N) and Self-Reliance (Factor Q2), three of which were statistically significant primary factors for students with AS. The shy and threat-sensitive nature of those low
in Social-Boldness corresponds to the reserved and restrained nature of low Warmth and Liveliness individuals. High Private and Self-reliance is demonstrative of the private and self-reliant aspect of Introversion. When taking into account Introversion for students with AS, it is imperative to remember that in addition to the collection of these factors, the large effect size of Social Boldness magnifies the discomfort of being in social situations.

Independence/Accommodation is influenced by the Dominance, Social Boldness, Vigilance and Openness to Change primary scales. Accommodation is associated with being cooperative, the preference for others taking charge of situations, and being shy in social situations. Cattell and Schuerger also indicate that low Independence scorers may need external support. These conflict-avoidant individuals may be uncomfortable or ineffective at asserting themselves when necessary. The timidness associated with low Social Boldness is seen in many of the characteristics of Accommodation.

Results suggest that while students with AS may appear to be content with minimal social interactions, their social isolation may be a reflection of their personality and means of concealing insecurities regarding social difficulties. Studies by Baron-Cohen and Wheelwright (2004) and Grandin and Dufly (2004) support that while individuals with AS struggle with understanding and implementing socially acceptable behaviors, they do value social relationships.

Overall this study indicates that students with AS tend to perceive themselves to be emotionally reserved, serious and shy, and value self-reliance in terms of decision-making. Though the student with AS also value self-reliance in terms of decision-making, other aspects of their personality may hinder their proclivity to seek help when needed. Results further indicate that their personality style may hinder their socialization, communication, and self-advocacy
skills; that is, making them reluctant to perform these behaviors. As described earlier, many of these behaviors are inherent aspects of the transition to post-secondary education. The reluctance to engage in such behaviors will only add to the stress and difficulty of the transition. Having knowledge of common personality traits for students with AS will help identify areas of need and encourage the utilization of strengths.

Limitations

One limitation is from the use of archival data. Since archival data was the only data used, there was a one-time assessment and no additional follow up. Another limitation to this study is the use of a convenience sample. The sample was ascertained from previously collected archival data. The available data was limited and thus resulted in a small sample size. The sample size for students with AS is also comprised of more males than females. Issues regarding gender were unable to be pursued due to the unavailable gender information for the control group. Since archival data was administration procedures could not be verified. Also, another limitation is due to the use of the 16PF, 5th edition as the measure of normal personality. The norm group for the 16PF, 5th edition does not specifically include individuals with Asperger’s Syndrome.

Implications

Considering the difficulty of postsecondary transition for students’ with AS, a personality profile provides additional insight to those working with students during the transition planning process. Knowledge of a personality profile can be used to tailor strategies and supports that will help to mediate the difficulty of transitioning to postsecondary education. Implications of this
study can be used to guide intervention and assist school psychologists in understanding students’ with AS reaction to stress and coping. Ultimately, knowledge of an individual’s personality and understanding of possible implications can help those on the multidisciplinary team choose more effective interventions. It can also serve to empower the individual with AS to be an integral participant in his or her transition planning. Awareness of their own personality profile allows students to understand themselves better. Better understanding of one’s self, self-reflection and evaluation will encourage students’ self-advocacy and subsequently help formulate their goals for the future.
IDENTIFICATION OF ASPERGER PERSONALITY PROFILE

References


Clark, G.M. (2007). Assessment for transition planning (2nd ed.) Austin, TX: PRO-ED.


IDENTIFICATION OF ASPERGER PERSONALITY PROFILE

Meisbov & L.J. Kunce (Eds.), *Asperger syndrome or high functioning autism?*, 29-60
New York: Plenum.


<table>
<thead>
<tr>
<th>16PF Factors</th>
<th>Students with Asperger's Group</th>
<th>Control Group</th>
<th>M. Diff</th>
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<tbody>
<tr>
<td></td>
<td>(n=18)</td>
<td>(n=37)</td>
<td></td>
</tr>
<tr>
<td>Primary Factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A: Warmth</td>
<td>3.33</td>
<td>4.97</td>
<td>0.41</td>
</tr>
<tr>
<td>B: Reasoning</td>
<td>5.83</td>
<td>5.19</td>
<td>0.60</td>
</tr>
<tr>
<td>C: Emotional Stability</td>
<td>4.22</td>
<td>4.81</td>
<td>0.64</td>
</tr>
<tr>
<td>E: Dominance</td>
<td>4.89</td>
<td>5.00</td>
<td>0.43</td>
</tr>
<tr>
<td>F: Liveliness</td>
<td>4.72</td>
<td>6.41</td>
<td>0.69</td>
</tr>
<tr>
<td>G: Rule Consciousness</td>
<td>4.17</td>
<td>4.68</td>
<td>0.46</td>
</tr>
<tr>
<td>H: Social Boldness</td>
<td>3.72</td>
<td>5.95</td>
<td>2.22</td>
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<tr>
<td>I: Sensitivity</td>
<td>5.50</td>
<td>5.70</td>
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<tr>
<td>L: Vigilance</td>
<td>6.22</td>
<td>6.78</td>
<td>0.56</td>
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<tr>
<td>M: Abstractedness</td>
<td>7.22</td>
<td>6.46</td>
<td>-0.76</td>
</tr>
<tr>
<td>N: Privateness</td>
<td>6.00</td>
<td>5.51</td>
<td>-0.49</td>
</tr>
<tr>
<td>O: Apprehension</td>
<td>6.22</td>
<td>5.57</td>
<td>-0.65</td>
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<td>Q1: Openness to Change</td>
<td>5.28</td>
<td>5.90</td>
<td>0.61</td>
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<td>Q2: Self Reliance</td>
<td>6.89</td>
<td>5.41</td>
<td>-1.48</td>
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<tr>
<td>Q3: Perfectionism</td>
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<td>5.46</td>
<td>0.57</td>
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<td>Q4: Tension</td>
<td>5.56</td>
<td>5.49</td>
<td>-0.07</td>
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</table>

*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.00
Table 2

Effect Size 16 PF Primary Factors with Significant Mean Differences

<table>
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<tr>
<th>16PF Factors</th>
<th>Students with Asperger's Group</th>
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</tr>
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<td>M</td>
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<td>F: Liveliness</td>
<td>4.72</td>
<td>1.60</td>
</tr>
<tr>
<td>H: Social Boldness</td>
<td>3.72</td>
<td>1.45</td>
</tr>
<tr>
<td>Q2: Self Reliance</td>
<td>6.89</td>
<td>2.35</td>
</tr>
</tbody>
</table>

*small effect size, ** medium effect size, *** large effect size
### Table 3
**Mean Differences and Standard Deviations for Students with Asperger’s Syndrome and Control Group**

<table>
<thead>
<tr>
<th>16PF Factors</th>
<th>Students with Asperger’s Group (n=18)</th>
<th>Control Group (n=37)</th>
<th>M. Diff</th>
<th>P-value</th>
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<tbody>
<tr>
<td><strong>Global Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EX: Extroversion</td>
<td>3.82 (SD=1.65)</td>
<td>5.76 (SD=1.52)</td>
<td>1.93***</td>
<td></td>
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<tr>
<td>AX: Anxiety</td>
<td>6.56 (SD=1.81)</td>
<td>6.16 (SD=1.48)</td>
<td>-0.40</td>
<td></td>
</tr>
<tr>
<td>TM: Tough Mindedness</td>
<td>5.52 (SD=1.44)</td>
<td>5.16 (SD=1.32)</td>
<td>-0.36</td>
<td></td>
</tr>
<tr>
<td>IN: Independence</td>
<td>4.78 (SD=1.49)</td>
<td>5.76 (SD=1.48)</td>
<td>0.98*</td>
<td></td>
</tr>
<tr>
<td>SC: Self-Control</td>
<td>4.39 (SD=1.72)</td>
<td>4.68 (SD=1.49)</td>
<td>0.28</td>
<td></td>
</tr>
</tbody>
</table>

* *p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.00
Table 4

*Effect Size 16 PF Global Factors with Significant Mean Differences*

<table>
<thead>
<tr>
<th>16PF Factors</th>
<th>Students with Asperger’s Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=18)</td>
<td>(n=37)</td>
</tr>
<tr>
<td>EX: Extroversion</td>
<td>M 3.82, SD 1.65</td>
<td>M 5.76, SD 1.52</td>
</tr>
<tr>
<td>IN: Independence</td>
<td>M 4.78, SD 1.49</td>
<td>M 5.76, SD 1.48</td>
</tr>
</tbody>
</table>

*small effect size, ** medium effect size, *** large effect size*