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Running head: THE EXPERIENCE OF A PEER COACHING PROGRAM

The Experience of a Peer Coaching Program on Student's with Asperger's Transition to
Postsecondary Education

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TABLE OF CONTENTS

Abstract.....pp. 3

Chapter One: Introduction.....pp. 4

Chapter Two: Review of Related Literature.....pp. 7

 The Importance of Transition Planning.....pp. 7

 Legislation.....pp. 8

 Need for Improvement of the Transition Process.....pp. 13

 Transitions and Autism Spectrum Disorders.....pp. 15

 Asperger’s Syndrome: Defined.....pp. 16

 Asperger’s Syndrome: Characteristics in Young Adults.....pp. 17

 Issues in Transitions.....pp. 18

 Importance of Social Supports.....pp. 19

 Rationale of the Present Study.....pp. 21

Chapter Three: Methodology.....pp. 22

Chapter Four: Results.....pp. 28

Chapter Five: Discussion.....pp. 41

References.....pp. 49

Table 1.....pp. 54

Figures 1-5.....pp. 55

ABSTRACT

This study used quantitative and qualitative methods to examine and explore the experience of a Spectrum Support Pilot (SSP) program (i.e., peer coaching intervention program) on students' with AS adaptation to college. Eight undergraduate students with AS (7 males and 1 female, 18-20 years old) completed the same norm-referenced questionnaire at the conclusion of 3 academic quarters. Quantitative analyses examined whether the students' self-reported adaptation to college improved over the course of their academic year as they participated in the SSP program. Results yielded 3 findings: (a) All students' ratings of adaptation to college were within normal limits across all quarters and areas of the questionnaire; (b) no significant improvements were found in the students' adaptation to college over the course of the academic year as they participated in the SSP program; and (c) all but 1 student's mean ratings of adaptation to college were within normal limits at the conclusion of the SSP program. Qualitative methods explored the students' with AS adaptation to college in the context of the SSP program via the thoughts, feelings, perceptions, and experiences of the intervention's implementers (i.e., the peer coaches). Five second-year graduate students (5 females, 23-25 years old) in the School Psychology program at the students' institute assumed the role of the peer coaches and completed a questionnaire at the conclusion of the study. Questionnaires were coded for common themes; the following 6 themes emerged from the data and indicated that students with AS had difficulty in these areas: (a) organizational and time management skills; (b) flexibility and adaptability; (c) social and communication skills; (d) self-advocacy skills; (e) adaptive skills; and (f) extra-curricular involvement. Since the number of students with AS attending postsecondary education settings is increasing, and many often present with diverse needs, it is imperative that the community better understands and accommodates their transition process to facilitate their successful adaptation to college.

CHAPTER ONE

Introduction

Research indicates that the number of individuals with disabilities entering postsecondary education following high school is increasing (Sitlington, 2003); however, these students attend postsecondary education settings at significantly lower rates than their nondisabled peers (Wagner, Newman, Cameto, Garza, & Levin, 2005). This gap significantly affects the career and employment outcomes of individuals' with disabilities (Stodden, 2001). In addition, of these students with disabilities who enroll in postsecondary education, many have difficulty completing their educational programs (Sitlington, 2003).

Legislation such as the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), Section 504 of the Rehabilitation Act, and the Americans with Disabilities Act (ADA, 1990) mandates that all students with disabilities receive an effective, results-oriented transition plan that specifically addresses their individual strengths, preferences, and interests (Wright, 2004). This plan is a necessary, key component for students' postsecondary success as it details their outcomes for postsecondary education.

The transition process from high school to postsecondary education is mandated by federal policies and has many positive aspects; however, there is still need for improvement (Neuhring & Sitlington, 2003). First-year college students with disabilities continue to face challenges as they are often unprepared for the diverse standards and demands required in postsecondary education (McGuire, Hall, & Lit, 1991; Siperstein, 1988). Furthermore, students who lack many of the basic skills necessary to cope with such stressors often experience significant difficulties in adjustment, achievement, aspirations, and feelings of self-worth (Shoffner & Williamson, 2000). Students with Autism Spectrum Disorders (ASD), namely

Asperger's Syndrome (AS), are among those who face additional challenges and hardships as they transition to postsecondary education, due to the nature of their disability.

A great deal of research has revealed the needs, experiences, and impacts of the transition process on students with learning disabilities; though, far less is known about the impact(s) of this process on students with ASD's, specifically AS (Adreon & Durocher, 2007). Consequently, students with AS are leaving high school with a lack of knowledge about themselves, their abilities, the abilities they must possess in order to be successful, and the support they need to succeed in postsecondary education.

As individuals with AS continue to attend postsecondary education settings in greater numbers, it is essential that programs and services be created to accommodate their specific needs. Therefore, an intervention program was developed to facilitate and improve students' with AS transition to postsecondary education. Examining and exploring the experience of this intervention can provide professionals and prospective students with a better understanding of what impedes and facilitates their adaptation to college, so as to better meet their individual needs.

The purpose of the current study is twofold; both quantitative and qualitative methods were used to explore and examine the experience of an intervention program on first and second-year undergraduate students' with AS adaptation to college. Quantitative methods examined whether the students' self-reported adaptation to college improved over the course of the academic year as they participated in the intervention program. The hypothesis is:

- 1) The longer the students participate in the intervention program, the more their self-reported adaptation to college will improve.

Qualitative methods explored the students' with AS adaptation to college in the context of the intervention program via the thoughts, feelings, perceptions, and experiences of the intervention's implementers (i.e., the peer coaches). Qualitative measures sought to explore:

- 1) What specific areas of adjustment and themes emerged and impacted students' with AS adaptation to college?
- 2) How these areas of adjustment and themes impacted students' with AS adaptation to college.
- 3) How these areas of adjustment and themes specifically affected students' with AS progress in school and involvement in the intervention program.
- 4) The perceived impact and effectiveness of the intervention on the students' adaptation to college.

We assume the differences between the students' adjustment to college reflect a combination of the intervention program, assigned peer coach, severity of the students' AS, and environmental factors uncontrolled for in this study. Rather than attempt to tease out the differential effects of such factors, our analyses are conducted at a more macro level where individual contributions combine to form an overall experience of the applied intervention. Both sets of findings are synthesized and implications are addressed through a single discussion section.

CHAPTER TWO

Review of Related Literature

The Importance of Transition Planning

Research indicates that the number of individuals with disabilities entering postsecondary education following high school is increasing (Sitlington, 2003); however, these students attend postsecondary education settings at significantly lower rates than their nondisabled peers (Wagner, Newman, Cameto, Garza, & Levin, 2005). Among those who graduate from high school, 27% of students with disabilities, as opposed to 68% of students without disabilities, attend some form of postsecondary education three to five years after high school (Blackorby & Wagner, 1996; Stodden, 2001). Fairweather and Shaver (1991) studied postsecondary school attendance for over 1,200 youth one year after high school. The sample was diverse, including those who graduated and those who did not. Results indicated that students with disabilities were less likely to attend postsecondary education in comparison to their peers without disabilities. This gap significantly affects the career and employment outcomes of individuals' with disabilities (Stodden, 2001).

In addition, of these students with disabilities who enroll in postsecondary education, many have difficulty completing their programs (Sitlington, 2003). Murray, Goldstein, Nourse, & Edgar (2000) found that 80% of students with learning disabilities who had entered postsecondary education had not graduated five years after high school, compared to 56% of peers without disabilities. Ten years after graduating high school, 56% of students with learning disabilities had not graduated from postsecondary education, as compared to 32% of peers without disabilities.

These results are troubling and suggest that greater efforts are necessary to ensure that students with disabilities continue to enroll and remain in higher education. In an effort to achieve this objective, transition planning is a necessary key component for their postsecondary success and serves several important functions. These functions include: an introduction to the adult service system, determination of the level of support necessary to live, work, and participate in his/her community, and identification and remediation of gaps and inadequacies in the adult service systems. Moreover, information about an individual's specific needs are disseminated to service providers and individualized education program (IEP) goals are determined, explicitly stated, and targeted (Nuehring & Sitlington, 2003).

Legislation

In 1975, the Education for All Handicapped Children Act (EHA, PI94-142) created new and exciting opportunities for children and youth with disabilities. Specifically, "EHA guaranteed protections under the rights of due process and access to free and appropriate education in the least restrictive environment for all children and youth with disabilities" (Levine & Wagner, 2007, p. 243). The development of this law consequently changed the way in which individuals with disabilities were treated and viewed within academic environments and by society as a whole. It also created new opportunities for young adults, as it mandated the option for students with disabilities to stay in school until the age of twenty-one (Levine & Wagner, 2007).

Beginning in the 1980's, students' transition from high school to young adulthood became of interest. Recent policies focusing on transition-planning, vocational training, school-to-work programming, and research brought about concerns and revealed barriers facing students' with disabilities transition to young adulthood. In response to such concerns, extensive

research was conducted and the Individuals with Disabilities Education Act (IDEA) was established and passed in 1990 (Levine & Wagner, 2007). Amendments to IDEA were passed in 1997, it was reauthorized in 2004, and further improvements were made in 2004. The Individuals with Disabilities Education Act (IDEA) was modified and renamed the Individuals with Disabilities Education Improvement Act of 2004 (IDEIA, 2004). Primarily, IDEIA (2004) requires the establishment of services and is designed to assist students in making successful transitions from school to postsecondary education, work, and/or community living.

According to the Individuals with Disabilities Education Improvement Act of 2004, transition services are: a coordinated set of activities for a child with a disability that-

- (1) are 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, but not limited to, postsecondary education, vocational education, integrated competitive employment (including supported employment), continuing and adult education, adult services, independent living, or community participation;
- (2) are based on the individual child's needs, taking into account the child's strengths, preferences and interests, and;
- (3) shall include needed activities in the following areas: instruction; related services; community experiences; the development of employment and other post-school living objectives; and when appropriate, acquisition of daily living skills and functional vocational evaluation" (Wright, 2004, p. 11-12).

A key component of this definition is its focus on the individual child's strengths, preferences, and interests. It is essential that students be encouraged to explore their interests and opportunities through various experiences and in collaboration with school personnel.

Furthermore, these services must be designed in an outcome-oriented process with the final product being successful, long-term employment for the child. Services necessary to achieve this outcome must be written into the child's individualized education program (IEP) and updated annually. Specifically, the IEP includes-

- (1) a statement of the child's present levels of academic achievement and functional performance, including-
 - a. how the child's disability affects the child's involvement and progress in general education curriculum;
 - b. for preschool children, as appropriate, how the disability affects the child's participation in appropriate activities; and
 - c. for children with disabilities who take alternate assessments aligned to alternate achievement standards, a description of benchmarks or short-term objectives;
- (2) a statement of measureable annual goals, including academic and functional goals, designed to –
 - a. meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general education curriculum; and
 - b. meet the child's other educational needs that result from the child's disability;
- (3) a description of how the child's progress toward meeting the annual goals described in subclause 2 will be measured and when periodic reports on the progress the child is making toward meeting the annual goals (such as through the use of quarterly or other periodic reports, concurrent with the issuance of report cards) will be provided;
- (4) a statement of the special education and related service as supplementary aids and services, or on behalf of the child, and a statement of the program modifications or supports for school personnel that will be provided for the child-
 - a. to advance appropriately toward attaining the annual goals;
 - b. to be involved in and make progress in the general education curriculum in accordance with subclause 1 and to participate in extracurricular and other nonacademic activities; and
 - c. be educated and participate with other children with disabilities and nondisabled children in the activities described in this subparagraph;
- (5) an explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and in the activities described in subclause 4;
- (6) a statement of any individual appropriate accommodations that are necessary to measure the academic achievement and functional performance of the child on State and district-wide assessments consistent with section 612(a)(16)(A); and
 - a. if the IEP team determines that the child shall take an alternate assessment on a particular State or district-wide assessment of students achievement, a statement of why-
 - i. the child cannot participate in the regular assessment; and
 - ii. the particular alternate assessment selected is appropriate for the child;
- (7) the projected date for the beginning of the services and modifications described in subclause (5), and the anticipated frequency, location, and duration of those services and modifications; and

- (8) beginning not later than the first IEP to be in effect when the child is 16, and updated annually thereafter-
- a. the appropriate and measurable postsecondary goals based upon age-appropriate transition assessments related to training, education, employment, and where appropriate, independent living skills;
 - b. the transition services (including courses of study) needed to assist the child in reaching those goals; and
 - c. beginning not later than 1 year before the child reaches the age of majority under State law, a statement that the child has been informed of the child's rights under this title, if any, that will transfer to the child on reaching the age of majority under section 615(m) (Wright, 2004, p. 29-31)

The IDEIA (2004) plays a crucial role in shaping the educational lives of students with disabilities and regulates important aspects of special education services prior to postsecondary transitions; however, it is not the only federal law that focuses on the needs of students with disabilities. Section 504 of the Rehabilitation Act of 1973 and 1992 amendments mandate modifications for “students whose physical or mental disabilities substantially limit one or more major life activity, including access to school activities or services, but do not impede their academic ability enough to qualify for special education services” (Levine & Wagner, 2007, p. 244). Both IDEIA and Section 504 require school districts to provide free and appropriate public education for all qualified students with a disability, regardless of the nature of their disability. Accommodations and special services for qualified students with disabilities are also mandated by both IDEIA and Section 504 to ensure that students with disabilities may participate in and benefit from public education programs and activities. However, there are subtle differences between the laws that must be clarified (Adreon & Durocher, 2007).

Unlike IDEIA, Section 504 defines a disability in a more general way. Despite this difference, students who do not meet criteria under IDEIA are eligible to receive accommodations and services (i.e., testing in a quiet location, access to class notes, extended time on tests, etc.) under Section 504. In order to receive special education services under

IDEIA, a student with a disability must meet certain criteria, such as other health impaired (OHI), specific learning disability (SLD), etc. If a student meets such criteria, they are recognized under that one, specific classification. Consequently, a student's unique needs are often overlooked. This creates confusion, lack of support, and difficulty in transition planning as students transition to postsecondary settings. Furthermore, individuals are no longer protected under IDEIA once they graduate, leave school, or reach the age of twenty-one. In other words, "institutions of postsecondary education have no legal obligations under the IDEIA" (United States Department of Education, 2007, Introduction section, para. 4). In addition, several of the requirements that apply through high school under IDEIA and Section 504 are different from the requirements that apply beyond high school. For instance, postsecondary education institutions are not required to provide free and appropriate public education. Rather, they are required to provide appropriate academic accommodations as necessary to ensure that discrimination on the basis of a disability does not occur (DOE, 2007). Consequently, the programs, services, and supports students with disabilities need to succeed may not be carried over to postsecondary education. To receive the support one needs to be successful at the postsecondary education level, students with disabilities are responsible for understanding and communicating their needs and appropriate accommodations, and providing sufficient evidence of such needs to their school of choice (Adreon & Durocher, 2007; DOE, 2007).

Although supports for students with disabilities are not guided by IDEIA (2004), they are required under the Americans with Disabilities Act (ADA) and Section 504 (Dillon, 2007). The ADA was developed in 1990 to protect individuals with disabilities who are transitioning from high school to postsecondary education and employment. Specifically, the ADA ensures that individuals with disabilities are not discriminated against when obtaining postsecondary

education and employment opportunities simply based on their disability (Smith, 2007). Furthermore, ADA requires that reasonable services and accommodations be provided to qualified individuals with disabilities by businesses, service programs, and educational institutions. Such accommodations and services include issues of access; specifically, necessary programs, services, physical locations, and auxiliary aides (i.e., interpreter, notes, assistive listening devices, etc.) must be provided for and are intended to assist individuals in achieving the most effective education possible, both in and out of the classroom (Levine & Wagner, 2007; Smith, 2007). Although the ADA reinforces the mandates of Section 504, its coverage is broader. All programs and services, regardless of whether or not they receive financial service from the federal government, must comply with these regulations under ADA (Linthicum, Cole, & D-Alonzo, 1991). Therefore, private institutions are required to comply with these guidelines.

ADA directly impacts and affects the autonomy of young adults with disabilities; therefore, it also directly affects their transition to postsecondary education. One of the major goals of this act is to empower students with disabilities to prepare for and participate in postsecondary education and employment, with the long-term goal of increasing their self-sufficiency, independence, and participation in their community (Levine & Wagner, 2007). Since the development of this law, the number of students with disabilities enrolling in higher education has increased. Reasons for such an increase may include: 1) a better understanding of students' disabilities and 2) improved academic accommodations to help students succeed (Smith, 2007).

Need for Improvement of the Transition Process

Although the transition process from high school to postsecondary education is mandated by federal policies and has many positive aspects, there is still need for improvement (Neuhring

& Sitlington, 2003). According to McGuire, Hall, & Litt (1991) and Siperstein (1988), first-year college students with disabilities face challenges as they are often not prepared for the diverse standards and demands required in postsecondary education. In a National Organization on Disability Study (1998), one third of individuals with disabilities reported meeting barriers as they obtained the education and training they desired. These barriers include a lack of awareness to postsecondary education opportunities and requirements, and a lack of support to meet these requirements. In addition, students had difficulty effectively identifying and communicating their disabilities, understanding necessary and appropriate accommodation needs, and advocating for themselves to access necessary accommodations (National Council on Disability, 2000; Smith, 1992). According to Fitchen et al., 1990, students with disabilities may also underestimate the importance of communicating their disability and accessing necessary accommodations. Differences between high school and postsecondary requirements, such as class size, time spent in class, testing approaches, teaching strategies, social expectations, class assignments, and grading methods, also pose greater challenges for these students (Mullins & Irvin, 2000; Shaw, Brinckerhoff, Kistler, & McGuire, 1991; Adreon & Stella, 2001).

The combination of these environmental, psychological, physiological, and social stressors may cause students to feel overwhelmed (Adreon & Stella, 2001). Although most adolescents experience stress, confusion, and challenges during this period in their life, adolescents with disabilities face additional challenges (Levine & Wagner, 2007). Students who lack many of the basic skills necessary to cope with such stressors often experience significant difficulties in adjustment, achievement, aspirations, and feelings of self-worth (Shoffner & Williamson, 2000). Specifically, students with Autism Spectrum Disorders (ASD), namely

Asperger's Syndrome (AS), face these challenges and hardships as they transition to postsecondary education due to the nature of their disability.

Transitions and Autism Spectrum Disorders

A great deal of research has revealed the needs, experiences, and impacts of the transition process on students with learning disabilities; though, far less is known about the impacts of this process on students with ASD's, specifically AS (Adreon & Durocher, 2007). Individuals with AS typically possess average or above average intellectual functioning, yet often display significant non-academic challenges that interfere with their academic performance and overall functioning (Dillon, 2007). The number of students with AS entering postsecondary educational settings is increasing (Smith, 2007), due in part to the increased prevalence of this disorder (Centers for Disease Control, 2005), as well as to the increased number of high-functioning individuals with ASD's (California Department of Developmental Services, 2003). The increased ability to identify and diagnose individuals with high-functioning ASD's (who may have been overlooked in the past) and diagnose children with ASD's at a younger age have contributed to the increased prevalence of this disorder. Consequently, early intervention services are being provided and the long-term outcomes for children with ASD's are improving. Although early intervention services lead to more promising long-term results, children with ASD's still encounter significant challenges as they transition to postsecondary educational settings due to the nature of their disability. Therefore, in order for educational settings to meet the unique needs of this population, it is essential that they understand the disorder, the specific challenges individuals with ASD's face, and the impact of this disorder on an individual's transition to postsecondary education (Adreon & Dourocher, 2007). With this information, institutions can then better accommodate the individual needs of these students.

Asperger's Syndrome: Defined

AS is one of five disorders in the overarching category of Pervasive Developmental Disorders (PDD), often considered a high-functioning form of Autism (Smith, 2007). It affects development in the areas of social interaction, communication, and behavior. The symptoms of AS fall along a spectrum or continuum, meaning symptoms affect each individual differently and to varying degrees. AS is based upon a set of criteria specified in the Diagnostic and Statistical Manual of Mental Disorders-Forth Edition-Text Revision (DSM-IV-TR) and is diagnosed when specific sets of behaviors are observed (Adreon & Durocher, 2007). According to the American Psychiatric Association (DSM-IV-TR), AS is defined as:

- (1) A qualitative impairment in social interaction, as manifested by at least two of the following:
 - a. marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction;
 - b. failure to develop peer relationships appropriate to developmental level;
 - c. a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by lack of showing, bringing, or pointing out objects of interest to other people);
 - d. lack of social or emotional reciprocity;
- (2) Restricted repetitive and stereotyped patterns of behavior, interests and activities, as manifested by at least one of the following:
 - a. encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus;
 - b. apparently inflexible adherence to specific, nonfunctional routines or rituals;
 - c. stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements);
 - d. persistent preoccupation with parts of objects;
- (3) The disturbance causes clinically significant impairment in social, occupational, or other important areas of function;
- (4) There is no clinically significant general delay in language (e.g., single word used by age 2 years, communicative phrases used by age 3 years);
- (5) There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than in social interaction), and curiosity about the environment in childhood;
- (6) Criteria are not met for another specific Pervasive Developmental Disorder (PDD) or Schizophrenia (2000, p. 84).

As individuals with AS mature and develop, their symptoms and difficulties tend to change over time. Therefore, behaviors observed in childhood may not necessarily be observed in young adulthood. The following behaviors may be observed in young adults with AS (Adreon & Durocher, 2007).

Asperger's Syndrome: Characteristics in Young Adults

Social skills.

Difficulties with social situations place individuals with AS at a greater risk of being misunderstood, left out of social interactions, and deemed as rude and impolite by others. Although they may desire social contact and want to establish friendships and romantic relationships, many have difficulty making and maintaining such relationships. They may also lack empathy and an ability to understand others' perspectives and feelings. Furthermore, nonverbal communication is often misunderstood and inappropriately demonstrated by individuals with AS; therefore, their ability to understand and recognize subtle social cues and follow accepted social standards is often lacking (Adreon & Durocher, 2007).

Communication skills.

Individuals with AS often present with idiosyncratic (i.e., particular and eccentric) language. They commonly have advanced vocabularies and consequently communicate in a formal manner. They may not be aware of the sound of their voice; therefore, their vocal tone may be monotonous and either too loud or soft. Due to difficulties in understanding and recognizing social cues and conventions, individuals with AS may demonstrate inappropriate body language (e.g., standing too close to others when speaking). They may also have difficulty engaging in reciprocal (i.e., back-and-forth) conversation, as they often fail to consider other's needs and interests when communicating. Furthermore, individuals with AS commonly talk at

length about a specific topic of interest without providing adequate background knowledge to their listener. Individuals with AS often have a difficulty understanding sarcasm, figures of speech, and humor, due their typical concrete or literal thinking patterns. This communication barrier further excludes them from social interactions, puts them at risk for being taken advantage of and/or teased, and may be interpreted by others as a sign of anger, disinterest, and/or frustration. In addition, long discussions and multiple-step instructions may be misunderstood or overlooked due to comprehension difficulties (Adreon & Durocher, 2007).

Repetitive, restricted, and stereotyped behaviors, interest, and activities.

Rocking back and forth, moving one's hands in unusual ways, frequently blinking one's eyes, shuffling from one foot to another, and drumming one's fingers on surfaces are all examples of repetitive, restricted, and stereotyped behaviors performed by individuals with AS. In addition, individuals with AS often display an intense interest in certain topics and typically spend the majority of their time performing and/or researching these. Their preoccupations with such interests further prevent them from socializing and completing required coursework or necessary daily tasks. As a result, they may fall behind in their studies and have poor hygiene and time management skills. Furthermore, individuals with AS may be rather inflexible to changes in their environment, changes in their routine, and/or others' disregard to laws, rules, and regulations (Adreon & Durocher, 2007).

Issues in Transitions

Individuals with AS present with a wide array of characteristics and behaviors that make their transition from secondary to postsecondary education challenging and difficult. Specifically, due to their increased levels of anxiety surrounding change, it is likely that such transitions will exacerbate their anxiety, making this process more difficult for these students

than for typical students (Adreon & Stella, 2001). For these reasons, unique and new accommodations must be developed and effectively implemented to ensure that the individual needs of students with AS are met (Smith, 2007).

Teaching students with AS how to choose a college that will meet their individual needs, develop their adaptive (i.e., independent living) and self-advocacy skills, seek academic accommodations and support services, adjust to the transition process, and encourage and utilize social supports are essential components of the transition process. Each must be considered and planned for as individuals with AS transition to postsecondary educational settings (Adreon & Durocher, 2007).

The Importance of Social Supports

The most defining characteristic of AS is a qualitative impairment in social interaction; therefore, social supports should be a primary consideration when developing an individual's transition plan. Research indicates that a liaison, or point person, is often beneficial for students with AS to consult with when confused, frustrated, and/or overwhelmed (Myles & Adreon, 2001; Jekel & Loo, 2002; Rosenwald & Hultgren, 2003). This person may address students' academic, social, and/or emotional concerns, assist them in problem-solving strategies, and monitor their overall stress level and adjustment to postsecondary education (Jekel & Loo, 2002).

Utilizing college students as peer mentors is another way in which to provide social support to students' with AS (Adreon & Durocher, 2007). Moreno (2005) indicates that the peer mentor utilized by her daughter with AS while she was in college was extremely beneficial and an important support system as she progressed through postsecondary education. Specifically, her mentor provided ongoing social assistance, which led to her overall success in college.

Further research also indicates that social support, or discussion groups have positive effects on the social lives of individuals with Autism Spectrum Disorders (Hiller, Fish, Cloppert, & Beversdorf, 2007; Howlin & Yates, 1999; MacLeod & Johnston, 2007; Mesibov, 1984; Ozonoff & Miller, 1995; Weidle, Bolme, & Hoeyland, 2006). Such effects include improvements in understanding and expressing emotions, self-perceptions, and generalizing learned skills to new situations and experiences (Mesibov, 1984). Individuals with ASD's also showed significant social-cognitive skill improvements (Ozonoff & Miller, 1995), made improvements in their ability to initiate and maintain conversations (Mesibov, 1984; Howlin & Yates, 1999), and were better able to directly and appropriately respond to questions (Howlin & Yates, 1999). Support groups also showed significant improvements in individuals' awareness of other peoples' thoughts, feelings, perspectives (Hillier et al., 2007), feelings of belonging and reassurance, and incidental learning experiences (McLeod & Johnston, 2007). Satisfaction with the social group experience was also noted as high or very high among individual's receiving this support (Weidle et al., 2006).

Research on the positive effects of social supports among individuals' with ASD's has been conducted with adolescents and young adults; however, there is little to no research on the effects of peer support services, namely peer coaches or mentors, for individuals with AS who are transitioning to postsecondary education. A recent study by Smith (2007) explored the ways in which postsecondary institutions can better accommodate students with AS. Results indicated that of the twenty-nine surveys received from the staff within the Disabled Student Services (DSS) offices, who are members of the Association on Higher Education and Disability (AHEAD), none reported offering support groups for students with AS. Furthermore, if these

institutions were interested in creating such supports, literature in this area is limited (Smith, 2007).

Rationale of the Present Study

Most, if not all students face challenges upon entering postsecondary educational settings; however, students' with AS encounter additional challenges due to the nature of their disability. Although federal legislation (e.g., IDEA, Section 504, and ADA) mandates that individual needs, transition services, and appropriate accommodations be considered and met during the transition process, individual's with AS continue to face barriers and consequently have difficulty adapting to postsecondary education.

As individuals' with AS continue to attend postsecondary education settings in greater numbers, it is essential that programs and services be created to accommodate their specific needs. Therefore, a peer coaching intervention program was developed to facilitate and improve students' with AS transition to postsecondary education. Examining and exploring the experience of this intervention can provide professionals and prospective students with a better understanding of its impact on students' with AS transition to postsecondary education, as well as the areas of adjustment that impact these students' adaptation to college.

CHAPTER 3

Methodology

*Quantitative Measures**Participants*

Twelve undergraduate college participants with Asperger's Syndrome (AS) from a private institute in upstate New York volunteered to participate in a Spectrum Support Pilot (SSP) program (i.e., peer coaching intervention program). The program's participants ranged in age from 18 to 20 years. The participants included both freshmen ($n = 2$ females, $n = 8$ males) and sophomores ($n = 2$ males). Of these 12 participants, all of whom were freshmen, eight ($n = 1$ female, $n = 7$ males) completed the following measures across two of three possible academic quarters.

*Measure**Student Adaptation to College Questionnaire (SACQ).*

The Student Adaptation to College Questionnaire (Baker & Siryk, 1989) is a norm-referenced, 67 item, self-report questionnaire that consists of an Overall Adaptation to College Full-Scale (FS) and four principal subscales: Academic Adjustment (AC) (24 items), Social Adjustment (SA) (20 items), Personal-Emotional Adjustment (PE) (15 items), and Goal Commitment/Institutional Attachment (AT) (15 items). Each item included in the questionnaire is a statement that is responded to on a nine-point likert-type scale ranging from, "applies very closely to me" to "doesn't apply to me at all." Each item measures adjustment to college and how well the student is coping with the demands of college life. Raw scores are converted to T-scores ($M = 50$, $SD = 10$), based on the normative sample stratified by sex and semester (i.e., first and second semester/quarter freshmen versus participants in the third quarter of their freshmen year, sophomores, juniors, seniors, or students attending summer sessions). Based on

the SACQ manual, estimates of the internal consistency reliability for the Full Scale (67 items), across three institutions over several years, ranged from .92 to .95. Furthermore, the SACQ has high test-retest reliability and adequate construct and predictive validity (Baker & Siryk, 1989).

Qualitative Measures

Participants

Six advanced, second-year graduate students within the School Psychology program at the same private institute in upstate New York were recruited by the Chair of the Department of School Psychology to participate in the SSP program as peer coaches. Each peer coach was assigned two participants and earned an hourly wage for their participation in the program. The peer coaches ranged in age from 23 to 25 years and all were female. Of the six peer coaches that participated, five peer coaches whose participants completed the SACQ across at least two of three possible quarters were included in this study.

Measures

Peer coach questionnaire.

The peer coaches were administered an informal, semi-structured questionnaire. The questionnaire was designed to explore their thoughts, feelings, perceptions, and experiences of the participants' adaptation to college across various areas of adjustment. In addition, the peer coaches' insight into the overall effectiveness of the program on the participants' adaptation to college was ascertained. The questionnaire included the following seven, open-ended questions:

- (1) Describe your participant's experience with dorm life. Did he/she have roommate difficulties? If so, how were these remedied and what did he/she do to fix the problem? What help did you provide in the process?
- (2) Describe your participant's independent living skills.

- 3) Describe the level of difficulty you had in maintaining meetings with your participants? Please estimate what percentage of your meetings was kept versus missed and/or ignored.
- 4) Describe your participant's overall socialization skills.
- 5) Describe your participant's involvement in organized activities at the institute (e.g., clubs, intramurals, etc.)
- 6) What were the largest issues that impeded/facilitated your participant's adjustment to college?
- 7) Please speak to the effectiveness of the program on your participant's adjustment to college, as well as any additional information you would like to share about the SSP program (i.e., troubleshooting, recommendations to improve the program, etc.).

Student progress questionnaire.

The participants' school progress was reported via peer coach data and defined in terms of classes dropped, majors changed, school dismissal, and retention in the SSP program. Data was collected throughout the course of the SSP program and compiled at the conclusion of the SSP program.

Quantitative and Qualitative Procedures

Quantitative data used in this study represented archival data collected from the eight undergraduate participants as part of their participation in the program. Qualitative data was collected and compiled from the five peer coaches at the conclusion of the SSP program. All data was coded anonymously.

The SSP program was implemented to help college participants with AS adjust to postsecondary education. The program served participants for one academic year (i.e., fall,

winter, and spring quarters) and provided them with one peer coach and a case manager with whom they would meet with regularly.

To obtain a sample of participants interested in the SSP program, undergraduate students who self-identified with AS were mailed information from the institute's Disability Services Office over the summer. Those interested in participating contacted the institute and were given a detailed explanation of the program by the staff in the Disability Services Office. Consent forms were administered to and completed by potential participants during the fall orientation. The consent form assured participants that their participation in the SSP program was voluntary. Confidentiality between the staff in the Disability Services Office, the participants, and their peer coach was guaranteed and explained.

Following the dissemination of this information, participants were assigned a peer coach. Staff within the Disability Services Office, as well as the Chair of the Graduate School Psychology program at this institution recruited six advanced, second-year graduate participants within the School Psychology program to assume the role of the peer coach. Each peer coach was assigned two participants with whom they would initially meet with one-on-one for one hour each week during the fall quarter. The most convenient days and times of the week were agreed upon by the participants and their peer coach. Meetings were then scheduled in advance at various locations on-campus. The time and place of the meetings were arranged to promote consistent and routine appointments. During weekly meetings, the participants' academic, social, emotional, and adaptive skills and progress were discussed, as well as how and where they could access necessary resources (e.g., tutoring, counseling, intramural activities, etc.).

Although such skills were discussed, meetings were typically informal and unstructured in nature. In other words, participants were encouraged to discuss any questions and/or concerns

that had surfaced since the last meeting. If meetings were cancelled or missed, peer coaches contacted participants via telephone and/or email to reschedule meetings. If meetings could not be rescheduled, the participants' progress was discussed via telephone and/or email. In addition to these weekly meetings, a community outing and group social were arranged during the fall quarter; all participants were invited and encouraged to participate. The objective of the community outing was to teach participants how to utilize the public transportation system in the area, facilitate an opportunity to meet others in the program, and familiarize participants with local community activities. The group social was held on-campus and provided the participants with the opportunity to meet and interact with others in the program, as well as the peer coaches and staff within the Disability Services Office at the institute.

For supervision and monitoring purposes, the peer coaches, staff from the Disability Services Office, and Chair of the Graduate School Psychology program also met once weekly throughout the entire academic year to discuss the participants' progress. Each coach discussed questions and/or concerns they, or their participant(s) had encountered and the group brainstormed various ways to address these issues.

During the winter and spring quarters, if participants demonstrated signs of academic, social, emotional, and adaptive progress (e.g., performing well in class, joining social networks, participating in social activities, completing independent living tasks), meetings between them and their peer coaches decreased, occurring on a bi or tri-weekly basis for a shorter duration (e.g., for one half hour) at the participants' approval. This reduction was intended to increase the participants' independence and self-advocacy skills. The supervision and monitoring meetings (between the peer coaches, staff within the Disability Services Office, and Chair of the Graduate School Psychology program) also occurred less frequently as the year progressed; however,

supervision and mentoring were always accessible to both the participants and peer coaches whenever necessary.

At the end of each quarter, participants completed the Student Adaptation to College Questionnaire (SACQ) during one, one-hour session with their peer coach. This standardized measure was administered to assess the participants' overall adjustment to postsecondary education. By the end of the academic year, participants and their peer coaches met on a needs basis and often maintained contact via telephone and/or email. At that time, their adaptation to college had been monitored and evaluated three times with this measure. The Spectrum Support Pilot concluded at the end of the academic year.

Following the conclusion of the SSP program, peer coaches completed an informal peer coach questionnaire via email. They also responded to specific, factual questions regarding their participant's school progress over the course of the academic year.

Data Collection and Analysis

The following results section describes the quantitative results in terms of group analysis and individual trends on the SACQ across participants and academic quarters, while the qualitative results explore the experience of the SSP program through six themes that emerged in the process of data analysis. To arrive at qualitative results, qualitative data was analyzed by one trained reader for common themes within both measures. Themes were then identified and compared within and across peer coaches and participants. Only those themes that were identified by all peer coaches independently were considered common themes from these measures. The following qualitative results section describes the six common themes detected by the data analyst.

CHAPTER FOUR

Results

*Quantitative Analysis**Group Analysis**Means analysis.*

The means and standard deviations across each scale and academic quarter for adaptation to college are shown in Table 1. All ratings of adaptation to college are within one standard deviation from the mean ($M=50$, $SD=10$) and national average, given participants' sex and quarter in college. High scoring means were noted in participants' Academic Adjustment (AC), Goal Commitment/Institutional Attachment (AT), and Overall/Full-Scale Adaptation to College (FS) ratings across all academic quarters. Low scoring means were indicated in participants' ratings of Social Adjustment (SA) following quarter three, as well as in their ratings of Personal-Emotional Adjustment (PE) following quarters one and two (see Table 1).

Inferential statistics.

One-way repeated measures analysis of variance was conducted on the means and standard deviations presented in Table 1. An alpha of .05 revealed no significant difference among the group and SACQ areas reported over time (AC - $F(2)=1.80$, $p>.05$; SA - $F(2)=1.80$, $p>.05$; PE - $F(2)=2.01$, $p>.05$; AT - $F(2)=.277$, $p>.05$; FS - $F(2)=.708$, $p>.05$). In other words, the participants made no significant improvement in their adaptation to college over the course of the academic year as they participated in the peer coaching program.

*Individual Trends**Means analysis.*

Each participant's ratings of adaptation to college across the five SACQ scales are displayed in Figures 1-5. In terms of AC adjustment, ratings across quarters indicate that one

participant was below the mean in quarter one, two were below the mean in quarter two, and one was below the mean in quarter three. Overall, three participant's ratings of AC adjustment improved, two stayed the same, and three declined over the course of the academic year.

Results of participant's ratings of SA adjustment across quarters indicate that two participants were below the mean in quarter one and one participant was below the mean in quarters two and three. Over the course of the academic year, four participants' ratings of SA adjustment increased, one stayed the same, and three declined.

In terms of PE adjustment, ratings show that one participant was consistently below the mean across all academic quarters. Seven participants' ratings of PE adjustment increased and one remained the same over the course of the academic year.

Based on participants' ratings of AT to college, one participant was below the mean across all academic quarters. Over the course of the academic year, five participants' ratings of AT to college increased, while the other three participants' ratings decreased.

Overall, all but one of the participants' FS ratings of adaptation to college clustered within the average range across all three quarters. Three participants showed improvement, one remained the same, and three declined over the course of the academic year. Although one participant's adaptation to college was below the mean across all quarters, substantial improvement was made by the end of the academic year.

Qualitative Analysis

Participants' Adaptation to College

Peer coaches independently shared their thoughts, feelings, perceptions, and experiences of the participants' adaptation to college in their completion of the peer coach questionnaire. The peer coaches' perception of the program's efficacy was also addressed. The following themes

emerged from the peer coaches' data and indicate these were areas of difficulty for students with AS: (a) organizational and time management skills; (b) flexibility and adaptability; (c) social and communication skills; (d) self-advocacy skills; (e) adaptive skills; and (f) extra-curricular involvement. The preceding themes are organized under the four principal areas addressed in the SACQ: Academic Adjustment (AC), Social Adjustment (SA), Personal-Emotional Adjustment (PE), and Goal Commitment/Institutional Attachment (AT).

Area One: Academic (AC) Adjustment.

Peer coaches responses were read through to uncover themes related to participants' academic adjustment to college. The following themes emerged from the data.

Organizational and time management skills.

Six of the eight participants lacked the organizational, planning, and time management skills necessary to succeed academically. Specifically, participants typically failed to get enough sleep, attend class, meetings, and appointments consistently and on time, complete and turn-in assignments in a timely fashion, study for tests and courses, and plan ahead to complete their academic work. According to one peer coach (in regard to her participant), "He was intelligent and smart. The material he was learning wasn't really hard for him. What was hard for him was completing work in a timely manner and studying for tests." Two other participants were described as intelligent, bright, and capable of completing their work; however, it was their organizational and time management skills that hindered and adversely impacted their academic performance.

In addition, participants had difficulty understanding how their lack of effort impacted their overall academic performance. For instance, three participants consistently missed classes, quizzes, tests, meetings, and appointments because they neglected to set or wake up to their

alarm clock. One peer coach commented on her participant stating, “He was not aware that he was doing poorly in some classes and he did not seem to understand how his lack of effort in his work impacted his overall grade at the end of the quarter.” In speaking of another participant, one peer coach stated:

He chose not to complete the final assignment in one of his courses because he thought it was unnecessary and a waste of his time; however, the syllabus for the course clearly indicated that completing the assignment was mandatory in order to pass. When he failed this course and had to re-take it the following quarter, he was outraged, angry, and could not understand why completing the assignment was so important.

In the same way, participants also struggled to understand the impact of their decisions. One peer coach indicated that her participant “consistently missed classes because he had been up late finishing work or completing assignments for one class during another class.” According to this coach, even though she mentored this participant about the consequences of his immediate decisions, he continued to miss classes for these reasons and could not see the long-term, academic consequences of his actions. In his mind, he was simply doing what he was supposed to by completing his work. Another peer coach indicated:

He had an obsession with the internet, which distracted him from studying, doing his work, making it to class, or interacting with others. Consequently, his obsession adversely impacted his academic and social performance. He would stay up all night to surf the web, while completely disregarding his academic responsibilities and others. Although he acknowledged that his lack of work was due to his obsession with the internet, he was disinclined to turn off his computer or relocate to an area without internet access so that he could complete his work.

Five participants struggled academically over the course of the SSP program due their lack of these skills. In addition, one peer coach believed her participant’s inability to keep up with his work was partly because he “tried to study, but did not know how to do it effectively.” Peer coaches indicated that as these five participants fell further behind in their academic work, they often became overwhelmed with their academic schedules and disregarded their academic

obligations altogether. As a result, as indicated by the school progress data, four participants dropped one or more classes due to failing grades and two participants changed their majors due to failing grades within their major; however, all participants remained in college throughout the course of the year.

Participants' lack of organizational, planning, and time management skills also impacted their involvement in the SSP program, in terms of meetings kept with their peer coaches. According to peer coach data, about half of the participants regularly attended their meetings with their peer coach. Of those who regularly attended their meetings, roughly 70% of the meetings were kept. The other half of the participants had difficulty keeping and attending their meetings. Reasons for missed meetings included: forgetting the date and/or time; an inability to schedule meetings that were compatible with both the peer coach's and participants' schedules; participants' lack of interest or believed need for the SSP program; miscommunication between the peer coach and participants about the meeting's date, time, and location; and participants' tardiness. As stated by one peer coach, "he (the participant) had a lot of difficulty keeping his meetings with me. Often he would forget and I would call him and he would say, I can meet right now." Reports from another peer coach indicate, "He (the participant) would show up, but very late. He had no real concept of time. He made an effort to come, though, and I think he really enjoyed our meetings. He would forget from time-to-time too." Overall, including the participants who regularly attended their meetings, many typically showed up late.

Flexibility and adaptability.

Peer coach data indicated that six out of eight participants presented as inflexible to changes in their environment, routines, and others' regulations and/or ways of doing things (such as academic work). Peer coaches reported the following observations of their students: "He had a

very difficult time transitioning from high school to college. He was overwhelmed with the demands and quick pace of the quarter system, as well as changes in his schedule and routine;” “he did not receive some of his accommodations (such as tutoring) because he always insisted on doing things his own way and on his own terms, rather than following the standard procedures, regulations, and ways of doing things. For example, he called his tutor for immediate answers, when that was not the best way to reach them;” “He wouldn’t change his approach to solving problems based on what the professor was looking for because he typically believed his ideas/ways to solve problems were the only way to solve them;” “He did not want to leave his room, so he simply missed and skipped classes.” Participants’ rigidity and inflexibility adversely impacted their academics. They became overwhelmed, did not receive necessary supports and resources, and were penalized academically for failing to or inaccurately completing coursework and attending class.

In addition, three of the eight participants had perfectionist tendencies and engaged in absolute and rigid thinking patterns that interfered with their academics. For instance, one peer coach reported, “He (the participant) was so intent on his work being perfect that he would not hand it in otherwise.” Another participant “often turned in work late, because he refused to turn anything in unless it was 100% done. So, he lost a lot of credit when he could have received partial credit.” Another participant was described as, “someone who would not turn in work unless he knew exactly how to complete it. He was a literal thinker who required explicit directions in order to complete his work.” These participants’ often failed to turn in assignments (even for partial credit), presented with anxiety when they could not complete assignments and catch up on their work, and were reluctant to admit to their professors that they did not understand how to complete the work. As a result, their academics were negatively impacted.

Area Two: Social (SA) Adjustment.

Peer coaches responses were read through to uncover themes related to participants' social adjustment to college. The following themes emerged from the data.

Social and communication skills.

All peer coaches spoke of their participants' limited or complete lack of socialization and communication skills, which are necessary for making and maintaining friendships and relationships. Of the six participants who indicated having friends/social relationships, minimal effort was exerted by participants to maintain these relationships. One participant refused to socialize with others if it meant leaving his living quarters. He disclosed to his peer coach that "he was concerned that when his friends moved off campus next year that he would never see or socialize with them again, because he would have to leave his dorm to see them." In addition, although these participants identified friends, many did not engage in social events, activities, or conversations with these friends on a regular basis. Rather, acquaintances and classmates were commonly regarded as "good friends." For example, when commenting on her participant's friends, one peer coach recalls, "She said the people she talked to in class were also her friends, although she never hung out with them outside of class."

When engaging in conversation with their peer coach, more than half of the participants did not consistently maintain eye contact, neglected to appropriately begin and end conversations with "hello" and "good-bye," would not directly face their peer coach, did not voluntarily divulge or elaborate on personal information, and had difficulty continuing a conversation. As one peer coach described her participant's communication skills she revealed that:

His eye contact varied immensely; at times he maintained great eye contact and at other times he refused to even look in my direction. It was primarily based on what we were talking about. He would look right at me when we talked about video games; however, he avoided me when discussing anything to do with academics. When we

talked, he typically sat slightly turned to me, he wouldn't sit directly facing me. Instead, he would sit with his shoulder to me, but it wasn't an awkward pose.

Furthermore, participants often lacked empathy, presented with a flat or inappropriate affect, spoke with little vocal intonation, and communicated in a literal, event-oriented fashion (i.e., left out details and experiences). Additionally, participants often argued with others, were hesitant to communicate with new peers without a “script,” had trouble navigating unexpected social situations (e.g., meeting new people, working through a roommate problem, communicating with professors), and lacked knowledge regarding social boundaries (e.g., how close to stand next to someone) and social cues (e.g., when a conversation was coming to a close). One participant’s communication skills were described as follows:

He had a robotic vocal tone and had a very stiff and structured communication pattern. He appeared to have “learned” how to engage in a social conversation and it seemed like he went through the movements in the same fashion each time. He had trouble relaxing and opening up; however, he made good eye contact.

Another participant exhibited similar communication skills and was portrayed by his peer coach in the following way:

He could engage in a conversation but was very timid and made little, if any eye contact. He was always slouched over in his chair and appeared to lack self-confidence in social situations. He offered little to conversations, often simply responding with “yes/no” answers. As we became more familiar with one another he began to open up and share more about himself and what was going on in his life. When we ended conversations he always got up quickly and walked away from me, without often saying good-bye. I got the impression that he was shy and self-conscious, rather than rude and impolite.

Furthermore, aside from communication skill deficits, more than half of the participants did not understand what was appropriate in social situations. For example, one peer coach commented that her participant often picked his nose in public situations and once asked her if it was acceptable to pull up his pants in public. Additionally, understanding social humor and sarcasm was difficult for participants. One participant was described as “very literal” and

consequently had difficulty understanding humor, while two others were described as having a “good, but dry sense of humor.” Participants were also portrayed as lacking social etiquette. Specifically, when walking with someone, they commonly walked in front of or behind the person (rather than next to them), they were unaware of others and consequently did not hold or open doors for them, and they often neglected to notice or say “hello” to people they knew in public. As a result, participants often came across to others as rude and selfish, rather than lacking these social skills.

Flexibility and adaptability.

Participants’ had difficulty adapting to changes in their environment, routines, and others’ regulations and/or ways of doing things in social settings as well. One participant “expected others to revolve around his rules which he broke or did not follow frequently. Overall, he was inflexible.” Three participants regularly protested to their peer coaches about the smoking, drinking, and loud noises that occurred within their dorms. Another disliked unclean living areas and had difficulty living in the dorm. Participants typically understood it was another person’s choice to live a certain way or do certain things; however, they frequently disagreed with their choices and consequently voiced their disapproval to their peer coaches. They did not, however, alert or voice their concerns to their Resident Advisors (RA) or roommates. For instance, one participant had difficulty studying or completing work when his roommate was around. Rather than personally addressing this issue with his roommate, he would either leave his room to study in the library or study in his room when his roommate was not around.

Area Three: Personal-Emotional (PE) Adjustment.

Peer coaches responses were read through to uncover themes related to participants’ personal-emotional adjustment to college. The following themes emerged from the data.

Self-advocacy skills.

In many instances and across various situations, participants had trouble advocating for themselves. Specifically, asking for help, accessing necessary supports and resources, and communicating needs, wants, and preferences were difficult for participants to execute. All peer coaches indicated that participants relied on them for support and resources, such as tutoring assistance, extra-curricular/club information, counseling support, transportation options, academic accommodations, etc. In most cases, it was often the peer coaches who initiated and addressed the participants' need for such support and information. One participant was described as passive in communicating his preferences, specifically to his parents. His peer coach says:

Even though he knew what he wanted and could communicate his wants and needs to me, he felt powerless when it came to communicating these to his parents. For example, when I asked him about his summer plans, he told me that his parents insisted that he come home for the summer. All he wanted to do was stay here, maintain his independence, and work as an intern. When I asked him if he discussed this idea with his parents he said “no, because he knew his parents would not approve.

Not only did participants have difficulty advocating for their needs, wants, preferences, and support, they had trouble standing up for their safety. Seven out of the eight participants were “shy, naïve, too trusting of others, passive, quiet, insecure, and/or very polite.” As a result, peer coaches worried that they would be easily taken advantage of by others. Of the five participants who had a roommate at the start of the school year, three were targeted and bullied by their roommates and/or others in their dorms. A fourth participant, who lived alone, was also targeted and bullied by peers in his dorm. One peer coach recalls that her participant was “essentially targeted on the floor and was constantly picked on. He always had balls thrown at him and immature concepts written on the white board outside his room.” Three other participants experienced similar situations; one overlooked it while the other two eventually moved out of their rooms. Although peer coaches and their participant's brainstormed and

rehearsed ways to resolve these problems, participants were unable to resolve these conflicts independently. A peer coach described this process:

He found it difficult to advocate for himself. Even after rehearsing and practicing what to say with his peer coach, he had difficulty communicating with his roommate. So, he wrote him a letter. It was four sentences and he memorized the sentences. Then he told his roommate from memory how he was feeling. This was the week before Christmas break. After Christmas break he came back to school and was given a single because his mom had called the school and set it up the week of break.

In more than one situation, a participant's parent(s) resolved their conflicts for them. As reported by a peer coach, "many non-crisis situations turned into 'crisis' situations because they did not know how to handle them before they escalated; they definitely lacked independence."

Adaptive skills.

In terms of adaptive (i.e., independent living) skills, five out of the eight participants presented with poor hygiene. Some did not shower or do laundry on a regular basis. As stated by a peer coach:

He rarely showered, especially at the beginning of the year. He informed me that he was showering one time per week. We discussed the health and social implications of this and created ways to work on it. Together we created a schedule of days to shower, but I don't think he stuck to it. He was showering more regularly as the year progressed though.

On the contrary, three participants routinely showered and washed their clothes; however, one had difficulty brushing his teeth in front of others. This participant's peer coach revealed, "He hated brushing his teeth in public. So, he found a late time in the night when no one was in the bathroom; then he would brush his teeth."

Aside from hygiene issues, all participants stayed up too late and did not receive enough sleep. Whether they were spending time with another student, surfing the internet, playing videogames, doing academic work, etc., it was common for participants to fall asleep in class and meetings, take naps during the day, and present as tired and lethargic.

Three participants struggled with anxiety, anger, and/or depression-related symptoms throughout the course of the SSP program and sought support from the counseling center on campus. In all situations, participants were referred for this treatment by their peer coach and/or other faculty.

Area Four: Goal Commitment/Institutional Attachment (AT).

Peer coaches responses were read through to uncover themes related to participants' goal commitment/attachment to college. The following themes emerged from the data.

Extra-curricular involvement.

Six participants sought out, tried, or actively participated in extra-curricular activities and/or clubs offered by the institute. Common activities/clubs included: Robotics Club, Electronic Gaming Society, Bowling Club, Chess Club, Radio Club, vocal groups, and Anime Club. Three of these six participants found success and enjoyment from these activities and attended meetings and events on a regular basis. The remainder of the participants discontinued their involvement in certain activities due to disagreements or altercations with the groups' members:

He went to one Robotics meeting and decided that he didn't want to go again, because there was someone there from his class that he didn't like. In addition, the Robotics team wasn't doing things the way he thought they should be done.

A similar situation occurred with another participant:

He tried to become a part of many different clubs. He went to a few Electronic Gaming Society meetings, wanted to join the Bowling Club but never did, tried out for a vocal group and didn't make it (he was very angry about this), and joined and attended another vocal group, but complained that others didn't like him. He wanted so badly to join groups, but had difficulty initiating on his own or staying because of others.

Peer Coaches' Experience of SSP Program

Peer coaches commented on their perception of the efficacy of the SSP program in terms of the participants' overall adaptation to and progress in college. Based on their responses, peer coaches believed the SSP program was helpful and beneficial for the participants. They felt the program accomplished two main tasks; participants were provided with (a) necessary resources and helpful information (such as tutoring assistance, extra-curricular activity/club information, counseling support, transportation options, academic accommodations, etc.) and (b) peer support (i.e., someone their age to talk to about academic, social, and communication issues, as well as extra and individualized support, advice, guidance, and insight). Two of the five peer coaches mentioned that formal training prior to the start of the SSP program would have been beneficial in providing them with pre-determined topics to address with their participants, as well as concrete, measureable goals to work towards during the program.

School Progress

Of the eight participants who completed the SACQ, their school progress was reported via peer coach data. As reported by the peer coaches: four participants dropped one or more classes due to failing grades, two participants changed their majors due to failing grades within their major, all participants remained in college throughout the course of the year, and all participants remained in the SSP program throughout the course of the year.

CHAPTER FIVE

Discussion

Summary of Major Results

The diagnosis of ASD, particularly AS, has increased in prevalence in today's society (Centers for Disease Control, 2005) and the number of students with AS attending postsecondary education is increasing (Smith, 2007). Although the transition process from high school to postsecondary education is mandated by federal policies and has many positive aspects, there is still need for improvement (Neuhring & Sitlington, 2003) as many children with ASD's continue to encounter significant challenges in their transition to postsecondary education (Adreon & Durocher, 2007). In an effort to alleviate these challenges, research on the positive effects of social supports has been conducted on adolescents and young adults with ASD's (Aderon & Durocher, 2007; Hillier et. al., 2007; Howlen & Yates, 1999; Jekel & Loo, 2002; MacLeod & Johnston, 2007; Mesibov, 1984; Moreno, 2005; Myles & Aderon, 2001; Ozonoff & Miller, 1995; Rosenwald & Hultgren, 2003; Weidle et. al., 2006). However, there is little to no research on the impact of peer support services, namely peer coaching, on students with AS who are transitioning to postsecondary education. Therefore, the current study employed both quantitative and qualitative methods to examine and explore the experience of a peer coaching intervention program on undergraduate students' with AS adaptation to college. Quantitative methods examined the students' adaptation to college over time as they participated in the peer coaching program, while qualitative methods explored the students' adaptation to college in the context of the peer coaching program via the thoughts, feelings, perceptions, and experiences of the program's implementers (i.e., the peer coaches).

Our quantitative results from the current study found the group's means and standard deviations of self-reported adaptation to college to be within one standard deviation from the mean ($M=50$, $SD=10$) and national average across all areas of adaptation and academic quarters (see Table 1). Higher scoring means were noted in students' Academic Adjustment (AC), Goal Commitment/ Institutional Attachment (AT), and Overall/Full-Scale Adaptation to College (FS), while lower scoring means were indicated in students' ratings of Social Adjustment (SA) and Personal-Emotional Adjustment (PE). Lower mean ratings in the areas of SA and PE adjustment are consistent with findings in previous research, as well as the DSM-IV-TR's clinical definition of AS (Adreon & Durocher, 2007; APA, 2000).

Additionally, no significant differences in the mean level of students' self-reported adaptation to college throughout the course of the peer coaching program and academic year were found. In other words, the students made no significant improvement in their adaptation to college over the course of the academic year as they participated in the peer coaching program. The group as a whole adapted well to college from the beginning of the academic year. Due to our lack of significant findings, we examined each individual's mean ratings of adaptation to college across the four areas of adjustment (i.e., Academic, Social, Personal-Emotional, and Goal Commitment/Institutional Attachment). Results indicated that all but one student's ratings of adaptation to college were within one standard deviation from the mean and national average by the end of the peer coaching program and academic year. These findings, along with previous research on the positive effects of social support, indicate that the peer coaching intervention program may have facilitated the students' successful adaptation to college. Unfortunately, it is unclear whether these results are primarily due to the effects of the intervention program or another variable, such as the students' natural maturation, familiarity with the institution, and/or

other factors uncontrolled for in this study. Future research should continue to explore the effectiveness of a peer coaching intervention program on students' with AS adaptation to college. In addition, qualitative measures may shed light on and more deeply explore students' perceptions of a peer coaching intervention program and its impact on their overall adaptation to college.

Our qualitative findings of the peer coaches' thoughts, feelings, perceptions, and experiences of the students' adaptation to college coincide with previous research; students with AS typically possess the intellectual ability to complete college, yet often display significant challenges that interfere with their academic performance and overall functioning (Dillon, 2007). Our results indicated that students differed in their individual level of adaptation to college; however, many were impacted by common factors, or themes along the way. Six themes emerged from our data and suggest that students with AS have difficulty in the following areas: (a) organizational and time management skills; (b) flexibility and adaptability; (c) social and communication skills; (d) self-advocacy skills; (e) adaptive skills; and (f) extra-curricular involvement. Similar to previous research findings (Adreon & Durocher, 2007; Adreon & Stella, 2001) and the DSM-IV-TR's (2000) clinical definition of AS, students presented with social, communication, and repetitive, restricted, and stereotyped behaviors, interests, and activities (i.e., an inflexible adherence to specific routines or rituals). In addition, and in accordance with Adreon and Durocher's (2007) findings, students with AS lacked self-advocacy, adaptive, and organizational and time management skills as well. We also found that students with AS either had difficulty joining or participating in extra-curricular activities or simply had no interest in engaging in such activities.

According to the American Psychiatric Association, as stated in the DSM-IV-TR (2000), individuals with AS present with impairments in social interactions, as well as restricted, repetitive, and stereotyped patterns of behavior, interests, and activities. These characteristics cause clinically significant impairments in social, occupational, and/or other areas of functioning, yet do not cause clinically significant delays in cognitive development or in the development of self-help skills, adaptive behavior, and curiosity about the environment. When comparing our qualitative results with this definition, indeed many of the same themes emerged. However, contrary to the DSM-IV-TR's definition, all peer coaches indicated that students did in fact demonstrate substantial self-help and adaptive skill deficits that impacted their adaptation to college. For instance, students often neglected to shower, receive sufficient sleep, brush their teeth, and wash their clothes regularly. Unfortunately, the extent of the students' impairments was not assessed with a norm-referenced measure, and therefore, cannot be quantified as "clinically significant." Future research should examine and further explore the extent of these students' self-help and adaptive skill deficits. Even if these deficits may not be deemed "clinically significant," students with AS may in fact be adversely impacted by their lack of these skills. Such information may indicate a need for direct instruction in these areas prior to students' transition to postsecondary education to better prepare them for more independent living situations in college.

Our qualitative data also explored the peer coaches' perception of the efficacy of the SSP program on students' overall adaptation to and progress in college. Our results substantiate previous research findings on the positive effects of social supports on students with ASD's (Aderon & Durocher, 2007; Hillier et. al., 2007; Howlen & Yates, 1999; Jekel & Loo, 2002; MacLeod & Johnston, 2007; Mesibov, 1984; Moreno, 2005; Myles & Aderon, 2001; Ozonoff &

Miller, 1995; Rosenwald & Hultgren, 2003; Weidle et. al., 2006). Based on their responses, the peer coaches believed the SSP program was helpful and beneficial for the participants and accomplished two main tasks; participants were provided with (a) necessary resources and helpful information (such as tutoring assistance, extra-curricular activity/club information, counseling support, transportation options, academic accommodations, etc.) and (b) peer support (i.e., someone their age to talk to about academic, social, and communication issues, as well as extra and individualized support, advice, guidance, and insight).

Overall, our qualitative findings are indicative of skills and interests that students with AS have difficulty developing and utilizing in college. Although our quantitative findings indicated that students' self-reported mean ratings of adaptation to college were within normal limits, our qualitative findings yielded different results. The peer coaches did not perceive the students' adaptation to college to be as successful as the students' themselves reported. Relying on the students' self-report measures may not have truly captured the severity of their difficulties and adaptation to college. Although these measures are an efficient way of assessing individuals' opinion(s), they invite the risk of biased information. Perhaps a more comprehensive and sensitive quantitative measure or qualitative measure (as previously mentioned) would have yielded different results by capturing the students' unique experiences and adaptation to college. Future research should take this into account when examining and exploring the effectiveness and experience of a peer coaching intervention program.

Although more subtle difficulties in the students' adaptation to college were found via the quantitative data than the qualitative data, it is important to understand what and how these barriers impact students' with AS adaptation to college, as well as what supports, accommodations, and resources these students require in college. From this understanding,

students with AS and their chosen postsecondary education settings can better prepare for their transition and adaptation to college. One way in which to achieve this goal is to provide these students with direct instruction, opportunities for practice, and immediate feedback on these six aforementioned areas in high school. Such instruction, practice, and feedback would increase their skills, better prepare them for their transition to postsecondary education, and improve their adaptation to college.

Limitations

A number of the limitations of this study have previously been discussed, yet additional limitations remain. The current study contained a small sample size of undergraduate college students and peer coaches from one institute in upstate New York. In addition, the loss of a third of our data, due to incomplete questionnaires, impacted the results of the study. Consequently, results may not be generalized across populations. Additionally, a control group was not created in this study. Had a control group comprised of freshmen participants with and without AS who were not involved in the SSP program been created, we would have been able to compare our results between groups and determine the efficacy of the intervention program on students' adaptation to college.

Furthermore, the participants and peer coaches chosen in this study attended an institute run on a quarter, rather than semester schedule; therefore, the findings may not be generalized to postsecondary institutions that employ semester schedules. The participants' adaptation to college may have been impacted by the fast pace of the quarter system, rather than by the experience of the peer coaching intervention program alone.

Another limitation of the current study is that the peer coach questionnaire was created for the purposes of this study and was not piloted prior to the study. When analyzing the

questionnaire for themes, one peer coach indicated that one question was ambiguous; therefore, the questions should have been piloted, worded differently, and/or explained more thoroughly. In addition, another drawback was the end-of-the-year administration of the peer coach questionnaire. Peer coaches indicated that it was difficult to recall specific information from the beginning of the academic year. Such information would have been fresh in their memory had the questionnaire been administered at the conclusion of each academic quarter, rather than at the conclusion of the academic year and SSP program.

The final limitation of the current was that only one data analyst coded the qualitative data for common themes. Inter-rater reliability would have been achieved, had another analyst assisted in coding the data.

Areas for Future Research

Findings from the current study and previous research indicate that students with AS have diverse and significant needs that impact their transition to postsecondary education. Though transition plans are legally mandated and in place as student's transition to college, the current process may not be sufficient enough to support their successful adaptation to college. Future research should continue to examine and explore how students with AS are impacted by the transition process from high school to postsecondary education. Specifically, the effectiveness of peer mentoring interventions on this population's adaptation to college should continue to be investigated, as well as explored via quantitative measures. Such information can assist educators and support staff (e.g., teachers, school psychologists, guidance counselors, transition specialists, etc.) in: (a) providing direct instruction, practice, and immediate feedback on skills that students' with AS lack; (b) better supporting and accommodating students' with AS needs in high school and postsecondary education settings; and (c) consequently better preparing

students with AS for their transition to postsecondary education. In this way, students with AS may be better able to cope with potential barriers encountered along the way.

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Table 1

Participants' Means and Standard Deviations Across SACQ Full-Scale/Subscales and Academic Quarters

	Quarter 1 (Fall)		Quarter 2 (Winter)		Quarter 3 (Spring)	
	M	SD	M	SD	M	SD
SACQ Scales						
Academic Adjustment (AC)	48.4	11.3	46.4	12.0	49.6	8.6
Social Adjustment (SA)	45.2	12.2	46.1	9.9	44.0	6.5
Personal-Emotional Adjustment (PE)	42.4	8.9	41.7	8.8	47.4	7.0
Goal Commitment/Institutional Attachment (AT)	48.8	10.0	49.1	9.8	49.4	5.5
Full-Scale (FS) Adaptation	49.4	17.7	46.4	10.3	47.6	7.4

Note. Mean scores are based on T-scores (M=50, SD=10)

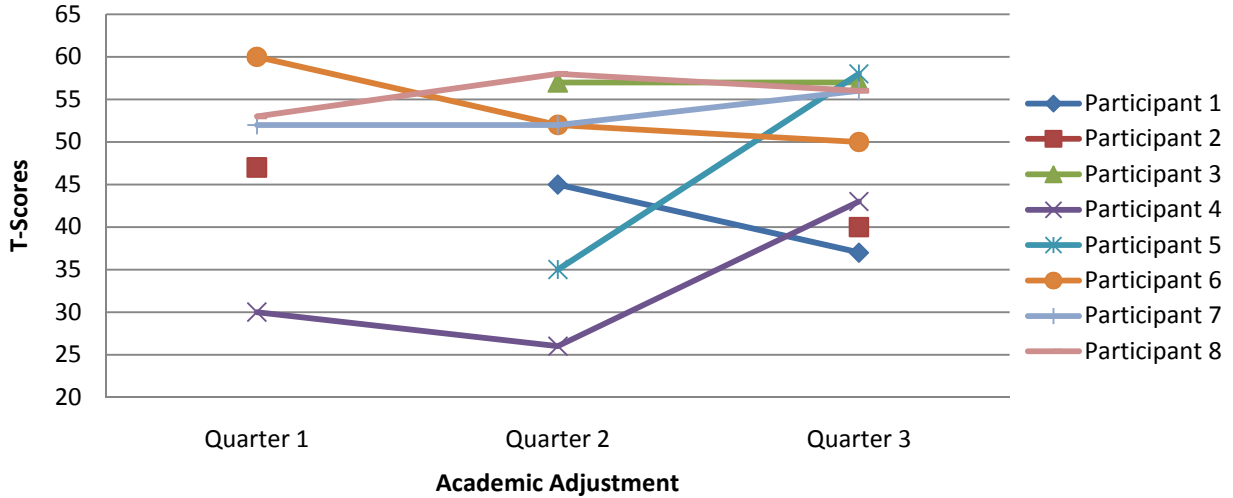


Figure 1. Participants' Academic Adjustment (AC) to College

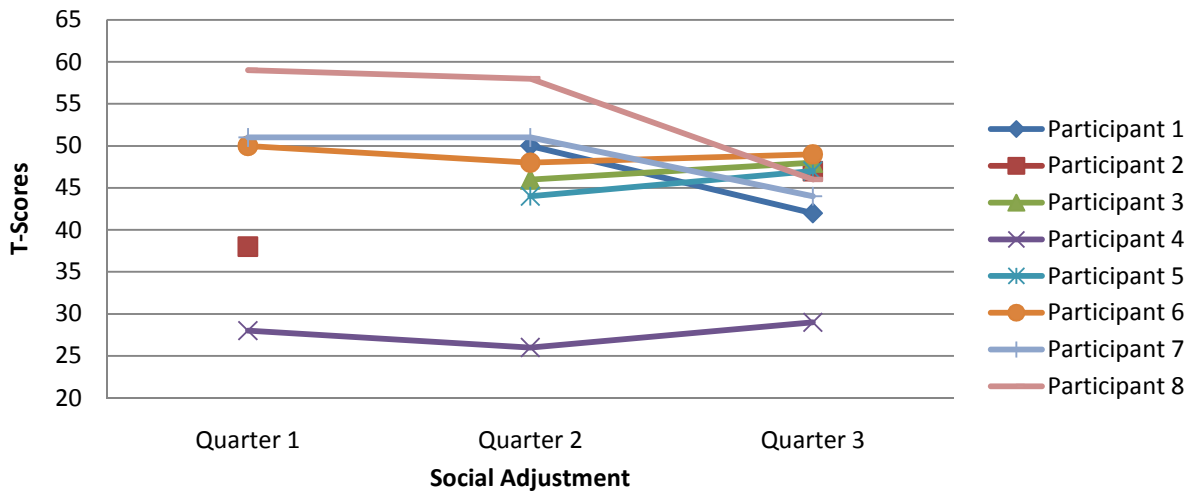


Figure 2. Participants' Social Adjustment (SA) to College

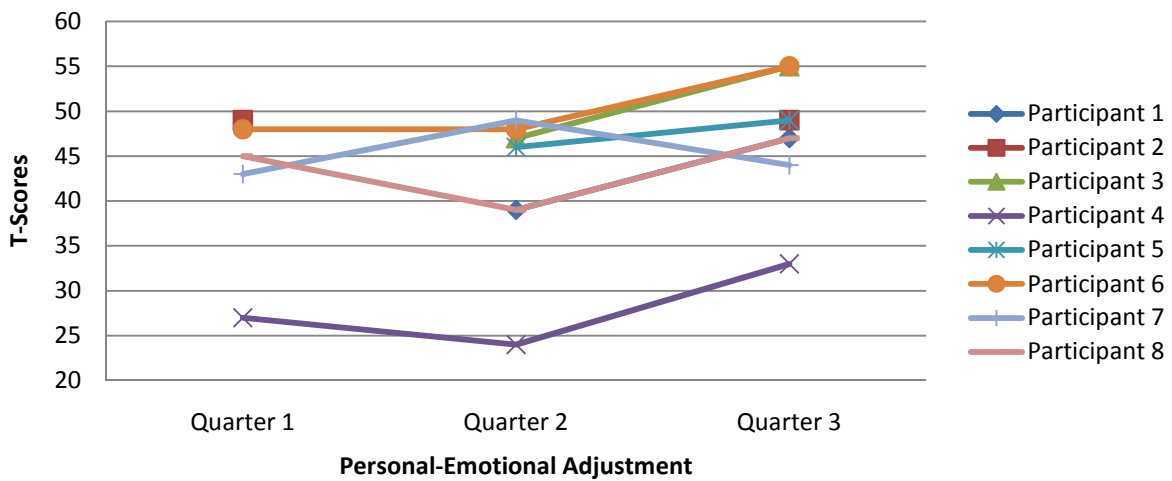


Figure 3. Participants' Personal-Emotional (PE) Adjustment to College

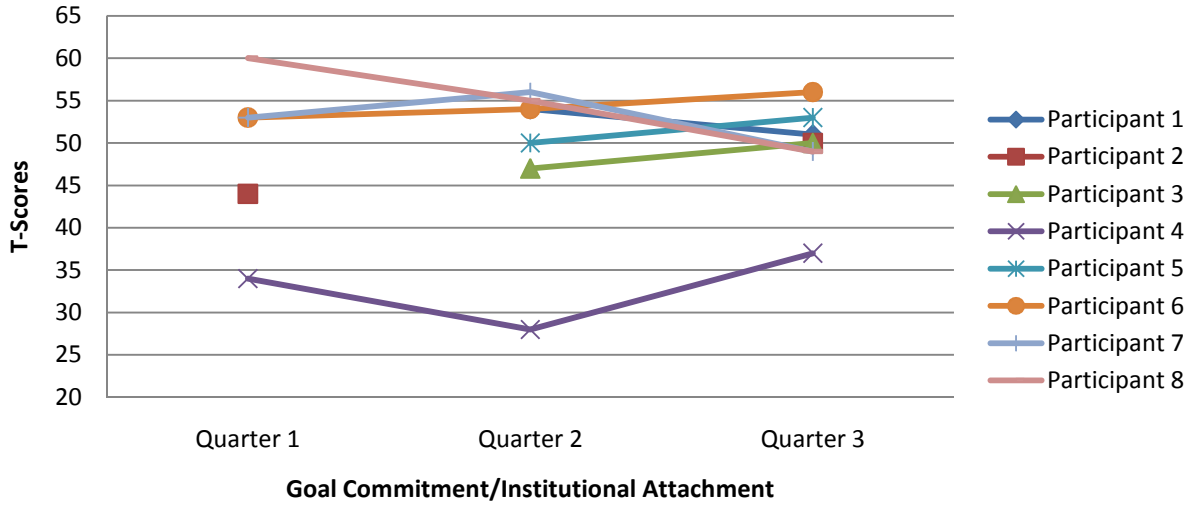


Figure 4. Participants' Goal Commitment/Institutional Attachment (AT) to College

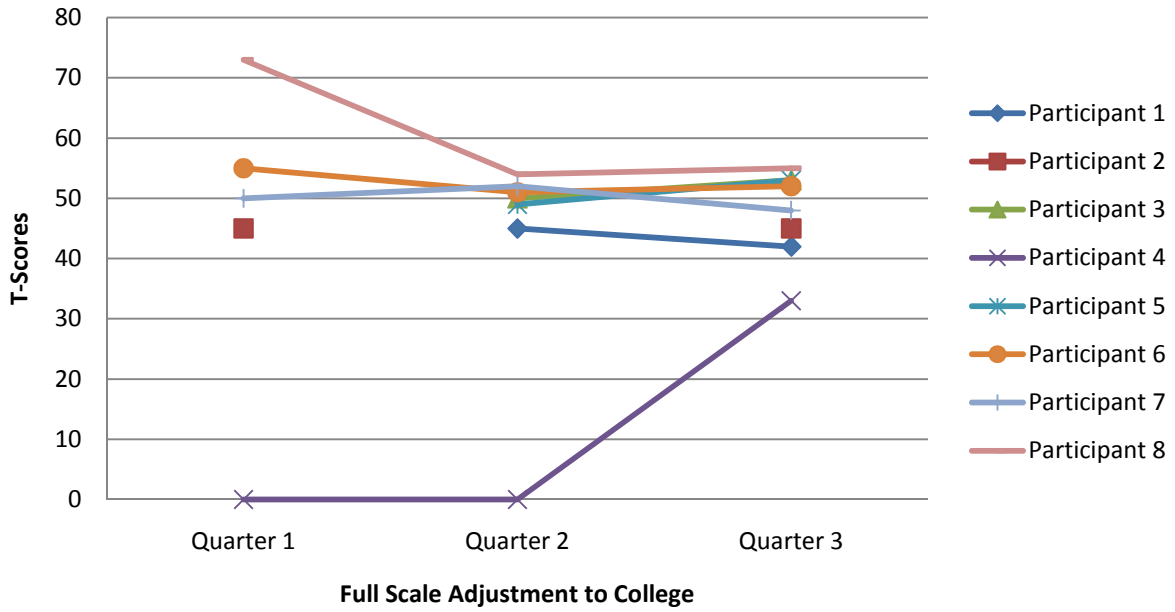


Figure 5. Participants' Full-Scale (Overall) Adaptation to College