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A summer transition program: shifting expectations for a student with autism spectrum disorder

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Thesis

**A SUMMER TRANSITION PROGRAM:
SHIFTING EXPECTATIONS FOR A STUDENT WITH
AUTISM SPECTRUM DISORDER**

by

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B.A., University of Notre Dame, 2014

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ABSTRACT

As the prevalence of autism spectrum disorder (ASD) continues to rise, large numbers of individuals with ASD are estimated to be entering young adulthood each year. While exploring factors that support success in adulthood, some studies have found that higher expectations of a parent, a teacher, and a student with ASD may predict more positive young adulthood outcomes for students. Additionally, summer transition programs have recently emerged as a means of providing services to transition-aged youth with ASD, to support their entering adulthood. Yet, little research has been done to understand how future expectations for a student with ASD are formed, specifically as they relate to participation in a summer transition program. A qualitative case study was conducted to better understand how a student with ASD, a parent, and a teacher described the student's abilities and expectations for his future, before and after participating in a summer transition program. Although the student's perspective did not change over time, both his parent and teacher shifted their understandings of his abilities and expectations for his future, becoming more nuanced in their descriptions and optimistic about the student's future. Further research is needed to better understand the impacts and maintenance of these shifted understandings, as well as to identify specific transition program features that contributed to these shifts.

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Statement of the Problem

In recent years, researchers have documented a historical rise in the prevalence rates of autism spectrum disorder (ASD) (Baio, 2014). Currently, the prevalence of ASD is as high as 1 in 68 children with an estimated 2.5 million young adults in the United States known to be diagnosed today, a number that is expected to continue to rise (Buescher, Cidav, Knapp, & Mandell, 2014; CDC, 2015; Newschaffer, Faulb, & Gurney, 2005). Looking forward, some researchers have calculated that in the U.S., about 50,000 students on the autism spectrum complete their time in high school annually, and exit the school system (Roux, Shattuck, Rast, Rava, & Anderson, 2015). This estimation in conjunction with increasing prevalence rates has prompted researchers to project that within the next decade, over half a million more individuals with ASD will have entered young adulthood (Roux et al., 2015).

Despite the growing number of individuals with ASD entering adulthood, there remains a lack of access to and availability of supports and services for these individuals once they leave high school. Roux and colleagues (2015) recently reported on data from both the National Longitudinal Transition Study-2 (NLTLS-2, 2009) and the 2011 Survey to Pathways to Diagnosis and Services (Pathways, 2011). Almost all (97%) of students with ASD were receiving at least one form of autism-related service from their high schools (Roux et al., 2015). However, the numbers change dramatically when examining those who had left the high school system; 26% of adults with ASD in their early 20s were not receiving services of any kind (Roux et al., 2015). Common examples of these services that were not being received include occupational therapy, speech-language

therapy, social work, case management, transportation services, and personal assistant services (Roux et al., 2015). Current research consistently demonstrates that, in comparison to their peers who are either typically developing or have a disability other than ASD, young adults with ASD are less likely to be engaged in the occupations commonly associated with young adulthood, such as post-secondary education, employment, and independent living (Anderson, Shattuck, Cooper, Roux, & Wagner 2014; Roux et al., 2015).

To address the challenges of transitioning from school-based services to adult services, researchers and clinicians have begun examining factors associated with successful young adult outcomes and developing transition programs to help students with ASD succeed after leaving high school. Yet there is limited understanding of how participation in these transition programs relates to expectations for adulthood. Although more positive expectations for life after high school held by the students, their teachers, and their parents have been associated with positive young adult outcomes for students with disabilities (Benz, Lindstrom, & Yovanoff, 2000; Chiang, Cheung, Li, & Tsai, 2013; Holwerda, van der Klink, de Boer, Groothoff, & Brouwer, 2014), very little research has been done to understand what these expectations are and how they come to be formed. In addition, little is known about the impact of transitional programs on young adult outcomes. The current investigation aims to address some of the gaps in the current research related to expectations and the transition out of high school for students with ASD.

Literature Review

Outcomes after High School for Individuals with ASD

Employment is one of the most common occupations of young adulthood with recent work participation rates for high school leavers in the U.S. ranging from 78.9% for those not enrolled in college to 50% for those enrolled in college (U.S. Department of Labor, 2013). However, researchers have reported low rates of employment since leaving high school for individuals with ASD; studies have reported between 5% and 58% of young adults with ASD participate in paid work (Howlin, 2000; Roux et al., 2015). Newman, Wagner, Cameto, and Knokey (2009) estimated that 53% of young adults with ASD are unemployed at any given time. Not only are these numbers much lower than their typical young adult peers, but they represent the lowest employment rates as compared to peers with other types of disability, such as those with Intellectual Disability (ID; 74%), Emotional Disability (ED; 91%), or Learning Disability (LD; 95%) (Roux et al., 2015). Similar trends are seen when examining rates of post-secondary education for young adults with ASD with only 36% of individuals with ASD reported to have ever been enrolled in either a 2-year, 4-year, or vocational program in their early 20s (Roux et al., 2015). This rate is particularly low when considering recent reports documenting that 68% of typical high school graduates enrolled in some form of post-secondary college after high school (U.S. Department of Labor, 2015; Roux et al., 2015). These statistics are of concern because individuals with ASD not only have far lower rates of employment and higher education participation than their peers, but they are also experiencing these lower rates for an extended number of years beyond their early 20s

(Roux et al., 2015).

In regards to living arrangements, after high school in the U.S., 21% of all individuals in their early 20s live with their parents (Mykyta, 2012). In contrast, 87% of young adults with ASD live with their families after high school, the highest rate among individuals who received special education services (ID, 78%; ED, 63%; LD, 60%) (Anderson, McDonald, Esdall, Smith, & Taylor, 2014). Fewer than one-quarter of people with ASD have ever lived independently, which is significantly lower than the rates for young adults with emotional or learning disabilities (60-80%; Roux et al., 2015). Overall, the current evidence illustrates that young adults with ASD are not participating in traditional developmental milestones of young adulthood at the same rate or time as their peers who are either typically developing or with disability other than ASD.

Expectations for Life after High School

In response to observed disparities in transition outcomes between individuals with ASD and their peers, researchers have begun to examine the factors associated with positive outcomes for young adults with ASD in order to inform intervention and improve services. Research has focused on and identified functional living skills, social skills, real-world experience, and collaborative transition planning as key components to successful engagement in milestones associated with young adulthood, such as being employed, participating in continued education, and living independently after high school (Benz et al., 2000; Chiang et al., 2013; Simonsen & Neubert, 2013). However, there have been few investigations to understand the relationship between expectations held in high school and young adult outcomes for people with ASD after they leave high

school. Limited information is available about parent, teacher, or student expectations for a student's life after high school.

Student Perspective Expectations. A few studies striving to understand the expectations for young adulthood held by students with ASD are beginning to emerge in the literature. When investigators asked 31 students with ASD about their plans for life after high school, 90% of the students reported a desire to attend some form of post-secondary education program (Anderson et al., 2015). The students described various types of educational programs, with 36% expecting to attend a 4-year college and 25% expecting to attend either a 2-year degree or vocational program (Anderson et al., 2015). Anderson and colleagues (2015) expanded their focus beyond education plans to explore students' expectations for life after high school in areas including work, social participation, and living arrangements. Findings indicated that all students reported that they did expect to have some sort of work, with 62% of students with ASD expecting to be employed after high school. (Anderson et al., 2015). While the majority of students expected to work after high school, the students' expectations for living arrangements and social participation were more varied. Anderson et al. (2015) found that 42% of students expected to remain living in their parental home, while another 42% expected to live outside of their parents' homes. When asked about social participation in young adulthood, 23% of students expected to make new friends and 48% of students expected to continue current friendships (Anderson et al., 2015). Responses indicating uncertainty about the future were common for all areas of life after high school other than plans for education [*Do not know what to expect* = 23% (work), 23% (friendships), 10% (living)]

(Anderson et al., 2015). The students tended to place education after high school at the center of future expectations, anticipating that attending some form of educational program would enhance their outcomes for these other, less certain areas of the future (Anderson et al., 2015). Still, the higher rates of uncertainty for future employment, friendships, and living arrangements suggest a need for additional services that offer opportunities to experience or explore these areas of young adulthood during the transition planning period.

While examining achievement of these expectations, researchers found that students with ASD who reported higher self-efficacy and belief in their ability to achieve goals had higher levels of post-secondary participation in work and education (Benz et al., 2000; Chiang et al., 2013; Lindstrom, Kahn, & Lindsey, 2013; Wagner, Newman, Cameto, Levine, & Marder, 2007). Individuals with ASD who reported feeling motivated and holding high self-expectations for work participation after high school were also more likely to be employed (Holwerda et al., 2013). Moreover, Lindstrom et al. (2013) identified a student's lack of self-confidence as a barrier to post-secondary participation in work or continued education. These findings are particularly concerning as other studies have indicated that high school students with ASD have lower self-reported post-secondary expectations compared to peers with other types of disability (Wagner, 2007). This finding suggests that although high self-efficacy and expectations for life after high school have been associated with successful young adult outcomes, many high school students with ASD may not hold those perspectives about their futures, particularly in comparison to their peers. For example, Wagner et al. (2007) found that students with

ASD were among the least likely, if not the least, to say that they would “definitely” achieve various educational and independent living goals after high school—including being enrolled in a post-secondary education program, being employed, and living independently. Consequently, individuals with ASD may be at greater risk of limited participation in the common experiences associated with young adulthood. Little research has explored how or why students come to develop their expectations. Understanding this process better may help to guide teachers, parents, or others involved in transition planning in therapeutic intervention during the transition from high school to adulthood.

Teacher Perspective Expectations. While information about teachers’ expectations for students with ASD is lacking, it is evident that the teacher-student relationship has the potential to play a major role in the transition process and successes experienced after high school. Wagner et al. (2007) found that almost one-half of students with ASD reported relying on teacher support “a lot” or “a fair amount.” More ideas on how teachers may influence students can be gleaned from the research that has been conducted in general education classrooms concerning teacher expectations and student outcomes. Rosenthal (1994) proposed a four-factor model in which a teachers’ expectations are hypothesized to have four potential pathways of effect on a student’s learning experience: through climate (social learning environment), input (amount of material taught), output (number of opportunities for learning offered), and feedback (verbal and nonverbal). With this conceptualization of the teacher-student relationship, it can be reasoned that teacher expectations have the potential to impact the learning environment. This environment in turn can influence student motivation and perceptions

of teacher support, factors previously identified as predictive of success in students with ASD (Benz et al., 2000; Chiang et al., 2013; Holwerda et al., 2013).

Although most studies that examined teacher expectations were conducted in general education classrooms with older elementary school students, studies that specifically examined outcomes of transition-aged students with disabilities yielded evidence that generally aligns with the findings from the typical population. Researchers have found that having teachers with higher expectations and students perceiving a teacher as being supportive are factors associated with employment and educational participation after high school for students with disabilities (Benz et al., 2000; Holwerda et al., 2014). Additionally, it has been shown that students' own expectations are influenced by parent and teacher expectations (Lindstrom et al., 2013). However, these studies included students with disabilities other than ASD; very little research has directly investigated the phenomenon with students with ASD. More studies examining the nature of student-teacher expectations, specifically for high school students with ASD, are needed.

Parent Perspective Expectations. Parental expectations for their son or daughter's future after high school have been associated with young adult outcomes, and therefore are an important factor to consider in the transition process. Researchers have repeatedly found that when a parent expected his or her son or daughter with ASD to participate in work or some form of education after high school the child was more likely to achieve that transitional outcome (Chiang et al., 2013; Holwerda et al., 2014; Simonsen & Neubert, 2013). Specifically related to employment, students in high school

special education programs whose parents reported that they would “definitely” have a job after high school were five times more like to be engaged in paid work after high school than their peers whose parents did not expect their child to be employed (Carter, Austin, & Trainor, 2012).

Negotiating Expectations Across Perspectives. But do parental expectations align with students’ visions for their future? Current literature shows that goals between parents and their son or daughter typically align, but the perceived likelihood of and perceived student readiness for achieving those post-secondary aims often do not. Researchers have found that when asked to identify what post-secondary goals they deemed most important, parents and students with a disability listed similar goals, such as living independently, attending a post-secondary education program, and mastering self-care skills (Camarena & Sarigiani, 2009; Powers et al., 2009). However, parents were more likely to report lower readiness and self-esteem in their son or daughter than the youth reported for themselves. Furthermore, when made aware of these differences, parents often believed they were being more realistic than was their son or daughter (Camarena & Sarigiani, 2009; Powers et al., 2009).

Similarly, Wagner et al. (2007) utilized NLTS2 data to examine the association between parent and student expectations, and how those associations were related to post-secondary outcomes. Echoing previous studies, Wagner et al. (2007) found that high parental expectations were associated with successful post-secondary educational and independent living outcomes, and were also associated with high student expectations for self. However, students with disabilities, overall, were more optimistic about their futures

in regards to types of post-secondary educational programs they anticipated attending and their ability to attain financial independence than were their parents (Wagner et al., 2007). Some researchers speculate that this misalignment of expectations may lead parents to interfere with future success by being over-protective and limiting the participation of their son or daughter with a disability, specifically in relation to work (Holwerda, 2013). How misalignment of parent and student expectations may influence participation in other areas of adulthood is still unclear. Further research is needed to understand how these findings generalize to families of individuals with ASD specifically, beginning with understanding parent and student expectations for young adulthood.

Existing Transitional Programs

Transition programs that take place outside of the school setting have emerged as one approach to address the challenges associated with transitioning from school-based to adult services for individuals with ASD. Although the majority of students with ASD receive transition supports in their schools, as required in the U.S. by the Individuals with Disabilities Education Act (IDEA) (34 CFR 300.43 (a)), little research has been done to critically examine the effectiveness of these services in generating positive post-secondary outcomes or to understand the program features associated with successful participation in young adulthood after high school (Westbrook et al., 2015).

Summer transitional programs have emerged as a means of supplementing services received in schools and increasing readiness for students with ASD who are preparing to exit high school or have recently finished. These programs vary widely in

duration (2-6 weeks) and financial cost to the participants. Many are designed as day programs, enroll people with ASD who are currently high school students or have recently exited the high school system, include social and academic programs, and provide real life opportunities for practice (i.e. simulated college classes or short-term volunteer placements) (Aspire Adult Programs, 2015; Aspire Teen Summer Programs, 2015; College Internship Program, 2015; Goings, 2014; Grow Summer Program, 2015; Pre-college Summer Exploration, 2015; Shane-Simpson, 2015).

When considering their curricula or program goals, the majority of these newly created programs are specialized for college-bound adolescents with a strong focus on developing social and academic skills specifically for the college classroom environment (Aspire Adult Programs, 2015; Goings, 2014; Pre-College Summer Exploration, 2015; Shane-Simpson, 2015). A few programs have focused on incorporating life-skills, career skills, or exploration into employment or educational opportunities (Aspire Teen Summer Programs, 2015); these programs also typically include residential experiences to address the functional skills required for independent living and other major domains of adulthood (College Internship Program, 2015; Goings, 2014; Grow Summer Program, 2015; Pre-college Summer Exploration, 2015). While summer transition programs of this nature are available across the U.S., they are by no means commonplace, especially compared to the immense need for effective transition programs. Of the available summer transition programs, the majority support college bound individuals with ASD, while programs supporting preparation for other areas of life after high school are limited.

Data from these transition programs for educational, employment, or independent living outcomes has not been published at this time; however, it will be beneficial to consider how transition program participation outcomes compare to existing outcome literature. Additionally, because many of these programs include experiences that simulate life as a young adult, there is an opportunity to attempt to understand if and how participation in these programs relates to future expectations for individuals with ASD. Yet, there are no known studies that have examined this possible relationship at this time.

Research Question

The objective of this study was to describe the experience of a student with ASD who participated in a summer transition program and to examine his expectations for life after high school, before and after the program. In this case analysis of one student, his parent, and his teacher, the following research question was examined: How do a student with ASD, his parent, and his teacher describe their expectations for the student's life after high school before and after participation in a summer transition program?

Methods

Research Design

The present investigation is a case study of a young adult with ASD who was preparing to transition out of the school system. Semi-structured interviews were completed individually with the student, his teacher, and his mother before and after the student participated in a two-week summer transition program. The program was developed by occupational therapists and interdisciplinary team members from the "Flora School," a private special education school for students with disabilities aged 13- to 22-

years old. The school offers specialized, grade-level instruction for students and services for life skills and vocational training, individual and group therapy, adaptive physical education, physical therapy, speech therapy, and occupational therapy.

The two-week summer transition program consisted of 10 students (6 males, 4 females), 8 of whom had ASD. Some students participated in this program the prior year. Seven of the participants were students from the Flora School, one was a recent graduate from the Flora School, and two were from the community and attended other high schools. One student from the Flora School participated in the programming, but did not stay in the dormitory and returned home each afternoon and for the weekend, following a typical school-day schedule. All individuals completed preparatory activities at the Flora School campus in the weeks leading up to the program. These preparatory activities supported students to develop personal goals, discuss and review strategies for social interactions in a group living situation (i.e. conflict resolution, effective communication, compromising, etc.), and allowed ample time for students to discuss any questions or concerns they may have about the upcoming weeks.

During the transition program, participants lived in a dormitory located at a local, urban university. The students were expected to participate in activities associated with communal living environments, such as a dormitory, by each contributing to general household responsibilities (i.e. clean up, grocery shopping, meal planning and preparation, etc.). The participants' typical days were semi-structured in an effort to mirror a typical daily schedule young adults may experience. Daily routines consisted of completing breakfast, personal morning routines, and lunch preparations by a

predetermined time. This was followed by pre-planned community experiences with free time in the mid-afternoons, group meetings in the late afternoons for planning and reflection, group dinner, and free time at night. Examples of community experiences provided throughout the week include participating in a citywide clue search, volunteering to clean a state park, touring college campuses, and attending a lecture on career development. The two weeks concluded with a comprehensive group reflection about what students learned during their time at the program, what goals they achieved or made progress toward, and how they felt about their experiences and accomplishments.

The Flora School's transition program is distinct from other residential summer transition programs because of its unique curriculum, intervention goals, and experiences for its students. While the tendency of transition programs is to focus on skill-acquisition, the Flora School's summer transition program focuses on metacognitive growth related to students' awareness and insight (Howard, 2015). Objectives of the program included: (1) providing an opportunity for exploring options for after high school; (2) providing an experience that helps individuals understand the transition process and prepare realistic plans for after high school; and (3) increasing self-efficacy and preparedness for life after high school (Howard, 2015).

Participant

The student who was the focus of this case study was identified by the summer transition program director as someone who might be willing to participate in a study, and who met the following inclusion criteria. The student: (1) had not previously participated in the transition program; (2) was a current student at the school sponsoring

the transition program; (3) was able to communicate his or her expectations for the future; and (4) was a known participant in his or her own transition planning process. The likelihood of parent participation in the study and the nature of the student-teacher relationship were also considered when recruiting the study participant. The transition program director contacted the student who met these criteria, as well as his parent and teacher, to assess their willingness to participate in this study. Written consent for the interview, observation, and audio-recording the interview was obtained from all participants by the primary author prior to all initial interviews.

Participant Information. Information about the participant was obtained through parent, teacher, and self-report, in addition to observations made by the primary author throughout the interviews and program. At data collection, “Wes” was a 21-year-old high school student with ASD and Major Depression, currently planning and preparing for life after high school. Wes expressed a sense of humor and an interest in movies, creative writing, and acting. He willingly shared his work with peers and staff or initiated conversations about his favorite movies and actors. Academically, his classroom teacher cited Wes’s creative writing skills and interest in learning as strengths that compliment his love of writing and cinema. Wes also conveyed an interest in learning about the fields of paleontology, biology, and psychology.

At the time of this study, Wes lived at home with his mother and a younger sister, spending every other weekend with his father in a neighboring town. While his family identifies as Modern Orthodox Jews, Wes did not observe the Sabbath and instead spent time alone in his room watching movies or using electronics. He and his mother reported

that spending time alone in his room was also common for Wes throughout the week, as he was often the first one to return home for the day. Before attending Flora School, Wes completed early elementary school at a Jewish Day School then enrolled in a public school for late elementary through high school to receive additional academic services. As he neared his 22nd birthday, thereby signaling his exit from the school system, Wes's family and educators felt that moving to the Flora School for his final year of high school would provide Wes with the necessary supports to refine skills needed beyond the classroom for transitioning to adulthood. Having enrolled the preceding January, Wes had been a student at the Flora School for a total of four months by the start of the summer transition program. Based on self and staff report, he had adapted well to his new classroom environment, developing appropriate relationships with peers, teachers, and other school service providers.

Data Collection

All interviews, each lasting about 45-60 minutes, were audio-recorded and conducted by the primary author at a time and location identified by each interviewee. The initial interviews were conducted within the first two days of the transition program, while the final interviews took place within the final two days. Sets of semi-structured interview questions focused on expectations for Wes's life after exiting the Flora School, including his future education, work, social, and leisure participation, and were developed and tailored for each perspective (i.e. the student, the parent, and the teacher) and each time point (i.e. pre and post-program) (see Appendix A). Questions were open-ended to allow for unexpected topics to be brought up. Follow-up questions (i.e. "Tell me

more about that.”) were asked for clarification or to explore new themes as needed. The primary author, an occupational therapy master’s student, generated interview questions that were refined based on feedback from two experienced supervising researchers. Confidentiality was preserved by storing data on a password-protected computer server, listening to and transcribing data via headphones on a secure server, and using pseudonyms throughout all transcriptions and discussion of the data.

Data Analysis

The interview transcripts for each pre- and post-interview were analyzed by the primary author using methods informed by *content analysis*, a methodical approach in which observations are assessed in terms of their manifest, or observable, content and latent, or interpreted, content (Graneheim & Lundman, 2004; Hsieh & Shannon, 2005). Guided by the content analysis process as outlined by Graneheim and Lundman (2004), each interview transcript was analyzed separately, with analytic units of measure focusing on expectations for the future (Graneheim & Lundman, 2004). Units were categorized according to how they related to pursuits of adulthood (i.e. employment, education, social participation, etc.), and then assessed for latent content to identify recurring or overarching patterns in the data. Once patterns were identified, they were examined for (1) similarities or difference across time points (pre- and post-student’s participation) for each interviewee and (2) similarities and differences across all three perspectives before and after the student’s participation in the transition program. This analytic process resulted in a broad conceptualization of how a high school student with ASD experienced his participation in a two-week summer transition program, in addition

how the student, his parent, and his teacher perceived his life after high school before and after participation. The dataset was managed and organized through the use of NVivo (NVivo (Version 11), 2012) software and Microsoft Word (Microsoft Word for Mac 2011, 2010).

Reflexivity. My personal experiences, previous applied experiences, and involvement with the Flora School summer transition program beyond my role as a researcher may have influenced the operational lens through which my interpretations were made during this study. During my time in the occupational therapy program, I have been taught to adopt a client-centered perspective in which the “client” is thought to also include family members or other individuals who play a major role in the individual’s life. This perspective guided me to conceptualize the “client” as including the student with ASD, his parent, and his classroom teacher so that a complete description of the expectations for Wes’s future could be gained. Moreover, my involvement with the Flora School’s summer transition program extended beyond an investigative role, as I worked part-time as a staff member at the summer transition program. This allowed me to interact with and observe Wes outside of the interview sessions as he worked towards his specific goals, participated in activities that were new to him, and managed social interactions with peers.

My previous undergraduate roles as a research assistant, peer mentor, and tutor for adolescents with ASD provided opportunities to work with and develop relationships with those students and their families. These experiences allowed me to observe how life domains associated with young adulthood may be (1) thought about by adults in regards

to their student or child with ASD, (2) portrayed to individuals with ASD, and (3) spoken about by adolescents with ASD themselves. In my personal life, I have frequent contact with family members who are parents to their adult son with chronic psychological conditions. Though he is not diagnosed with ASD, my observations and conversations with these parents regarding the nature of their relationship with their son, their ideas about his future, and planning for his future have influenced my ideas about how parents may experience having an adult child with a disability. Collectively, my past experiences helped me to appreciate the emotional charge and ambiguity that can underlie thoughts about the future, particularly in relation to a person with a disability.

Findings

Analysis of the pre- and post-interview responses suggests that participating in the summer transition program may be associated with Wes's mother and teacher gaining a greater understanding of his abilities and his post-secondary future. Although Wes's own descriptions of his abilities and future expectations were largely similar before and after his participation, his mother and teacher became more nuanced when describing their expectations for Wes's future, refined some of their initial ideas, and noted observations that reaffirmed initial views about his life after Flora School. Additionally, his mother's and teacher's views of Wes's abilities and future possibilities were more aligned with each other after his participation in the program.

Student's understanding of his abilities and future

Wes's perceived abilities and possibilities for the future generally remained consistent at both time points. Though few changes occurred, understanding those themes

that were consistent across time points may reveal something about Wes's priorities for his future and understanding of his current abilities. Before and after the program, Wes communicated clear expectations for his future living arrangements and continued education participation. He anticipated living with his mother immediately after exiting the Flora School and taking classes at a 2-year community college before moving to an on-campus residence after transferring to a 4-year college. He did not report an expected timeline for this transfer. Similarly, he described ideas about his future leisure activities (travelling, continued reading, writing, and watching TV) and social participation (making famous actor friends, being important to his favorite actress, having a girlfriend, and maintaining current friendships with childhood and high school peers). Wes also consistently expressed his hopes to become a famous actor, to continue his creative writing, and to be happy before and after the program.

During the post-interview, Wes described his ideal future life saying, "A limo. (laughs)...And not having hardships." This idea of "not having hardships" was observed in both interviews and appeared to be one of Wes's priorities for his future. In multiple instances, he expressed that managing his depression is challenging for him and a major barrier to his expectations. Wes described the role his depression has and will continue to play in his life by saying:

STUDENT: There's been times when I felt like there was no future." (Student Post-Interview)

"INTERVIEWER: Can you describe to me about what you expect your typical day, what you expect your typical day to look like after Flora School?"

STUDENT: Just, wanna do better... Like, I want to be able to like put up with more things and just have a better life.

Despite the general stability of his ideas across time points, a few subtle shifts in reported abilities were observed. For example, Wes recognized his own creativity, writing skills, and cooking skills as strengths both before and after the program. However, reported strengths expanded in the post-interview to include being a good person and managing his anxiety, as well as specific example of success, such as doing his laundry, taking notes in class, and taking the train independently. Additionally, Wes's recognition of environmental supports emerged as a new domain related to abilities after the program. For example, when asked what he learned from participating in the program, Wes stated "The independence and being able to do things alone...I made fettuccini Alfredo with broccolini. And it was fun just cooking it. And then it felt good seeing that other people liked it." Wes was able to recognize the opportunities for independence and positive peer feedback afforded by the summer program, by way of completing of expected daily activities (i.e. cooking for the group) and the overall program structure (i.e. allowing students to self-direct their days and "do things alone").

It is of note that Wes tended to describe his abilities and expectations independently of each other. For example, he recalled successful experiences with cooking and completing laundry, but never related these skills to his expectations for living independently in the future. In contrast, his mother and teacher often cited Wes's abilities, successes, and challenges as observations that helped to inform and shape their expectations for his future. This observation in combination with observed shifts in his

understanding of his abilities but not expectations may reveal some cognitive disconnect when relating abilities to future planning.

Parent's understandings of student abilities and future

Broadly, Wes's mother viewed her son as a kind-hearted, bright person with strong social skills but significant challenges with money management and personal hygiene. She envisioned Wes engaging in work and living in a group home after exiting the Flora School; however, she viewed Wes's "obsession" with a particular actress, his unrealistic self-expectations, and not identifying with his Asperger's diagnosis as significant barriers to these goals, particularly for work. Wes's mother also expected that he would continue to require support for managing his depression, managing money, completing activities of daily living, and maintaining social relationships in the future, but pointed to a group home living arrangement as a solution to most of these needs. Though she did not completely oppose his taking college courses, her visions for Wes's continued education were consistently secondary to having a job and accompanied by her expectation that he would not be successful in college courses. Overall, Wes's mother did not feel that her general views of Wes's future changed after his participation in the program. However, she did describe increased hopefulness and a more positive outlook regarding the degree of success she saw possible for her son in the post-program interview.

Expectations for living arrangements and required supports. Wes's mother consistently described him living in a supported group home, rather than the parental home, after high school. She viewed this as a necessity because of (1) his need for

support across multiple domains of life (i.e. self-care, household management, maintaining a social life) and (2) her perceived inability to fill this supportive role due to the “psychological crap” between them. The following quote illustrates her ideas about a group living arrangement for Wes:

“Then there would be structure in the home and support for helping everybody get up, and get breakfast, and get out when they have to get out to get where they’re going and they have to be doing something during the day... And then going back to his group home when they get support around doing laundry and those activities of daily living, but not [living] at home because he’s too dependent on me. And hates it.” (Parent Pre-Interview)

The quote not only shows his mother’s ideas about the types of supports a group home could offer, but also highlighted her view that Wes is inhibited in his independence as a result of his being “too dependent” on her, viewing a group home as a potential solution to this barrier.

Wes’s mother also noted that living in a supported environment could enhance her son’s social participation needs. She contrasted her expectations for his social engagement while living at home verses the opportunities a supported living arrangement could offer, saying:

“If he were not in a supported environment that would require some social time, he could easily “hermit” as we call it, and just stay in his room with screens... in these group homes they all have dinner together, and there are some common

spaces... I would expect that he would come out looking for some social time.”

(Parent Pre-Interview)

In this response, his mother pointed to specific features of living in a structured environment (i.e. group mealtimes, community spaces, planned group outings) as means of encouraging Wes's future social participation, in addition to supporting his daily living activities.

Expectations for work and education participation. Both before and after the summer program, Wes's mother identified her expectation that Wes will work after exiting high school. Finding a job and “getting over” his dream of acting emerged as priorities for his work participation, although she was uncertain about the type of work she could envision her son engaging in. Often, her expectations for work and education were related to each other, as her descriptions of his continued enrollment in college courses were contingent on having a job or a career path in mind. This contingency was broadly described by Wes's mother, saying:

“I still think that it needs to be a priority that he have a job before he leaves Flora School... he can always continue to take a course at a time or whatever, but if he doesn't have a real vision or if it's not a, you know, technically a professional program, I don't want him just taking class ad nauseam with no real outcome... with his challenges, it doesn't make any sense... he needs to have a job first...”

(Parent Post-Interview)

In another, more specific example, she described past conversations with Wes exploring potential career choices and the types of degrees or programs those careers require:

“...you know we talked at one point about, you know, how he’s fascinated by hospitals and he likes biology and wanting to be a doctor cause he loved the show, House... And I had to keep saying to him, ‘Wes, but that means you’d have to go to college for four years. Then you get really, really high grades. And then you’d have to apply and go to medical school for four years.... etc. You know, are you really up for that? There’s other ways to work in healthcare without being a doctor... But let’s, you know be a little more realistic... Let’s not set yourself up for something that’s just not going to work for you...’ So we thought about an X-ray technician or MRI technician, but those are, you know, getting competitive now. And if you compare my kid to some other people who are going into it and he’s not going to get in... he doesn’t have the grades and he doesn’t have the stick-to-it-iveness...” (Parent Post-Interview)

This excerpt shows how Wes’s mother walked through the thought process with Wes when analyzing potential career choices. Ultimately, she viewed Wes’s suggested career option as unrealistic, made suggestions of more “realistic” but related options, and emphasized the importance of Wes having a job before considering college programs.

Identifying with his diagnosis. Wes’s mother wanted him to identify with his Asperger’s diagnosis. She felt that “claiming” his diagnosis was key to Wes’s self-acceptance and development of realistic goals, ultimately supporting his future success. In the pre-interview, she described initial hints of self-identification that emerged when Wes began watching a TV show with a character who exhibits Asperger’s related behaviors:

“...he really started... identifying with the characters and for the first time was comfortable saying that he had Asperger’s and that he was a little like Sheldon, and a little like almost all the characters actually. That was a big breakthrough for him... not being upset to admit the name even, you know, identifying with it. But he still doesn’t want to be a part of any group that would accept him... The research shows that, that the people on the spectrum who do the best are those who accept their diagnosis... Until you get there, you’re just fighting it, and denying it, and not being realistic in a way that will get you where you need to be.” (Parent Pre-Interview)

In this example, his mother defended her view of this self-identification as an important priority by appealing to research on outcomes of individuals with ASD and the role identifying with a diagnosis played in those findings. This remained a significant priority during the post-interview. When asked what she expects for his life after Flora School, Wes’s mother again expressed her hope that he will “be more open about learning more about” his Asperger’s diagnosis, so that he will one day “own” it, and again referred to research to support her views.

Teacher’s understandings of Wes’s abilities and future

Similar to his mother’s views, Wes’s teacher described him as a nice, bright student, specifically highlighting his sense of humor, good social skills, and creativity as strengths. When describing Wes’s future, his teacher envisioned Wes eventually living outside of the parental home and continuing to take a few college courses at a time, working towards a “realistic” career goal and holding a part-time job in the meantime. He

also consistently expressed a hope that Wes would continue his engagement in acting and creative writing, themes that were either not mentioned or viewed as unrealistic by Wes's mother. Finally, identifying the use of social media as a means of maintaining and expanding his social relationships was unique to the teacher's perspective and mentioned both before and after the summer program.

Expectations for living arrangements and required supports. Though he expected Wes to live at home immediately after exiting high school, his teacher also felt a group home would be an ideal option if Wes could qualify for services and anticipated Wes's on-going need for supports related to self-management (i.e. emotional regulation and managing his depression), activities of daily living (i.e. personal hygiene and money management), and social participation. However, he did not specifically identify living in a group home as a potential solution for these supports, as Wes's mother did, until after the summer program. In addition to being a place of daily support, his teacher viewed living in a group home as a means of alleviating stressors he observed to be related to Wes's home environment. The teacher perceived a strain in the mother-son relationship based on reports of conflicts at home from both Wes and his mother. Pre- and post-interview responses illustrated his view that living in a group home would positively impact Wes's "quality of life" and future success:

"I think he has a better chance of being successful living with peers rather than living still with his family... he certainly has the foundations and if he qualifies for services and continue to have supports, he could probably live with a pretty high level of independence with somebody checking in to see that he's alright. I think I

came in just hearing what his home life is like and then seeing how well this went, it kind of shifted my attitude.” (Teacher Post-Interview)

Expectations for work and education participation. The teacher’s expectations for Wes’s future work and education participation differed from Wes’s parent in that taking courses and finding a job appeared to be of equal importance and were non-contingent. Moreover, finding a job was described less as an expectation of adulthood, but more as a means of improving Wes’s “self-worth” and quality of life. For example, his teacher thought a good life for Wes would include:

“Finding a job, I think that’ll be huge for him. If he can find a job that he’s good at, he’s challenged by... I think he could hold a job and do that well... he’d get a lot of self-worth out of that and could maybe let go of maybe some other hang ups around what jobs he wants for himself that aren’t really based on a fulfilling career.” (Teacher Pre-Interview)

His response to the same question during the post-interview also highlighted the importance of Wes finding meaningful work. In addition, Wes’s teacher identified Wes’s preoccupation with a particular famous actress as a barrier to his developments of realistic expectations for work, a theme echoed by Wes’s mother.

Regarding education, his teacher was optimistic about Wes’s ability to succeed in college, especially after the summer program. He discussed his expectations for Wes’s academic success and cited grades and academic skills as strengths that will allow Wes to “do well with supports faded very quickly” in community college. This view was amplified in the post-interview, as the teacher recalled his observations of Wes’s

performance during the summer program, saying:

“He started college course in the last couple days of the program and has been so independent, which I was optimistic that that’s how it would go and he has exceeded our expectations. He has had a staff meet him there, but essentially he’s just been completely hands off.” (Teacher Post-Interview)

It is of note that this example directly contradicts the mother’s views regarding Wes’s barriers to academic success (i.e. grades and perseverance) reported previously.

Use of social media. Wes’s teacher identified social media as a potential support for his future social participation. He readily identified that Wes has already used technology to explore romantic relationships and anticipated that Wes may continue to use social media to expand his future social groups to include more peers with similar interests. Additionally, he envisioned Wes utilizing social media or texting as a way to maintain current friendships from the Flora School and the summer transition program, and to avoid “letting months go by without touching base with friends.”

Shifts in parent and teacher views of the student’s abilities and future

Statements from both his mother and teacher suggest that their understanding of Wes’s abilities and needs became clearer through his participation in this summer program. The shifts that occurred can be characterized as (1) further reinforcement of prior views, (2) refinement of prior views, and (3) development of new domains regarding Wes’s abilities or future possibilities. Studying the nature of these shifts further revealed that forming understandings regarding Wes’s and his future after Flora School was a dynamic process for both his mother and teacher.

Reinforcement of pre-program views. Wes's mother and teacher often recalled an observation from his program participation that reinforced a prior view about the student or his future. In one instance, Wes's mother discussed her son's persistent challenges with personal hygiene during program experience, saying:

“But um –he didn't pack his toothbrush but when I went in the bathrooms and saw it I sent a note to Katheryn [program staff] and said, “I think he doesn't have a toothbrush.”... And, and then he hadn't taken a shower until Tuesday when I got there... And that's [personal hygiene] a constant issue. I mean it's an issue at home, it's not like it was just an issue in the program. It wasn't anything different.” (Parent Post-Interview)

In this quote, Wes's mother noted that struggling with personal hygiene was not “anything different” than what she observed at home. Thus, her prior view of maintaining personal hygiene as a barrier was reinforced by observations during his time at the program.

At another point during the post-interview, his mother indicated that her priority for Wes to be living in a supported environment outside of the parental home after high school was not only reinforced, but additional meaning was assigned to this idea about his future:

“I mean I still, I think that a group home with the kind of structure and support is still the best option for him. But now I really see it as a place where he can thrive, verses a place that he has to be.” (Parent Post-Interview)

The quote illustrates that through Wes's experiences at the program, his mother's view of

a group living environment shifted from being a necessity to being a place of growth. Similarly, Wes's teacher felt his expectations about the student's ability to succeed in college were not only supported, but were exceeded after observing Wes's demonstrated independence.

Refining of pre-program ideas. In some instances, Wes's mother or teacher modified a pre-program idea after Wes's participation in the summer transition program, either expanding or changing their understandings to accommodate observations from the program. In the example below, Wes's teacher recalled his ability to be flexible and manage conflict when asked what went well for Wes during the program:

“...he was able to handle things that I really didn't expect him to be capable of handling. I think specifically the conflict with some other students. I know he felt very strongly about a certain student and had a really hard time being around him, but demonstrated a lot of control and understanding ... Seeing his ability to not put himself and his needs first was great and was surprising...” (Teacher Post-Interview)

This statement illustrates the teacher's surprise at the degree to which Wes demonstrated interpersonal and intrapersonal skills. Observing Wes in the program offered an opportunity for the teacher to refine his understandings about Wes's relational abilities.

In addition to the changing or modifying initial views, Wes's mother and teacher refined their ideas by communicating more thorough and nuanced views of Wes's current abilities or future life. In their post-program interviews, Wes's mother and teacher were more detailed in their descriptions of specific skills or expectations for his life after the

Flora School. For example, his teacher's discussion of living arrangements grew to include specific environmental features he anticipated would best fit Wes's needs, saying:

"I think he has a better chance of being successful living with peers rather than living still with his family... And if he can find some roommates that maybe are similar to the roommates that he had here, and there's a situation with supervision but not super like controlling and imposing... he's so good with public transportation that it makes me think if he were to be in an area where he could get around on the train that he would probably have a much larger life... (Teacher Post-Interview)

The teacher's nuanced understanding of Wes and his future is evident in the post-interview, as he described detail of what an ideal living situation for Wes in terms of roommates, staff support, and proximity to public transportation. This description also included a rationale for features (i.e. connecting Wes's community mobility abilities to living near public transportation), suggesting that what the teacher anticipates for Wes and why was more clearly understood after the program. Additionally, Wes's teacher became more thorough in his description of Wes's abilities and expectations related to education participation compared to his initial discussion:

"I can see him continuing taking classes at a community college... maybe an associate's degree in writing or English." (Teacher Pre-Interview)

"He's invested in his class. He really likes it. He likes his professor. He can get there on his own. He's not stressed out about it ... I think that because they only meet so many times a week and because he's surround by people that he probably

won't have the chance to get super comfortable ...he'll have a new professor, he'll be around a new set of peers each time [a semester begins]. So I think he'll probably get in a rhythm where his bad habits won't leak into his collegiate course work... I feel like he won't have the opportunity to get to that level of comfort he has clearly with his family and even with us and his peers just from being around us for multiple hours every single day. So in terms of college, I'm optimistic that that kind of, he'll have a perpetual honeymoon experience every time a new class starts.” (Teacher Post-Interview)

Paralleling what was seen while discussing living arrangements, his teacher's description of abilities and expectations expanded to include specific supportive features of the college environment (i.e. routinely changing courses and peers, liking his professor, etc.) that informed his post-program views on Wes's future participation in education. In other responses, the teacher cited additional skills beyond core academics (i.e. navigating the campus, managing school work, etc.) that he anticipated to be supports for Wes's future success in college.

Nuanced understandings were also observed in Wes's mother's responses. For example, she referenced Wes's ability to advocate for himself as a strength, before and after the summer program. However, additional strengths related to Wes's help-seeking behaviors were discussed in her post-program interview, including advocating for others, seeking support during interpersonal conflicts, and using some of the strategies suggested to him while managing interpersonal conflicts. Additionally, his mother appeared to gain additional insight into their family's role as a support for Wes, saying:

“...this program has done as much for us as it has for him in terms of really seeing what it is that he needs. And one of the things we were talking about last night was how much he can do when he’s not being nagged, when somebody’s just there. And that he really needs somebody just there. And as much as we would like to go in our rooms and relax when he’s on duty, we can’t. He really needs one of us there.” (Parent Post-Interview)

Although she identified herself and Wes’s sister as social supports for her son at both time points, Wes’s mother described how his participation in the program further revealed ways to better support Wes at home as his family.

Development of new visions of Wes’s abilities and future. Finally, shifts in his mother’s and teacher’s understandings were also evident by the emergence of new ideas regarding Wes’s abilities and their expectation for his future. Wes’s abilities related to community mobility (i.e. taking the train independently, learning the public transportation system quickly) and community participation (i.e. being able to go to local shops independently) were themes found in his mother’s and teacher’s post-program responses. Though little to no discussion of community mobility or participation abilities was mentioned before the program, Wes’s ability to independently access the city train system and explore the community surround the program dormitories were highlighted as major program successes, by both his mother and teacher.

Other distinct post-program themes of note were Wes’s mother’s and teacher’s realizations of Wes’s “potential,” his possible under-recognition of his successes, and the impact those realizations had on their views of his abilities and hopefulness about his

future. Both Wes's mother and teacher identified his potential and how it related to (1) their more positive future outlooks and (2) being able to envision more options for what a successful future could look like. His teacher explicitly stated increased positivity and optimism regarding Wes's future:

"I think in our first conversation I was pretty negative about what I thought the future could hold for him, but he really showed an amount of self-control and empathy at certain points and patience that makes me think he can probably do more in light of this than I had thought originally, which is really exciting."

(Teacher Post-Interview)

In the post-program interview, his teacher goes on to cite Wes's strengths, how those contrast with some of his peers, and how those perceived strengths relate to his future possibilities:

"There are other students that really are going to need to find a very specific situation in all areas of their lives to have the independence that they want. With Wes I think there are probably a few different versions of what could work for him, just because he does have a lot of strengths in a good number of areas."

(Teacher Post-Interview)

Similarly, optimistic and positive language was observed throughout his mother's post-interview responses, as she reported being amazed and "flabbergasted" at Wes's success during the program with appropriate supports. His mother reported her improved outlook regarding her son's future, saying:

“... I think my hopefulness about him and his general success is much higher because of the program. I mean, I still think that a group home with the kind of structure and support is still the best option for him, but now I really see it as a place where he can thrive verses a place he has to be.” (Parent Post-Interview)

Additionally, Wes’s mother and teacher both expressed their realization of the degree to which Wes may not be recognizing what they consider to be his tremendous successes from the summer transition program. This was particularly true in relation to his accomplishments with community mobility and emotion-regulation during the program. Here, the teacher recalled Wes’s “nonchalant” attitude regarding using the train independently, causing him to think Wes may not realize the magnitude of this achievement:

“I know he called his mother from, on his own by the T stop and was just very relaxed and very nonchalant about the amount of independence he had. And she was blown away that he could even do that, so I think that he might not even realize how big it is, some of the things that he is kind of pulling off without all that much effort, which is huge.” (Teacher Post-Interview)

In the same way, Wes’s mother expressed her belief that Wes does not “give himself enough credit” for the strengths and success, saying:

“...after visiting on Tuesday and hearing what everybody was saying about what he’d been able to do, and hearing him, you know cause usually he doesn’t give himself credit for what he can do, and only focuses on what he can’t do.” (Parent Post-Interview)

Support for their inferences about his under-appreciation of his strength may be drawn from the student's post-program responses. Though he described being able to manage his anxiety on multiple occasions (i.e. while running late to his college class, taking the train independently the first time, and dealing with interpersonal conflict), Wes ultimately stated he was dissatisfied with how he handled of his emotions during conflict resolutions with another peer:

“INTERVIEWER ...how were you successful in managing your anxiety or depression?”

STUDENT: Mm I didn't get really, really angry from the anxiety of being annoyed with Shaun and I didn't shut down... Um just because of the getting a little annoyed with Shaun. Just made me feel I didn't do as well.

INTERVIEWER: ... why do you think that you didn't handle it as well as you could have?”

STUDENT: Because I didn't, I could've, I reacted... telling him to stop. Just, not raising my voice, but feeling angry.” (Student Post-Interview)

In contrast, Wes's mother and teacher both viewed his handling of the interpersonal conflicts as a successful program experiences, saying:

“I know he felt very strongly about a certain student and had a really hard time being around him, but demonstrated a lot of control and understanding and kind of the ability not to let his anger or, kind of despair, take of and ruin his time... He was able to put on a happy face even if he wasn't feeling that way in a lot of moments... Seeing kind of his ability to not put himself and his needs first was

great and was surprising, so I think that was a huge accomplishment.” (Teacher Post-Interview)

“...I don’t know if he told me or if Katheryn [program director] told me, he’s [Wes] really be advocating for all of them saying, “You know, what about that contract we all had to sign? What about three strikes and your out? ...does that not mean anything?” He’s [Wes] absolutely right... But I was really proud of him.” (Parent Post-Interview)

Even though his mother and teacher applauded Wes’s ability to navigate a difficult peer relationship and considered his performance to be a success, Wes did not feel he managed this conflict appropriately and seemed discouraged by his emotional (i.e. *feeling angry*) and behavioral (i.e. *speaking up*) reactions.

Forming expectations as a dynamic process. Examining his mother’s and teacher’s pre- and post-program views suggest that developing their expectations was a dynamic process that involved balancing perceptions of Wes’s current abilities and past experiences with their ideas about his future. Judgments about Wes’s ability often appeared to inform an expectation for his future, or vice versa. An example can be seen when Wes’s teacher considers future living arrangement possibilities for Wes, saying:

“I think he’ll probably be living at home for a while...the money management piece is really hard... even if he did have a job that would sustain him the putting aside money for rent, and for food and utilities and bills and not spending it on movies and comic books and things like that.” (Teacher Pre-Interview)

His teacher’s knowledge of Wes’s money management performance directly influenced

his view that Wes would continue to live in his parental home after Flora School. A similar process occurred when Wes's mother described her ideas about his future education participation. She tempered her expectations for his success in college based on knowledge of his past experiences, such as academic performance and persistence, saying:

"I mean he's just starting his first college course soon, but, I really don't think he's going to be able to do it... I don't think he's going to be able to hold the line and do- stick with the work because that has been his pattern. He's not stupid but he doesn't have ability to keep at it." (Parent Pre-Interview)

Both his mother's and teacher's statements implied that their ideas about Wes's future possibilities relies at least in part on assessing his abilities and past experiences.

Moreover, the malleability of these ideas is evident, as his mother and teacher considered their observations of Wes during the transition programs and accommodated their views accordingly.

Alignment of perspectives

In addition to observed shifts within individual perspectives, increased alignment across perspectives after Wes's participation in the summer program was noted. Prior to completing the summer program, no student strengths were commonly identified across all three perspectives. In contrast, after participation in the program, the student, parent, and teacher perspectives noted the following strengths: (1) being a good kid, (2) cooking skills, (3) independently utilizing public transportation, (4) having good social skills, (5) seeking support from staff when needed, and (6) benefitting from the built-in social

support during the program. More specifically, the student, parent, and teacher each recognized the program's opportunities for social participation, with peers and support staff accessible at all times, as a features that supported Wes's positive experience.

In addition, after the program, the teacher and parent perspectives were more aligned. Wes's mother and teacher both discussed Wes's community mobility skills, potential for success, and under-recognition of own strengths, themes that emerged after his participation. Their descriptions of how these themes impacted their views regarding his current abilities and future possibilities were also similar. For example, both Wes's mother and teacher refined their ideas about potential living arrangements after Flora School to include proximity to public transportation after observing his independence with accessing the city train system in the post-interview.

In the post interviews, Wes's mother and teacher's views regarding his continued participation in college courses were more closely aligned. While his teacher consistently identified participation in some form of post-secondary education as a realistic priority for Wes's future, his mother maintained her view that Wes would not be successful in college courses in the post-interview (i.e. *I don't think he's going to be able to hold the line and stick with the work... he doesn't have ability to keep at it.*). However, she showed signs of becoming more open to the idea of post-secondary education by offering some conditions in which she would support Wes's continuation of classes in the post-program interview, such as Wes having a "vision" or a job first.

More similar views regarding the Wes's abilities and future life were observed in other domains. Wes's mother and teacher spoke similarly in their post-program responses

regarding Wes's living arrangements after Flora School:

"I would say they shifted a little bit. I think he has a better chance of being successful living with peers rather than living still with his family. I think he should definitely get out of his house if he can." (Teacher Post-Interview)

"He won't make the efforts around the things that he can do and he won't take the coaching from me anymore... Which is why you know I'm working really hard right now looking into group homes because he needs to not be at home." (Parent Post-Interview)

In their post-interview responses, both Wes's mother and teacher referred to finding a supported living environment outside of his parental home as a definite need rather than a "maybe" or optional arrangement. Although his mother and teacher did not completely agree in their ideas about Wes's life after Flora School, growing closer in alignment may indicate the potential for further negotiation and flexibility while collaboratively planning for Wes's future.

Discussion

A major finding of this study was that the student's participation in the two-week summer transition program appeared to correspond with more positive expectations for the student's future and greater alignment of the parent and teacher perspectives. Prior research has documented that higher expectations from the parent and teacher are predictive of successful outcomes for young adults with ASD (Benz et al., 2000; Carter et al., 2007; Chiang et al., 2013; Holwerda et al., 2014; Simonsen & Neubert, 2013). The literature also suggests that students' higher self-expectations may be related to more

positive outcomes in adulthood (Benz et al., 2000; Holwerda et al. 2013; Lindstrom et al., 2013; Wagner et al. 2007); yet, in the present study little change was observed in the student's perceived abilities and future expectations after the program, with data suggesting that he may not be fully recognizing his personal strengths or relating them to future planning. Moreover, observations from this study echoed previous findings that students with ASD and their parents tended to differ in their expectations for the student's future, with parents reporting their student's expectations to be less realistic (Camarena & Sarigiani, 2009; Powers, Green, & Powers, 2009). Little research has been done to understand how future plans of students with ASD and their teachers compare, or how expectations are formed by students, parents, or teachers. Furthermore, there are no known studies that have examined expectations specifically in relation to participation in summer transition programs, despite the growing popularity of these types of services. Findings from the present study suggest that participating in summer transition programs similar to the one from this case may increase parent and teacher expectations for the student, though more research is warranted.

A gap in the current literature exists for understanding underlying mechanisms of forming and changing views regarding future expectations for students with ASD. The field of social psychology offers some theories for how people may develop expectations and ideas about their futures. Markus and Nurius's (1986) Possible Selves Theory (PST) is one such theory that has been studied in educational contexts, but has not yet been applied to students with ASD. This theory attempts to explain how people form future-oriented ideas that contribute to their self-concept, or ideas about what their future selves

may be like; these envisioned future selves are known as “possible selves” (Markus & Nurius, 1986). The development of possible selves is hypothesized to be influenced by four major factors: (1) role models (i.e. who someone wants to be or avoid becoming), (2) perceptions regarding past experiences successes and failures, (3) developmental context (i.e. stage of life), and (4) social contexts (i.e. the sociopolitical climate or others’ expectations) (Oyserman & Fryberg, 2006). Each factor influences individuals’ judgments about their future possibilities, ultimately building one or multiple images of who they may become in the future.

Prior investigations suggest that the number of imagined possible selves is greatest in adolescence compared to other age groups, with career-oriented and education-oriented selves being the most common types possible selves reported in this population (Perry & Vance, 2010). As a result, much of this literature has focused on understanding the development of and outcomes associated with adolescents’ and young adults’ future-oriented self-concepts. In particular, some researchers have focused on understanding how possible selves relates to future planning, patterns of delinquent behavior, and social context for youth in the juvenile justice system (Clininbeard & Murray, 2012; Oyserman & Markus, 1990; Oyserman & Salts, 1993;). Others have examined relationships between future self-concepts and education participation behaviors (i.e. persistence, career goal setting, parent involvement) for adolescent and undergraduate students of diverse racial and socioeconomic backgrounds (Oyserman, Brickman, & Rhodes, 2007; Oyserman, Bybee, & Terry, 2006; Oyserman, Bybee, Terry, & Hart-Johnson, 2004; Oyserman & Fryburg, 2006; Oyserman, Grant, & Ager, 1995;

Oyserman, Terry & Bybee, 2002; Perry & Vance, 2010). Although no research to date has applied PST principles to individuals with disabilities, it was a useful framework to understand Wes's story. Additionally, although this theory was originally developed to understand the formation of self-concepts, we extended this application of PST constructs to examine how others (Wes's mother and teacher) formed their views of another person (Wes), not just of themselves.

Wes's mother's and teacher's descriptions and alignment of expectations for his future in young adulthood shifted after his participation. The formation of parent and teacher views was observed to be a dynamic process in which the parent and teacher balanced their assessment of Wes's abilities with ideas regarding his possible future. PST factors associated with the development of possible selves can be drawn from his mother's and teacher's responses to understand how their expectations were formed, as well as why changes in and increased alignment of their expectations occurred. Prior to Wes's participation in the program, his mother and teacher held different perspectives for three of the four major factors purported to influence ideas of possible selves (i.e. developmental context, past experiences, and social context). For example, his mother and teacher viewed Wes in a shared *developmental context* as a 22-year old young adult with ASD preparing to exit the school system and its services. Yet, Wes's mother appeared to view him primarily as her adult son, while the teacher views him as a student, which can be expected given the different relationships. Their unique relationships with Wes could also then contribute to differences in knowledge of or shared *past experiences* with him. Finally, though both the parent and teacher perspectives may be influenced by

common sociopolitical factors related to transition aged persons with ASD, each individual creates a unique *social context* given the different initial expectations they hold for Wes's future. Not sharing views of Wes's developmental context, social context, and past experience prior to his participation in the program potentially lead to differences in his mother's and teacher's ideas about Wes's future possibilities. Despite these differences, the present findings suggest that the parent and teacher further refined their understanding of Wes in terms of his abilities, needs, and future in their post-program responses. It is likely that seeing his successes and failures in the context of the summer transition program informed their understandings. Through a PST lens, their observations of Wes during the summer transition program can be thought of as multiple instances of shared *past experiences* that helped to inform and shape their respective views of Wes, contributing to greater alignment.

Possible selves theory also purports that having well-defined ideas of future selves is associated with improved well-being, current self-concept, motivation, and optimism about future (Oyserman & Fryberg, 2006). Improved current concept of the student was observed in the data as his mother and teacher described Wes's abilities and possibilities in greater depth and more nuanced language after the program. Evidence for their optimism may be gleaned from the emergence of parent and teacher discussions regarding Wes's "potential" and their increased optimism about his future.

It is of note that discussion of *role models*, the fourth factor of PST, was lacking in this data set, calling for consideration as to whether Wes presently looks to any role models or if role models are available to him. His interview responses also demonstrated

Wes's under-recognition of his strengths and limited shifts in his perceived abilities and future possibilities after participating in the program. These observations suggest Wes's self-concept may lack clarity or be incomplete. Some researchers have proposed that developing a self-concept and then relating that self-concept to future planning requires a dynamic process that demands multiple forms of self-evaluation, such as comparing self to others or making judgments about oneself based on previous experiences (Bang et al., 2013; Carrington et al., 2003; Proctor, 2001). However, challenges with abstract and fluid thinking, such as that required in developing and employing self-concepts, are hallmark features of ASD (Bang et al., 2013; Carrington et al., 2003; Proctor, 2001). In light of PST theory and additional self-concept research, identifying role models for self-comparison and providing concrete opportunities for self-evaluation could help inform Wes's future-oriented self-concepts. The lesser degree of change observed in the student's views, compared to his mother and teacher, might also be partially attributed to the short time frame of the two-week program. Nevertheless, the observed lack of change, the program's short timeframe, and hypothesized challenges to developing self-concepts for people with ASD all further emphasize a need for transition programs to work to provide support for processing those experiences (i.e. what they did well, what was difficult for them, etc.) to their students with ASD.

Implications

Because this is a single case study, findings cannot be generalized beyond this student with ASD and his transition planning stakeholders. A limitation of this study was the inability to follow-up with the student, parent, and teacher to (1) confirm

interpretations of perspectives and (2) assess the maintenance of these shifts in views and hopefulness. Future studies should include a follow-up assessment point to examine long-term impacts of participating in a summer transition program, how learning from the experience is incorporated in transition planning to follow, and how specific program feature impact these changes.

Despite limitations, important considerations regarding improvements for transition programming and understanding factors that influence stakeholder's future expectations can be drawn from the present study. Though current literature commonly reports misalignment of perspectives among parents, teachers, and students with ASD and their association with poor student outcomes, the findings from the current study are positive and support the idea that expectations are malleable, with potential for increased compatibility and hopefulness across stakeholder perspectives. Summer transition programs may provide a common context for shared experiences that foster these changes and increased alignment across stakeholder views regarding a student's with ASD and his or her future. Continuing to measure and study how pre- and post-program views of stakeholders compare will build upon the present finding regarding potential mechanism for changing expectations; therefore, future summer transition programs should incorporate methods for capturing this information, to advise improvements to programming and inform transition planning after participation in these programs.

Limited observed changes in the student's perceived abilities and possibilities suggests a need for specific program activities to support students with ASD in processing their program experiences and to encourage their development of self-

concepts and expectations for the future. Examples of such features may include completing daily checklists of daily successes or challenges with the student, providing the student with feedback or praise for accomplishments in a structured format, or other cognitive processing techniques. In light of study finding and theories regarding formation of future-oriented self-concepts, further exploration into the impact of role models in transition programming may be warranted.

Future summer transition programs should ensure that programming and communication with stakeholders are structured to provide a comprehensive view of the student's challenges and successes, promoting shared experiences of the student's participation. Doing so may help to foster better young adult outcomes by offering an opportunity for increased alignment and positivity across parent and teacher future expectations for their students with ASD, factors found to be predictors of future success (Carter et al., 2012; Chiang et al, 2013; Holwerda et al., 2014; Simonsen & Neubert, 2013). Moreover, increased alignment of expectations may contribute to collaborative transition planning, another predictors of post-secondary success (Benz et al., 2000; Chiang et al. 2013; Simonsen & Neubert, 2013).

Conclusions

Summer transition programs provide a unique opportunity for increasing the alignment of parent and teacher perspective for the future through shared experiences of the student performance. Providing common shared experiences to observe a student's abilities may allow parents and teachers to refine and become more similar in their expectations for and understandings of that student. Overall, supporting opportunities to

shape and inform ideas about students with ASD may positively influence stakeholders' expectations for the students' futures, increasing the likelihood of positive young adult outcomes. For Wes, his participation in the summer program may have increased his probability of obtaining his ideal life: *"A limo... and not having hardships."*

Appendix A Interview Protocols and Consent Forms

A. Student Pre-interview

Thanks [student] for agreeing to talk with me. Today I'm just hoping to get a sense of what you think your life will be like after you've graduated from Flora School. Specifically, I would like to learn more about your expectations for the future. An expectation is "a strong belief that something will happen in the future." So an example of this may be expecting that one day I will travel to a new country or that one day I'll get a dog as a pet. Do you have any questions so far?

Before we get started, I would like to audio-record our conversation because sometimes it is hard to remember and write all the information in my notes. When I write up the findings, I will not use your real name and will change other identifying information so no one will be able to match what was said with your name. Are you okay with this?

First I'd like to get an idea of what your life is like right now. Think about your typical school week and weekends...

1. What is a school day like for you?
2. What do you do after school?
3. What do you usually do during the weekend?

Now think about your life after Flora School...

1. What do you expect your life to look like after Flora School?
2. What do you think you'll be doing during the day?
 - a) What will that be like?
 - b) Have you had an experience like that before?
 - i. Please tell me about a time (activity) was hard for you.
 - ii. Please tell me about a time (activity) was easy for you.
3. What do you think you'll be doing with your free time?
 - a) What will that be like?
 - b) Have you had an experience like that before?
 - i. Please tell me about a time (activity) was hard for you.
 - ii. Please tell me about a time (activity) was easy for you.

Use this question if social support is not mentioned at all...

1. What will your social life be like?
 - a. Tell me more about those friendships/relationships with your family/etc.
 - b. Is there anybody else that would be important to you?

Broad question

1. When you think about life after Flora School, what would a good life include?

COPM goals (use these questions for each OPI)

1. Why did you put a # for this performance?
 - a. Tell me about a time you were successful doing this. Tell me more about that.
 - b. Tell me about a time that this was hard for you. Tell me more about that.
2. Why did you put a # for this satisfaction score?

B. Student Post-interview

Thanks [student] for agreeing to talk with me again today. Last time we talked, I wanted to get a sense of what you think your life will be like after you've graduated from Flora School; specifically, I wanted to learn more about your expectations for the future. Now that you've been doing this program over the last two weeks, I just wanted to hear your thoughts again. Just as a reminder, an expectation is "a strong belief that something will happen in the future." So an example of this may be expecting that one day I will travel to a new country or that one day I'll get a dog as a pet. Do you have any questions so far?

Before we get started, I would like to audio-record our conversation because sometimes it is hard to remember and write all the information in my notes. When I write up the findings, I will not use your real name and will change other identifying information so no one will be able to match what was said with your name. Are you okay with this?

Summary questions***Think about being in the Summer Program for the last two weeks...***

1. How did your time in the program go?
2. What stood out to you during over the last two weeks of the program?
3. What will you take away from this program?

Now think about your life after Flora School...

1. Last time we talked about what your life will look like after Flora School (what it will be like/what you'll be doing). Tell me your thoughts about that now.
2. What do you think you'll be doing during the day?
 - a. What will that be like?
 - b. Have you had an experience like that before?
 - i. Please tell me about a time (activity) was hard for you.
 - ii. Please tell me about a time (activity) was easy for you.
3. What do you think you'll be doing with your free time?
 - a. What will that be like?
 - b. Have you had an experience like that before?
 - i. Please tell me about a time (activity) was hard for you.
 - ii. Please tell me about a time (activity) was easy for you.

Use this question if social support is not mentioned at all...

1. What will your social life be like?
 - a. Tell me more about those friendships/relationships with your family/etc.
 - b. Is there anybody else that would be important to you?

Broad question

1. When you think about life after Flora School, what would a good life include?

COPM goals (use these questions for each OPI)

1. Why did you put a # for this performance?
 - a. Tell me about a time you were successful doing this. Tell me more about that.
 - b. Tell me about a time that this was hard for you. Tell me more about that.

2. Why did you put a # for this satisfaction score?

C. Teacher Pre-interview

Thank you [teacher] for agreeing to talk with me. Today I'm just hoping to get a sense of what you think [student's] life will be like after [he or she] has graduated from Flora School. Last time we talked about your expectations for [student's] future. An expectation is "a strong belief that something will happen in the future." So an example of this may be expecting that one day I will travel to a new country or that one day I'll get a dog as a pet. Do you have any questions so far?

Before we get started, I would like to audio-record our conversation because sometimes it is hard to remember and write all the information in my notes. When I write up the findings, I will not use your real name and will change other identifying information so no one will be able to match what was said with your name. Are you okay with this?

First I'd like to get an idea of what your experience with [student] is like currently. Think about a typical school week and weekends presently...

1. What do you typically do with [student] during the day?
2. Tell me about any interactions you've had with [student] during free time at school.
3. Tell me about any interactions you've had with [student] outside of school.

Now think about [student's] life after Flora School...

1. What do you expect [student's] life to look like after Flora School?
2. What do you think he'll be doing during the day?
 - a. What will that be like for him?
 - b. Has [student] had an experience like that before?
 - i. Please tell me about a time (activity) was hard for him.
 - ii. Please tell me about a time (activity) was easy for him.

3. What do you think [student] be doing with his free time?
 - a. What will that be like for him?
 - b. Has [student] had an experience like that before?
 - i. Please tell me about a time (activity) was hard for him.
 - ii. Please tell me about a time (activity) was easy for him.

Use this question if social support is not mentioned at all...

1. What will his social life be like?
 - a. Tell me more about those friendships/relationships with family/etc.
 - b. Is there anybody else that would expect to be important to him?

Success question

1. When you think about [student's] life after Flora School, what would a good life for him include?

D. Teacher Post-interview

Thank you [parent/teacher] for agreeing to talk with me again today. Last time we talked about your expectations for [student's] future. Now that [student] has done this summer program for the last two weeks, I just wanted to hear your thoughts again. Just as a reminder, an expectation is “a strong belief that something will happen in the future.” So an example of this may be expecting that one day I will travel to a new country or that one day I’ll get a dog as a pet. Do you have any questions so far?

Before we get started, I would like to audio-record our conversation because sometimes it is hard to remember and write all the information in my notes. When I write up the findings, I will not use your real name and will change other identifying information so no one will be able to match what was said with your name. Are you okay with this?

Broad questions:

1. How do you think the two weeks went for [student]?
 - a. Please tell me about the experiences that gave you that impression.
2. What stood out to you from the student's time in the program?
 - a. Tell me more about that.
3. What were some of the positives for [student] participating in this program?
 - a. Please tell me about a few experiences that gave you that impression.
4. What were some things that seemed challenging for [student]?
 - a. Please tell me about a few experiences that gave you that impression.
5. Last time we talked about what [student's] life will be like after Flora School. Tell me your thoughts about that now.

Success question

1. When you think about [student's] life after Flora School, what would a good life for him include?

E. Parent Pre-interview

Thank you [parent] for agreeing to talk with me. Today I'm just hoping to get a sense of what you think [student's] life will be like after [he or she] has graduated from Flora School. Last time we talked about your expectations for [student's] future. An expectation is "a strong belief that something will happen in the future." So an example of this may be expecting that one day I will travel to a new country or that one day I'll get a dog as a pet. Do you have any questions so far?

Before we get started, I would like to audio-record our conversation because sometimes it is hard to remember and write all the information in my notes. When I write up the findings, I will not use your real name and will change other identifying information so no one will be able to match what was said with your name. Are you okay with this?

First I'd like to get an idea of what your experience with [student] is like currently. Think about a typical school week and weekends presently...

1. How are you involved with their school day?
2. What do you do guys do together after school?
3. What do you both usually do during the weekend?

Now think about [student's] life after Flora School...

1. What do you expect [student's] life to look like after Flora School?
2. What do you think [student] will be doing during the day?
 - a) What will that be like for him?
 - b) Has [student] had an experience like that before?
 - i. Please tell me about a time (activity) was hard for him.
 - ii. Please tell me about a time (activity) was easy for him.
3. What do you think [student] will be doing with your free time?
 - a) What will that be like for him?
 - b) Has [student] had an experience like that before?
 - i. Please tell me about a time (activity) was hard for him.
 - ii. Please tell me about a time (activity) was easy for him.

Use this question if social support is not mentioned at all...

1. What will [student's] social life be like?
 - a. Tell me more about those friendships/relationships with family/etc.
 - b. Is there anybody else that would expect to be important to [student]?

Success question

1. When you think about [student's] life after Flora School, what would a good life for him include?

F. Parent Post-interview

Thank you [parent] for agreeing to talk with me. Today I'm just hoping to get a sense of what you think [student's] life will be like after [he or she] has graduated from Flora School. Last time we talked about your expectations for [student's] future. An expectation is "a strong belief that something will happen in the future." So an example of this may be expecting that one day I will travel to a new country or that one day I'll get a dog as a pet. Do you have any questions so far?

Before we get started, I would like to tape record our conversation because sometimes it is hard to remember and write all the information in my notes. When I write up the findings, I will not use your real name and will change other identifying information so no one will be able to match what was said with your name. Are you okay with this?

Broad questions:

1. How do you think the two weeks went for [student]?
 - a. Please tell me about a few experiences that gave you that impression.
 - b. How did you hear about this info?
 - i. Who contacted you and how?
 - ii. What did they tell you?
2. Based on what you've heard about the last two weeks, what stood out to you (about the [student's] time during the program)?
 - a. Please tell me more about the situation and why that surprised you.
3. Based on what you heard, what were some of the positives for [student]?
 - a. Please tell me about those accomplishments.
4. Based on what you heard, what sounded challenging for [student]?
 - a. Please tell me about those challenges.
5. Last time we talked about what [student's] life will be like after Flora School. Tell me your thoughts about that now.

Success question

1. When you think about [student's] life after Flora School, what would a good life for him include?

Protocol Title: Master's thesis project: Ivy Street Summer Program evaluation
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Investigator: Whitney McWherter
--

Introduction

The purpose of this form is to provide you with important information about taking part in a research study. If any of the statements or words in this form are unclear, please let us know. We would be happy to answer any questions.

If you have any questions about the research or any portion of this form, please ask us. Taking part in this research study is up to you.

The person in charge of this study is Whitney McWherter, a master's level student, who is working with Dr. Gael Orsmond. Whitney McWherter can be reached at wmcwhert@bu.edu and Dr. Orsmond can be reached at gorsmond@bu.edu/617-353-2703. We will refer to these people as the "researchers" throughout this form.

Why is this study being done?

The purpose of this study is to understand your son's experience in the Ivy Street Summer Program. We will interview you, your son, and your son's teacher, both before and after the program. Data from these interviews will be used for a master's thesis.

How long will I take part in this research study?

We expect that you will be in this research study for two weeks. A researcher will interview you at your home before and after the summer program.

What will happen if I take part in this research study?

A researcher will interview you to learn about your perspective about your son's future. The interview should last about 1 hour.

Participating in this study will include two visits, a pre- and post-interview, each lasting about 1 hour. The following will occur at each visit:

- Give you a demographic questionnaire (pre-interview only)
- Interview you about your experience with having your son participate in the Ivy Street Summer Program.

Audio/Videotaping

We would like to audio-record the interview. A researcher will transcribe the recording and save the transcript on a password protected computer. The audio recording will then be deleted.

How Will You Keep My Study Records Confidential?

We will keep the records of this study confidential by saving all data on a password-protected computer. We will make every effort to keep your records confidential. However, there are times when federal or state law requires the disclosure of your records. When sharing information about this study outside of the research team, we will use pseudonyms.

If, during your participation in this study, we have reasonable cause to believe that child abuse is occurring, we must report this to authorities as required by law. If, during your participation of this study, we have reason to believe that a participant is risk for being suicidal or otherwise harming himself or herself, we are required to take the necessary actions. This may include notifying a teacher, therapist, or other individuals. If this were to occur, we would not be able to assure confidentiality.

The results of this research study may be published or used for teaching. We will not put identifiable information on data that are used for these purposes.

Study Participation and Early Withdrawal

Taking part in this study is your choice. You are free not to take part or to withdraw at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential.

What are the risks of taking part in this research study?

You do not have to answer any questions that make you feel uncomfortable. Tell the interviewer at any time if you want to take a break or stop the interview.

The main risk of allowing us to use and store your information for research is a potential loss of privacy. We will protect your privacy by labeling your information with a code and keeping the key to the code in a password-protected computer.

Are there any benefits from being in this research study?

Others may benefit in the future from the information that is learned in this study.

What alternatives are available?

You may choose not to take part in this research study.

If I have any questions about this research study, who can I talk to?

You can call us with any concerns or questions. Our emails are listed below:

Whitney McWherter
(Master's student)
wmcwhert@bu.edu
850-776-3104

Dr. Gael Orsmond
(Thesis supervisor)
gorsmond@bu.edu

Protocol Title: Master's thesis project: Ivy Street Summer Program evaluation
Principal Investigator: Whitney McWherter

What is a Research Study?

We want to tell you about a research study we are doing. If you have any questions about the research or any portion of this form, please ask. We would be happy to answer any questions.

Taking part in this research study is up to you.

The person in charge of this study is Whitney McWherter, a master's level student, who is working with Dr. Gael Orsmond. Whitney McWherter can be reached at wmcwhert@bu.edu and Dr. Orsmond can be reached at gorsmond@bu.edu/617-353-2703. We will refer to these people as the "researchers" throughout this form.

The purpose of this study is to understand your experience during the Ivy Street Summer Program. We will interview you, your mom, and your teacher, both before and after the program.

There are a few things you should know about this study:

- You get to decide if you want to be in the study
- You can say 'No' or 'Yes'
- Whatever you decide is OK
- If you say 'Yes' now, you can change your mind and say 'No' later
- No one will be upset if you say 'No'
- You can ask us questions at any time
- We will also get permission from your parent/guardian for you to take part in this study

What will I do if I am in this research study?

We will interview you at the beginning and at the end of the program, each lasting about 1 hour.

Audio-recording

We will audio-record the interview sessions that are part of this study. This will help us to remember what we talked about in the session.

If I join this study will it help me?

- We may learn something in study that will help others in the future.
- This study will help us to learn more about how to improve the Ivy Street Summer Program.

What will happen to my information in this study?

We don't plan to tell anyone outside of the research team your name or other information about you if you join this study. However, there is a small chance that other people could find out your information. We will do our best to make sure that doesn't happen.

There are some reasons why we would share your information:

- If we found out you were in serious danger
- If we found out that somebody else was in serious danger

Taking part in this research study

You do not have to take part in this research study. You can say 'Yes' or 'No'. You can say 'Yes' now and change your mind later. All you have to do is tell us you want to stop. No one will be mad if you don't want to take part in the study or if you change your mind about taking part in the study. Your parent or guardian can also decide to have you stop taking part in this study—that is OK too.

If I have any questions about this research study, who can I talk to?

You can contact us with any concerns or questions. Our information is listed below:

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wmcwhert@bu.edu
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The person in charge of this study is Whitney McWherter, a master's level student, who is working with Dr. Gael Orsmond. Whitney McWherter can be reached at wmcwhert@bu.edu and Dr. Orsmond can be reached at gorsmond@bu.edu/617-353-2703. We will refer to these people as the "researchers" throughout this form.

Why is this study being done?

The purpose of this study is to understand your student's experience in the Ivy Street Summer Program. We will interview you, your student, and your student parent, both before and after the program. Data from these interviews will be used for a master's thesis.

How long will I take part in this research study?

We expect that you will be in this research study for two weeks. A researcher will interview you at Ivy Street School or an agreed upon location before and after the summer program.

What will happen if I take part in this research study?

A researcher will interview you to learn about your perspective about your student's future. The interview should last about 1 hour.

Participating in this study will include two visits, a pre- and post-interview, each lasting about 1 hour. The following will occur at each visit:

- Give you a demographic questionnaire (pre-interview only)
- Interview you about your experience while having a student participate in the Ivy Street Summer Program.

Audio/Videotaping

We would like to audio-record the interview. A researcher will transcribe the recording and save the transcript on a password-protected computer. The audio recording will then

be deleted.

How Will You Keep My Study Records Confidential?

We will keep the records of this study confidential by saving all data on a password-protected computer. We will make every effort to keep your records confidential. However, there are times when federal or state law requires the disclosure of your records. When sharing information about this study outside of the research team, we will use pseudonyms.

If, during your participation in this study, we have reasonable cause to believe that child abuse is occurring, we must report this to authorities as required by law. If, during your participation of this study, we have reason to believe that a participant is risk for being suicidal or otherwise harming himself or herself, we are required to take the necessary actions. This may include notifying a parent, therapist, or other individuals. If this were to occur, we would not be able to assure confidentiality.

The results of this research study may be published or used for teaching. We will not put identifiable information on data that are used for these purposes.

Study Participation and Early Withdrawal

Taking part in this study is your choice. You are free not to take part or to withdraw at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential.

What are the risks of taking part in this research study?

You do not have to answer any questions that make you feel uncomfortable. Tell the interviewer at any time if you want to take a break or stop the interview. The main risk of allowing us to use and store your information for research is a potential loss of privacy. We will protect your privacy by labeling your information with a code and keeping the key to the code in a password-protected computer.

Are there any benefits from being in this research study?

Others may benefit in the future from the information that is learned in this study.

What alternatives are available?

You may choose not to take part in this research study.

If I have any questions about this research study, who can I talk to?

You can call us with any concerns or questions. Our emails are listed below:

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Vita

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EDUCATION

M.S. in Occupational Therapy, Expected January 2017
Boston University, Sargent College of Rehabilitation Sciences

B.A. Psychology, *Magna Cum Laude*, 2014
University of Notre Dame

ACADEMIC AWARDS AND ACHIEVEMENTS

Spring 2014 **Senior Recognition Award**
Psychology Department, University of Notre Dame

Spring 2014 **Dean's List**
College of Arts and Letters, University of Notre Dame

Fall 2013 **Psi Chi International Honors Society in Psychology**
Notre Dame Chapter

Fall 2013 **Dean's List**
College of Arts and Letters, University of Notre Dame

GRANTS AND SCHOLARSHIPS

Fall 2014–2017 **Boston University Graduate Assistant**
Awarded an annual stipend of \$2500 per academic year and a position as a graduate assistant in the Occupational Therapy Department of Sargent College at Boston University.

Fall 2014–2017 **Boston University Scholarship Recipient**
Awarded tuition funding (\$24,000 per academic year) based on academic merit to be applied while enrolled in the Master of Science in Occupational Therapy Program

Spring 2010**Auburn University Presidential Scholar**

Recognized for my achievement of a 33–36 ACT (1440–1600 SAT) score and a minimum 3.5 high school GPA. Includes a four year, renewable coverage of tuition and fees (\$68,000) as well as an “Enrichment Experience” stipend (\$4,000) to be used towards study abroad, research, theses, etc.

RESEARCH EXPERIENCE**2015–2016**

Occupational Therapy Master’s Thesis, Department of Occupational Therapy, Boston University, MA

Supervision:

Gael Orsmond, PhD.

2015–2016

Masked Data Coding, Youth Empowerment Leadership Research Lab, Department of Occupational Therapy, Boston University, MA
Research Assistant

*Title:**Duties:*

This position involved scoring audio-data from dynamic knowledge assessments to code participant responses and researcher fidelity. Responsibilities include learning assessment administration procedure, frameworks and goals for the intervention, attend group meetings to discuss coding decisions, and completing 5 hours of week data scoring.

Supervision:

Jessica Kramer, PhD, OTR/L

2013–2014

Summer Science Program, Laboratory for Understanding Neurodevelopment, Department of Psychology, University of Notre Dame, IN.

*Title:**Duties:*

Social Skills Coach, Research Assistant
Helped with conducting a pilot study investigating the effectiveness Summer Robotics Camp as a more natural environment for adolescents with autism spectrum disorder to practice social skills. Created daily lesson plans and presentations for “career skills” to coordinate with daily goals. Presented and recapped daily goals with camp participants. Coached participants during less constructed times of programming with their partner to encourage teamwork and effective communication. Gave one on one feedback when necessary to participants encountered more specific challenges when working with a partner. Provided instruction on basic *Choreographe* programming skills for Nao Robots. Administered and scored the Social Skills Improvement System (SSIS) and Social Anxiety Scale for Adolescents (SAS-A) and handled their data entry. Managed the organizing, editing, and conversion of videos of camp sessions. Developed methods for uniform transcribing of pretest, posttest, and midtest evaluation sessions. Management of c-unit data analysis of transcriptions.

Supervision: Joshua Diehl, Ph.D., Juhi Kaboski Ph.D., Charles Crowell, Ph.D., Michael Villano, Ph.D.

2013–2014 ***The Use of Interactive Robots in Therapy for Children with Autism Spectrum Disorders***, Laboratory for Understanding Neurodevelopment, Department of Psychology, University of Notre Dame, IN.

Title: Research Assistant

Duties: Transcribed videos of participants' therapy sessions.

Supervision: Joshua Diehl, Ph.D., Juhi Kaboski, Karen Tang,

2013–2014 ***Perceived Teacher Autonomy Support, Academic Self-Determination, and Postsecondary Education Expectations in Transition-Age Students with Intellectual Disability and Autism Spectrum Disorder***, Department of Psychology, University of Notre Dame, Notre Dame, IN.

Title: Thesis Assistant

Duties: Assisted on a senior thesis investigating the transitioning and secondary education of adolescents with disabilities. Contacted school and families for participant recruitment. Administered and scored the Wechsler Abbreviated Scale of Intelligence- Second Edition (WASI-II). Administered and scored self-report surveys. Coordinated and trained additional lab members to also assist with the study.

Supervision: Elizabeth Klinepeter, Joshua Diehl, Ph.D., Karen Tang

2011–2012 ***A Comparison of Staff Training Methods for Effective Implementation of Discrete Trial Teaching for Learners with Developmental Disabilities***, Research Lab, Psychology Department, Auburn University, AL

Title: Research Assistant

Duties: Worked on a study that investigated the effectiveness of a Computer Based Intervention (CBI) in comparison to Behavior Skills Training (BST) in training staff to perform discrete trial teaching with children with autism spectrum disorders. Administered pre-test and post-test evaluations by supplying simulated response patterns for a child with autism. Collected and coded data based on participant forms and session videos

Supervision: Kaneen Geiger, Ph.D., James E. Carr, Ph.D., BCBA-D, Linda LeBlanc Ph.D.

2011–2012

Teaching Children with Autism to Tact Stimuli from Auditory and Tactile Sensory Modalities, Research Lab, Psychology Department, Auburn University, AL

Title: Research Assistant

Duties: Worked on a study that investigated the tact-teaching of auditory and tactile stimuli, both simple and compound, to children with autism spectrum disorder using traditional applied behavioral analysis (ABA) techniques. Assisted in the preparation of recording devices and therapy room. Aided in one on one ABA therapy sessions. Administered portions of and scored the VB-MAPP assessments for participants.

Supervision: Nicole Hanney, James E. Carr, Ph.D., BCBA-D, Linda LeBlanc Ph.D.

PRESENTATIONS AND PUBLICATIONS

McKinnon, S., DeMarinis, J., Haver, C., **McWherter, W.**, O'Donnell, M., Toegemann, B. (2016, April). The use of ecotourism as co-occupation and the various occupational roles that exist in an ecotourism community in Ecuador. Poster presented at the American Occupational Therapy Association Annual Meeting, Chicago, IL.

Diehl, J.J., Kaboski, J., Beriont, J., Villano, M., Tang, K., Miller, H., Flatley, A, Hartman, N., Kawalec, K., Prough, M., Simon, L., Van Steenwyk, H., **McWherter, W.**, Won, M., Crowell, C.R. (2015, May). Using a summer robotics camp to reduce social anxiety and improve social/vocational skills in ASD. To be presented at the International Meeting For Autism Research, Salt Lake City, UT.

Kaboski, J., Beriont, J., Crowell, C., Villano, M., Tang, K., Miller, H., . . . Diehl, J.J. (2015, March). Summer robotics camp: a pilot social/vocational intervention for adolescents with ASD and their peers. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Philadelphia, PA.

Kaboski, J., Beriont, J., Crowell, C., Villano, M., Tang, K., Miller, H., . . . Diehl, J.J. (2014, May). Summer robotics camp: a pilot social/vocational intervention for adolescents with ASD and their peers. Poster presented at the International Meeting for Autism Research (IMFAR), Atlanta, GA.

Klinepeter, E.A., **McWherter, W.**, Mazur, S., Connolly, C. G., Catto, C. M., & Diehl, J. J. (2014, May). The role of perceived teacher autonomy support in promoting postsecondary education expectations in students with autism spectrum disorder. Presented at the International Meeting for Autism Research, Atlanta, GA.