PARENTAL INVOLVEMENT DURING POST-SECONDARY TRANSITION FOR
YOUTH WITH DEVELOPMENTAL DISABILITIES

by

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ABSTRACT

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Transition from high school to adulthood for students with developmental disabilities is a monumental stage for both the individual and his or her family. Past research has shown that one of the most salient predictors of students’ successful transition is their parents’ involvement with transition planning, however, during this time parent involvement often declines (Grigal & Neubert, 2004). The current study examined parent involvement and knowledge during the transition from high school to adulthood for the parents of young adults with developmental disabilities. Participants included a diverse sample of 55 parents in an urban school district who had youth with special needs between the ages of 14 and 22. The present study examined parental psychosocial factors, demographic factors, parents’ experiences during the transition process, and three dimensions of their educational involvement: school involvement, transition involvement, and transition knowledge. The study found that parent experiences during the transition period (IEP familiarity, perceived teacher invitations, and perceived time and energy) as well as the socio-economics of school neighborhood,
were the most salient factors associated with parental involvement and knowledge. The study offers suggestions for future research, policy, and intervention ideas to assist in improving parents’ positive experiences during the transition process. These suggestions aim in increasing parental involvement and knowledge during an important time in their youths’ educational development.
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Chapter I

INTRODUCTION

Transition from high school to adulthood for students with disabilities is a monumental stage for both the individual and his or her family. This is a time marked by change that can be stressful for everyone involved, especially the parents. A “successful transition” can be defined differently for families, but for most, it includes graduating from high school, enrolling in postsecondary education, gaining employment, integrating meaningfully in the community, maintaining personal and social relationships, and/or achieving levels of independence (Hendricks & Wehman, 2009). Research has shown that one of the most salient predictors of students’ successful transitions is their parents’ involvement with transition planning (Grigal & Neubert, 2004). Unfortunately, for children with special needs, many parents have significantly less involvement in their children’s special education services than parents of typically developing children, and many parents are only passively involved during the transition process (Spann, Kohler, & Soenksen, 2003; Defur, Todd-Allen, & Getzel, 2001).

Parental involvement and participation in the transition of students with special needs has been written into law for decades. Since the inception of special education law in 1975, parental involvement has been mandated (Defur et al., 2001). Legislation such as the No Child Left Behind Act and the Individuals with Disabilities Education Improvement Act (IDEA) support and mandate parental involvement to facilitate positive post-school outcomes during transition. In 2004, IDEA added more details and
requirements for transition services, including involvement of parents. Without parental involvement, students with disabilities are vulnerable to receiving inadequate and inappropriate services (Burke, 2013).

The transition process begins for students at age 14. Transition planning for post-high school can be challenging because there is no single point of entry to adult services (Hagner, Kurtz, Cloutier, Arakelian, Brucker, & May, 2012). Adult services are not based on entitlement, but on eligibility, and without parents actively researching for the right adult placements, students with disabilities may receive inadequate and inappropriate services (Burke, 2013). The young adults’ schools are required to support the parents through each phase of the transition process, however, the process can still be very difficult for parents to navigate.

New York City’s school district for students with special needs, District 75, presents its own set of unique challenges. It is the largest special education district within the largest school district in the country and serves over 56,000 students. Students do not necessarily get to go to a school near their home, and are spread out over 60 schools in 350 locations. There are many agencies in NYC to assist in transition planning, however, in order to properly utilize them they require paper work, doctor appointments, and advance planning. For many parents, the post-secondary transition period is the first time since their child entered the school system that they are required to do a significant amount of work outside of the school to actively coordinate their youth’s services. Given the diversity of families who reside within the NYC DOE, the potential challenges associated with NYC DOE District 75, and the complexity of post-secondary service coordination in NYC, the present study focused on families in NYC DOE District 75 to
better understand these families’ experiences during this important transition.

Specifically, the study examined factors linked to parents’ involvement during the transition of their child with a developmental disability from high school to adulthood. A Developmental Disability is an umbrella term that includes chronic cognitive disabilities, physical disabilities or both, which appear before the age of 22 and are likely to be lifelong (aidd.org).

Several theoretical frameworks guided the current study. Broadly, Bronfenbrenner’s (2006) Ecological Systems Theory explained how human development is shaped by the individual’s context, which includes experiences with those around you (e.g., parents and teacher), environment, societal belief systems, and the relationship between those in your context (e.g., parents’ relationships with your teachers). Belsky’s (1984) framework on the determinants of parent’s behavior proposed that parenting is largely influenced by three main factors, the personality of the parent, characteristics of the child, and the broad social context in which the parent-child relationship is embedded, which provides the parent supports and resources. Finally, Hoover-Dempsey and Sandler’s (1995) model of parent involvement suggest that overall parental school involvement is based on several constructs from the parents own ideas and experiences, as well as on environmental demands and opportunities. Each theoretical framework will be discussed further and their connection to dimensions of the current study will be explained.

The current study measured three types of involvement: school involvement, transition involvement, and transition knowledge, to fully capture the notion of parental involvement as a whole during the post-secondary transition period. School involvement
was defined as home-based and school-based activities that were affiliated with the child’s academic and social dimensions of school (Hoover-Dempsey & Sandler, 1995, 1997). Transition involvement focused on transition-based activities and behaviors such as attending transition meetings and information sessions (Kraemer & Blacher, 2001). Finally, transition knowledge measured parents’ knowledge about specific post-school outcomes, such as community opportunities, living opportunities, financial planning, and health services (Kramer & Blacher, 2001).

Successful transition looks different for each young adult with disabilities, but it generally cannot be achieved without parental involvement. Epstein (1995) was among the first to lay the foundation for what is expected from parents during their child’s post-secondary transition. He stated that schools, families, and communities are not separate entities, but rather, overlapping spheres of influence. Although the positive impact of parents’ involvement on youth’s outcomes during transition has been supported by research, actual parental involvement during transition has been shown to decline during this period (Geenen, Powers, & Lopez-Vasquez, 2005). Parents have reported that they find the transition system complex, that they are unsure how to contribute, or may feel undervalued and overwhelmed (Brotherson, Berdine, & Sartini, 1993; Martinez, Conroy, & Cerreto, 2012; Wehmeyer, et al., 1999). Thus, an important aspect of the current study will be to examine factors linked to this important dimension of parents’ behaviors.

Given the importance of parental involvement on youths’ successful transitions, and the fact that many parents of youth with disabilities may show a decline in their involvement during high school, it is critical to understand both risk and promotive factors that are associated with parent involvement during this period (Grigal & Neubert,
In line with Belsky’s theoretical framework on the determinants of parenting, the current study considered the role of contextual factors, parent factors (experiences and psychosocial functioning), and child characteristics. Specifically, based on past work on demographic factors associated with parent transition, the present study examined the role of contextual and sociodemographic barriers, such as low socioeconomic status, low education levels, and school neighborhood on parents school involvement, transition involvement, and transition knowledge (Defur et al., 2001; Geenen et al., 2005; Hill & Taylor, 2004). Belsky (1984) also proposed that the personality of the parent is a major determinant of parenting, thus this study examined factors related to parents’ well-being and experiences during the post-secondary transition, including parent stress, self-efficacy, role construction, perceived invitations from school and teacher, perceived life context, and parent expectations. Finally, Belsky (1984) suggested that child characteristics have the ability to shape the quantity and quality of the parental care they receive. For youth with developmental disabilities, it may be that aspects of their disability are related to parents’ behaviors; therefore the current study examined diagnosis and symptoms of the young adult, as well as age, in relation to parental involvement. See Figure 1 for Conceptual Model.

Navigating a new system of adult services and acquiring the best services and programs for youth with disabilities is a challenging parenting task. For the first time since their child was entering kindergarten, these parents have to actively participate to guarantee their child receives adequate services when they leave school. This is especially challenging in a school system as large as the NYCDOE. The present study will add to already existing research on parental involvement during transition by
examining a comprehensive range of contextual, parent experience, parent psychosocial, and child factors that are related to parents’ behaviors in a diverse sample of parents in the NYC DOE District 75.

Figure 1. Conceptual Model.
Chapter II

REVIEW OF LITERATURE

The purpose of this chapter is to review the literature and background of parental involvement during the post-secondary transition. The review begins with the history of special education laws and parental involvement. It continues with the steps to the transition process that parents have to take to ensure their child receives the services they are entitled to. Details about the special education system in New York City follows, as well as the agencies that serve young adults with disabilities in NYC. The chapter then reviews the theoretical framework that supports the current study, including Bronfenbrenner’s Ecological Systems Theory, Belsky’s determinants of parent behavior, and Hoover-Dempsey & Sandler’s model of parenting involvement. The measures of parental involvement and knowledge are provided including research that highlights transition involvement, school involvement, and transition knowledge. The importance of parental involvement and knowledge is examined, followed by research on factors linked to parental involvement, including contextual and cultural factors, parent characteristics, and child characteristics. Finally, the need for the present study is discussed and research questions and hypotheses are presented.
The Post-Secondary Transition: Historical Perspective

Opportunities for parental involvement in planning educational programs has been mandated since 1975 (Public Law 94-142), but it was not until IDEA in 1990 that specific details for parental involvement were created. In 1990, IDEA defined transition as “a coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post-school activities” [PL 101-476; 20 U.S.C. Chapter 33 §140 (a), (19)]. IDEA 1990 added a second step to the process of planning for an appropriate education, which was individual transition planning for adolescents with disabilities. That step could begin as early as age 14, but must begin before the age of 15, and be updated annually.

IDEA (1997) added the definition of “transition services” which meant a coordinate set of activities for a child with a disability that is designed to be a results-oriented process facilitation the child’s movement from school to post-school activities and based on the individual child’s needs. With this addition, IDEA also gave parents more of a role throughout the transition process. Parental involvement in the IEP process was to be documented, including scheduling it at a mutually convenient time and place, contact was to be made to invite the parent, and details of efforts to contact the parent to impress the importance of parental involvement in the process was to be recorded (C.F.R. §300.345). IDEA 2004 expanded upon the already existing mandated for parental involvement. IDEA requires that parent participation be sought in all aspects of decision making on behalf of their child’s special education, specifically including transition planning. IDEA 2004 included parent participation in the student’s evaluation and IEP
team meetings, a mandate that families understand their legal rights and receive timely notice of meetings, that changes in the IEP be noted, and that documentation of progress reports were to be sent out to parents. Information must be given to the parents in a manner that they can understand, including translated into languages other than English or be provided in alternative modes if the parents have difficulty reading print.

IDEA 2004 also placed an increased emphasis on the transition and post-school outcomes of youth with disabilities by expanding its purpose to ensure that all children have available to them special education and related services that meet their “unique needs and prepare them for further education, employment and independent living” [U.S.C., A, § 1400, (d)]. IDEA 2004 also expanded the definition of transition with new language that implied not only a future of employment and independent community living, but also the prospect for continued, lifelong learning [20 U.S.C., A, § 601, (d),(1), (A)].

In line with changes in educational policies focusing on transitioning youth, research on the transition process has grown in the past two decades. The National Longitudinal Transition Study-2 (NLTS2), which was funded by the U. S. Department of Education, documented the experiences of a national sample of students who were ages 13-16 at Wave 1, as they moved from secondary school into adulthood. Despite all of the laws in place to involve parents throughout the transition process, data from the NLTS2 concluded that secondary schools use significantly fewer strategies to reach out to families and encourage involvement less than do elementary schools (Newman, 2005). Moreover, findings concerning children’s outcomes after the post-secondary transition suggest that students with disabilities struggle after high school; these individuals are
shown to have low paying jobs, unfulfilling jobs, unsatisfactory living situations, and face challenges finding and accessing employment (Getzel & deFur, 1997). Moreover, students with severe disabilities have been found to have chronic unemployment, dependence on family members, and isolation from the regular daily activities of the community (Getzel & deFur, 1997).

Newman, Wagner, Cameto, and Knokey (2009) used the information from the NLTS2 to report on longitudinal post-high school outcomes of youth with all disabilities up to four years after high school. They reported that youth in the general population were more likely to be employed at the time they were interviewed than their peers with disabilities. Similarly, youth in the general population were almost four times as likely as youth with disabilities to be enrolled in a four-year college or university. Youth with intellectual disabilities were the least likely to attend postsecondary school, had the lowest rates of work shortly after high school, and were the least likely to see friends, participate in community groups, or volunteer activities. Together, the above-mentioned research suggests that transition legislation alone is not sufficient to improve youth’s outcomes. There is a need to better understand how to better support families to get involved with the transition process.

The Steps to the Transition Process and Parents’ Responsibilities

Transition Process for Families

The transition process begins for parents and their children when the child turns 14 years old, and ends when the child is 21 years old and “ages out” of the public-school
Prior to transitioning out of high school, the child has been supported through the school system starting at five years of age. Thus, for many parents, the child’s transition post-high school is often the first time since their child was in kindergarten that the parents must get actively involved in order for their child to receive services. Transition planning post-high school is challenging because there is no single point of entry to adult services (Hagner, et al., 2012). Unlike the last 15 years of their child’s services, which were mainly taken care of by the school, adult service systems often are overlapping, fragmented, and uncoordinated, and few families enter the transition process with an understanding of the complex state and federal programs that might be used in supporting the transition to adult life (Hagner et al., 2012).

There are many steps to parental involvement in the transition process and the school is required to support the parents through each phase. However, schools do not always provide adequate support, and as a result, parents may not attend transition meetings, and the communication between the school and the parent might be difficult (Hagner et al., 2012). The IEP is required to include post-school outcomes, future education goals, future vocation goals, and plans for independent living. These goals are meant to be created in collaboration with the parent during the IEP/transition meeting, to be based on the student’s strengths and interests, and to be created with added input from the student, parent, and the student’s team. Not only are these goals required to be listed, but they are also supposed to include specific details, activities, and courses of action that the team will take to make these goals a reality (IDEA, 1997). During the IEP process, many parents reported being unaware of their rights (Advocates for Children of New York, 2013). Among these rights, parents have the right to disagree with the goals that
are written for their child, to invite other people to the IEP meeting, such as an advocate or outside caseworker, and to object to the services being suggested. Unfortunately, parents are often unaware that these options exist. Parents are the number one advocate for their child, and it is critical that they speak up on their behalf.

Post-school options for young adults with moderate to severe intellectual disabilities can be limited (Neece, Kraemer, & Blacher, 2009). Adult services are not based on entitlement, but on eligibility, and obtaining the appropriate placement for a child is difficult and not guaranteed. Without parents actively researching for the right adult placements, students with disabilities may receive inadequate and inappropriate services (Burke, 2013). In order for parents to be actively involved during this process, they need to be equipped with adequate knowledge and access to information.

The Special Education System in New York City

The New York City school system is the largest school system in the country serving over 1.1 million students in over 1,800 schools (Adams, 2013). To serve the most severe cases of individuals with special needs, NYC has created a separate school district for students that require more intensive support, called District 75 (Advocates for Children of New York, 2013). District 75 serves over 56,000 students with different disabilities, including autism, cognitive disabilities, emotional disabilities, sensory disabilities, and multiple disabilities (Adams, 2013). There are over 60 schools in over 350 sites throughout the five boroughs. Students, however, often do not go to the school closest to their home, but rather, are placed in any of the schools that would best fit their needs. A parent may request a specific District 75 school near their home, but there is no
process to applying to specific schools within District 75 (Advocates for Children of New York, 2013). With almost 40% of the special education population spending most or all of their day in separate classrooms from their nondisabled peers, the NYCDOE differs from the national norm, which promotes inclusive school placement and the Least Restrictive Environment (LRE) for their special needs students (Oyler, 2011).

**Agencies Serving Young Adults with Disabilities in New York City**

In New York City, the school has a responsibility to connect parents to other agencies that will be instrumental in providing future services for their children. One of the adult services available to families in New York is Adult Career and Continuing Education Services-Vocational (ACCES-VR, formally known as VESID). This service provides vocational rehabilitation services to prepare people with disabilities for various job settings and help finding meaningful work after high school. In order to acquire these services, students need to apply and to be found eligible. Eligibility requires documentation of an intellectual disability from a medical doctor. Obtaining documentation from a doctor, having all the required paper work, and accurately filling them out can be challenging for parents, especially those with limited health care insurance and time.

The Office of People with Developmental Disabilities (OPWDD) is another adult agency in New York State that provides a significant amount of services for individuals with developmental disabilities once they leave the school system. OPWDD also provides waivers for services while students are still in school. Services range from assistance with employment to funding a day program (Office of People with
In order for a student to receive services, an application must be completed in addition to documents such as a psycho-education evaluation, medical report, and documentation about the child’s disability. In order to receive OPWDD services when a child is leaving high school, the application needs to be completed at least two years before their exit from the school system (Advocates for Children of New York, 2013). For families in schools that do not provide adequate support to parents, or for families who have not attended transition information sessions or meetings, the process of receiving services may be delayed. If parents wait too long before beginning the process, their child may graduate high school without having any services set up.

The reports needed to receive services from OPWDD can be time consuming and complicated. A medical or specialty report, which includes the diagnosis of the child, must be from within the last year. The psychological report includes an assessment of intellectual functioning with reporting of all summary intelligence scores, and for people with IQs about 60, a standardized assessment of adaptive behavior with reporting of summary scores. Completing this report may require more than one visit, depending on the child. Finally, a psychosocial, or background report, is needed that shows that the student has had a disability before the age of 22, as well as the background history of the child. OPWDD will pay for these evaluations only if they are being done to receive OPWDD services.

In New York State, Medicaid coverage provides support for students with disabilities into adulthood. Medicaid provides these waiver services through OPWDD. These services include respite services, camping, residential, after-school, weekend
programs, and other community-based programs (Office of People with Developmental Disabilities, 2016). Eligibility for Medicaid services and SSI (Supplemental Security Income) require that the child be at least 18 years of age and meet the financial eligibility requirements in addition to the disability. In order to ensure that a child will receive Medicaid and SSI, it may be necessary for parents to work with lawyers and accountants. The services begin at age 18, and it is necessary for parents to begin this process well in advance of the child’s 18th birthday in order to guarantee eligibility.

Guardianship is another area that parents need to consider when a child is transitioning out of high school. Guardianship is available through the government for people who are diagnosed with a developmental disability. When anyone turns 18, they are at the age of majority and are able to make decisions about their own welfare and futures. Parents can apply to be in charge of making these educational, legal, medical, and financial decisions for their child through the Surrogate Court. This requires a certification from a doctor and a psychologist with the petition certifying that the person is unable to manage their own affairs due to a developmental disability. This process also needs to begin at least six months before the child’s 18th birthday, but no more than a year before because the medical documents will expire.

In summary, the transition from high school to adulthood is often the first time that many parents are required to do a substantial amount of work outside of school in order to ensure adequate supports and services for their children with disabilities. It is necessary for this process to begin years before their child’s post-secondary transition out in order to obtain the best services in adulthood. New York City and District 75 present their own set of unique challenges and bureaucracy for schools and parents of students.
with profound special needs and can make navigating the transition process even more challenging. Unfortunately, research shows that, on average, parental involvement decreases when children are in high school and planning for transition (Geenen, et al., 2005). It will be important to understand the most salient factors related to the unique transition experience of parents in New York City.

**Theoretical Framework**

**Importance of the Parenting Context for Adolescents with Disabilities**

Several theoretical frameworks guide the current study. First, the study’s focus on parents’ role in adolescents’ transition processes is guided by Bronfenbrenner’s (2006) Ecological Systems Theory, which provides that one’s development is shaped by context, which includes their experiences, environment, relationships, and belief systems. Bronfenbrenner’s (2006) model states that there are four systems influencing human development, the microsystem, the mesosystem, the macrosystem, and the chronosystem.

The *microsystem* is the individual and those people and groups that most immediately and directly impact the individual. These can include, without limitation, family, school, religious institutions, and peers. The *mesosystem* refers to the interactions and relationships between the microsystems, such as the interaction between the family and the school, or between the child’s peers and the family. The *macrosystem* refers to the culture and society of the place that the individual lives. This includes socioeconomic status, poverty, and ethnicity. Finally, the *chronosystem* includes the context of time, experiences, events, and transitions that occur throughout life.
The Ecological Systems Theory suggests that interactions between an organism and the environment, known as *proximal processes*, shape the child’s environment, and thus, produce human development. Additionally, the degree to which the processes can influence development is based on the characteristics of the person, the environmental contexts, and the time in which the proximal processes take place (Bronfenbrenner & Morris, 2006). Proximal processes, such as the parent-child relationship, consist of complex reciprocal interactions. These processes are thought to be the first influential components of development and continue throughout the child’s lifespan (Bronfenbrenner & Morris, 2006). As children get older and their developmental processes increase, the proximal processes must also become more extensive and complex to adequately support the relationship (Bronfenbrenner & Morris, 2006).

According to Ecological Systems Theory, the power of the proximal processes varies depending on the environmental context, such as social class and characteristics of the person, for example disability status (Bronfenbrenner & Morris, 2006). The characteristics of the person continue to influence the relationship as both an indirect producer and as a direct producer of development (Bronfenbrenner & Morris, 2006). Applied to the context of school-aged children, the theory suggests that the school, family, and peer groups, all overlap and are influenced by a larger structural and social cultural context (Bowen, 2009). There are connections both within and between these social environments, and the more positive and complementary these relationships are, the more likely it is that students will experience more positive outcomes over time (Bowen, 2009). Students both influence and are influenced by such proximal processes.
The mesosystem, according to Bronfenbrenner (1979), comprises the interrelations among two or more settings in which the developing person actively participates, a system of two or more microsystems interacting. For a child, this is often the relation between home and school. Particularly, with regard to parent-school relationships, Bronfenbrenner (1979) suggests that for the parent-teacher interaction to be effective, it depends on trust, positive orientation, goal consensus, and an evolving balance of power responsive to action on behalf of the developing person. Thus, in line with this notion, an emphasis on parent involvement in transition planning is especially warranted. The mesosystem demonstrates that the relationships between microsystems have an effect on one’s life. Bronfenbrenner’s ecological approach did not study behavior and development in one setting without taking into consideration the interaction between them, but considered the impact of two or more settings and the influence it may have on behavior and development. The current study uses this ecological approach as a framework guiding our investigation of the parent-school interaction.

**Determinants of Parents’ Behavior**

The present study’s consideration of the multiple factors that may inform parents’ behaviors and knowledge during the post-secondary transition is guided by Belsky’s model on the determinants of parenting (1984). Belsky (1984) proposed that parent behavior can promote the ability to promote a variety of highly valued developmental outcomes for children, including emotional security, behavior independence, social competence, and intellectual achievement. Belsky (1984) argues that parenting is influenced by three main factors, the personality of the parent, characteristics of the child,
and the broad social context in which the parent-child relationship is embedded. The three main factors are additionally influenced by the parents’ developmental histories, marital relation, social networks, and jobs (Belsky, 1984). These factors, in turn, influence parental functioning, and subsequently, child development.

Parenting personality, one of the main factors that influences parenting, can be traced back to the experiences parents had growing up and continue with the current psychological well-being of the parent (Belsky, 1984). The model (1984) suggests that supportive developmental experience will give rise to a mature healthy personality with in the parent, one that is then capable of providing sensitive parental care. In line with this notion, the present study hypothesized that psychological factors of the parents influence their levels of involvement.

Contextual sources of stress and support are the second major influencer on parenting. Belsky (1984) found that parenting was positively associated with social support. Social support functions in three general ways: by providing emotional support, providing instructional assistance, and by providing social expectations. There are three other sources of stress and support that are likely to influence parenting, which are the marital relationship, social networks, and employment (Belsky, 1984). Belsky (1984) suggests that personal psychological resources are the most influential determinant of parenting because of their direct effect on parental functioning and also because of the role they play when recruiting contextual supports. The present study conceptualized that marital status, support groups, and levels of stress influence parental involvement. The present study also considered the potential role of school neighborhood as a context that provides a network of resources to the parent.
According to Belsky (1984), child characteristics affect both child development and parenting. The characteristic that had received the most attention is child temperament, to which Belsky (1984) expanded on by saying that all characteristics of children that are hypothesized to make them more or less difficult to care for seems to shape the quantity and quality of parental care they receive. The present study emphasized child diagnosis and social activities moderate the levels of parent involvement. By applying Belsky’s (1984) model of parenting, and focusing on the three major determinants of parenting, the current study looked beyond parent and child characteristics individually, and examined how the context of parent-child relations contributed to parenting. The study also extended Belsky’s (1984) work to examine how a child’s disability impacts parenting.

**Determinants of Parents’ Involvement, Experience, and Knowledge**

The present study focused on parents’ school involvement, transition involvement, and transition knowledge. The present study draws on Hoover-Dempsey and Sandler’s (1995) Model of Parent Involvement. Hoover-Dempsey and Sandler (1995) suggest that overall parental school involvement is based on several constructs from the parents own ideas and experiences, as well as on environmental demands and opportunities. Specifically, according to the Hoover-Dempsey and Sandler model (1995, 1997), parents’ choice of involvement sets the stage for types of involvement, mechanisms through which the parent is involved, mediating variables, and child outcomes. This decision to become actively involved in their child’s schooling is influenced by a variety of variables including parents’ role construction, sense of
efficacy, and general invitations and demand for involvement from the child and school. These constructs have the most significant effect on parental involvement. The decision parents make to become involved in their child’s schooling is often related to the belief that they hold about what parents are supposed to do in relation to their child’s education. This decision, the creation of the parental role, establishes the activities that parents deem important and necessary. Parents’ ideas about child development, about desirable child-rearing outcomes, and about the effectiveness of specific child-rearing practices affect this decision (Hoover-Dempsey & Sandler, 1997).

Parents’ self-efficacy for helping their children succeed in school guides parents’ decision making for involvement. Parents’ estimates of their own capabilities will determine what parents are willing to undertake, the amount of effort they will put in, and the extent of their persistence to overcome difficulties. Hoover-Dempsey & Sandler (1997) state that in general, the stronger the self-efficacy beliefs, the higher the goals parents are willing to set for themselves, and the stronger the beliefs that their involvement will make a positive difference for their child. Invitations, opportunities, and requests for involvement by children and the school influence parental involvement. Invitations to be actively involved in the educational process effects parental involvement, particularly if the parent is not typically involved. Parents are sensitive to teacher and school attitudes about their involvement, as well as perceptions about if their child prefers them to be involved.

Hoover-Dempsey and Sandler’s model suggests that parents become involved because of their role construction that promotes involvement, because they have a positive self-efficacy, and perceive invitations to be involved. Parental involvement
occurs without all three constructs, but the strongest level of involvement takes place when they are all present. Hoover-Dempsey and Sandler’s (1995) model looked at parents with typically developing children, and of all ages. The current study aimed to use this model and contribute to the current literature by applying it to parents of children with developmental disabilities who are going through the transition process.

**Parental Involvement and Knowledge**

This study examined parental involvement during the transition of their child with a developmental disability from high school to adulthood. To do this, the study measured three types of parental involvement: school involvement, transition involvement, and transition knowledge. It was too simplistic to think that all forms of parental involvement could be tapped into using the same outcome variable, and thus three variables were created to fully capture parental involvement.

**School involvement**

School involvement includes home-based and school-based activities that are affiliated with the child’s academic and social dimensions of school (Hoover-Dempsey & Sandler, 1995, 1997). This measure does not specifically look at transition focused parental involvement. Much of the parental involvement research has focused on school involvement, and not on transition involvement (Hill & Taylor, 2004; Hernandez et al., 2008; Hirano et al., 2008; Hoover-Dempsey & Sandler, 1997; Wehmeyer, et al., 1999). General school involvement is an important measure because it emphasizes which school
conditions and actions enable dynamic, interactive school outreach and responsiveness to families (Hoover-Dempsey et al., 2005).

**Transition involvement**

Transition involvement focuses on transition based activities and behaviors (Kraemer & Blacher, 2001). Transition involvement includes the level involvement and opportunity to be involved in the transition-planning process. Kraemer and Blacher (2001) examined parents of children with developmental disabilities going through the transition process. They found that parents’ views about vocational outcomes do not always align with the schools’ views, that families differ in their levels of involvement during transition planning, and parents were most concerned with future vocational placements for their child. Transition involvement also takes into consideration parents’ being more in charge of their levels of involvement and how they are also responsible for finding appropriate programs and services for their child (Neece et al., 2009). In the present study, transition involvement focused only on activities and opportunity for activities that directly related to the child leaving high school and their post-school outcomes.

**Transition knowledge**

Transition knowledge measured parents’ knowledge on specific post-school outcomes, such as community opportunities, living opportunities, financial planning, and health services (Kramer & Blacher, 2001). Parents often gain transition knowledge when they attend school meetings about transition planning, read materials given to them about
transition, or learn it on their own (Burke, 2013, Kraemer & Blacher, 2001; Spann 2003), however, parents may be unaware how important the transition process is to their child’s post-school outcome. Landmark et al. (2013) asked educators about parental involvement in transition planning, they reported that parents often view transition planning as “just another meeting” that they have to attend. Studies that focused on IEP knowledge more broadly have shown that the more knowledgeable parents feel, the more they contribute to the IEP process (Burke, 2003; Spann, 2013). Thus, this study proposes that transition knowledge is an important outcome to measure as it may be a catalyst for higher levels of parental involvement later throughout the transition process.

**The Importance of Parental Involvement and Knowledge**

Successful transition is different for each individual and each family. People have varying values and goals for themselves and their children as they transition into adulthood. As shown above, transition planning is a highly individualized process that requires considerable effort and involvement on the part of the student, the school, and the family. Successful transition for students with disabilities may range from graduating from high school, enrolling in postsecondary education, gaining employment, integrating meaningfully in the community, maintaining personal and social relationships, or achieving levels of independence (Hendricks & Wehman, 2009). The family and the student need to work together with their team to decide what successful transition looks like for them and ways to achieve those goals.
Ferguson, Ferguson, and Jones (1988) examined parents’ interpretations of the transition process among fifteen families who had children with developmental disabilities. Based on parent responses, the authors found three distinct transition processes were associated with their children turning 21 and aging out of the school system: a) bureaucratic transitions, b) family life transitions, and c) status transitions. Bureaucratic transition refers to the process wherein the agencies and professionals involved with a family change from members of the school system to members of the adult team. Many parents noted that the challenging part of this process was not the change in people, but the lack of relationship with the new professionals. Family life transitions refers to all the changes and disruptions in the daily life within the family, such as with routines and responsibilities. These daily life disruptions were often caused by the movement from the school system to the adult system. For example, whereas schools are required to provide children with transportation, adult services are not. The added responsibility of getting an adult child to and from their daily activities can be a big shift, and potential hardship, for a parent. Finally, status transitions were the processes constructed by the parent when the status of their child changed from child to adult (Ferguson et al., 1988). Adulthood is a cultural, family, public, and private status, and comes with stigmas attached to it. The issue most parents faced with their child becoming an adult was mostly about control, and less about independence. Overall, the work of Ferguson, et al., (1988) drew attention to how parents go through different processes when their child is transitioning out of high school. Their work made significant contributions to the literature by suggesting that transition be examined from
both a historical and cultural lens, and the current study considered how parents are interpreting these events.

The work of Epstein (1995) was among the first to lay the foundation for what is expected from parents during their child’s post-secondary transition. Epstein’s model entitled “The Six Types of Involvement” (1995) did not see families, schools, and communities as separate entities, but rather as overlapping spheres of influence. Epstein stated that “the shared interests and investments of schools, families, and communities create the conditions of carrying that work to over determine the likelihood of student success” (p. 703). In order to create better opportunities for students, Epstein (1995) argued that families, school, and community are mutually responsible for engaging, guiding, energizing, and motivating. By overlapping these concepts, a shared notion of responsibility was created, and the burden was distributed between the parent and the school to create programs, and to inform parents (Epstein, 1996). According to the model, the six strategies are parenting, communication, volunteering, learning at home, decision-making, and collaboration. The first strategy, parenting, is to help provide parents with information, skills, and supports to be involved in their child’s schooling. Communication is stressed to be a two-way street, and that regular and meaningful communication must occur. Volunteering activities include opportunities for parents to be involved, not just during the school day or in the school building. Learning at home is meant to engage parents to do learning outside the school, such as homework. Decision making activities aims to increase involvement in decision making and increase leadership skills. Finally, collaborating with community helps foster relationships with the community that can be used throughout the transition process.
Research has demonstrated that throughout a child’s time in school, parental involvement leads to greater generalization and maintenance of skills, high levels of parent satisfaction, and more effective strategies for the student resolving problems (Spann et al., 2003). Recommendations for developing partnerships with parents, including engaging in quality communication, inviting parents to participate in school activities, soliciting input on decisions about the child’s education, and empowering parents to take action, have been supported by research (Spann et al., 2003; Turnbull & Turnbull, 2001). While there is strong evidence regarding the importance of parent participation, especially during transition, actual parental involvement in school based planning typically diminishes during the transition period (Geenen et al., 2005). By the time parents reach the point of transition out of school for their young adult, they may have already had negative experiences regarding the value of their contributions to educational planning (Brotherson, et al., 1993). Many parents feel they do not know how to plan the adult future of a child with a disability and cannot make the same assumptions for their child with a disability as they can for a typical child (Brotherson et al, 1993).

According to McDonnell and Hardman (2009) there is a gap between mandated transition planning practices and the reality of transition for students with developmental disabilities. The authors found that although transition planning has been included in federal law, meaningful transition programs are inconsistent within schools.

It is unfortunate that parental involvement declines at this critical time during child development because parents are the single most effective advocates for their child throughout the transition process (Brotherson et al., 1993). Parents are frequently the only constant in their child’s life from the start of the transition planning until it ends. The
other participants in a child’s IEP, the teachers, administrators, related service personal, and adult service providers, are likely to change from year to year and from school to school, but parents stay the same (Wehmeyer, Morningstar, & Husted, 1999). Moreover, parents have a wealth of knowledge about the student, including their likes and dislikes, hobbies, strengths, and limitations (Wehmeyer, et al., 1999). Without parental involvement, successful transition is almost impossible.

A study by Timmons, Whitney-Thomas, McIntyre, Butterworth, and Allen (2004) examined at the transition related experiences of parents of young adults with disabilities in Massachusetts. Thirty parents met in focus groups through parent support groups and word of mouth. The parents came from urban, rural, and suburban areas, and had varying ethnic and linguistic backgrounds. The parents in this study described the transition system as a complex relationship between service delivery systems, coping with day-to-day needs, living in an urban or rural area, and feeling uncertain about the future. However, the biggest challenge the parents said they faced was trying to find, access, and rely on service delivery system for their child, and saw these systems as inconsistent, complex, and unresponsive.

Martinez, Conroy, and Cerreto (2012) looked at parents’ means of accessing information and the impact of K-12 inclusive education experiences on parents’ desires and expectation for postsecondary education (PSE). They utilized a census survey developed by the investigators, which was designed to be completed within 30 minutes and was organized into eight domains: a) characteristics and general school experience items b) participation in school sponsored planning activities c) participation in nonschool-sponsored planning activities; d) sources of information about PSE options e)
employment hopes and expectations f) PSE hopes and expectations g) involvement in advocacy and support organizations; and h) open-ended comments. The survey was conducted with 136 members of The Arc of Northern Virginia who had children who were currently in transition planning. The study found that 60% of the parents reported their young adults did not have a transition plan, or they were unaware of the transition plan (Martinez et al., 2012). The parents also said that they were overwhelmed and confused with the whole process, viewing it as little more than an exit interview, rather than an ongoing collaborative process (Martinez et al., 2012). The parent responses in this study suggested that the parents prefer a face to face approach, and that only a few parents felt satisfied with the supports and information that they received from the schools (Martinez et al., 2012). Parents felt that their desires did not always match their expectations or the results of transition (Martinez et al., 2012). This study demonstrates that there is a disconnection among parents, the school and the transition process.

Several studies have used Hoover-Dempsey & Sandler’s model of parenting involvement in their own research. In 2007, Green et al, conducted a study that contained 853 parents of first through sixth grade children enrolled in an urban public-school system in the mid-south. The results revealed that the model predicted levels of parent involvement even when controlling for SES. Specifically, parent’s perceptions of invitations to involvement form others, motivational beliefs, and perceived life context were found to be the most significant. Interestingly, the authors found that as the child age increased, the levels of parent involvement decreased (Green et al., 2007).

Fishman and Nickerson (2014) conducted a study that investigated levels of involvement of parents who have children in special education. A total of 137 parents of
special education students in elementary school from two suburban schools in upstate New York participated. Parents in this study reported being more involved when their children specifically requested their involvement, and was also predicted by their perceptions of their time and energy and their perceptions of their level of responsibility for their child’s education (Fishman & Nickerson, 2014). With regards to Special Education Involvement specifically, the only significant predictor was specific teacher invitations (Fishman & Nickerson, 2014).

Hirano, Garbacz, Shanley and Rowe (2016) studied parents of secondary special education students and transition planning. The study included 150 parents of students ages 16-21 who were recruited through federally funded Parent Training and Information (PTI) centers throughout the United States. Hirano et al., (2016) used the original model and added Parent Expectations for the Future based on results from the NLTS2 which indicated that parent involvement varies according to parent expectations for the future. The results of this study indicated that seven components were motivators for involvement, parent expectations for the future, general school invitations, role construction, perceptions of time and energy, knowledge, skills, and self-efficacy, specific child invitations, and specific teacher invitations. The Hirano et al, (2016) study prompted the current study to include parent expectations for the future, but it did not include specific questions pertaining to the transition experience or knowledge.

In summary, the findings from the abovementioned studies suggest that parental involvement in their child’s schooling is incredibly important. Even more so, parental involvement during the transition from high school to adulthood is necessary for successful transition. The above studies demonstrate that the period of transition is
complex, stressful, and confusing and require active engagement and involvement from the parents.

Factors Linked to Parental Involvement

Contextual and Cultural Factors

Belsky (1984) found that contextual sources of support are a major influencer on parenting. There is a growing body of research examining the contextual and cultural factors that are associated with parents’ educational involvement, and more specifically, their engagement in their children’s post-secondary transition process. Demographic characteristics, such as socioeconomic status, ethnicity, and cultural background are systematically associated with parental school involvement (Hill & Taylor, 2004).

Socioeconomic status. Parents from higher SES families and parents with higher levels of education are more likely to demonstrate higher levels of involvement than those with lower SES and lower levels of education are less involved (Hill & Taylor, 2004; Lindstrom, Doren, Metheny, Johnson, & Zane, 2007; Wagner et al., 2014). Parents from low SES background often face additional barriers to involvement, such as nonflexible work schedules, lack of resources, transportation problems, and stress from lack of income (Hill & Taylor, 2014). Low SES is often correlated with low levels of education, which may be related to parents’ own negative experiences with schools and feeling less comfortable asking questions at school meetings (Hill & Taylor, 2014).

Using the data from the National Longitudinal Transition Study-2 (NLTS-2), Wagner et al., (2014) also supported SES to be a predictor of parental involvement. The
authors found that a family with a lower SES level tended to have lower levels of parental involvement, and conversely, specifically data from the National Longitudinal Transition Study-2 showed, that parents from high-income households were found to provide more instrumental support, such as job leads, career information, and emotional support (Blustein, 2002; Lindstrom et al., 2012).

Hernandez, Harry, Newman, & Cameto, (2008) surveyed parents’ satisfaction with the Los Angeles Unified School District special education processes. They sought to find characteristics that made a difference to parental awareness, participation, involvement and satisfaction. They found that parents within the lowest income group of $25,000 a year or less experienced the most distance from, or difficulties with, the special education system. This group of parents reported significantly less attendance at IEP meetings, and those who did attend were less likely to report receiving the informational guide and being involved the right amount in IEP decision making. These families were also more likely to report that it took a great deal of effort to secure services for their children (Hernandez, et al, 2008).

Research also suggest that low SES may exacerbate the perception from schools that families lack meaningful knowledge about the education of their child such that it leads to less information being shared with the family about the services and system, and educators do not value their input as much (Defur et al, 2001). Additionally, when a family is striving to meet basic needs, activities that are not immediately pressing, such as school meetings, are often overlooked or neglected (Geenen et al., 2005).

Culture and ethnicity. Parent participation in school-based transition planning is also especially low among culturally and language diverse parents (Geenen et al., 2005).
Defur et al. (2001) looked at 28 parents in Virginia to determine policy and practice that promotes and enhances the full participation of all families in transition planning. They found that parents from culturally and linguistically diverse backgrounds said that cultural issues, such as perceived discrimination, language barriers, and understanding of cultural differences, often create barriers to parental involvement (Defur et al., 2001).

Geenen et al. (2005) investigated barriers against and strategies for promoting the involvement of culturally and linguistically diverse parents during transition. They found that parents reported feeling misunderstood and unsupported because of their culture. Parents also expressed frustration that school personnel are rarely from the same cultural background as the family and the transition needs of their children are misunderstood (Geenen et al., 2005). Hill and Taylor (2004) outlined some of the ways that parental-school involvement affects achievement. They identified that teachers who are different culturally form their students and parents are less likely to get to know the families and are more likely to believe that those families are disinterested or uninvolved in schooling.

**School Neighborhood.** Neighborhood effects on the family, child, parenting behavior, and overall wellbeing have been studied for decades (Jencks & Mayer 1990, Sampson, Morenoff, & Gannon-Rowle, 2002; Leventhal & Brooks-Gunn, 2000; Dietz, 2002). A neighborhood effect is defined as a social interaction that influences the behavior or socioeconomic outcome of an individual, and includes influences on individual behavior or other outcomes due to the characteristics of an individual’s neighbors and neighborhood (Dietz, 2002).

Jencks and Mayer (1990) wrote an influential review that examined at the effects that growing up in a poor neighborhood had on both children and adults. They
argued that if growing up in a poor neighborhood mattered, intervening processes such as collective socialization, peer-group influence, and institutionalization were presumably a part of it. Sampson, et al., (2002) reviewed neighborhood effects literature and found that empirical research on social-ecological differentiation established that there is considerable social inequality among neighborhoods across the country in terms of socioeconomic and racial segregation. They also found that a number of social problems tend to come bundled together at the neighborhood level including crime, adolescent delinquency, social and physical disorder, low birthweight, infant mortality, school dropout, and child maltreatment (Sampson, et al., 2002).

Neighborhood effects have been found to be meaningful with respect to various educational outcomes. Links have been found between neighborhood high SES and educational attainment (Leventhal & Brooks-Gunn, 2000). High SES was positively associated with youths’ chances of completing high school, attending college, and years of school completed. Additionally, the availability, accessibility, affordability and quality of resources in the neighborhood could influence the child. These include learning, recreational, social, and child care. Resources such as libraries, literacy programs, and museums all may influence school readiness and achievement outcomes. Childcare and its accessibility, affordability and quality, may act as a mediator of neighborhood effects (Leventhal & Brooks-Gunn, 2000).

In the current study, the neighborhood of interest is where the young adult goes to school. In New York City’s District 75, a child is not guaranteed to go to the school in the neighborhood in which they live, and may travel by bus to any schools within the five boroughs. Thus, in this study, the neighborhood of interest is the geographical location of
the school. The borders that make up a neighborhood in almost all studies are a function of geographic boundaries defined by the Census Bureau or other administrative agencies, such as school districts and police districts (Sampson, et al., 2002; Leventhal & Brooks-Gunn, 2000; Dietz, 2002). Although an imperfect measure of what makes up a neighborhood, using these borders allow studies to be consistent. It is useful to think of a neighborhood as an ecological unit nested within successively larger communities (Sampson, et al., 2002).

The neighborhood of the school has been shown to contribute to the school climate, culture, and characteristics, which has effects on the parents and the students of the school (Dobbie & Fryer, 2009; Catsambis & Beveridge, 2001; Dupere, Leventhal, Crosnoe, & Dion, 2010). The neighborhood in which the school is located, their financial, human, and social capitals, all influence the strength of the learning institutions within its borders (Dupere et al., 2010). Schools that serve economically disadvantaged and minority students as well as schools that are located in urban areas were found to influence parent practices (Catsambis & Beveridge, 2001). Additionally, characteristics of disadvantaged schools have been shown to affect parental activities, such as educational communication with the school and participation in parent-teacher meetings (Catsambis & Beveridge, 2001). Conversely, schools in wealthy neighborhoods have been shown to be better at hiring and retaining highly qualified teachers, whereas schools in disadvantaged areas struggle with teacher retention (Dupere et al, 2010).

School neighborhood was also shown to affect school achievement and outcomes for students. Schools in more advantaged areas were associated with higher vocabulary and reading scores of elementary school students compared to schools in disadvantaged
neighborhoods, even after taking into account confounds such as gender, race/ethnicity, family income, and maternal characteristics (Dupere et al, 2010). Furthermore, schools that were found to have lower overall parent involvement were schools that had greater percentages of students living in poverty households and greater percentages of minority students.

The school’s relationship with its local community is also important to school achievement (Uline & Tschannen-Moran, 2008). A school with strong community engagement responds to the needs and concerns of the parents as well as its community members. However, a poor-quality school building and a school that has poor community engagement is related to lower levels of parent involvement, specifically in PTA meetings. Overall, Uline and Tschannen-Moran (2008) found that school climate had a mediating role in the effects of school achievement. It will be important to study how the school neighborhood has an effect on parental involvement in the unique school system of District 75 in the NYCDOE.

**Parent Psychosocial Factors**

Belsky’s (1984) model proposed that the personality of the parent is one of three major determinants of parenting. Additionally, this model argued that all three main factors (parent personality, characteristics of the child, and the social context of the parent-child relationship) is affected by the parents’ developmental histories, current psychological well-being, marital relations, social networks, and employment (Belsky, 1984). In the current study, parenting characteristics such as parent stress, self-efficacy,
role construction, expectations, perceived invitations from school, perceived life context, and feelings of inadequacy are examined further.

**Stress.** Parental stress is almost inevitable for parents of all children during the post-secondary transition. This time of change produces a sense of uncertainty for many families, but parents of children with developmental disabilities experience higher levels of parental stress during the transition process compared to parents of typically developing children (Weiss, Sullivan, & Diamond, 2003). The transition process adds more stress to parents who are already at risk for suffering from stress and anxiety. Parents’ stress, depression, and anxiety present barriers to involvement in their child’s schooling (Hill & Taylor, 2004). If a young adult has a developmental disability, evidence suggests that the school-to-adult transition is often significantly more stressful for both the young adult and his or her family (Ferguson & Ferguson, 2000). One reason for the heightened stress in families with children who have disabilities is the added burden of finding, coordinating, and financing adult services (Henniger & Taylor, 2014). To compound the stress that all parents feel when children become adults, families of children with disabilities are moving from a familiar system to the unfamiliar, and less user-friendly system of adult services (Brotherson, et al., 1993).

Having a child with a developmental disability and the stress that coincides with that can lead to parental depression. Benson (2006) examined the impact of child symptom severity on depression mood among parents of children with ASD and the mediating role of stress proliferation. He found that even after controlling for child symptom severity, stress proliferation was a powerful predictor of parent depression. Parents who are depressed have been found to be less involved in their child’s schooling
than non-depressed mothers (Hill & Taylor, 2004). In addition to the continuous demands of caring for their son or daughter in this period, parents of children with disabilities describe how more mental and emotional energy is required during transition than was needed in the past (Rapanaro, Bartu, & Lee, 2007). During transition, parents may also experience feelings of fatigue and “burnout” after years of caregiving which leads to less meaningful and less frequent involvement (Geenen et al., 2005)

**Self-Efficacy.** Self-efficacy refers to beliefs in one’s capability to act in ways that will produce desired outcomes and has been identified as a significant influence on people’s goal selection, effort, persistence, and ultimate goal accomplishment (Bandura, 1986). When applied to parental involvement, self-efficacy theory suggests that parents make involvement decisions based in part on their thinking about the outcomes likely to follow their involvement activities and are able to positively influence his or her child’s academic outcomes (Bandura, 1997; Walker et al., 2005). The stronger individuals' self-efficacy beliefs, the higher the goals they are willing to set for themselves, and the higher is their commitment to meeting those goals Whereas, individuals low in self-efficacy tend to believe that they cannot cope with difficulties in that domain. A sense of efficacy for helping children succeed in school appears linked to parents' involvement decisions because it enables parents to assume that their involvement activities will positively influence children's learning and school performance (Hoover-Demspey & Sandler, 1997). Green et al. (2007) found that self-efficacy was a significant predictor of both home and school involvement. Interestingly, it was a positive predictor of home-based involvement but a negative predictor of school-based involvement (Green et al., 2007).
This finding suggests that parents may be motivated to assist at home, but do not feel efficacious in their involvement abilities to assist at school (Green et al., 2007).

In contrast to self-efficacy, parental feeling of inadequacy creates an obstacle to parental involvement (Burke, 2013). The feeling of inadequacy makes communicating questions and needs at IEP meetings and transition meetings difficult (Burke, 2013). Even when parents do attend IEP meetings, they often say very little and do not contribute meaningfully to the conversation. Parents feel their roles are minimized, especially when educators use professional jargon to describe their children and have reported that they do not feel valued or listened to throughout the transition process (Defur et al., 2001).

**Role construction.** Parental role construction is defined as parents’ beliefs about what they are supposed to do in relation to their children’s education and the patterns of parental behavior that follow those beliefs (Hoover-Dempsey & Sandler, 1995, 1997). Parental role construction is important to the involvement process because it establishes a range of activities that parents will construe as important, necessary, and permissible for their own actions with and on behalf of their children. Role construction functions as a motivator of parental involvement because it helps parents imagine and anticipate how they might behave in relation to a host of activities relevant to the child’s educational success (Walker, Wilkins, Dallaire, Sandler, Hoover-Dempsey, 2005). Role construction for involvement is influenced by parents’ beliefs about how children develop, what parents should do to rear their children effectively, and what parents should do at home to help children succeed in school (Hoover-Dempsey, Walker, Sandler, Whetsel, Green, Wilkins, & Closson, 2005). Additionally, role construction is shaped by the expectations
of individuals and groups important to the parent, and thus it is constructed socially (Hoover-Dempsey et al., 2005). Studies such as Green et al. (2007) and Fishman & Nickerson (2014) found role construction to be a significant predictor of both home and school based involvement.

**Parent Experiences and Perceptions**

**Perceived invitations from school and teacher.** Invitations to get involved from important people are often key motivators of parents’ decisions to become involved (Hoover-Dempsey & Sandler, 1997). General school invitations include broad school attributes or activities that convey to the parent that his or her involvement is welcome and useful in supporting student learning and success. Invitations generated by positive school climate are important because they suggest that parents are welcome at school and that their involvement is important, expected, and supported (Hoover-Dempsey et al., 2005).

Just as qualities of the school climate influence parents’ decisions about involvement, so do individual teachers’ practices of parental involvement (Hoover-Dempsey et al., 2005). Epstein (1986) suggested that teacher attitudes about parents and teacher invitations to involvement play a significant role in parents’ decisions to become involved. Epstein (1986) found that parents with high-involvement teachers were more positive about school and more aware of teachers’ interest in their involvement than were parents with low-involvement teachers.

Teacher invitations to involvement are effective in supporting parental involvement across elementary, middle, and high school and with varied school
populations (Hoover-Dempsey et al., 2005). Teacher invitations include encouraging parents to visit the classroom, to contact the teacher regularly, making the classroom a place where parents feel welcome, and assigning homework that specifically involves parents (Walker et al., 2005). In Defur et al., (2001), when referring to which school professionals made a difference in the parent participation, parents reported that the most impactful teachers were those who shared knowledge and information readily about school resources, student progress toward IEP goals, opportunities for training, and early communication about transition. More recent research has found that school-based involvement was significantly predicted by invitations from teachers and that invitations from the teachers had the largest effect on parent involvement for parents of elementary school children in an urban school district (Walker, Hoover-Dempsey, & Sandler, 2007; Anderson & Minke, 2007). Additionally, Fishman and Nickerson (2014) found that the only significant predictor for special education involvement was specific teacher invitations.

Perceived life context. Hoover-Dempsey and Sandler’s (1995, 1997) model of parental involvement suggests that elements of parents’ life context function as another major motivator of their decisions about involvement. Elements of life context most important to understanding parents’ involvement decisions are knowledge, skills, time, and energy. Parents’ perceptions of their personal skills and knowledge appear to shape their thinking about the kinds of involvement activities that may be possible for them to undertake with a reasonable likelihood of achieving success. Parents’ perceptions of demands on their time and energy, particularly as related to work and other family responsibilities, are often related to their thinking about involvement in their children’s
Parents whose employment involves relatively inflexible scheduling, parents who work at more than one job, and parents whose work is characterized by instability or heavy time demands tend to be less involved, especially at school, than parents with more flexible jobs and more reasonable work hours (Hoover-Dempsey et al, 2005).

Recent research has found the elements of perceived life context to be significant to parental involvement, specifically time and energy. Hirano et al., (2016) found that parents’ perceptions of time and energy was a significant predictor of parental involvement. Green et al (2007) found perceived time and energy for involvement has been shown to predict both parents’ school-based involvement and home-based involvement. Fishman & Nickerson’s (2014) study examined parents of elementary school students in upstate New York. They were interested in home-based and school-based levels of parental involvement. The parents reported higher levels of school-based involvement when their own perceptions of time and energy were greater.

**Parent expectations.** Parental expectations about their child’s capabilities when they exit school is positively associated with post-school achievements, including higher levels of job attainment, post-secondary schooling, and higher levels of independence (Carter, Austin, & Trainor, 2012; Doren, Gau, & Lindstrom 2012; Hagner, Kurtz, Cloutier, Arakelian, Brucker, & May, 2012). According to data obtained from the NLTS-2, lower parent expectations are particularly common for youth with mental retardation, autism, and multiple disabilities, as well as youth with disabilities from lower income households. In a secondary analysis of the NLTS-2 by Doren et al., (2012), they found parent expectations to significantly predict achievements upon leaving high school and higher levels of child autonomy.
A consistent finding across studies suggests that high parent expectations of their adolescent’s achievements tend to result in outcomes that are commensurate with these expectations (Doren et al, 2012). In Newman’s (2005) review of the NLTS2 data on parent expectations of adolescents with disabilities, the expectations parents held that their child would attend postsecondary education or training was significantly related to higher levels of classroom engagement, higher grades, reading and test scores that were closer to their grade level, and positive social adjustment. Moreover, parent expectations that a student would definitely get a paying job were associated with fivefold odds of being employed after high school (Carter at al, 2012).

Parent expectations are thought to be transmitted to adolescents both covertly and overtly. These expectations, whether high or low, are learned or internalized by adolescents with and without disabilities, and influence their beliefs, values, attitudes, and behaviors that ultimately impact the outcomes achieved (Doren et al, 2012). Family expectations also play a role in career development and post-school employment outcomes. There is research that supports that family expectations influence the vocational goals, self-efficacy, and achievement of young adults with disabilities; and low aspirations limit career options and interests (Lindstrom et al., 2007). Low expectations can lead parents to fail to teach their child with disabilities the skills they need for adult life. Poor post school outcomes and low expectations for students with disabilities are often the result of a planning process that does not have high levels of parental involvement (Hagner et al., 2012). Positive parent expectations have been shown to make a difference in students with disabilities. Students whose parents expected that their child would graduate from high school were more likely to do so, irrespective
of demographics and disability factors (Wagner et al., 2014). This finding is consistent with research that identifies parents’ expectations as the most potent type of parental involvement when it comes to students’ academic achievement (Doren et al., 2012). Overall, high parental involvement and expectations are associated with more positive outcomes.

**Child Characteristics**

One of the three major determinants of parenting proposed by Belsky (1984) is child characteristics. Child characteristics have the ability to shape the quantity and quality of the parental care they receive (Belsky, 1984). The specific characteristics of a child with a developmental disability affects different aspects of the parental involvement, including parent stress, communication, and self-efficacy (Baker-Ericzen, Bookman-Frazee, & Stahmer, 2005; Debrowska & Pisula, 2010; Hornby & Lafaule, 2011). Much of the research has looked at characteristics such as child behavior, age, temperament, and diagnosis (Debrowska & Pisula, 2010; Hornby & Lafaule, 2011).

**Diagnosis and symptoms.** Baker-Ericzen et al. (2005) found that parents of children with autism reported both high stress levels and lower parenting competency than parents of children without disabilities. They found that child characteristics such as verbal expressive difficulties, cognitive inconsistencies, adaptability, demandingness, and distraction all increased parental stress and lowered parental competency. Finally, they found that social interaction skills significantly predicted maternal child related stress (Baker-Ericzen et al., 2005). Debrowska and Pisula (2010) examined parenting stress and coping styles of parents of pre-school children with ASD, down syndrome, and typically
developing children. They found that parents of children with ASD experienced greater stress compared to both of the other groups. They also found that the parents expressed more stress if their child had more emotional, behavioral, and communication problems.

With respect to child’s performance at school, Hornby and Lafaele (2011) found this factor could be a potential barrier or facilitator for parental involvement. When a child is doing well, parents are more likely to be involved, however, when parents disagree with the school about their child’s learning disabilities or difficulties, it may be a barrier. The authors found that when children develop a reputation for challenging behavior, their parents can be reluctant to go into school for fear of getting bad news. There is typically a negative correlation between parent involvement and children’s behavior problems (Hornby & Lafaele, 2011).

**Age.** Hornby and Lafaele (2011) also examined at child age as a factor linked to parental involvement. They found that the age of children is a potential barrier because as children grow older parent involvement typically decreases. Younger students are typically more positive about parents coming to school, where older children prefer more independence from their parents. Although children may want parent participant with their school life, parents often misunderstand what their children prefer and become less involved in their schooling (Hornby & Lafaele, 2011). Additionally, many parents feel they do not know how to plan the adult future of a child with a disability and cannot make the same assumptions for their child with a disability as they can for a typical child, and therefore, their levels of involvement start to wane as the child gets older (Brotherson et al, 1993).
Summary and Rationale

Transition from high school to adulthood is a milestone in any child’s life, with or without a developmental disability. In order for successful transition to be reached, parental involvement is paramount, and as research shows, parental involvement is a critical factor and predictor of successful transition (Grigal & Neubert, 2004). However, despite all of the research that demonstrates how important parental involvement is during this developmental period, parental involvement often dissipates when children enter high school. Many studies of parents of high schoolers with disabilities have shown parents to be only passively involved compared to those of younger children (Brotherson et al., 1993; Defur et al., 2001).

There are many barriers that parents face preventing them from becoming actively involved in their child’s transition from high school into adult services. Parents face contextual and socio-demographic barriers, such as low socioeconomic status, low education, neighborhood effects, and marital changes. Parents also may face psychosocial barriers, such as stress, low self-efficacy, and feeling uninvited or unwelcome by the school or teacher. Additionally, the NYCDOE District 75, and navigating the adult service world and acquiring the best services and programs for your child takes a significant amount of time and effort. The adult service world is complicated and is not single-entry (Hagner et al., 2012).

The current literature that has examined parental involvement in the transition of children with developmental disabilities from high school to adulthood contains many gaps. Most of the current studies do not look specifically at parents from urban school
districts that are similar to the NYCDOE. The NLTS-2, which took place from 2000-2014, was a national sample and it looked at parents from all over the United States as one group. This study posits, however, that it over simplifies location and other effects sociodemographic effects. Moreover, although the NLTS-2 found that the basic requirement for transition planning was being met for many students with disabilities. The study did not differentiate these responses for parents from different SES background, cultural backgrounds, or other demographic variables. The national sample used for the NLTS-2 stated that 72% of the students sampled attended a neighborhood school.

The present study will extend this line of work by examining parental involvement in families whose children attend the NYCDOE District 75. The NYCDOE and District 75 is also difficult for parents based on its size, location, and ability of the schools to personally assist you. Students who attend District 75 schools do not typically attend a neighborhood school and are bused throughout the five boroughs. The distance which parents and students have to travel to attend school meetings potentially changes the level of in-person involvement. Thus, with the focus on parents from the NYCDOE, the current study allows us to better understand these processes for families in urban school districts, and those who do not send their child to their local neighborhood school.

Much of the current research that has focused on psychosocial factors and parental involvement have either only focused on typically developing students, all ages of children, or parents of varied backgrounds (Hagner, et al., 2012; Hill & Taylor, 2004; Geenen, et al., 2005; Burke, 2013). This current study will contribute to the literature by focusing on parental involvement and knowledge during the transition for students with
disabilities to better understand the variability in this group. The current study aims to extend past work by offering a comprehensive account of psychosocial factors and demographic factors in a diverse sample. Additionally, this study is significant in that it will inform future research and intervention programs where to focus in order to raise parental involvement during transition.

Research Questions

Research question 1. In a diverse sample of parents with transitioning youth in an urban school district, how did parents describe their experiences and involvement with the transition process (i.e., their school involvement, transition involvement, and their knowledge about the transition process)? Given the descriptive nature of this research question, a hypothesis was not posited.

Research question 2. Which socio-demographic factors were related to parental involvement during the transition process?

Figure 2. Socio-Demographic Model
Hypothesis 2. Based on previous literature on demographic factors, the present hypothesis that school neighborhood (i.e., disadvantaged), employment (i.e., unemployment status), and ethnicity (i.e., ethnic minority status, would be risk factors in their relation to school involvement, transition involvement, and transition knowledge. Thus, the current study expected a negative association between these factors and school involvement, transition involvement, and transition knowledge (Geenen et al., 2005; Hill & Taylor, 2004; Jencks & Mayer 1990). On the other hand, the study hypothesized that income and parent education level would be promotive factors for school involvement, transition involvement, and parent knowledge. Thus, the study expected a positive association between income and parent education level and school involvement, transition involvement, and parent knowledge (Burke, 2003; Defur et al., 2001).

Research question 2b. Do child characteristics moderate the link between sociodemographic factors and parent involvement and knowledge?

![Socio-Demographic and Child Model](image)

**Figure 3. Socio-Demographic and Child Model**

Hypothesis 2b. Previous research has found that parents of children with ASD have lower levels of involvement compared to those of children with other diagnosis (Baker-Ericzen et al., 2005). Thus, the present study hypothesized that the relation between demographic
factors and school involvement, transition involvement, and transition knowledge would be even stronger for those families whose children have an ASD diagnosis. Also, in line with research that suggests that parents’ levels of involvement are weaker as children increase in age, the study hypothesize that the relation between demographic factors and school involvement, transition involvement, and parent knowledge would be stronger for parents whose children are older (Baker-Ericzen et al., 2005; Hornby & Lafaele, 2011).

Research question 3. Which psychosocial factors were related to parents’ involvement during the transition process?

Figure 4. Psychosocial and Experiences Model

Hypothesis 3. Based on previous literature on psychosocial factors, the current study hypothesized that parent stress, role construction, self-efficacy, perceived invitations, and perceived life context would operate as risk factors in their relation to school involvement, transition involvement, and transition knowledge. Thus, the present study expected a negative association between these factors and school involvement, transition involvement, and transition knowledge (Bandura, 1986; Henniger & Taylor, 2014; Hoover-Dempsey & Sandler, 1995; Walker et al., 2005). On the other hand, the study hypothesized that parent expectations for the future, familiarity with the IEP, and satisfaction level would be promotive factors for school involvement, transition
involvement, and parent knowledge. Thus, the current study expected a positive association between these factors and school involvement, transition involvement, and parent knowledge (Doren et al., 2012, Hoover-Dempsey & Sandler, 1995).

Research question 3b. Do child characteristics moderate the link between psychosocial factors and parent involvement and knowledge?

Figure 5. Psychosocial, Experiences and Child Model

The present study hypothesized that the relation between psychosocial factors and school involvement, transition involvement, and transition knowledge will be stronger for those families whose children have an ASD diagnosis. The current study hypothesized that the relation between psychosocial factors and school involvement, transition involvement, and parent knowledge would be weaker for parents whose children are older (Baker-Ericzen et al., 2005; Hornby & Lafaele, 2011).

Research question 4. Is there an interaction between psychosocial factors and sociodemographic factors in predicting involvement?

Based on previous literature on psychosocial factors and sociodemographic factors, the current study hypothesize that the factors listed above that reflected parents’ experiences (perceived invitations, IEP familiarity, parent expectations and perceived life context)
and those that reflected parents’ psychosocial functioning (stress, role construction, self-efficacy) would have a significant interaction with neighborhood in predicting school involvement, transition involvement, and transition knowledge. Specifically, the study expected the abovementioned links to be stronger for parents living in a neighborhood with lower poverty; that is, for those families who live in neighborhoods with greater poverty (i.e., risks), the pathways between experiences and psychosocial factors and involvement outcomes might be reduced because neighborhood risk may serve as an additional barrier for these families.

![Interaction Model](image)

*Figure 6. Interaction Model*
Chapter III

METHODS

Participants

Parent Characteristics

Participants were 55 parents of young adults with developmental disabilities between the ages of ages 14 and 21 who attend a New York City Department of Education (NYCDOE) District 75 public school. All of the District 75 classes that participated in this study were self-contained classrooms, and the children attended special education for the entire school day. For the purpose of this study, a parent was defined as the legal guardian/caretaker of the child with a developmental disability, and therefore may or may not be the biological parent. The parents were comprised of 48 women and 7 men. All of the women in the study were mothers of the young adults expect for one participant, who was the young adult’s grandmother. Hereafter, women will be called “mothers” for simplicity. All of the men in the study were youth’s fathers. Mothers’ mean age was $M_{\text{mother age}} = 50.8$ years ($SD = 7.4$ years; mother age range: 35-66 years). Fathers’ mean age was $M_{\text{father age}} = 54.1$ years ($SD = 7.6$ years; father age range: 36-72 years). See Table 1 for parent demographic characteristics.

The parents in this study were predominantly African American (43.6% mothers, 30.9% fathers), followed by White (21.8% mothers, 21.8% fathers), Asian (10.9% mothers, 9.1% fathers), Latino (10.9% mothers, 9.1% fathers), and other (10.9%
mothers, 16.4% fathers). When comparing with the total population of District 75 during the 2016-2017 school year, the student population is 40% Latino, 36.9% African American, 13.4% White, and 7.4% Asian.

Slightly more than half of the parents in this study were married (54.5%), and the remaining parents reported either never being married (18.2%), divorced (12.7%), living together (3.6%) or widowed (3.6%). Mothers reported education included some high school (10.9%), high school diploma or GED (21.8%, some college (9.1%), completed 2-year college (20%), completed 4-year college (20%), master’s degree (10.9%), or higher (7.3%). The fathers’ education levels were some high school (10.9%), high school diploma or GED (25.5%), some college (12.7%), completed 2-year college (7.3%), completed 4-year college (16.4%), master’s degree (9.1%), or higher (1.8%). For the purpose of analyses, the study categorized education into two groups, four-year college or more and less than four-year college. Families’ reported income ranged from the category “1 = $0-$9,000 annually” to “12 = over $150,000 annually” ($M_{\text{income}}= 5.94$, which reflects “$50-59,999”, SD= 3.682).
Table 1. Parent Demographic Characteristics

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Note: Income was rated on a scale from 1 to 12; an average score of 5.94 roughly equivalent to $50-$59,000
Over 40 schools in the five boroughs of New York City in District 75 were contacted via email or phone. Of the 40 schools contacted, five schools agreed to participate. Of those five schools, one was in Manhattan, two were in Brooklyn, and two were in Queens. The principal of the school selected the classrooms that fit the study criteria and could therefore participate in the study. Consent forms were sent home to all families in each of the approved classrooms. In Queens, 531 consent forms were sent home, in Brooklyn, 490 were sent home, and 38 were sent home in Manhattan, with a total of 1,059 consent forms sent home to potential participants across all five schools. Of the 531 parents contacted in Queens, 35 parents (0.07%) agreed to participate. Of the 490 parents contacted in Brooklyn, 20 parents (0.22%) agreed to participate. No parents in Manhattan returned a consent form to indicate their willingness to participate, thus the final sample consisted of parents in Brooklyn and Queens. Parents were awarded a $10 gift card to Dunkin’ Donuts for completing the survey. Further descriptive analyses were conducted to determine the demographic characteristics of parents’ neighborhoods.

School Neighborhood Characteristics

The New York City Census Fact Finder (NYC CFF) was used to access U.S. Census Bureau population information for NYC (maps.nyc.gov/census). This allowed us to gather information about specific neighborhoods within NYC. The final sample of participants were found to send their child to school in two distinct neighborhoods in terms of socio-demographic characteristics (poverty levels, education, and household income) of the neighborhood, referred to hereafter as “Disadvantaged” and “Nondisadvantaged”. For the disadvantaged school neighborhood, the overall poverty
level was 30% and the poverty level for children under 18 was 48%. For the nondisadvantaged school neighborhood, the overall poverty level was 7% and for children under the age of 18 it was 8%. The levels of education attainment in the disadvantaged school neighborhood were reported as “Less than High School” (22.5%), “High School” (34.8%), and “College degree or more” (20.6%). For nondisadvantaged school neighborhood, the levels of education attainment were “Less than High School” (12.4%), “High School” (21.2%), and “College Degree or more” (43.5%). Finally, the median household income for the disadvantaged school neighborhood was $35,158 as compared to the nondisadvantaged school neighborhood with a median household income of $84,035.

Table 2: Characteristics of the Neighborhoods

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<td>Median Household Income</td>
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Child Characteristics

Parents reported on 55 children in this study, 40 boys and 15 girls ($M_{age}=18.7$ years, $SD=1.9$ years; age range: 14 to 21 years). All of the children in this study were diagnosed with a developmental disorder, including Autism Spectrum Disorder (61.8%), Intellectual Disability (9.1%), Down Syndrome (12.7%), Traumatic Brain Injury (3.6%), Cerebral Palsy (1.8%), Speech Language Disorder (1.8%), Multiple Disabilities (1.8%). The children varied in the number of years they had been in Special Education, ranging
from 0 to 5 years (5.5%), 6 to 10 years (12.7%), and 10 plus years (78.2%). Parents were also asked to report whether their children received one or more of several therapies (i.e., speech, physical, occupational, psychological, or other). Upon reviewing data on the therapies variable (16.4% of parents reported “none”), the principal investigator was concerned about the validity of the data. Parents in District 75, whose children had been diagnosed with autism, should have been receiving at least one of these therapies, for example speech therapy. It is possible that parents misunderstood the question, and some of the parents may have been unaware of their children’s therapies at school or were referring to out-of-school therapies only. As a result, data on this variable were not considered in subsequent analyses. Table 3 presents descriptive information on child characteristics.

Table 3. Child Characteristics

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<td>6-10 years</td>
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</table>
Recruitment Procedure

Participants were recruited through their child’s schools. Because this study targeted parents considered high-risk for parental involvement based on potential demographic barriers, this study recruited participants from the New York City Department of Education (NYCDOE). As of the 2015-16 school year, 76.5% of the students in the NYCDOE fell within the poverty range, and 69.7% of the students were ethnic-racial minorities (black, Hispanic, or other non-white; schools.nyc.gov). Once IRB approval from the NYCDOE and TC was granted, the researcher contacted principals at twenty NYCDOE schools that serve children with developmental disabilities ages 14-21. Schools were selected if they were part of District 75, which serves students who have autism, those who are developmentally delayed, and/or multiply disabled. The principals that responded to the researcher connected the researcher with teachers/faculty within their school. Each classroom that participated in the study had either six or twelve students with developmental disabilities, as per District 75’s student to teacher ratio.

Consent Procedure

The teachers were given consent forms that were sent home to the parents within the backpack of each of the students in their class. Participants were asked to read the purpose of the study and the consent form. Contact information for the researcher was provided to the participants in case parents had any questions. Participants were asked to sign the consent form and to choose whether they would like to complete the survey via packet or by phone. If they chose by phone, the participants were asked to provide a phone number and the best times to be reached.
The parents were asked to return the consent forms to the teacher who then placed them in a sealed envelope provided by the researcher and placed them in a designated secure location in the school. Once the consent forms were received, the researcher sent home survey packets to the parents who chose to participate. Parents who consented were assigned a confidential study ID number, which was used on all study documents. The packet had a top sheet with directions on how to complete the packet. The directions instructed the parents to tear off the top sheet when sending back in the packet, removing their name from any forms. The parents returned the packet to school in their child’s book bag, where the teacher placed the packet in a sealed box that the researcher picked up.

**Measures**

The current study used a quantitative research design with a survey measure to assess the study variables. The survey took approximately 30 minutes for parents to complete. Table 1 presents demographic information on all study variables.

**Parent and Child Characteristics**

The Family Data Sheet (Blacher 1985, 1992) was used to obtain parents’ demographic information. Several items were adapted from the original version (i.e., open-ended items changed to categories) to allow us to better standardize the obtained data. Demographic information included age of mother, age of father, age of young adult, marital status, education level of parents, ethnicity, employment status for both parents, level of education, family income, young adult’s diagnosis, type of special
education and services received, health of parents and young adult, access to internet, and the family’s distance from school.

**Parental Involvement and Knowledge Measures**

This study measured parental involvement and knowledge among parents of children with a developmental disability during the transition from high school to adulthood. The following three variables served as the dependent variable in study analyses: school involvement, transition involvement, and transition knowledge.

**School Involvement.** School involvement was measured using a series of Likert Scale questions taken from Hoover-Dempsey & Sandler’s (1995, 1997) model of parental involvement. The school involvement measure was important to gauge how involved the parent was in general school activities that do not specifically focus on transition. The nine questions included home-based and school-based activities that are affiliated with the child’s academic and social dimensions of school. Examples of home based questions included “Someone in this family talks with the child about their school day,” and “someone in this family helps the child with homework”. Examples of school-based questions included “someone in this family attends special events at school,” and “someone in this family goes to school open houses”. Parents were asked to respond using the following Likert scale: Never (1), one or two times per year (2), four or five times a year (3), monthly (4), and weekly (5). Prior work with this measure has reported an alpha of .77 (Fishman & Nickerson, 2014). In the present study, Cronbach’s alpha was .822.

**Transition Involvement.** Transition involvement was measured using the Parent Involvement in Transition (PIT) survey by Kraemer and Blacher (2001). The PIT
was designed to assess the parent’s level of involvement and opportunity to be involved in the transition-planning process. To assess transition involvement, parents were asked “How often has the following happened in the past year” and provided a list of nine items that each assessed a different aspect of the transition process. Items covered topics such as communicating with the teacher (e.g., “I have written my child’s teacher), attending school for transition based meetings (e.g., “I have attending a transition meeting for my child”), and post school outcomes (e.g., “I have been involved in finding potential adult services/jobs). Answer choices included never (1), one or two times per year (2), monthly (3), weekly (4), and more than once a week (5). In the present study, Cronbach’s alpha was .644. It is possible that Chronbach’s alpha was lower for this measure because several of the items reflected different ways that parents may communicate with their child’s teacher (e.g., by phone or by writing); parents may have had a preferred method of communication and not endorsed all methods of communication.

Transition Knowledge. Transition knowledge assessed parents’ knowledge about specific adult services available in the community, including community living, work/vocation opportunities, advocacy agencies, and health services. Transition knowledge was measured by using the PIT (Kraemer & Blacher, 2001). Parents were asked “Do you have knowledge of the following services,” and their answer choices included “yes”, “some”, or “no”. In the present study, Cronbach’s alpha was .932.
Parents’ Experiences During Transition

**Parents’ perceptions of the transition process.** The Transition Experiences Survey (TES, Kraemer & Blacher, 2001) was used to obtain information about the past and current experiences of the parents going through the transition process. This survey contained questions on the young adult’s participation in school programming geared towards transitioning from the school system to adult life, including questions that ask about past IEP/transition meetings (e.g., “When was your last transition meeting?”, “How long was the last formal meeting?”), what social activities the young adult partakes in (e.g., “Does your son/daughter participate in any social/recreational activities outside of the home?”), and current job status of the young adult (e.g., “Does your child currently have a job?”). It also contains questions pertaining to parent expectations of post school outcomes (e.g., “In 1-3 years after leaving high school, where do you see your son/daughter living?”), and where they see their child working post-school (“not working, at home,” “in a day vocational program,” “in a sheltered work environment,” “in a supported work environment,” “independently working,” “in a college program”). The original survey had both open ended and close-ended questions, the survey was adapted to have only close-ended questions. According to the authors of the measure, the questions have face validity but the measure does not contain subscales appropriate for reliability analyses.

**Perceived invitations from school.** The current study measured perceived general school invitations that convey to the parent that his or her involvement is welcome and useful in supporting student learning and success (Hoover-Dempsey & Sandler, 1997). The question assessed the degree to which parents felt welcome and
informed, and the extent to which they felt they were contacted. Example items included, “How much do you agree with the following statements about your child’s school?” and was followed by statements including “Teachers at this school are interested when discussing my child,” and “The school staff contacts me promptly about any problems involving my child.” The Likert scale question contained six sub-questions with answer choices ranging from strongly disagree (1) to strongly agree (2). Prior work with this measure has reported an alpha of .86 (Fishman & Nickerson, 2014). In the present study, a Cronbach’s α of .931 was found.

**Perceived invitations from teacher.** The present study measured parents’ perception that their child’s teacher encouraged parents to be involved in the classroom and to communicate with the teacher directly (Hoover-Dempsey & Sandler, 1997). The question “How often has the following happened?” was followed by statements including, “my child’s teacher asked me to help with my child’s homework,” and “my child’s teachers asked me to attend a special event at school.” Answer choices included never (1), one or two times per year (2), once a week (3), a few times a week (4), and daily (5). Prior work with this measure has reported an alpha of .82 (Fishman & Nickerson, 2014). In the present study, a Cronbach’s α of .925 was found.

**Perceived Life Context.** Perceived life context captures parents’ perceptions of two sub-dimensions of their life context, their a) *time and energy* and b) *skills and knowledge* (Hoover-Dempsey & Sandler, 1997). Parents’ perceptions of their personal skills and knowledge shape their thinking about the kinds of involvement activities that may be possible for them to undertake with success, whereas parents’ perceptions of
demands on their time and energy shape their thinking particularly as related to work and other family responsibilities, and what they feel they can achieve.

The skills and knowledge question asked, “How much do you agree with the following statements?” was followed by items such as, “I know about special events at my child’s school,” and “I know how to explain to my child how to complete their homework.” Answer choices ranged from strongly disagree (1) to strongly agree (5). Prior work with this measure has reported an alpha of .83 (Fishman & Nickerson, 2014). In the present study, a Cronbach’s α of .842 was found.

The time and energy question asked parents to answer, “How much do you agree with the following statements?” followed by items such as “I have enough time and energy to help out at my child’s school,” and “I have enough time and energy to communicate effectively with my child’s teacher.” Answer choices ranged from strongly disagree (1) to strongly agree (5). Prior work with this measure has reported an alpha of .87 (Fishman & Nickerson, 2014). In the present study, a Cronbach’s α of .883 was found.

**Parent Psychosocial Functioning**

**Parent stress.** The Parenting Stress Index–Short Form (PSI/SF; Abidin 1990) was used to assess parenting stress. The PSI Short Form is a self-report comprised of 36 items pertaining to parental feelings and experiences, comprising three scales: Parental Distress, Parent–Child Dysfunctional Interaction, and Difficult Child Characteristics. For the purposes of this study, only the Parental Distress subscale was used. The Parental Distress scale includes items relating to the distress a parent is experiencing in his or her
role as a parent, including stresses associated with the restrictions place on other life roles, and conflict with the child’s other parent. Examples of a question is, “Since having a child I feel that I am almost never able to do things I like to do.” Parents rated their agreement with each item on a 5 point Likert scale from 1 (Strongly Agree) to 5 (Strongly Disagree). The scales have shown high internal consistency and adequate test–retest reliability and have been used widely in studies of parents of children with disabilities from diverse populations. The PSI authors report coefficient alphas in the range of .70 to .84 for parent domain subscales of this measure. In the present study, Cronbach’s alpha was .946.

**Role construction.** Role construction measured parents’ beliefs about what they are supposed to do in relation to their children’s education and the behaviors that followed (Hoover-Dempsey & Sandler, 1997). The question asked, “I believe it is my responsibility to…” and the items included a range of school related behaviors such as volunteering at school, communicating with teacher, talking to child about the school day, and attending meetings about the child’s future. Parents were able to choose strongly disagree (1), disagree (2), neutral (3), agree (4), or strongly agree (5). Prior work with this measure has reported an alpha of .78 (Fishman & Nickerson, 2014). In the present study, Cronbach’s α was .833.

**Self-efficacy.** Parents’ self-efficacy sought to measure the parent’s belief that he or she can act in ways that will produce desired outcomes (Hoover-Dempsey & Sandler, 1997). Self-efficacy was measured using a Likert scale question with six subquestions. The question, “How much do you agree with the following statements?” was followed by items that items alternated between positive and negative statements. Examples included,
“I know how to help my child do well in school” and “I don’t know if I am getting through to my child.” Answer choices ranged from strongly disagree (1) to strongly agree (5). Prior work with this measure has reported an alpha of .62 (Fishman & Nickerson, 2014). In the present study, a Cronbach α of .692 was found.

Table 4. Descriptive Information on Parent Involvement, Experiences, and Psychosocial Functioning

<table>
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<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Range</th>
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<td>.79</td>
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<tr>
<td>Teacher Invitations</td>
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<td>Skills and Knowledge</td>
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<td>1-5</td>
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<tr>
<td>Worry about Child Future</td>
<td>3.06</td>
<td>1.07</td>
<td>1-5</td>
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<tr>
<td>Satisfaction Level</td>
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<td>1-5</td>
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<td>Self-Efficacy</td>
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Chapter IV

RESULTS

Preliminary Analyses

Prior to completing the proposed analyses, diagnostic analyses were conducted to examine whether there were violations to normality (i.e., skewness) among dependent variables. In order to test for significant skew, the standard error of skewness was calculated using the formula $\sqrt{\frac{6}{n}}$. A standard error of .33 was found, thus any variable with a skewness statistic over two standard errors (.66) was considered significantly skewed. The three dependent variables, school involvement, transition involvement, and transition knowledge were not found to be significantly skewed.

Pearson correlational analyses were conducted to determine bivariate relations between transition involvement, school involvement, and transition knowledge. There was a positive significant correlation between school involvement and transition involvement, $r (53) = .663 \ p < .001$, such that parents who tended to report higher levels of school involvement also reported higher levels of transition involvement. There was also a positive significant correlation between school involvement and transition knowledge, $r (53) = .274 \ p = .043$, such that parents who had higher levels of school involvement also had higher levels of transition knowledge. A significant relation between transition involvement and transition knowledge was not found.
Test of Research Questions

Research question 1. In a diverse sample of parents of transitioning youth in an urban school district, how do parents describe their experiences and involvement with the transition process? The first research question examined how parents described their levels of involvement. Parents’ transition involvement was measured on a Likert scale such that 1=never, 2=One or Two times per year, 3=Monthly, 4=Weekly, and 5=More than once a week. In the present study, parents’ responses ranged from Never (1.11) to Monthly (3.56), (M_{transinvolvement}=2.01, SD=.51). Thus, parents in our sample reported that they were involved “one or two times a year” on average.

For the measure of school involvement, parents reported on a Likert scale such that 1= Never, 2= One or Two times per Year, 3= Four or Five times a year, 4= Monthly, and 5= Weekly. In the present sample, the average responses ranged from Never (1.44) to Weekly (5), (M_{schoolinvolvement}=3.11, SD=.89). Thus, on average, parents in our sample reported that they had involvement with school “four or five times a year”.

For the measure of transition knowledge, parents reported if they had knowledge of nine different post-school services. Their answers were 1=Yes, 2=Maybe, 3=No, (M_{Knowledge}= 1.95, SD=.6). Thus, on average, parents answered “maybe” across the list of nine transition knowledge items.

When asked about the last formal meeting parents had pertaining to transition, answer choices were 1= Within the Last 6 Months, 2= Within the Last Year, 3= Within the Last Three Years, and 4= I have never had one. In the current study, the responses ranged from Within the Last 6 Months (1) to I Have Never Had One (4) (M_{formal}=2.13,
On average, parents in our sample reported that their last formal meeting was “within the last year.”

Regarding the length of time of the last formal meeting, answers included Less than 15 minutes=1, About 30 minutes=2, About an hour=3, and More than an hour=4; in the present study, the average was $M_{time\text{meet}} = 2.82$, $SD = 1.01$). In terms of involvement in a parent organization for families of children with disabilities, 35.8% of parents reported that they were involved with an outside organization.

**Research question 2. Which socio-demographic factors were related to parental involvement during the transition process?** Pearson correlational analyses were conducted to determine which variables had the strongest bivariate relation to transition involvement, school involvement, and transition knowledge. A negative correlation was found between mother age and transition knowledge, $r (47) = -.309$, $p = .035$. An Analysis of Variance (ANOVA) was conducted which revealed that there was a positive significant difference between neighborhoods in transition involvement, $F (53) = 6.127$, $p = 0.17$. Parents in neighborhood A group (i.e., those with relatively less poverty) reported higher transition involvement ($M = 2.14$, $SD = .504$) than those in neighborhood B (i.e., those with a higher proportion of poverty) ($M = 1.802$, $SD = .458$). Next, and ANCOVA between neighborhood and transition involvement while controlling for mother’s age was conducted which revealed that this finding remained significant even after controlling for mother age in the analysis ($F (47) = 4.631$, $p = 0.15$).
| Table 5. Intercorrelations among Parent and Child Demographics and Neighborhood Variables |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                  | 1               | 2               | 3               | 4               | 5               | 6               | 7               | 8               | 9               | 10              | 11              | 12              |
| 1. Mother Age                   | ---             | .702***         |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 2. Father Age                   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 3. Young Adult Age              | -.008           | .120            | ---             |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 4. Mother Education             | .106            | .002            | -.410           | ---             |                 |                 |                 |                 |                 |                 |                 |                 |
| 5. Father Education             | .289*           | .460**          | .022            | .136            | ---             |                 |                 |                 |                 |                 |                 |                 |
| 6. Income                       | .148            | .156            | .064            | .430**          | .251            | ---             |                 |                 |                 |                 |                 |                 |
| 7. Distance from School         | -.355*          | -.174           | -.043           | -.203           | .032            | .259            | ---             |                 |                 |                 |                 |                 |
| 8. Years in Special Ed.         | .076            | .029            | .304*           | .001            | .209            | .191            | .202            | ---             |                 |                 |                 |                 |
| 9. Neighborhood<sup>1</sup>     | -.249           | -.203           | .083            | -.331*          | .176            | .237            | .039            | .189            | ---             |                 |                 |                 |
| 10. Transition Involvement      | .169            | .173            | .109            | .035            | .244            | .077            | -.144           | .101            | -.322*          | ---             |                 |                 |
| 11. School Involvement          | .201            | .124            | .161            | .107            | .131            | .043            | .000            | -.025           | -.135           | .663***         | ---             |                 |
| 12. Transition Knowledge        | -.309*          | -.222           | .156            | .131            | -.019           | .236            | -.033           | .163            | .111            | .162            | .274*           | ---             |

Note. * p < .05, ** p < .01, *** p < .001. <sup>1</sup>Neighborhood A= Higher proportion living in poverty, Neighborhood B= Lower proportion living in poverty
Research question 2b. Do child characteristics moderate the link between sociodemographic factors and parent involvement and knowledge? Given that neighborhood emerged as a salient factor linked to transition involvement in the prior analyses, the study next tested whether the child characteristics of age or diagnosis moderated the relation between neighborhood and their transition involvement. Because a large proportion of children had autism diagnoses, the study recoded the sample as 1 = autism, 2 = other diagnosis to have relatively equivalent sample sizes within the diagnostic categories. Contrary to our hypotheses, child age was not found to have a significant interaction with neighborhood in the link to transition involvement. However, a significant interaction was found when the study tested a model that included youth age, neighborhood, and the interaction between youth age and school neighborhood \( F (3, 49) = 4.196, p=.010 \), with an \( R^2 \) of .204; See Table 6). Figure 7 illustrates this interaction. For parents from the disadvantaged school neighborhood, transition involvement goes down as the young adult gets older, whereas in the nondisadvantaged school neighborhood transition involvement goes up as the young adult gets older.

Table 6. Child Characteristics Moderating Link between Sociodemographic Factors and Transition Involvement.

<table>
<thead>
<tr>
<th>Dependent Variable: Transition Involvement</th>
<th>Model F (3, 49) = 4.196, p=.010, ( R^2 = .204 )</th>
<th>B</th>
<th>SE B</th>
<th>( \beta )</th>
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<tbody>
<tr>
<td>School Neighborhood</td>
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<td>Young Adult Age*</td>
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<td>School Neighborhood x YA Age*</td>
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<td>-.153</td>
<td>.074</td>
<td>-2.74</td>
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</table>

Note: *\( p < .05 \), **\( p < .01 \), ***\( p < .001 \)
Research question 3. Which psychosocial factors were related to parents’ involvement during the transition process? A Pearson correlation was conducted to assess the association between psychosocial factors, transition and school involvement, and transition knowledge. There was a positive correlation between parents’ perceived life context (i.e., time, energy, and knowledge) and their transition involvement, $r (53) = .486, p = .002$. To explore this variable further, the current study also examined the two life context subscales (i.e., time and energy and skills and knowledge) as separate...
variables. Time and energy was found to be significantly related to transition involvement and school involvement. With regards to transition involvement, the positive correlation was $r (53)= .399 \ p=.003$. For school involvement, it was $r (53)= .650, \ p<.001$. Skills and knowledge also had a positive significant correlation with transition involvement, $r (53) = .471, \ p<.001$, and school involvement, $r (53) = .587, \ p<.001$).

Looking further at transition involvement, parents’ perceived school invitations had a positive significant association with this variable, $r (53) = .337, \ p=.02$, as did teacher invitations, $r (53) = .343, \ p=.033$, role construction, $r (53) = .391, \ p=.025$, IEP familiarity $r (53) = .425, \ p=.001$, and parents’ employment aspirations for their child, $r (53) = .314, \ p=.037$.

Turning to school involvement, this outcome variable had a significant positive association with child-family social interactions, $r (53) = .387, \ p=.008$, parents’ role construction, $r (53) = .550, \ p<.001$, teacher invitations, $r (53) = .425, \ p=.001$, and self-efficacy, $r (53) = .325, \ p=.022$. With respect to transition knowledge, this outcome variable had a significant negative association with parent stress, $r (53) = -.349, \ p=.009$, meaning that the less transition knowledge the parents reported, the more stress they reported, as well as a positive significant association with IEP familiarity, $r (53) = .331, \ p=.014$. 
### Table 7. Correlations among Study Involvement, Knowledge and Psychosocial Variables

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<td>2. School Involvement</td>
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<td>3. Transition Knowledge</td>
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<td>5. Skills and Knowledge</td>
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<td>6. Time and Energy</td>
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<td>.246</td>
<td><strong>.277</strong>*</td>
<td><strong>.811</strong>*</td>
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<tr>
<td>7. Worry about child future</td>
<td>.190</td>
<td>.026</td>
<td>-.152</td>
<td><strong>.506</strong>*</td>
<td>.062</td>
<td>.010</td>
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<tr>
<td>8. Satisfaction Level</td>
<td>.229</td>
<td>.206</td>
<td>.183</td>
<td>-.082</td>
<td><strong>.497</strong>*</td>
<td><strong>.410</strong></td>
<td>-.129</td>
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<tr>
<td>9. Parent expectations for</td>
<td><strong>.285</strong></td>
<td>.200</td>
<td>.150</td>
<td>-.193</td>
<td>.244</td>
<td><strong>.277</strong></td>
<td>-.210</td>
<td><strong>.327</strong></td>
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<tr>
<td>10. Social Involvement</td>
<td>.174</td>
<td><strong>.356</strong></td>
<td>.170</td>
<td>-.183</td>
<td><strong>.622</strong>*</td>
<td><strong>.440</strong></td>
<td>.054</td>
<td>.231</td>
<td>-.024</td>
<td>---</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>11. Role Construction</td>
<td><strong>.302</strong></td>
<td><strong>.553</strong>*</td>
<td>.108</td>
<td>.039</td>
<td><strong>.761</strong>*</td>
<td><strong>.705</strong>*</td>
<td>.237</td>
<td><strong>.402</strong></td>
<td>.089</td>
<td><strong>.499</strong>*</td>
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<tr>
<td>13. School Invitations</td>
<td><strong>.313</strong></td>
<td>.265</td>
<td>-.048</td>
<td>.042</td>
<td><strong>.681</strong>*</td>
<td><strong>.529</strong>*</td>
<td>.134</td>
<td>.439</td>
<td>.197</td>
<td><strong>.498</strong>*</td>
<td><strong>.713</strong></td>
<td><strong>.263</strong></td>
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<td></td>
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<tr>
<td>14. Teacher Invitations</td>
<td><strong>.288</strong></td>
<td><strong>.423</strong></td>
<td>.200</td>
<td>-.192</td>
<td><strong>.532</strong>*</td>
<td><strong>.386</strong></td>
<td>-.055</td>
<td><strong>.292</strong></td>
<td>.249</td>
<td><strong>.339</strong></td>
<td>.222</td>
<td>.185</td>
<td><strong>.267</strong></td>
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<tr>
<td>15. IEP Familiarity</td>
<td><strong>.425</strong></td>
<td>.219</td>
<td><strong>.331</strong></td>
<td>-.027</td>
<td><strong>.300</strong></td>
<td><strong>.269</strong></td>
<td>-.086</td>
<td>.182</td>
<td><strong>.345</strong></td>
<td>.218</td>
<td>.051</td>
<td><strong>.284</strong></td>
<td>.061</td>
<td>.023</td>
<td>---</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01, ***p < .001.
Next, a multiple linear regression was calculated to predict transition involvement based on the variables that were found to have significant correlations with the outcome measure (i.e., role construction, school invitations, parents’ employment aspirations, IEP familiarity, time and energy, and skills and knowledge). A significant regression equation was found, \( F(6, 48) = 3.322, p = .008 \), with an \( R^2 \) of .302. In this model IEP familiarity was found to be a significant predictor of transition involvement above and beyond the other predictors (see Table 7).

A second multiple linear regression was calculated to predict school involvement based on self-efficacy, teacher invitations, role construction, child-family social, time and energy, and skills and knowledge. A significant equation was found, \( F(6, 48) = 7.896, p < .001 \), with an \( R^2 \) of .497. In this model time and energy and teacher invitations were found to be a significant predictor of school involvement above and beyond the other predictors (see Table 7).

A third multiple linear regression was calculated to predict transition knowledge based on IEP familiarity and stress. A significant equation was found, \( F(2, 51) = 6.779, p = .002 \), with an \( R^2 \) of .210. In this model, stress and IEP familiarity were found to be a significant predictor of transition knowledge above and beyond the other predictors (see Table 8).
Table 8: Psychosocial Factors and Experiences on Parental Involvement and Knowledge

**Dependent Variable: Transition Involvement**

Model $F (6, 48) = 3.322, p=.008, R^2 = .302$

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Construction</td>
<td>-.031</td>
<td>.177</td>
<td>-.041</td>
</tr>
<tr>
<td>School Invitations</td>
<td>.057</td>
<td>.127</td>
<td>.089</td>
</tr>
<tr>
<td>Parent Expectations</td>
<td>.069</td>
<td>.054</td>
<td>.178</td>
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<tr>
<td>Time and Energy</td>
<td>.108</td>
<td>.132</td>
<td>.194</td>
</tr>
<tr>
<td>Skills and knowledge</td>
<td>.106</td>
<td>.176</td>
<td>.161</td>
</tr>
<tr>
<td><strong>IEP Familiarity</strong></td>
<td>.350</td>
<td>.153</td>
<td>.324</td>
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</table>

**Dependent Variable: School Involvement**

Model $F (5, 48) = 2.474, p=.045, R^2 = .205$

<table>
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<tr>
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<th>β</th>
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</thead>
<tbody>
<tr>
<td>Role Construction</td>
<td>.423</td>
<td>.233</td>
<td>.316</td>
</tr>
<tr>
<td><strong>Time and Energy</strong></td>
<td>.531</td>
<td>.181</td>
<td>.542</td>
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<tr>
<td>Skills and knowledge</td>
<td>-.365</td>
<td>.291</td>
<td>-.313</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>.011</td>
<td>.159</td>
<td>.009</td>
</tr>
<tr>
<td><strong>Teacher Invites</strong></td>
<td>.222</td>
<td>.099</td>
<td>.291</td>
</tr>
<tr>
<td>Social Invitations</td>
<td>.048</td>
<td>.127</td>
<td>.052</td>
</tr>
</tbody>
</table>

**Dependent Variable: Transition Knowledge**

Model $F (2, 51) = 6.779 p=.002, R^2 = .210$

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stress</strong></td>
<td>-.222</td>
<td>.087</td>
<td>-.317</td>
</tr>
<tr>
<td><strong>IEP Familiarity</strong></td>
<td>.407</td>
<td>.157</td>
<td>.323</td>
</tr>
</tbody>
</table>

*Note: p < .05, **p < .01, ***p<.001

Research question 3b. Do child characteristics moderate the link between psychosocial factors and parent involvement and knowledge? First, because IEP familiarity was significantly related to transition involvement, the study next tested whether child age or diagnosis moderated either of these associations using separate regression analyses. Neither child age nor diagnosis was found to have a significant interaction with IEP familiarity. Next, given that time and energy and teacher invites were significantly related to school involvement, the study next tested whether child age or diagnosis moderated either of these associations using separate regression analyses.
Neither child age nor diagnosis was found to have a significant interaction with time and energy or teacher invites in the link to school involvement.

Finally, the present study tested whether the child characteristics of age or diagnosis moderated the association because parent stress and transition knowledge and IEP familiarity and transition knowledge. Neither child age nor diagnosis was found to have a significant interaction with parent stress or IEP familiarity in the link to transition knowledge.

**Research question 4. Is there an interaction between psychosocial factors and sociodemographic factors in predicting involvement?**

Finally, the present study created composite variables to reflect to reflect parents’ experiences, (i.e., perceived invitations, IEP familiarity, parent expectations and perceived life context) and parents’ psychosocial functioning (i.e., stress, role construction, self-efficacy) to determine whether these factors had a significant interaction with school neighborhood in predicting school involvement, transition involvement, and transition knowledge. Mother age was included as a covariate in these models for added control.

When both psychosocial factors and experience were included in the model with neighborhood and income, experience emerged as significantly related to transition involvement \( F (4, 46) = 5.740, p<.001, \text{ with an } R^2 \text{ of .353} \) and school involvement \( F (4, 50) = 9.789, p<.001, \text{ with an } R^2 \text{ of .328} \). No significant association was found for transition knowledge.
Table 9. Psychosocial and Sociodemographic Factors on Parental Involvement and Knowledge

<table>
<thead>
<tr>
<th>Dependent Variable: Transition Involvement</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model $F (4, 46) = 5.740, p &lt; .001, R^2 = .353$</td>
<td></td>
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</tr>
<tr>
<td>School Neighborhood</td>
<td>-.165</td>
<td>.164</td>
<td>-.153</td>
</tr>
<tr>
<td><strong>Experience Composite</strong></td>
<td>.071</td>
<td>.022</td>
<td>.648</td>
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<tr>
<td>Psychosocial Composite</td>
<td>-.246</td>
<td>.139</td>
<td>-.338</td>
</tr>
<tr>
<td>Mother Age</td>
<td>.003</td>
<td>.009</td>
<td>.041</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variable: School Involvement</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model $F (4, 46) = 7.095, p &lt; .001, R^2 = .346$</td>
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<tr>
<td>School Neighborhood</td>
<td>.188</td>
<td>.269</td>
<td>.102</td>
</tr>
<tr>
<td><strong>Experience Composite</strong></td>
<td>.111</td>
<td>.036</td>
<td>.592</td>
</tr>
<tr>
<td>Psychosocial Composite</td>
<td>.064</td>
<td>.228</td>
<td>.051</td>
</tr>
<tr>
<td>Mother Age</td>
<td>.015</td>
<td>.015</td>
<td>.128</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variable: Transition Knowledge</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
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<tbody>
<tr>
<td>Model $F (4, 46) = 2.558, p = .053 R^2 = .443$</td>
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<tr>
<td>School Neighborhood</td>
<td>.096</td>
<td>.211</td>
<td>.078</td>
</tr>
<tr>
<td>Experience Composite</td>
<td>.041</td>
<td>.028</td>
<td>.322</td>
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<tr>
<td>Psychosocial Composite</td>
<td>.013</td>
<td>.179</td>
<td>.016</td>
</tr>
<tr>
<td><strong>Mother Age</strong></td>
<td>-.028</td>
<td>.012</td>
<td>-.342</td>
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Note: *p < .05, **p < .01, ***p < .001

Next, a series of models were tested in which the interaction term between psychosocial factors and school neighborhood and between experiences and neighborhood was included in separate models as an independent variable, in addition to each of the individual variables. A single regression model was not tested with multiple sets of interaction terms due to low power. A significant interaction was found when the study tested a model that included experiences, school neighborhood, and the interaction between experiences and school neighborhood, controlling for mother age, $(F (4, 46) = 3.839, p = .010$, with an $R^2$ of .268; See Table 9). Figure 6 illustrates this interaction. For
parents from the disadvantaged school neighborhood, there is not a significant association between parent experience and transition involvement, whereas there is a significant positive association between parent experience and transition involvement for parents in the nondisadvantaged school neighborhood.

Table 10. Psychosocial and Sociodemographic Factor Composites on Involvement and Knowledge

<table>
<thead>
<tr>
<th>Dependent Variable: Transition Knowledge</th>
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<tr>
<td>Model F (4, 48) = 4.447, p=.004, R² = .270</td>
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<tr>
<td>School Neighborhood</td>
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<td>.177</td>
<td>.072</td>
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<tr>
<td>Experience Composite**</td>
<td>.079</td>
<td>.025</td>
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<tr>
<td>Mother Age*</td>
<td>-.024</td>
<td>.011</td>
<td>-.289</td>
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<tr>
<td>Experience x School Neighborhood*</td>
<td>-.073</td>
<td>.036</td>
<td>-.407</td>
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*Note: *p < .05, **p < .01, ***p < .001
Figure 8. Interaction between School Neighborhood and Parental Experiences in the Link to Parents’ Transition Knowledge
Chapter V

DISCUSSION

The present study examined parent involvement and knowledge during the transition from high school to adulthood for the parents of adolescents and young adults with developmental disabilities. The study found that parent experiences during the transition period (IEP familiarity, teacher invitations, perceived time and energy) were the most salient factors associated with parental involvement and knowledge. Additionally, the current study found the socio-economics of school neighborhood were salient factors associated with parental involvement and knowledge.

**Overall Parent Involvement and Knowledge**

Parents’ reports of involvement suggested that parents engaged in overall school involvement more frequently than transition involvement. Unfortunately, the differing scales used across these measures precluded the present study from explicitly testing these differences within-subjects analyses, but overall, parents reported engaging in school involvement four to five times a year and in transition involvement one or two times a year. Future work that examines transition and school involvement should focus on how parents differ in engagement in specific school and transition activities. In the current study, transition activities with the lowest levels of parental involvement included being a member of the transition team and being involved in finding potential living
placements. The transition activity that had the highest level of involvement in the current study was being the person who made the final decision at school for their child.

When measuring transition knowledge, parents reported having “some knowledge” on average across the nine different areas of post-high school life (e.g., post-school activities and financial planning). It will be important for future work to examine specific areas of knowledge that are strengths and weaknesses for parents rather than relying on their perceptions of how much they know. Such an approach is used by developmental psychologists interested in understanding parents’ knowledge of their children’s milestones. With such information, interventionists can better target areas of relative weakness in parents’ understanding of the transition process.

Past research supports the current study in that parents are generally found to have lower levels of transition involvement compared to school involvement. Martinez et al., (2012) examined parents of K-12 inclusion students transitioning out of high school in Virginia. They found that 41% of parents attended individual transition planning meetings, and only 22% of parents went to transition planning workshops. These findings are in contrast to those that suggest that parents report relatively higher levels of overall school involvement. In the Kramer and Blacher (2001) study, which included parents of 52 children with severe intellectual disabilities in California, the parents had phone or written contact with the teacher at least once a month (86.5%), whereas in the current study, parents reported on average having contact with the teacher 4 or 5 times a year. When asked if the parents felt that they were an equal partner in decision making, 96.2% of the parents in the Kramer and Blacher (2001) study responded yes, and 59.6% of the parents reported being involved in finding vocational placements for their child.
post high school. The interplay between knowledge and involvement will be an important
dimension for future research to explore.

Overall, these findings from other research seem to suggest that parents’
involvement in the transition process is less than overall school involvement, and more
work is needed to fully understand these findings. Each study uses somewhat different
scales to measure these concepts, so it can be hard to compare across studies, and even at
times, within studies. Furthermore, future work should also explore whether opportunities
for transition involvement are as frequent as those for overall school involvement.

Transition knowledge in the current study was found to be significantly correlated
to school involvement, but, interestingly, no significant relationship was found between
transition involvement and knowledge. This finding could mean that parents who feel
they already have transition knowledge do not feel the need to attend transition activities
as frequently, or that parents who are attending transition meetings are not yet obtaining
significant knowledge. Future research needs to be done to further investigate exactly
where and when parents report receiving information about their youth’s transition
process.

Parent Experiences

In the current study, parents’ experiences with the transition process consistently
emerged as the factor with the greatest links to parents’ involvement. A composite of
experience variables was found to be the most salient factor related to parental
involvement, above and beyond other factors. The experience composite was comprised
of multiple study variables, including parent expectations about their youths’ future, time
and energy, skills and knowledge, IEP familiarity, perceived teacher invites, and perceived school invites. Among all variables reflecting parents’ experiences, IEP familiarity was found to be the most significant factor associate with when transition involvement. In terms of school involvement, time and energy and perceived teacher invites were both significant predictors. Finally, in terms of transition knowledge, IEP familiarity was the sole significant predictor above and beyond the others.

The present study’s findings concerning the importance of IEP familiarity is supported by past research, which has demonstrated that parents often have difficulty navigating the IEP and transition meeting, which is then, in turn, a potential barrier to their involvement. In a study by Landmark, Zhang, and Montoya (2007), parents of students with disabilities from a Midwestern city were interviewed about their IEP and transition experience. When asked about what they knew about their child’s transition planning, 37% responded they did not know what transition planning was and 63% of the parents were unable to list any of the legal requirements pertaining to transition, including their own rights. When examining involvement during the meeting, 47% of the parents said they attended the meeting, but were only passively involved. When the researchers asked the parents for supports that would assist them in becoming more involved, parents stated better communication between the school and home, and that schools and teachers needed to invite parents to participate. These responses are supported by the current study, as perceived teacher invitations were a significant predictor in parent involvement.

The findings of the current study and those of prior research suggest the need for a more in depth understanding of methods used to facilitate parent-school connections
(particularly in high school), how parents are involved, and what matters most to parents about their involvement. A method to more explicitly measure aspects of parental involvement during a child’s education, especially during transition, is necessary for future studies. It is also important that future work examine which indices of involvement (i.e., school, transition, and knowledge), are most vital for successful student outcomes, in order to raise levels of parental involvement.

Based on the prior and current research, future interventions for parental involvement should focus on facilitating meaningful participation during the IEP and transition meetings. Zhang and Bennett (2003) offered suggestions for supporting culturally and linguistically diverse families to actively participate during the IEP process. Among their suggestions were properly preparing families prior to the meetings. They stated that many professionals do not spend adequate time explaining to parents their rights or giving them the needed information before the meeting is held. They suggested offering training sessions to families in order for them to participate in a meaningful way. The suggestions offered by Zhang and Bennett (2003) are culturally-sensitive practices that would be beneficial in school districts as diverse as the NYC DOE and District 75. For example, the authors proposed explicitly familiarizing parents with the family-centered philosophy that is common in the United States for special education planning process, but perhaps less common elsewhere around the world. This idea that parents, rather than school staff, are the ultimate decision makers could be very strange for immigrant parents. Familiarizing and getting families comfortable with this notion is an important first step. Finally, the authors suggested that teachers and professionals should gather information prior to the meeting that identifies the family’s strengths,
needs, and resources. By doing this, they submit that professionals can offer proper support to families and better understand the family structure and roles before the meeting begins. Even though this research was conducted solely with culturally and linguistically diverse families, these suggestions are appropriate for the parent population in NYC and District 75 and other urban school districts. Moreover, understanding families and strengthening communication is crucial for all families, no matter their cultural background.

In addition to the above-mentioned culturally-sensitive educational approach to promoting parents’ engagement in the IEP process, other research suggests that future work that targets parent involvement should also consider aspects of the relationships formed between parents and school professionals. Specifically, Defur et al. (2001) examined parent participation in the transition planning process. They found five sub-theme areas pertaining to professionals who made a difference in parental participation. First, they found that communication was crucial to active participation by parents. Parents reported that professionals who were honest, direct, clear, and knowledgeable made a difference. More importantly, professionals who readily shared information with families and offered opportunities for training facilitated parent participation. Second, they found that collaboration between the families and schools made a difference. Families reported that professionals who listened, had an open mind, and treated them like partners, made them feel more comfortable. Thirdly, the degree to which schools provided connection to other families, the community, and resources made parents feel they were part of a team and not alone. Fourthly, feeling that the professionals cared about them and their child made parents feel as though their input was important. Finally,
celebrating the strengths of their child and not only focusing on weaknesses made families feel more comfortable. These five sub-themes are pillars to future intervention models that aim to increase parent familiarity and involvement during the IEP and transition meeting process and should be included in future interventions.

In the current study, parents’ perceptions of teacher and school invitations during the transition process were also significantly related to involvement. These findings are in line with past work on parents’ perceptions of teacher invitations. Epstein (1986) was one of the first to study this concept in a large study of parents of elementary school students in Maryland. The parents were asked about the parent involvement practices of their children’s teachers. Despite positive attitudes about the teachers themselves, 58% of the parents reported that teachers could do more to involve parents. Epstein (1986) suggested in order for parents to feel confident, teachers and school staff should organize and conduct workshops for parents, and, at the very least, have clear and easy to follow materials. Although this research was conducted with parents of typically developing elementary school students, the idea that teacher invitations to parents facilitate parents’ active involvement is also valid for parents of children with developmental disabilities. Training teachers how to reach out to parents and how to communicate effectively with parents should be one of the first steps to future interventions aimed at targeting parent involvement.

In sum, parent experiences were found to be significantly related to parental involvement during the current study. Belsky (1984) was one of the first to propose that parents’ histories affect the other major determinants of parenting. Although parent experiences have shown to be predictor of involvement, parental involvement during
transition is mandated without taking other factors that may support or undermine involvement into consideration. IEP meetings that parents are required to attend and sign off on beginning at age 14 must include transition planning services, however, nothing is mandated to properly prepare parents for what being involved in transition planning means. Future policy work should consider making transition planning information sessions and other resources a requirement of schools.

**School Neighborhood**

The present study aimed to determine how sociodemographic factors were related to parental involvement. The diversity within the NYCDOE offered an opportunity to examine these factors in a heterogeneous sample. Families in the current study attended schools in two distinct neighborhoods, disadvantaged and nondisadvantaged. Of the total participants of this study, 36% of students went to school in a disadvantaged neighborhood, which is described as having 30% of its inhabitants living under the poverty level, and 48% of all children under the age of 18 living under the poverty level. The remaining 63% of participants had children who went to school in a nondisadvantaged neighborhood, where the poverty level was at 7%, and for children under the age of 18, it was 8%. The two school neighborhoods were an important distinction in the current study. School neighborhood was found to be significantly related to parental involvement, such that those parents whose children went to a school in a disadvantaged neighborhood had lower levels of transition involvement than parents of children who went to school in nondisadvantaged neighborhoods. This finding is
notable because parents’ own income was not significantly related to parents’ level of involvement.

The present study’s findings also extend those of past work by revealing that the association between age and involvement was different for parents whose children were in disadvantaged schools, for whom age had a stronger negative relation to involvement. The study found school neighborhood to significantly moderate the association between youth age and parent transition involvement. For parents of children who went to a school in a disadvantaged neighborhood, transition involvement was lower for parents of youth who were older, whereas for parents whose children were educated in nondisadvantaged school neighborhoods, transition involvement was relatively higher for those with older youth.

School neighborhood was also found to be significantly related to parents’ experience, psychosocial functioning, and mother age in predicting transition and school involvement. Additionally, when examining the interaction between school neighborhood and parent experience on transition knowledge, parents of children who were schooled in disadvantaged neighborhoods, had a weak association between transition knowledge and parents’ experiences. On the other hand, for parents whose children attended the from the nondisadvantaged school, there was a significant increase in transition knowledge with increasing parental experiences.

The fact that school neighborhood was related to parental involvement in the present study is supported by prior research. A study by Waanders, Mendez, and Downer (2007) examined parental involvement in 154 predominantly African American parents of preschool children in a Head Start program. They found that school-based involvement
was significantly related to the neighborhood; specifically, parents who reported being more involved at school also perceived the neighborhood to be more socially cohesive and supportive. Social disorder within the neighborhoods, defined as a combination of the presence of incivilities such as litter, graffiti, drug and alcohol use, and abandoned buildings, along with a lack of social cohesion in a neighborhood and poor quality of their contact with neighbors, was shown to cause parents to stay inside their home more, thereby being less actively engaged with their child’s education. Finally, Waanders et al. (2007) found that parents’ perceived social cohesion within the neighborhood was the only predictor that accounted for a significant amount of variance in school involvement. Thus, when parents knew people in the neighborhood and had positive interactions with their community, they were more involved with the school.

Although the Waanders et al. (2007) study was conducted with preschool parents and with parents who live within the same neighborhood in which their children attended school, the study’s findings have important implications for interpreting the results in the current study. The significance of social cohesion and feeling comfortable within the neighborhood is an important factor when planning for future interventions. Interventions that target parent involvement in disadvantaged neighborhoods need to take into consideration factors that impact parents’ sense of community and feelings of cohesion with their child’s school. Waanders et al (2007) also suggested that for parents who come from disadvantaged neighborhoods or send their children to school in a less advantaged neighborhood, setting up community and social connections could act as a protective factor. These suggestions are applicable to the current study’s population and future intervention programs designed to increase parent-school connections.
The Waanders et al (2007) study supports the notion that the more connected parents feel to their neighborhood, the more involved within the school they are. Although the present study did not find distance from school to be significantly related to parental involvement, the NYCDOE and District 75 practice of bussing special education students to schools instead of sending them to their local neighborhood schools presents a unique issue to parents feeling connected to their school neighborhood. It would be interesting for future research to look specifically at students who travel to go to school versus students who go to their neighborhood school, and how those parents differ in their levels of involvement. Would going to your local neighborhood school within a disadvantaged neighborhood differ from a nondisadvantaged neighborhood, even when family income was controlled for?

Taken together, the results of this study and Waaders et al (2007) may support the notion that parents whose children go to school in a disadvantaged neighborhood may feel less connected to the school. One might speculate that there may also be teacher or school level practices that differ between schools in disadvantaged and nondisadvantaged neighborhoods. Secondly, teacher retention and higher quality teachers in the nondisadvantaged neighborhoods may possibly be playing a role in the parent-school relationship (Dupere et al, 2010). Thirdly, although District 75 is one district, it is unique in that it is spread across five boroughs and multiple buildings and locations. It would be very difficult to maintain the same outreach, communication, and relationship building processes in each school, despite being a part of the same district. There may also be teacher individual differences, informing teacher and para education. It should be noted that these possibilities are only speculative, and that school neighborhood and the
differences among schools should be studied further, with larger samples, in order to inform future parental involvement interventions.

**Parent Psychosocial Functioning**

In addition to parents’ histories, Belsky’s (1984) framework cited parenting personality as one of the main factors of the determinant of parenting. Additionally, the framework states that a parent’s current psychological well-being, marital status, social networks, and supports and resources have an affect on the three major determinants of parenting. Thus, the present study examined psychological factors that impacted parents’ supports and resources.

The current study supported Belksy’s (1986) theoretical framework, such that parent psychosocial factors had a significant relationship with parental involvement and knowledge. Specifically, when examining the relative contribution of the individual psychosocial factors, role construction, self-efficacy, and parent stress emerged as the three psychosocial variables in the current study to be related to parental involvement, above and beyond other factors. Specifically, role construction had a positive significant relationship with transition involvement and school involvement; thus, as parents felt more ownership over their role and duties in their child’s education, they reported being relatively more involved in both school and transition-related activities. Self-efficacy was also found to have a positive significant relationship with school involvement. Thus, as parents felt more capable in assisting and helping their child with their education, the more involved they were with the school. Finally, stress was found to have a significant
negative relationship with transition knowledge; thus, the more parents reported stress associated with parenting demands, the less transition knowledge they reported.

The present study’s findings concerning the link between parents’ role construction and involvement are in line with prior research. Sheldon’s (2002) study of mothers of elementary school-aged children examined mothers’ involvement while taking into account parental beliefs and background factors and found that parental role construction was a significant predictor of both and home and school involvement. The study supported the idea that the more parents endorse the idea that parents should be involved in their children’s education, the more likely they are to be involved themselves. The current study expands Sheldon’s (2002) study by finding that not only is role construction a predictor for school involvement for parents of high school aged students, but it is also a significant predictor of transition involvement. Prior research also supports the present study’s findings concerning parental self-efficacy. Specifically, Shumow and Lomax (2009)’s study of parents of adolescent students examined family SES, neighborhood quality, and parental self-efficacy and their link to social-emotional adjustments of adolescents through monitoring, parental involvement, and parent-adolescent communication. Findings revealed that parental efficacy predicted parental involvement within all racial and ethnic groups after controlling for adolescent age, SES, and neighborhood characteristics. The authors concluded that parental involvement and parental monitoring appeared to be a behavioral expression of parents’ beliefs that they could make a difference in their adolescent’s development.

Giallo, Treyvaud, Cooklin, and Wade (2013) investigated parent involvement in play, learning, and home activities in order to promote typical children’s cognitive and
language development. They examined how parental self-efficacy mediated the relationship between child, parent and family factors, and parent involvement. The study found that parental self-efficacy mediated the pathways between parent involvement and stress, anxiety, depression, and difficult temperament. Thus, parents who experience distress and perceive their child as difficult may underestimate their parenting ability, which may influence the extent to which they engage with their child. This notion connects to the current study’s findings on parent self-efficacy and involvement, as well as how child characteristics such as temperament may have an affect. Future research should continue to examine how child characteristics can moderate parent involvement. It may be that future interventions that target involvement practices should also take into consideration improving parents’ knowledge about their youths’ behaviors in an effort to improve parent-child interactions during the transition process.

The current study aimed to highlight what prior research already shows, that parents of children with disabilities are specifically at risk for low levels of self-efficacy. A study by Giallo, Wood, Jellet, and Porter (2011) examined fatigue, wellbeing, and parental self-efficacy in mothers of children with ASD. Fifty mothers of children with ASD were compared with mothers of typically developing children. The results of the Giallo et al (2011) study found that parents of children with ASD had significantly higher levels of fatigue and lower levels of parental self-efficacy and support the current study that parents of children with disabilities are at greater risk.

In order to increase parental self-efficacy, Pelletier and Brent (2002) suggested a Parenting and Readiness Program for parents of preschoolers at risk for developmental delay receiving early intervention. The study found that teachers reported positive
feedback and parent education to be the most successful for generating and fostering parent efficacy. Parents reported that practicing working one-on-one with their child, teacher support, and parent education were the components that fostered their confidence. Almost all parents in the study reported feeling more confident after attending the readiness center, including parents who have English as a second language. Although this study focused on parents of children in preschool, the components to boost self-efficacy are applicable to the current study. Giving parents the opportunity to practice proper parent education, and support are important for all ages, and maybe particularly useful for parents of transitioning youth.

**Child Characteristics**

In the current study, youth age was found to be a significant predictor of parents’ involvement. Parents of relatively older youth reported less transition involvement and knowledge. Interestingly, however, youth’s school neighborhood played a moderating role in this association. For parents whose children attended a school in a disadvantaged neighborhood, their transition involvement decreased, on average, as the young adult’s age increased, whereas for parents from the nondisadvantaged school neighborhood, their transition involvement increased with as youth aged. Past work on parents’ involvement has found that parental involvement tends to decrease as their children get older (Geenen et al., 2005).

As supported by prior research, in the current study, parents whose children attended a disadvantaged school had a decline in parental involvement as their child aged. Past research has also found that as children age, the parents’ involvement typically
declines (Grigal & Neubert, 2004; Hornby & Lafaele, 2011) Using the data from the NLTS2, Wagner et al., (2012) examined overall findings of parental involvement during the transition process. In their review, they found that parents’ involvement in planning dropped as the child aged, 90% of parents of children aged 11-14 attended an IEP meeting, to 84% of parents aged 15-19. Additionally, they found that participation waned as parent involvement went from general IEP meetings to specific transition focused meetings, where 84% of parents of children aged 15-19 attended the IEP meeting, but only 68% attended a transition meeting. This data is similar to the current study in which parents reported higher levels of involvement for school involvement than for transition involvement.

Cone, Delawyer, and Wolfe (1985) were among the first to study parent participation in special education in a study of teachers and families across five school districts in three different states on the East Coast. Among the items the authors considered was the child’s grade level. The study found that participation in the special education process was negatively correlated with children's grade level; thus, mothers appeared to show less involvement as the grade level of their child increased. Additionally, many of the teachers completing the survey reported that parents seem to "burn out," taking less interest in their child's educational program as they got older. Further work is needed to fully explore aspects of parents’ beliefs about involvement and how they may change over time.

Izzo, Weissberg, Kasprow, and Fendrich (1999) examined the ways in which parental involvement changes over time and how it relates to children’s social and academic functioning. The study conducted interviews of teachers over four years in
elementary school for 1,205 urban school students. Findings revealed that there were significant year effects for number of contacts, quality of parent-teacher interactions and participation at school, decreasing significantly from year one to year two, and again to year three.

Although these studies are older, the findings are important to the interpretation of findings from the present study; together they appear to support the notion that parent involvement declines as children get older. Moving forward, future research and interventions should seek to understand why parental involvement declines with age. Is it simply what is being asked of the parent that gets more and more difficult? Are there fewer opportunities to be involved with older children? Does the nature of the parent-school relation change? High school is different than elementary and middle school for students with disabilities. Future interventions should take all of this into consideration when working with parents. It will consistently be important to keep in mind how old a child is, how far along in the transition process they are, and how parents of older students can remain engaged across all transition involvement interventions.

Suggestions from above that stress communication, workshops, and clear instructions and materials have been shown to be even more important for parents of older students.

Summary of Future Recommendations

The present study had many recommendations for future research and interventions, depending on the area of focus. All of the recommendations are aimed to increase levels of parental involvement during the transition period. An overall theme of future work should be aimed at understanding why parents are more involved in school
involvement versus transition involvement. Understanding this would help create more targeted interventions for transition involvement. The current study also calls for a better understanding of how parents are currently involved during transition and what parents value as most important during this crucial time period. Future research should also examine further why parents’ involvement is declining as the child ages, especially for parents of children with developmental disabilities.

Another area of future research and interventions should target parents having meaningful interactions and participation during transition meetings. The current study and prior research suggests training sessions for both parents and teachers, and for staff to be proactive in gathering information about families prior to meetings. Additionally, focusing on the relationships between parents and the school is important for future interventions. These interventions should focus on communication, collaboration, connections, feelings, and celebrating strengths. Focusing on parents’ psychological well being to increase parental involvement, similar ideas are suggested, including workshops, communication training, and providing practice opportunities for parents. Training teachers should be a part of successful interventions, as well. For parents who send their children to school in disadvantaged neighborhoods, interventions that set up social and community connections are suggested.

**Limitations of the Current Study**

The current study had several limitations. These limitations should be considered when conducting future research and planning interventions that contribute to further the understanding of parental involvement. One limitation of the current study was that the
survey was only offered to parents to be completed in English. With the diverse population of the NYCDOE and District 75, this potentially excludes many parents from participating in the study. In the 2016-2017 school year, 12.8% of students from Brooklyn were classified as English Language Learners, 14.3% from Queens, and 10.8% from Manhattan (NYCDOE.org). These statistics do not take into account those students who speak English, but who have parents do not. Additionally, when looking at the population of District 75, where 40% are Latino and the current study only had 10.9% Latino parents, it becomes evident that the study does not fully represent the Latino population within District 75, which is possibly due to the study’s language barriers.

By limiting the survey to English, the current study also potentially excluded families with more variability in terms of cultural differences that may have been related to their responses to the survey. Future work should include a more diverse sample of parents, including those who speak languages other than English, to not only directly assess aspects of culture that may be related to beliefs regarding parents’ roles in youths’ education, but also to examine whether language barriers are related to their school and transition involvement and knowledge. The current study has also researched and written about how teachers and schools need to provide extra support for parents who are culturally and linguistically diverse in order to promote parental involvement, however, given the current design, the current study excluded many of these parents by not providing the survey in additional languages, specifically Spanish and Mandarin. Future research should be conducted by offering the parent survey in more than one language in order to properly measure parental involvement and knowledge.
A second limitation to the current study is the sample size. The study had 55 participants in a school district that serves over 56,000 students. It is difficult to make generalizations from such a small sample size. Many principals and schools were asked to partake in the current study, but were either unable to do so or were unresponsive. Additionally, the response rate within each school was also low. It is possible that with bigger rewards for participation more parents would have opted to participate. Future research in this field should try to have more schools in more boroughs and neighborhoods participating in order to better generalize the data. Another limitation to the current study is that it is difficult to generalize the results to other urban school districts because NYCDOE and District 75 is so unique. Future work should take the components of this study to different urban school districts, especially those where students go to schools in their own neighborhood.

Lastly, the study did not collect data on the present level of functioning of the young adult. Although the present study discussed how child temperament and behavior can have an affect on parental involvement, the study did not have detailed information on the current level of functioning of each child. On the one hand, the study targeted only lower functioning youth who qualified for District 75 special education placements (i.e., the NYCDOE’s more severe special education students), however, within District 75, students still vary in their needs and cognitive abilities. One item in the survey measure addressed the level of support needed by asking parents how many years of special education the student has had and what their day was comprised of (self-contained versus inclusion). However, due to the nature of District 75 being mainly all self-contained classrooms, these questions lacked variability. Future research should include questions
to measure the young adults present level of functioning in order to see if this affects parent involvement. Also, to extend generalizability to the broader population of youth with developmental disabilities, future work should expand the inclusion criteria to include students in all types of settings and with the broader range of functioning levels. When conducting future research, classification of disability should use more direct assessments in order to include a wide range of students, as well as better take into consideration if the students’ IEP diagnosis and medical diagnosis are different. This would help future research generalize its findings to students with a diverse set of developmental disabilities and better understand whether diagnosis-specific factors are related to parents’ experiences and behaviors.

**Conclusion**

The present study is a first step toward a better understanding of parental involvement during the postsecondary transition for youth with a developmental disability. Overall, the findings suggest that parent experiences, most significantly familiarity with the IEP, perceived time and energy, and perceived teacher invitations, as well as the socio-economics of school neighborhood were the most salient factors related to parental involvement and knowledge. The findings of the current study represent a small sample of parents from the NYCDOE, but nonetheless, offer an important starting point to further understand what parents experience during the crucial time period.

From the results of this study, there appears to be a need for programs that better prepare parents for transition, while taking into consideration what parents are currently going through, or have gone through. Programs that are culturally sensitive, provide open
and honest communication, training opportunities, and active collaboration beginning at the onset of transition will likely have the most impact. Future interventions should also target parents who send their child to schools in a disadvantaged neighborhood, or live in a disadvantage neighborhood, setting up ways for parents to form connections to the people and resources that are available to them. Policy changes in the area of transition may benefit from requiring parents, teachers, and school to do more than attend transition meetings, but work towards parents attending transition workshops that are held by the schools.

There is also a need for future research to better understand parental involvement, investigating why parents are more involved with their child’s school as a whole, but less involved with transition activities. Future research should also focus on working on understanding why parents’ involvement declines as the child ages, and what barriers parents face during this time. Finally, future research should aim to take the results and findings of the current study to other urban school districts to determine if the results of this study are generalizable to other urban areas.
REFERENCES


IDEA 2004 (Individuals with Disabilities Education Improvement Act of 2004), (Pub. L. 108-446 § Part B Sub.A §300.37)


National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2). NCSER 2010-3008. *National Center for Special Education Research*.


Appendix A

Parent Survey

1. Relationship to young adult: _________
2. Your date of birth: _ _/ _/ _ _ _ _
3. Young adult’s date of birth: _ _/ _/ _ _ _ _
4. Young adult’s gender: Female Male
5. Total number of children living at home: _______
   5a. Total number of children at home with special needs: _______
6. Young Adult’s Diagnosis:
   a. Intellectual Disability
   b. Autism
   c. Cerebral Palsy
   d. Down’s Syndrome
   e. Deafness
   f. Deaf-blindness
   g. Emotional Disturbance
   h. Other Health Impairment
   i. Traumatic Brain Injury
   j. Specific Learning Disability
   k. Multiple Disabilities
   l. Other: ____________________
7. Parent(s) living with young adult:
   a. Both mom and dad
   b. Mom only
   c. Dad only
   d. Neither __________
8. Parent’s marital status:
   a. Married: _____ years
   b. Widowed
   c. Divorced
   d. living together: _____ years
   e. Never married
   f. Separated
9. With which ethnic group do you identify your child?
   a. Euro-American/White
   b. African American
   c. Hispanic:
      1. Mexican
      2. Dominican
      3. Puerto Rican
   d. Asian American
   e. Other: ________
   f. Other: ________
10. What is your approximate annual family income? (Include ALL sources: salary, child support, alimony, SSI, other government support)
   a. $0-9,999  
   b. $10,000-19,999  
   c. $20,000-29,999  
   d. $30,000-39,999  
   e. $40,000-49,999  
   f. $50,000-59,999  
   g. $60,000-69,999  
   h. $70,000-79,999  
   i. $80,000-89,999  
   j. $90,000-99,999  
   k. $100,000-$149,999  
   l. $150,000 or more

11. When indicating your income, whose income was included?
   a. Father only  
   b. Mother only  
   c. Combined mother and father

12. Does this include any income from your son/daughter?
   Yes  
   No

13. With which ethnic group does Mom identify?
   a. Euro-American/White  
   b. African American  
   c. Hispanic:
      1. Mexican  
      2. Dominican  
      3. Puerto Rican  
   d. Asian American  
   e. Other: ________

14. Mom’s Education Level:
   a. Some high school  
   b. High School Diploma/GED  
   c. Some college  
   d. Completed 2-year college  
   e. Completed 4-year college  
   f. Master’s Level  
   g. Other: _______

15. Mom’s employment:
   a. Unemployed  
   b. Disabled  
   c. Employed:
      Job title: _______________
   d. Housewife/Stay at home Mom  
   e. Retired

16. Dad’s date of birth: _ _/ _ _/ _ _ _ _

17. Dad’s Education Level:
   a. Some high school  
   b. High School Diploma/GED  
   c. Some college  
   d. Completed 2-year college  
   e. Completed 4-year college  
   f. Master’s Level  
   g. Other: _______
b. High School Diploma/GED  e. Completed 4-year college

________________________

c. Some college  f. Master’s Level

18. Dad’s employment:
   a. Unemployed  d. Housewife/Stay at home Mom
   b. Disabled  e. Retired
   c. Employed:
      Job title: ___________________

19. With which ethnic group does Dad identify?
   b. African American  e. Other: __________
   c. Hispanic:
      1. Mexican  4. Ecuadorian
      2. Dominican  5. Other: __________
      3. Puerto Rican

20. How is Young Adult’s health most of the time?
   a. Excellent  c. fair
   b. Good  d. poor

21. Does the Young Adult receive any therapy? Circle all that apply
   a. None  c. Occupational therapy  e. Psychological Therapy
   b. Physical therapy  d. Speech Therapy  f. Other:
      _______________

22. How is Mom’s health most of the time?
   a. Excellent  c. fair
   b. Good  d. poor

23. How is Dad’s health most of the time?
   a. Excellent  c. fair
   b. Good  d. poor

24. What is your ability to access internet?
   a. I have no internet access on a regular basis
   b. I use internet regularly outside of the home (Library, café, friend’s house, etc)
   c. I have a computer with internet in my home
   d. I have a phone with internet, but not a computer
   e. I have both a phone and computer with internet access
f. Other: _________

25. How far away do you live from your son/daughter’s school (by whichever means of transit you use most often)
   a. 0-15 minutes c. 30 minutes-hour
   b. 15-30 minutes d. 1 hour +

26. Approximately, how many years has your son/daughter received special education services?
   a. 0-5 b. 6-10 c. 10+

27. Are you familiar with the Transition IEP process?
   Yes No

28. When was the last formal meeting to discuss your son/daughter’s transition out of high school?
   a. Within the last 6 months c. Within the last 3 years
   b. Within the last year d. I have never had one

29. How long was your last meeting?
   a. Less than 15 minutes d. More than an hour
   b. About 30 minutes e. Don’t remember/Did not attend
   c. About an hour

30. What type of school does your son/daughter attend?
   a. Self-contained classroom b. Inclusion c. Other: _________

31. Which statement best describes your son/daughter’s day?
   a. Special education classes all day
   b. Some time in special education classes, the rest at a job site or in the community
   c. One or two general education classes, and the rest in special education
   d. Mostly general education classes with one or two special education classes
   e. All general education classes with special education support

32. Are you involved in any parent organizations for families of children with disabilities?
   Yes No
33. Specifically, do you have knowledge of the following services?

<table>
<thead>
<tr>
<th>(a) Community Living</th>
<th>Yes</th>
<th>No</th>
<th>Some</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Work/Vocational Opportunities</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(c) Day Activity/Treatment Programs</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(d) Recreation/Leisure Activities</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(e) Support Groups for son/daughter</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(f) Advocacy Agencies</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(g) Health Services (including support from doctors)</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(h) Financial Resources (SSI, SS, Department of Rehabilitation)</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(i) Continuing Education Opportunities</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
<tr>
<td>(j) Other:</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
</tr>
</tbody>
</table>

34. Are you aware of what adult services are available for your son/daughter when he/she finishes school?

Yes

No

35. Which of the following would be helpful for you as you plan your son/daughter’s transition from high school?

<table>
<thead>
<tr>
<th>(a) More information about your son’s/daughter’s school program.</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) More information about your son’s/daughter’s skill level.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(c) More information about community living.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(d) More information about work/vocational alternatives.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(e) More information about financial assistance (e.g. SSI.)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(f) Increased emotional support and encouragement from your family.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(g) Parent support group or individual therapy.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(h) Other.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(i) I do not think I need any help.</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

How often has the following happened | Never | 1 or 2 Month | Week | More
### 36.

<table>
<thead>
<tr>
<th>Question</th>
<th>Never (1)</th>
<th>Rarely (2)</th>
<th>Sometimes (3)</th>
<th>Frequently (4)</th>
<th>Very Often (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I have been a member of the transition team.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I have called my child's teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) I have written my child's teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I have stopped by to speak to my child's teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I have visited my child's school for a special event such as a transition information meeting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I have attended an IEP or Transition meeting for my child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I have been the person who makes the final decisions at school for my child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) I have been involved in finding potential adult services/jobs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) I have been involved in finding potential living placements</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### 37.

<table>
<thead>
<tr>
<th>How often do you worry about the following issues?</th>
<th>Never (1)</th>
<th>Rarely (2)</th>
<th>Sometimes (3)</th>
<th>Frequently (4)</th>
<th>Very Often (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I worry about transition issues (in general)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I worry about vocational placement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) I worry about living situation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I worry about access to social activities and friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) I worry about family involvement/family attachment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) other:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### 38.

To what extent have your worries and concerns regarding these transition issues affected your own daily life and well-being?

- a. Not at all
- b. A little
- c. Moderately
- d. Quite a bit
- e. Extremely

### 39.


### How much do you agree with the following:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I often have the feeling that I cannot handle things very well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I find myself giving up more of my life to meet my children’s needs than I ever expected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) I feel trapped by my responsibilities as a parent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) since having this child, I have been unable to do new and different things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) Since having a child, I feel that I am almost never able to do things that I like to do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) I am unhappy with the last purchase of clothing I made for myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) There are quite a few things that bother me about my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(h) Having a child has caused more problems than I expected in my relationship with my spouse.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(i) I feel alone and without friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(k) When I go to a party, I usually expect not to enjoy myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(l) I am not as interested in people as I used to be.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(m) I don’t enjoy things as I used to.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### How satisfied are you about the following:

<table>
<thead>
<tr>
<th></th>
<th>Very Unsatisfied</th>
<th>Unsatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I am ____ with the amount of involvement I have had in my son/daughter’s transition planning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I am ____ with the amount of information I have received regarding my son/daughter’s transition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

41. I would like to have _________
a. Less involvement  b. No change in involvement  c. More involvement

42. I would like my son/daughter to work in the future (work is defined as paid/unpaid and vocational)
   a. Strongly disagree  b. Disagree  c. Undecided  d. Agree  e. Strongly Agree

43. 1-3 years after your son/daughter leaves the school system, where do you see him/her?
   a. Not working - home all day
   b. In a day activity program with limited vocational emphasis
   c. In a sheltered work environment
   d. In an individual support work environment
   e. Independently working
   f. College program

44. Does your child currently have a job?
   Yes  No

45. Do you see your son/daughter moving out of your home within 5 years of completing high school?
   Yes  No  Maybe

46. Have you given any thought to financial planning for your son/daughter’s future?
   Yes  No

47. Does your son/daughter participate in any social/recreational activities outside of the home?
   Yes  No

48. Indicate how often the following occurs:

<table>
<thead>
<tr>
<th>Indicate how often the following occurs:</th>
<th>Never = 1</th>
<th>Rarely = 2</th>
<th>Sometimes = 3</th>
<th>Frequently = 4</th>
<th>Almost Always = 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) My son/daughter participates in a family meal:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) My son/daughter joins family members when they go out to enjoy themselves or run errands:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) My son/daughter comes with us to visit friends and family:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
49. I believe it is my responsibility to:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree=1</th>
<th>Disagree=2</th>
<th>Neutral=3</th>
<th>Agree=4</th>
<th>Strongly Agree=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Volunteer at the school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) Communicate with my child’s teacher regularly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) Help my child with their homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) Make sure the school has what it needs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) Support decisions made by the teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) Stay on top of things at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) Talk with other parents from my child’s school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(h) Talk with my child about the school day</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(i) Attend meetings to do with my child’s future, like IEP and transition meetings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

50. How much do you agree with the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree=1</th>
<th>Disagree=2</th>
<th>Neutral=3</th>
<th>Agree=4</th>
<th>Strongly Agree=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I know how to help my child do well in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I don’t know if I am getting through to my child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) I don’t know how to help my child succeed in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I feel successful about my efforts to help my child learn.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) Other children have more influence on my child’s grade than I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) I make a significant difference in my child’s school performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>following statements about your child’s school?</td>
<td>Disagree = 1</td>
<td>e = 2</td>
<td>= 3</td>
<td>4</td>
<td>Agree = 5</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------</td>
<td>-------</td>
<td>-----</td>
<td>---</td>
<td>-----------</td>
</tr>
<tr>
<td>(a) Teachers at this school are interested and cooperative when discussing my child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I feel welcome at this school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) Parent activities are scheduled at this school so I can attend.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) The school lets me know about meetings and special school events</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) The school’s staff contacts me promptly about any problems involving my child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) The teachers at this school keep me informed about my child’s progress.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

51.

<table>
<thead>
<tr>
<th>How often has the following happened:</th>
<th>Never= 1</th>
<th>1 or 2 times= 2</th>
<th>Once a week= 3</th>
<th>A few times a week= 4</th>
<th>Daily= 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) My child’s teacher asked me or expected me to help with my child’s homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) My child’s teacher asked me or expected me to supervise my child doing homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) My child’s teacher asked me to talk with my child about the school day</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) My child’s teacher asked me to attend a special event at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) My child’s teacher asked me to attend an IEP or another meeting about my child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) My child’s teacher asked me to help out at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) My child’s teacher contacted me (phone, note, email)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

52.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I have enough time and energy to communicate effectively with my child about the school day</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) I have enough time and energy to help out at my child's school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) I have enough time and energy to communicate effectively with my child's teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) I have enough time and energy to attend special events at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) I have enough time and energy to help my child with homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) I know about volunteering opportunities at my child's school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) I know about special events at my child's school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(h) I know how to communicate effectively with my child about their school day</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(i) I know how to explain to my child how to complete their homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(j) I know how to communicate effectively with my child's teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(k) I have the skills to help out at my child's school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

53.
<table>
<thead>
<tr>
<th>How often does the following happen:</th>
<th>Never=1</th>
<th>1 or 2 times per year=2</th>
<th>4 or 5 times a year=3</th>
<th>Monthly = 4</th>
<th>Weekly = 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Someone in this family talks with the child about their school day</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(b) Someone in this family helps the child with homework</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(c) Someone in this family reads with the child</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(d) Someone in this family helps out at the child’s school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(e) Someone in this family attends special events at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(f) Someone in this family attends meetings for the child at schools</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(g) Someone in this family volunteers at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(h) Someone in this family goes to school open houses</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(i) Someone in this family attends parent meetings at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Section I: PROTOCOL DESCRIPTION (Please answer each question in the space below it)

1. Please describe the purpose of your research. Provide relevant background information and scientific justification for your study. You may provide citations as necessary.

Transition from high school to adulthood for students with disabilities is a monumental stage for both the individual and his or her family. This is a time marked by change which can be stressful for everyone involved, especially the parents. Despite the challenging nature of transition for parents, one of the most salient predictors of students’ successful transitions is their parents’ involvement with transition planning (Grigal & Neubert, 2004). Unfortunately, many parents have little or no significant involvement in their children’s special education services (Spann, Kohler, & Soenksen, 2003), and many families of students with disabilities are not involved during the transition process, or are, at best, passively involved (Defur, Todd-Allen, & Getzel, 2001). Low levels of parental involvement decrease the likelihood for a successful post-secondary transition.

The present study will examine parent involvement during the transition of their child with a developmental disability from high school to adulthood. This study aims to determine the protective factors and barriers that are related to parents’ experiences during this crucial time. For the purposes of this study, parents who are already considered high risk for low levels of parental involvement are being targeted. Factors that place parents into the high risk category are low socioeconomic status, low levels of
education, being an immigrant, English not being their first language, or if they run a single parent household. Past research has shown that factors such as socioeconomic status and low levels of education explain significant differences in parental involvement in schools (McDonnell & Hardman, 2009), the present study, however, will focus on the experiences of high-risk parents to understand factors that promote involvement within this population.

2. Federal guidelines state that research cannot exclude any classes of subjects without scientific justification. Will your study purposely exclude any classes of subjects (e.g. by gender, class, race or age)? If so, please justify.

This study is looking to research parents of children with a developmental disability, ages 14-21, the age of children going through the transition from high school to adulthood. No other exclusions exist.

3. Please state your research question (in one or two sentences, if possible).

1. In a diverse sample of parents of transitioning youth in the NYCDOE, how do parents describe their experiences with the transition process, how involved are they in the transition process, and what do they describe as barriers to their involvement?

2. What are socio-demographic factors that predict parent involvement during the transition process?

3. What are psychosocial factors that predict parent involvement during the transition process?
4. Do child characteristics moderate the links between sociodemographic factors and involvement or between psychosocial factors and involvement?

5. Is there an interaction between psychosocial factors and and sociodemographic factors in predicting involvement?

4. Please describe the specific data you plan to collect and explain how data and the subjects you choose will help to answer your research question/s.

The data collected for this study will be answers to survey questions. The survey questions will address socio-demographic factors and psychosocial factors that promote and prevent active parent involvement in the transition process.

Section II: DESCRIPTION OF RECRUITMENT AND PROCEDURES

5. Please describe your recruitment methods. How and where will subjects be recruited (flyers, announcement/s, word-of-mouth, snowballing, etc.)? You will need to include your IRB Protocol number in all recruitment materials, including announcements, online and email text. Paper copies of submitted recruitment materials to be distributed will be stamped with your IRB Protocol number once your study has been approved.

Participants will be recruited through the schools at which their child attends. Because this study is targeting parents considered high-risk for low levels of parental involvement, this study will recruit participants from the New York City Department of Education (NYCDOE). As of the 2015-16 school year, 76.5% of the students in the NYCDOE fell within the poverty range, and 69.7% of the students were ethnic-racial minorities (black, Hispanic, or other non white; schools.nyc.gov). Once IRB approval from the NYCDOE is granted, the researcher will contact principals at least ten NYCDOE schools that serve children with developmental disabilities ages 14-21. Schools will be selected based on
being a part of District 75, which serves students who have autism, are developmentally delayed, and/or multiply disabled. The principals will connect the researcher with teachers within their school. Each classroom will have either six or twelve students with developmental disabilities, as per D75’s student to teacher ratio. Consent forms and surveys will be sent home with students in their backpacks.

6. Are you recruiting subjects from institutions other than Teachers College? If so, documentation of permission or pending IRB approval from the institution/s is required with this submission.

I will be recruiting subjects from the NYCDOE- that IRB approval is based on approval of this IRB proposal and will be submitted after this proposal.

7. How many subjects are you planning to recruit?

50

8. Please list what activities your subject will be engaging in (e.g. surveys, focus groups, interviews, diagnostic procedures, etc.). [PLEASE NOTE: If you are collecting any private medical information from your subjects, please see our website www.tc.edu/irb under Forms and Guidelines for the HIPAA consent document.]

<table>
<thead>
<tr>
<th>Name of activity</th>
<th># of times the activity occurs</th>
<th>Duration of activity per instance</th>
<th>Total time period of active participation per subject (days, weeks, etc.)</th>
<th>Describe the Data collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>1</td>
<td>30 minutes</td>
<td>30 minutes</td>
<td>Parents will be asked to complete questions about their demographics,</td>
</tr>
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</table>
9. Where will your data collection take place specifically (e.g., in classroom, outside of classroom, waiting room, office, other location)?

Outside the classroom - in the parents’ home

10. Will subjects be remunerated for their participation? If, so please describe.

[PLEASE NOTE: If using a lottery system, please remember to state odds of winning in consent form. Also, if you will be offering course credit for study participation, you must discuss this here and include the alternative assignment for those who decline to participate in the study].

Yes- Each parent will be awarded a $10 Dunkin’ Donuts gift card for completing their survey. It will be given to the teachers to place in their child’s book-bag and sent home.

11. Will deception be used? If so, please provide a rationale for its use. How will subjects be debriefed afterward? Submit debriefing script. Scripts should include a statement that gives your subjects the opportunity to withdraw their participation at that time. [PLEASE NOTE: studies involving deception are given Full Board Review unless the deception is minor and risks are minimal].

No
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<tbody>
<tr>
<td>12.</td>
<td>Will you have a control group? Please describe your procedures and explain the purpose of using a control group.</td>
</tr>
<tr>
<td>No</td>
<td></td>
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<tr>
<td>13.</td>
<td>Will you be videotaping your subjects? If so, please describe in detail. [<strong>PLEASE NOTE:</strong> The IRB will only approve videotaping when there is adequate scientific and ethical justification].</td>
</tr>
<tr>
<td>No</td>
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**Section III: CONFIDENTIALITY PROCEDURES**

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<tr>
<td>14.</td>
<td>How will you ensure the subjects’ confidentiality? Describe in detail your plans for ensuring confidentiality of data regarding subjects. [<strong>PLEASE NOTE:</strong> If you will be remunerating subjects after their participation, please make it clear if and how you will link their names/contact information confidentially to their compensation].</td>
</tr>
</tbody>
</table>

The parents will be asked to return completed consent forms to the teacher who will place them in a sealed box provided by the researcher and placed in a designated secure location in the school. Once the consent forms have been received, the researcher will send home survey packets to the parents who have chosen to participate. Parents who have given consent will be given an ID number. The packet will have a top sheet with the parents’ name and directions on how to complete the packet. The directions will instruct the parents to tear off the top sheet when sending back in the packet. The rest of the packet will include a confidential ID number, which will be preassigned to the parent by the research team. The parents will return the packet to school in their child’s book bag, where the teacher will place the packet in a sealed box that the researcher will pick up.

We will keep the identifiable consent forms in a separate, locked filing cabinet in the lab’s office, which will be kept separate from the de-identified data. The hard protocol data will be kept in a separate, locked location (529 Thorndike Hall), and will only
contain the subject’s de-identified data. All data inputted to the computer database will be anonymized when entered into the database. Data will be stripped of all personal identifiers and each subject will be referred to by a unique research code. The file that contains the links between identifying information and the research code will be kept in an encrypted and password protected.

15. If you will be audio/videotaping, please state how you will ensure that subjects have consented to being recorded, and if some subjects do not consent to being recorded, explain how you will protect their confidentiality. (This must also be clearly stated in your consent form/s).

No audio/video

16. Will data be collected anonymously? Will you be able to link the data? If data will not be collected anonymously, how will subjects’ identity/information be protected? (e.g. codes, pseudonyms, masking of information, etc.)?

Data will not be collected anonymously. The subjects’ identity/information will be protected using unique research codes. The files that would enable linking of participant information will be kept locked in a separate room in a locked cabinet in 529 Thorndike Hall, at the end of a hallway adjacent to faculty offices, to which only they will have access.

17. Where will coding and data materials be stored (e.g. ‘in a locked file cabinet in the Principal Investigator’s home or office’)?

All surveys will be kept in a locked file cabinet in the researcher’s lab, 595 Thorndike Hall.

18. Will you need bilingual interpreters or interviewers, and if so, what will you do to ensure confidentiality of the subjects? What are your procedures for recruiting interpreters/interviewers? Indicate the name of the interpreter/interviewer and for whom he/she works. Submit copies of all questionnaires or interview questions for each subject population.
SECTION IV: DESCRIPTION OF RESEARCH RISKS & BENEFITS

19. What are the potential risks, if any, (physical, psychological, social, legal, or other) to your subjects? What is the likelihood of these risks occurring, and/or their seriousness? How will you work to minimize them? [PLEASE NOTE: The IRB regards no research involving human subjects as risk-free. You may describe minimal risks for your study (such as discomfort, boredom, fatigue, etc.), or state that the research will involve minimal risk, similar to an activity (named) like that which participants will perform as part of your study.]

There is minimal risk for this study, such as boredom and fatigue from completing the survey.

20. What are your plans for ensuring necessary intervention in the event of a distressed subject and/or your referral sources if there is a need for psychological and/or physical treatment/assistance?

If a parent is in need for psychological and/or physical treatment/assistance, I will first refer them to the faculty PI on the project (Dr. Laudan Jahromi) and then refer them to the Dean Hope Center, the center for educational and psychological services at Teachers College, 212-678-3262.

21. What are your qualifications/preparations that enable you to estimate and minimize risk to subjects?

The faculty PI (Dr. Laudan Jahromi) is a developmental psychologist and Associate Professor with over 15 years of experience conducting research with families of young children, including those with developmental disabilities. The current research is similar to research conducted in previous studies and presents minimal risk to participants.

Morgan Jacobs is an experienced, certified special education teacher, with 15 years of experience in the field.
22. What are the potential benefits of this study to the subjects? Most research conducted at TC provides NO DIRECT BENEFIT to participants and must be STATED as such in the INFORMED CONSENT FORM. Occasionally, study design will include a diagnosis, evaluation, screening, counseling or training, etc., that have a concrete benefit to participants, independent of the nature or results of a research study that may be listed below. Benefits such as “an opportunity to reflect,” “helping to advance knowledge,” etc., ARE NOT BENEFITS and MUST NOT be included in this section.

There is no direct benefit to participants completing this study.

Section V: INFORMED CONSENT PROCEDURES (Please use the templates on the website in preparing your consent form/s, and note that Informed consent is a process, not a form).

23. What are your procedures for obtaining subject’s informed consent to participate in the research?

The teacher will send home consent forms with each of the students in their class. The consent form is read and signed at home prior to beginning the study. The consent form will be sent home prior to the questionnaire in both English and Spanish. Participants are asked to read the purpose of the study and the consent form. Contact information for the researcher is provided to the participants in case they have any questions. Participants are asked to sign the consent form and to choose whether they would like to complete the survey via packet or by phone. If they choose by phone, the participants are asked to provide a phone number and the best times to be reached.

24. How will you describe your research to potential subjects? [Please note: if working with a population under eight (8) years of age, a script is necessary.]

We will describe the research to parents by identifying the potentially challenging nature of parenting a child in special education during their transition to adulthood (see attached...
Parent Recruitment Letter. We will explain that the aim of the study is to identify factors that are important considerations for future interventions to support the well-being of parents of children transitioning to adulthood.

25. What will you do to ensure subjects’ understanding of the study and what it involves?

We will describe in the Parent Recruitment Letter that all that is being asked of the parent is to complete the survey in its entirety and return it back to school. We will provide the parents with contact information for the researcher in case there are any questions about what is being asked of them.

26. If you are recruiting students from a classroom during normal school hours, what will the alternative activities be for those who wish not to participate? (This should also appear in your consent form/s)

No students will be studied

27. Use this section to provide a request for a full or partial waiver of informed consent, and justify this request. You may site criteria from the following link regarding Federal regulations and guidelines: [http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html#46.116](http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html#46.116)

N/A

Note for Researchers: Submit all consent forms/scripts, using the templates provided on the website. **Drafts of consent forms will not be accepted.** Each consent form must be a separate document and titled for its respective subject population (e.g. teachers, parents, etc.). All consent documents must be in English, even though you may translate them. **All consent documents should be printed on Teachers College letterhead or include the name and address of the college, per the online Informed Consent and Participant’s Rights templates.**
If your research project requires using documents that are translated into other languages, please submit both the translated English version AND the translated document with your application. You must sign and date the document. TC strongly urges investigators to use back translation (translation into the target language and back into English) as a method of ensuring the translation’s accuracy. Revised consents will also need to be translated.

NOTE: If you are conducting any part of your research within NYC DEPARTMENT OF EDUCATION [DOE] Schools: It is required that you receive approval from TEACHERS COLLEGE prior to submitting to the NYC Board of Education’s Division of Assessment and Accountability.