A COMPARISON OF GENERAL AND SPECIAL EDUCATION HIGH SCHOOL STUDENTS IN TRANSITION: THE IMPACT OF SOCIAL SUPPORT ON STUDENT OUTCOMES

by

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Abstract

A Comparison of General and Special Education High School Students in Transition: The Impact of Social Support on Student Outcomes

by

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This dissertation study examined the differences between students in general education and in special education in their perceptions of the types of support they need from different sources during the transitions at the beginning and end of high school. Specifically, this study examined the role of social support in students' behavioral and academic functioning and their postsecondary-school aspirations. General and special education students in 9th and 12th grades (N = 89) completed (1) the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2004), (2) the Behavior Assessment System for Children (BASC-2; Reynolds & Kamphaus, 2004) and (3) a brief questionnaire on students' goals and aspirations after high school. Participants' test scores on regularly administered standardized achievement tests measured academic functioning. Overall, there was little variation among participants regarding their perceptions of social support, academic achievement or behavioral adjustment, and post-secondary goals and aspirations, regardless of their age, gender, or educational placement. Social support predicted one aspect of students' behavioral well-being (i.e., personal adjustment). The lack of significant findings may reflect study limitations, particularly sample limitations. Overall, the study's participants attend a school where most of the student body was performing well academically and exhibited behaviors (i.e.,

attendance) that are important for school success. The study's limitations, suggestions for future research, and implications for school psychologists are discussed.

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Chapter I

Overview

Problem Background

Public schools are an example of a major social institution that can promote resilience and offset the risk and adversity that many students face (Doll & Lyon, 1998a). While there is research to support the role that social support has for adjustment (Brooks & Goldstein, 2001; Cobb, 1976; Coie et al., 1993; Comer, 2002; Doll & Lyon, 1998b; Doll, Zucker, & Brehm, 2004; Garmezy & Masten, 1990; Rutter, 1987, 1995; Tardy, 1985), we know less about the relationship between social support and school-related outcomes (e.g., grades, standardized achievement test results, attendance, and retention rates). Students, regardless of their educational placement, are likely to experience academic, social, or emotional problems at some point that may require additional support from others. Although students draw on social support from various sources (e.g., parents, teachers, peers; Malecki & Demaray, 2003), contributions of support to student success require further investigation. Using the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2004), this study will discern general-education and special-education students' perceived social support and its impacts on their life satisfaction and academic achievement.

Schools must not only educate students to ensure their achievement of academic goals, but must also address their socio-emotional needs. According to the U.S. Department of Health and Human Services (USDHHS; 2007), one of every five children and adolescents has a mental health disorder that can interfere with the way these youth

think, feel, and act. Given these statistics, a classroom of 25 students will have 5 children with significant mental health concerns, 4 who will be living in poverty, and 1 dealing with abuse (Doll et al., 2004). Nationally, there are an estimated 12–15% of children who require social and emotional support from their community mental health providers but whose needs are not being met (Doll et al., 2004; Kataoka, Zhang, & Wells, 2002). Schools need strategies to support the social, emotional, and intellectual needs of all students, so that they can learn and be successful. However, providing students with the best educational environment requires investigation of social and emotional factors that standardized achievement tests do not examine.

As schools nationwide are faced with the pressure to ensure that all students achieve certain academic goals, schools also must educate a large percentage of high-risk students (Children's Defense Fund, 2002). The Annie E. Casey Foundation, which publishes an annual report on the status of disadvantaged and at-risk children, found that, since 2000, the trend in conditions for children at high risk is unchanged or worsening (AECF: Annie E. Casey Foundation 2006). The AECF's 10 key indicators of child well-being incorporate a developmental perspective and provide a national picture of vulnerable children and youth. Nationally, four of the key indicators have improved since 2000 (child death rate, teen death rate, teen birth rate, and percent of teens who are high school dropouts), three have remained the same (infant-mortality rate, percent of teens not attending school and not working, and percent of children in single-parent families), and three have worsened (low-birth-weight babies, percent of children living in families in which no parent has full-time, year-round employment, and percent of children living

in poverty). In 2004, 18% of children were living in poverty, a 6% increase since 2000 (AECF, 2006). On average, these data indicate that millions of children face an uncertain future filled with risks.

Considering that many children are at-risk, efforts to promote student success should be done early and often. However, educators tend to identify an area of concern only after it becomes a problem (Desrochers et al., 2005; Goldstein, 2008; Klotz & Canter, 2008). Oftentimes, school psychologists evaluate a child whom a teacher or parent identifies as struggling academically. The current trend in school psychology, however, is for early identification of students' academic and behavioral concerns in order to provide services and interventions using Responsiveness to Intervention (RTI; Canter, 2006) to prevent future problems. RTI is a multitiered approach that focuses on students' responses to scientifically-based interventions to assess and treat academic and/or behavioral problems early, thereby reducing the number of referrals for special-education services (Canter, 2006). Similarly, students' success in school may also depend on examining factors that, if identified and assessed early, can protect students from developing socio-emotional problems or lessen their impact (Doll & Lyon, 1998b; Doll et al., 2004).

Prevention, a long-established role of school psychologists, recently has received new attention (Desrochers et al., 2005). Research shows that "well-designed, well-implemented school-based prevention and youth-development programming can positively influence a diverse array of social, health, and academic outcomes" (Greenberget al., 2003, p. 470). Research on prevention includes focusing on protective

factors that strengthen an individual's resistance to the risk factors or disorders as well as risk factors (Coie et al., 1993) associated with the onset, severity, and duration of mental health problems (Coie et al., 1993). Protective factors play an essential role in how people respond to risk situations and deal with life changes (Brooks & Goldstein, 2001; Cobb, 1976; Coie et al., 1993; Cowen, 1991, 1994; Doll et al., 2004; Goldstein, 2008; Rutter, 1995).

The identification of protective factors has its origin in the concept of resilience, a concept used to describe how individuals successfully cope with stress and adversity (Rutter 1987, 1995). While there is no universal definition of resilience, one of its main tenets is that individuals are able to overcome hardship and obstacles or develop competence despite negative life stressors (Brooks & Goldstein, 2001; Doll & Lyon, 1998a; Goldstein, 2008; Rutter, 1987). The concept of resilience has evolved over the past 50 years from studies on developmental risk and outcomes (Doll & Lyon, 1998b). Risk, a related concept, represents a less favorable outcome when an individual is unable to successfully cope or overcome negative life stressors (Rutter, 1987, 1995).

While these risk factors vary across a child's lifespan, children at every stage of development need strong financial and social support from families and communities (AECF, 2006). The research has demonstrated that children under stress benefit from available support systems both at home and in the community (Garmezy, 1986). Failure to counteract children's risk factors could limit their ability to achieve typical adult milestones. Children who experience risk factors are less likely to earn a living, create healthy families, and contribute in productive ways to their communities (Doll et al.,

2004). Consequently, identifying protective mechanisms to ameliorate these risk factors is vital.

Social support is one factor that has been shown to facilitate resilience. It may also play a role in improving students' career aspirations and educational outcomes. There is some evidence that students' perceptions of social support from different sources (e.g., family members, school staff) are related to students' having higher career aspirations (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003; Wall, Covell, & MacIntyre, 1999). This suggests that social support may protect children at-risk and promote long-term success.

Social support has been shown to facilitate positive outcomes in a number of areas including an individual's physical and psychological well-being (Argyle, 1992; Beeman, 2001; Cohen, 1988; Cohen et al., 2001; LaFromboise, Hoyt, Oliver, & Whitbeck, 2006; Lyons, Uziel-Miller, Reyes, & Sokol, 2000; Natvig et al., 2003; Tardy, 1985). The positive relationship between social support and physical and mental well-being has been found across the life-span from school-age children (Holt & Espelage, 2007; Holt & Espelage, 2005; Pina et al., 2008) and young adults (Crockett et al., 2007; Eldeleklıoğlu, 2006; Sümer, Poyrzli, & Grahame, 2008) to older adults (Golden, Conroy, & Lawlor, 2009; Maly, Umezawa, Leake, Silliman, 2005).

In regards to physical well-being, research supports the beneficial relationship between social support and individuals' ability to cope with numerous challenges including serious physical illness (Deichert, Fekete, Boarts, Druley, & Delahanty, 2008; Li, Li, & Dai, 2008; Maly et al., 2005), trauma (Araya, Chotai, Komproe, & de Jong,

2007; Hobfoll et al., 2008), as well as adherence to medical treatments (Bosworth, Voils, Potter, & Steffens, 2008; Sayers, Riegel, Pawlowski, Coyne, & Samaha, 2008). Research suggests that social support is also related to one's overall physical health and healthy lifestyles (Cutrona, Russell, & Rose, 1986; Hale, Hannum, & Espelage, 2005; Jackson, Tucker, & Herman, 2007).

Research demonstrates that social support is beneficial to individuals' psychological well-being; it has been found to promote recovery from mental illness (Corrigan & Phelan, 2004), such as depression and anxiety (Eldeleklıoğlu, 2006; Golden et al., 2009; Henderson, 1992; Holt & Espelage, 2007; Kessler & McLeod, 1985; Maly, et al., 2005; Li et al., 2008; Sümer et al., 2008). Research also suggests that social support contributes to individuals' ability to cope with the adverse effects of stress (Benhorin & McMahon, 2008; Bozo, Toksabay, & Kürüm, 2009; Cohen, Gottlieb, & Underwood, 2001; Fried, & Tiegs, 1993) as well as symptoms of posttraumatic stress disorder (PTSD) (Pina et al., 2008).

Research has shown that social support is particularly important during stressful times of transition. Transitions are fraught with emotional, psychological, and social challenges. Social support has been to found to promote positive outcomes associated with transitioning to life stages, such as the transitions from childhood to adolescence (DuBois, Eitel, Felner, 1994; Levitt et al., 2005), adolescence to adulthood (Hays & Oxley, 1986; Needham, 2008, Levitt, Silver, & Santos, 2007), and adulthood to parenthood (Cutrona, 1984; Simpson, Rholes, Campbell, Tran, & Wilson, 2003). Research also demonstrates that social support is particularly important for vulnerable

populations at times of transition, such as youth transitioning from foster care to independent living (Collins, 2001; Collins & Spencer, 2010; Reilly, 2003). The presence of social support is also found to benefit individuals adjusting to life in a new country (Eldeleklıoğlu, 2006) and culture (Turjeman, Mesch, & Fishman, 2008). Research supports the role of social support for youth coping with the challenges of transitioning to a new school (Grolnick, Kurowski, Dunlap, & Hevey, 2000; Newman, Newman, Griffen, O'Connor, & Spas, 2007), including college (Brissette, Scheier, & Carver, 2002; Harley, Winn, Pemberton, & Wilcox, 2007). In summation, social support related to positive adjustment to stressful life events (Brissette et al., 2002) throughout an individual's life.

Social support is important for all children, but especially important for adolescents because of the many developmental changes including physical and biological, as well as the health, social and academic challenges characteristic of this period (Waters, Cross, & Runions, 2009; Zarrett & Eccles, 2006). Adolescence is regarded as a stage in life characterized by distress (Zarrett & Eccles, 2006). It is a time when young people are making the shift from dependency on caregivers to being independent, and assuming responsibility for choices about their education, peer group, and lifestyles, all of which have long-term implications (Zarrett & Eccles, 2006). In order to successfully master these challenges, youth draw on their psychosocial, physical and cognitive resources as well as the social support available to them (Eccles & Gootman, 2002).

Social support has been found to be important for adolescents' mental health, specifically in its promotion of pro-social and adaptive outcomes such as academic

achievement, mental health, psychological adjustment, and an absence of behavior problems (e.g., drug use) (LaFromboise et al., 2006; Reinherz, Giaconia, Paradis, Novero, & Kerrigan, 2008). The presence of social support in the lives of adolescents is associated with a reduction in serious difficulties such as mental and behavior problems (Reinherz et al., 2008) as well as the promotion of their psychological and physical well-being (Helgeson, Lopez, & Kamarck, 2009). In summation, social support is important for all individuals but particularly for adolescents making the shift from childhood to adulthood.

All students experience difficulties over the course of their education but students diagnosed with disabilities are particularly at risk for suffering from social, emotional, and personal problems in addition to their academic struggles (Heiman & Kariv, 2004; Lambie & Milsom, 2010). Research suggests that students with disabilities are more likely to have difficulty establishing friendships and experience feelings of isolation and loneliness (Hartman, 2009; Meadan & Monda-Amaya, 2008; Vaughn, Elbaum, & Boardman, 2001) and have poor social networks (Lippold & Burns, 2009). In addition, the absence of social and emotional support has been associated with an increase in anxiety and depressive symptoms among individuals with disabilities (Strine, Chapman, Balluz, & Mokdad, 2008). In contrast, the presence of social support has been found to be associated with greater life satisfaction in individuals with disabilities (Miller & Chan, 2008).

In school-age children, the presence of social support is found to promote social-emotional as well as academic competencies (Carson, Chowdhury, Chowdhury, &

Carson, 2002; Elias, & Haynes 2008). Among individuals with disabilities, social support has been found to be important for the psychological adjustment and overall ability to function (Heiman & Kariv, 2004). For students with disabilities, who are more likely to experience less social support than their non-disabled peers, identifying their need for social support may lead to the creation of learning environments that support their long-term adjustment (Meadan & Monday-Amaya, 2008).

Study Rationale

If school psychology is to benefit all students, it needs to focus on problem prevention rather than trying to address problems on a case-by-case basis (Coie et al., 1993). If school psychologists can identify students' need for additional social support at specific times (e.g., during times of transition), in different academic settings (e.g., special education), or based on their academic needs (e.g., grade-point average or achievement test scores), they can better meet these needs and enable students to succeed (Coie et al., 1993).

Children spend the majority of their day in school and consequently with their teachers and peers (Jackson, 2002). With students spending so many hours in school, their perception of their school life is likely to have important consequences for their academic and socioemotional development (Brooks & Goldstein, 2001; DeSantis King, Huebner, Suldo, & Valois, 2006; Doll, Zucker, & Brehm, 2004; Jackson, 2002), and teachers and peers will influence their psychosocial well-being (Natvig, Albrektsen, & Qvarnstrøm, 2003).

Research has found that students who reported having a more satisfying school experience also reported fewer internalizing and externalizing problem behaviors (DeSantis King et al., 2006). In addition, the more support that adolescents perceived to be available from various sources in their lives (e.g., teachers, parents), the more satisfied they were with their school experience. This finding underscores the fact that students' perception of social support is important for their overall satisfaction with school and consequently their academic and nonacademic development. It is important to understand the noninstructional aspects of the classroom environment that relate to student success (Wentzel, 1997).

In a diverse population, factors that help students overcome challenges may differ (Casey-Cannon et al., 2006). Therefore, it is important to examine the needs of students in order to provide them with the support they perceive to be important to their success. According to Tardy's (1985) model of social support, the four different types of social support (i.e., emotional, instrumental, informational, and appraisal) are amenable to manipulation. It is critical to advance our understanding of the role social support plays in the lives of adolescents so that school psychologists can implement preventative interventions that foster student success (Demaray & Malecki, 2002a; DeSantis King et al., 2006).

School psychologists must investigate the social-support needs of all students in order to best meet their needs, particularly as adolescents make transitions from childhood to adulthood (Compas, Slavin, Wagner, & Vannatta, 1986). Transitions are a stressful time that requires students to adapt to demands of a new environment (Eckes &

Ochoa, 2005). Of the 500 former students surveyed by Bridgeland, DiLulio, and Morison (2006), 38% believed that the adults in their lives (i.e., parents and school personnel) gave them too much freedom, in contrast to support, as they grew older, a factor that contributed to some of them dropping out of high school. Therefore, it is important to examine the needs both of freshman students, who are beginning high school, and of seniors, who are leaving high school, to see if they differ during these two transition periods. This study will focus on the needs of students during these transition times. Under the IDEA, the U.S. Department of Education (2009) states that "providing effective transition services to promote successful post-school employment or education is an important measure of accountability for children with disabilities" (p. 118); therefore, studying the role of social support during times of transition will benefit all children, especially students with disabilities who experience unique challenges related to their disability (Eckes & Ochoa, 2005; Madaus, 2005).

Purpose of the Study

The goals of this dissertation are to examine the differences between students in general education and in special education in their perceptions of the types of support they need from different sources during the transitions at the beginning and end of high school.

Research Questions

This study will attempt to answer the following questions. (a) What is the relationship between students' perceived social support and self-reported adjustment for both general-education and special-education students? (b) What is the relationship

between students' perceived social support and self-reported adjustment for both 9th-grade and 12th-grade students (i.e., those in transition periods)? (c) Does the perceived availability and importance of social support differ for students in general education compared to students in special education? (d) What is the relationship between students' perceived social support and their postsecondary school aspirations?

Chapter II

Literature Review

Origin of the Study

This chapter reviews the literature pertaining to the construct of social support and presents an examination of the dimensions of social-support measures. I discuss the importance of perceived social support, the sources of students' perceived social support, and the role of social support among students relative to behavioral and academic adjustment, adolescence, and disability.

Background

The concept of social support is a popular topic of studies on mental health (Barrera & Prelow, 2000; Cohen, 1988; Cohen, Gottlieb, & Underwood, 2001; Cohen & Syme, 1985; DeSantis King, Huebner, Suldo, & Valois, 2006; Natvig, Albrektsen, & Qvarnstrøm, 2003; Veiel & Baumann, 1992; Williams, Barclay, & Schmied, 2004). Mental health researchers widely acknowledge the important contribution of supportive interactions for an individual's health and well-being (Barrera & Prelow; Beeman, 2001; Cohen et al., 2001; Cohen & Syme, 1985; Natvig et al., 2003; Turner, 1992). In their chapter in the American Psychological Association's *Encyclopedia of Psychology*, Feldman and Cohen (2000) recognized the hundreds of articles published over the last 2 decades that provided evidence for the beneficial aspects of supportive relationships. The consensus among researchers is that social support has an influential role in our psychological and physical health (Cobb, 1976; Cohen, 1988; Cohen et al., 2001; Cohen & Syme, 1985; Feldman & Cohen, 2000; Veiel & Baumann, 1992).

Psychologists regard social support as a direct benefit of social relationships because friends positively influence one's mental health and contribute to feelings of happiness (Argyle, 1992; Natvig et al., 2003). The literature recognizes the importance of social support, because individuals generally benefit from social relationships and group membership contributes to positive outcomes, both mental and physical (Argyle, 1992; Beeman, 2001; Cohen, 1988; Cohen et al., 2001; Lyons, Uziel-Miller, Reyes, & Sokol, 2000; Natvig et al., 2003; Tardy, 1985). Taking part in cooperative leisure activities and being accepted into a social group removes loneliness, produces feelings of well-being, and strengthens social bonds (Argyle, 1992). The absence of support from important others in times of need can impair an individual's ability to deal successfully with crises (Harris, 1992).

Theories of human development (e.g., psychoanalytic, cognitive, behavioral, sociocognitive, and ecological) recognize the importance of one's social environment (Veiel & Baumann, 1992). For example, Bowlby's (1988) attachment theory and Bronfenbrenner's (1986, 1995) ecological theory both identify the influence others have on a person's development.

Early studies of social support. The study of social support as a construct gained a foothold in the 1970s and early 1980s. During this time, prospective studies of community populations found evidence for the positive influence that social relationships have on health (Cohen et al., 2001; Cohen & Syme, 1985; Berkman, 2000; House, Robbins, & Metzner, 1982; Schoenbach, Kaplan, Fredman, & Kleinbaum, 1986). Two essays, often cited in the social support literature, by Cassel (1976) and Cobb (1976), helped launch the systematic research on social support (Beeman, 2001; Berkman, 2000;

Billings & Moos, 1981; Cohen, 1992; Cohen et al., 2001; Cohen & McKay, 1984; Cohen & Syme, 1985; Ganellen & Blaney, 1984; Heller, Swindle, & Dusenbury, 1986; House et al., 1988; Panacek & Dunlap, 2003; Sarason, Sarason, & Pierce, 1992; Schaefer, Coynev, & Lazarus, 1981; Williams et al., 2004). Both Cassel and Cobb found evidence for the contribution of social support in improving individuals' health.

In a 1976 essay, published in the *American Journal of Epidemiology,* Cassel described the focus of epidemiologic research and suggested that it should change to reflect current issues. Cassel argued that the focus on pathogenic agents such as typhoid, cholera, and small pox in Westernized societies was unproductive because most people are protected from these diseases. Therefore, Cassel noted, the focus of epidemiologic research should shift to an examination of microorganisms in our bodies that seem to cause harm only when infected individuals are experiencing stress. Thus, the question in epidemiologic research became, *What are the environmental factors that affect people's resistance or submission to these ever-present agents?*

While the examination of environmental factors primarily focused on people's nutrition, exhaustion, or degree to which they were overburdened, Cassel (1976) recommended that researchers consider another category of environmental factors that can influence an individual's resistance or vulnerability to disease agents, the social environment. Examining animal and human experiments, Cassel found evidence for the influence of the social milieu on how diseases manifest.

In summation, Cassel (1976) suggested that while social factors may not directly cause the manifestation of diseases, people's experience of their social condition and their relationships with others can lessen or enhance their susceptibility to all diseases.

Furthermore, Cassel argued that efforts should focus on the identification and alteration of the psychosocial factors that prevent the occurrence of diseases.

In the same year, Cobb (1976) published a paper that introduced social support as a construct deserving further study in order to better understand its role in preventing adverse health-related outcomes. Cobb culled the existing research on social support, reanalyzed many of the studies' data, and concluded that there was strong evidence that supportive interactions are important and that social support is protective throughout one's life span. Cobb's (1976) conceptualization of social support posited that an individual receives information from others, specifically information that enables the individual to believe others care for and value him/her, and that this information possibly prevents the negative consequences associated with change and crisis. Therefore, Cobb called for research to examine the moderating effects of social support during times of transition, including entry into primary school, college, first job, and adulthood. Furthermore, Cobb proposed that future studies focus on the possible mechanisms responsible for social support's protective effects.

More recently, Berkman (2000) found support for the ideas of epidemiologists Cassel (1976) and Cobb (1976). Studies initially focused on vulnerability to negative life events and stressors (Cowen, 1991, 2002; Doll & Lyon, 1998a), and subsequently examined how individuals cope with and manage risk (Cowen, 1994; Doll & Lyon, 1998b; Rutter, 1987). While risk research asked, *What factors increase individuals' risk to succumb to adversity thereby diminishing their ability to lead productive adult lives?* (Doll & Lyon, 1998b), resilience research asked, *Are there knowable and malleable*

variables, mechanisms, and processes that enable high-risk individuals to overcome obstacles, stressors, and negative events to thrive (Doll & Lyon, 1998b)?

Resilience involves how individuals navigate through and overcome their stressful or disadvantageous circumstances (Garmezy & Masten, 1990; Rutter, 1987, 1995). If the situation changes, resilience also changes (Rutter, 1987, 1995). Thus, one can foster resilience by changing aspects of an individual's circumstances. Educators have the potential to change students' social environment to foster resilience and enable them to manage and overcome adverse situations (Dolly & Lyon, 1998b; Rutter, 1987, 1995).

Models of Social Support

In the social-support literature, researchers often make a distinction between two hypothesized models of social support: the main- or direct-effect model and the stress-buffering model (Cohen, 1988, 2004; Cohen & Syme, 1985; Cohen & Willis, 1985). In the main-effect model, the relationship between social support and well-being is due to the overall positive effect of support (Cohen, 1988, 2004; Cohen & Syme, 1985; Cohen & Willis, 1985) in which people benefit from social support because it positively influences physical and psychological health (Cohen, 1988, 2004; Cohen & Syme, 1985; Cohen & Willis, 1985). According to the stress-buffering model, social support protects individuals from adverse, negative events (Cohen, 1988, 2004; Cohen & Syme, 1985; Cohen & Willis, 1985). This model contends that during times of stress, individuals receive the support they need to successfully cope with adversity (Cohen, 1988, 2004; Cohen & Syme, 1985; Cohen & Willis, 1985).

Reviews of prospective (Berkman et al. 1993; Cohen, 1988; Cohen & Wills 1985; House et al. 1988) and cross-sectional studies suggest that social support protects individuals from the negative effects of stress (Benhorin & McMahon, 2008; Bozo, Toksabay, & Kürüm, 2009; Cohen, Gottlieb, & Underwood, 2001; Fried, & Tiegs, 1993). Evidence for both the main-effect model, specifically the association between social support and individuals' well-being (Scrimshaw Cruza-Guet, Spokane, Caskie, Brown, & Szapocznik, 2008; Elal, & Krespi, 1999), and for a stress-buffering effect (Cohen, Gottlieb, & Underwood, 2001; Collins, Dunkel-Schetter, & Lobel, 1993; Dubow, & Tisak, 1989), have prompted some researchers to argue that new models be considered to conceptualize how social support functions (Burton, Stice, & Seeley, 2004; Cohen, Gottlieb, & Underwood, 2001).

Dimensions of Social Support

Although there is no universal definition of social support, most social scientists generally agree that social support is a process through which various source individuals (e.g., spouses, family, friends) provide emotional and instrumental help to others (Beeman, 2001; Cohen & Syme, 1985; Feldman & Cohen, 2000; Tardy, 1985; Veiel & Baumann, 1992). In their literature search, Williams et al. (2004) identified 30 definitions of social support used between 1996 and 2001.

Dimensions of Social Support Measures

Social-support measures have focused on two main social-support dimensions: the structure of social relationships and the functions these relationships serve (Cohen & Syme, 1985; Cohen & Wills, 1985; Feldman & Cohen, 2000; Kessler, Kendler, Heath, Neale, & Eaves, 1992; Rueger, Malecki, & Demaray, 2008). Structural support measures

assess quantitative aspects of relationships such as the number of people in one's social network and the degree of interconnectedness among those in the network (Cohen, 1988, 1992; Cohen & Syme, 1985; Feldman & Cohen, 2000). The functional approach emphasizes the resources others provide.

Honing the functional aspect of social support, investigators have distinguished between perceived and received support (Cohen, 1988; Cohen & Syme, 1985; Feldman & Cohen, 2000; Williams et al., 2004). Measures of perceived support assess individuals' evaluations of the support they receive while measures of received support examine whether they receive various types of support from their social network over a definite time period or during a specific event (Heitzmann & Kaplan, 1988). Furthermore, measures of social support may assume a global manner without distinguishing the sources of support (Rueger, Malecki, & Demaray, 2008).

Tardy's Model of Social Support

Tardy (1985) reviewed social-support instruments, identifying five characteristics of the main elements of social support assumed to be reflected by all investigators selecting an instrument to measure the construct. *Direction* recognizes the reciprocal nature of social support. *Disposition* refers to the availability of social support in quantity and quality, as well as its use. That is, does the individual have access to the social support and does the individual use that support? *Description* or *evaluation* indicates the individual's degree of satisfaction with support. *Content* recognizes that the type of support one receives depends on the situation and includes emotional (caring), instrumental (helping behaviors), informational (advice), and appraisal support

(evaluative feedback). Finally, *network* focuses on individuals or groups that provide support.

To determine the social support characteristics that extant instruments assessed, Tardy (1985) examined 60 social-support studies that used dozens of instruments. He selected seven instruments that clearly measured some aspect of social support, aspects of social relations rather than just social participation or contact, and demonstrated good reliability and validity. Overall, Tardy (1985) found that each instrument focused on some aspects of each of the five characteristics. For example, six of the instruments measured received social support; one also included a few items on the provision of support. Some instruments collected information on either the use or availability of support while others collected information on both aspects, without necessarily distinguishing between the two. All seven instruments offered descriptions of social support, while three also included the recipients' evaluation of the support. Several of the instruments collected information on the content of support provided but differed in the type of content sought (e.g., emotional, counseling, practical help).

Tardy (1985) emphasized that researchers must consider all five characteristics of social support when selecting an instrument and should explicitly discuss their choices to clarify their conceptualizations of social support. Tardy's paper elucidated the problem of measuring social support, a construct with great appeal (Cohen & Syme, 1985; Veiel & Baumann, 1992) for which there is no precise measurement (Cohen & Syme, 1985; Tardy). The CASSS (Malecki, Demaray, & Elliott, 2004), which is the measure I have selected to use for this study was developed based on Tardy's model of social support.

Importance of Social Support in General

There is considerable evidence that people's perceptions of social support impact their lives both positively and negatively. Sarason, Pierce, and Sarason (1990) deduced that an individual's perception of social support appears to be more important that the actual amount of support a person receives (Haber, Cohen, Lucas, & Baltes, 2007). Studies by Nuckolls, Cassel, and Kaplan (1972) and Blazer (1982) found that perceived support played a role in individuals' health and their response to life changes. Cohen and Syme (1985) and Veiel and Baumann (1992) reinforced the concept of social support's benefits to psychological and physical well-being (Berkman, 1985; Boyce, 1985; Monroe & Johnson, 1992; Schwarzer & Leppin, 1992; Schulz & Rau, 1985) and its protective role against mental illness (e.g., depression and anxiety; Henderson, 1992; Kessler & McLeod, 1985).

Recent studies have shown that social support is associated with the psychological well-being of older adults (Cairney, Corna, Veldhuizen, Kurdyak, & Streiner, 2008; Phillips, Siu, Yeh, & Chang, 2008; Steptoe, O'Donnell, Marmot, &Wardle, 2008), the ability of individuals to cope with serious illness (Deichert, Fekete, Boarts, Druley, & Delahanty, 2008), adherence to medical treatments (Bosworth, Voils, Potter, & Steffens, 2008; Sayers, Riegel, Pawlowski, Coyne, & Samaha, 2008), recovery from mental illness (Corrigan & Phelan, 2004), the ability to cope with trauma (Araya, Chotai, Jayanti, Komproe, & de Jong, 2007; Hobfoll et al., 2008), and physical health and healthy lifestyles (Cutrona, Russell, & Rose, 1986; Hale, Hannum, & Espelage, 2005 Jackson, Tucker, & Herman, 2007).

While there is evidence that perceived social support is related to positive mental and physical health outcomes among adults, its role for children and adolescents deserves further attention.

Importance of Social Support to Students

Research on resilience has found that students are more likely to succeed in a school environment where they can identify at least one supportive adult who knows and cares for them (Brooks & Goldstein, 2001) and may be a protective factor against personal and school maladjustment and negative physical and psychological outcomes (Bridgeland, DiLulio, & Morison, 2006; East, Hess, & Lerner, 1987; Forman, 1988; Koomok & Cosden, 1994; Shumaker & Brownell, 1984; Uchino, Cacioppo, & Kiecolt-Glaser, 1996; Wenz-Gross & Siperstein, 1997). Consequently, schools have developed strategies to address the needs of student populations with diverse needs, often by providing a consistent adult presence (Doll et al., 2004).

Social support correlates with more positive outcomes for children of divorce (Cowen, Pedro-Carroll, & Alpert-Gillis, 1990), children with learning disabilities (Forman, 1988; Koomok & Cosden, 1994; Rothman & Cosden, 1995; Wenz-Gross & Siperstein, 1997), children identified as gifted (Dunn, Putallaz, Sheppard, & Lindstrom, 1987), and children classified as at risk (Cauce, Felner, & Primavera, 1982; VanTassel-Baska, Olszewski-Kublius, & Kulieke, 1994). Studies have also found social support to help adolescents cope with stress (Compas, 1987) and distress (Wentzel, 1998). In addition, students who are victims of bullying perceive social support as an important source of help (Boulton, 2005).

Malecki and Demaray (2003b) found that adolescents reported receiving emotional and informational support from parents, informational support from teachers and school personnel, and emotional and instrumental support from classmates and close friends. Adolescents believed that these types of support from these specific sources were important to their success in school. Thus, social support is multidimensional and type of support is an important factor in students' adjustment. It is important to know if adolescents are receiving the type of support they need from the people whom they perceive should provide it.

Informed by Tardy's (1985) review of social-support measures, Malecki and Demaray (2002) and Malecki, Demaray, and Elliott (2000, 2004) developed the Child and Adolescent Social Support Scale (CASSS) to provide an appropriate measurement tool for school psychologists and educators. Malecki and Demaray defined social support as "an individual's perceptions of general support or specific supportive behaviors (available or enacted upon) from people in their social network, which enhances their functioning and/or may buffer them from adverse outcomes" (p. 2). Several studies have used Tardy's model of social support to examine children's and adolescents' perceived social support from different sources in their lives (Davidson & Demaray, 2007; Davidson, Demaray, Malecki, Ellonen, & Korkiamäki, 2008; Demaray & Malecki, 2002a, 2002b, 2003a, 2003b; Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005; DeSantis King et al., 2006; Malecki & Demaray, 2002; Malecki & Demaray, 2003a, 2003b, 2006; Malecki, Demaray, & Elliott, 2000, 2004; Malecki & Elliott, 1999; Rueger, Malecki, & Demaray, 2008; Suldo et al., 2009; Suldo & Huebner, 2006; Suldo, Mihalas, Powell, & French, 2008; Suldo & Schaffer, 2008).

Demaray and Malecki (2002b) found a significant relationship between students' perception of social support from five different sources and self-reported clinical and school adjustment. They found significant relationships between parent and classmate support and clinical and personal indicators of maladjustment (depression, stress, anxiety, and sensation seeking). While students may receive social support from several sources, including parents/caregivers, teachers, and peers/close friends (Demaray & Malecki, 2002a, 2002b, 2003a, 2003b; Demaray et al., 2005; DeSantis King et al., 2006; Malecki & Demaray, 2002; Malecki et al., 2003; Malecki et al., 2000; Malecki & Elliott, 1999; Pavri & Monda-Amaya, 2001), each source of support may contribute uniquely to students' academic and socioemotional success (Demaray et al., 2003; Demaray et al., 2002a, Demaray, 2002b; Demaray et al., 2005; DeSantis King et al., 2006; Hamre & Pianta, 2005; Hughes & Kwok, 2007; Malecki & Demaray, 2002; Malecki et al., 2003; Malecki et al., 2000; Malecki & Elliott, 1999; Natvig et al., 2003) and their outlook on life (Suldo & Huebner, 2006).

The role of parents/caregivers. Parents and caregivers have a great deal of influence in whether children will develop resilience or instead develop, low self-esteem, self-doubt, and a less hopeful outlook (Brooks & Goldstein, 2001). In their clinical work, Brooks and Goldstein found that adults who were able to overcome adversity in their childhoods attributed their achievements to the presence of a supportive adult during childhood and adolescence. One adult, whether or not it is the child's parent, can foster hope and resilience. Children who feel loved and respected by their parents are more able to navigate their way, more tolerant of limits set by adults, more compassionate, and more able to take responsibility.

In a study of 974 children and adolescents between the ages of 11 and 19, DeSantis King et al. (2006) found that those who experienced a satisfying school life also reported feeling supported from parents. Participants completed measures of perceived social support, school satisfaction, and problem behaviors. Parent, teacher, and peer support contributed to students' self-report of school satisfaction. This study underscored the important role of parents despite the tendency of adolescents to rely increasingly on friends during this developmental period.

Wentz-Gross and Siperstein (1997) found that emotional support from adults in the students' home protected children from negative classroom environments as well as negative aspects of friendships. Based on self-report measures of depressive symptoms, substance abuse, parental-closeness, and social support of 374 seventh-grade students, Bogard (2005) found that perceived parental social support and closeness related significantly to lower self-reported depressive symptomatology and drug use.

In a study with 167 sixth-grade students, Wentzel (1998) reports that perceived support from their parents predicted their desire to engage in mastery and performance learning goals. Thus parental support can positively influence students to engage in the process of learning, to feel satisfied and competent, and to receive positive evaluations from others.

Summary. Support from parents and caregivers can be an important contribution to children's long-term school success (Brooks & Goldstein, 2001; DeSantis King et al., 2006). Support from parents can enhance a children's school experience and contribute to aspects of learning (Wentz-Gross and Siperstein, 1997; Wentzel, 1998). Studies also

indicate that support from parents protect students from negative aspects of school experience as well as symptoms of depression and drug use (Bogard, 2005).

The role of teachers. In general, children spend much of their waking hours in school (Ellonen, Kääriäinen, & Autio, 2008; Jackson, 2002) and spend more of their day with teachers than with any other adults (Brooks & Goldstein, 2001; Jackson, 2002). Supportive relationships with teachers benefit all students, regardless of race or family background (Wentzel, 1997). Because students spend increasing amounts of time outside the home (Pavri & Monda-Amaya, 2001), other adults can be an important source of social support (Casey-Cannon, Pasch, Tschann, & Flores, 2006), serving as role models and bolstering students' sense of self-worth and resilience (Brooks & Goldstein, 2001). Indeed, students who believe that their teachers are genuinely interested in and care about them do better academically (Brooks & Goldstein, 2001) and report a happy school experience (DeSantis King et al., 2006). Suldo and Huebner (2006) found that students with very high life-satisfaction scores had significantly higher levels of perceived teacher support than students with low and average life-satisfaction scores.

Hamre and Pianta (2005) evaluated 910 kindergarten students identified as at risk based on such demographic variables as maternal education and teachers' reports of behavior, attention, and academic and social functional problems. The authors used academic and social outcomes on an individually administered standardized achievement battery and first-grade teacher ratings of conflict with the student as key markers of school adaptation. At-risk students who had teachers who offered high emotional and instructional support had achievement scores and student-teacher relationships equivalent to those of low-risk students. Conversely, at-risk students in classrooms low on emotional

and instructional support had lower achievement scores and conflictual teacher relationships. Results of a study of 443 ethnically diverse, low-achieving first-grade children by Hughes and Kwok (2007) indicate that student-teacher relationship quality in first grade affected student engagement, which in turn predicted student achievement in second grade.

A study by Natvig and colleagues (2003) analyzed data from 887 students, aged 10–15, and found that teacher support contributed to students' feelings of happiness. They found that students experiencing an increasing degree of support from the teacher (e.g., "My teacher is interested in me as a person") had increased odds of feeling happy. Ellonen et al. (2008) studied 95,103 14- to 16-year-old Finnish adolescents' perceived social support and depression. They used a Finnish modification of the Beck Depression Inventory (Beck, Steer, & Brown, 1996) and found that students who perceived social support to be available "sometimes" were more likely to report symptoms of depression compared to students who perceived social support to be "often" or "always" available.

Wentzel (1997) conducted a longitudinal study to determine the relationship between 248 young middle school adolescents, and found that students' perceptions of their teachers as caring were significantly and positively related to students' academic efforts as well as to students' pursuit of prosocial and responsibility goals, particularly for student motivation in sixth to eighth grades. Wentzel's 1998 study found that perceived social support from teachers was related to nearly all motivation outcomes measured – school interest, mastery of goals, prosocial goal pursuit, and responsibility goal pursuit.

Summary. Students benefit from having supportive relationships with their teachers (Brooks & Goldstein, 2001; Wentzel, 1997). Research indicates that students

who feel their teachers care and support them are engaged and motivated to learn and do better academically (Hughes & Kwok, 2007; Wentzel, 1997, 1998). Support from teachers can also enhance a student's overall school experience and well-being (DeSantis King et al., 2006; Ellonen et al., 2008; Natvig et al., 2003; Suldo & Huebner, 2006).

Role of peers. As students move from childhood to adolescence, there is an increasing reliance on peers for social support (Demaray & Malecki, 2003a; Levitt, Crooks, Hodgetts, & Milevsky, 2005) that relates to adjustment (Natvig et al., 2003), academic and psychosocial functioning (East, Hess, & Lerner, 1987), and a positive school experience (DeSantis King et al., 2006). Peers contribute to students' perceptions of the school as a supportive community (Ellonen et al., 2008). Natvig et al.'s (2003) study, which examined associations between happiness and experience of stress at school among 887 adolescents, found that social support from peers was related to feelings of happiness.

Wentzel's (1998) study of 167 sixth-grade students found that perceived support from peers related positively to the pursuit of prosocial and social-responsibility goals (i.e., whether students helped their peers). Wentzel and Cauldwell (1997) compared such peer relationship variables as peer acceptance, reciprocal friendships, and group memberships to academic achievement among middle-school students in sixth and eighth grades. They found that peer relationships were a significant predictor of students' grades concurrently and after 1 year and was the most reliable predictor of sixth- and eighth-grade grade-point average. They also found that reciprocated friendships were important: For boys, reciprocated friendships related negatively to antisocial behavior, while for girls, these friendships related positively to sixth-grade prosocial behavior and negatively

to eighth-grade emotional distress. Peer acceptance was important for both, although the relationship was not a strong one.

Students who do not receive social support from peers are at an increased risk for poor adjustment. East et al. (1987) had 101 sixth-grade students complete positive and negative peer-nomination questionnaires, classifying subjects into four different sociometric groups: popular, controversial, neglected, and rejected, and also complete self-ratings to measure their perceptions of social support from peers. East et al. found that students least wanted as a friend perceived that they received significantly less social support from peers and displayed more adjustment problems than popular children.

Summary. Students benefit from receiving social support from peers (Demaray & Malecki, 2003a). Research suggests that social support from peers can positively contribute to students' academic achievement as well as to their social lives and adjustment (East et al., 1987; Natvig et al., 2003). Students who receive support from peers are more engaged in academic and social-responsibility goals and report a more positive school experience (DeSantis King et al., 2006; Wentzel, 1998; Wentzel & Cauldwell, 1997). Those students who do not receive peer social support are at risk for poor adjustment (East et al., 1987).

Role of collective social support. While examination of students' perceived social support from individual sources (i.e., parents, friends) is valuable, it is also important to consider students' perception of the social support they receive collectively. Pierce, Sarason, and Sarason (1991) used self-report measures from 210 undergraduates to assess the quality of past and current relationships, general perceived available support, support from specific sources, and personal adjustment. The authors found strong support for the

hypotheses that (a) perceptions of available support from specific relationships are distinct from general perceptions of available support, and that (b) these two aspects of perceived social support appear to have separate and distinct impacts on personal adjustment.

Demaray and Malecki (2002a) found significant positive relationships among students' perceived social support, social skills, self-concept, and adaptive skills in 3rd- through 12th-grade students. Students who perceived high levels of social support also obtained high scores on academic, behavioral, and social indicators of adjustment. Students who perceived lower levels of social support obtained higher scores on measures of problematic behaviors (e.g., externalizing and internalizing behaviors) and lower scores on measures of adaptive behavior (e.g., social skills, self concept, adaptive skills). Thus, there may be critical levels of total perceived social support that are important for positive student adjustment.

In their longitudinal analysis of 82 middle school adolescents' perceived social support at three times over the course of 1 year, Demaray et al. (2005) found that although students' social support and adjustment did not differ significantly over the year, at the individual level 29% of students experienced changes in their perceived social-support scores. In other words, students did not perceive social support as a fixed entity but rather as one that fluctuated, suggesting that social support is amenable to intervention.

In another longitudinal study, Heponiemi et al. (2006) examined the independent association between perceived social support and the 5-year progression of depressive tendencies in 1,413 children and adolescents between the ages of 3 and 18 who took part

in a prospective, epidemiological study of cardiovascular risk in children and adolescents. The authors found that those who perceived high levels of social support reported fewer depressive tendencies while lower levels of social support predicted future depressive symptoms.

Demaray and Malecki (2003b) found that among 499 students in Grades 6 through 8, students who bullied, were victims of bullying, or both bullied and were victims of bullying perceived less overall total social support compared to students who did not demonstrate bullying behavior or were recipients of this behavior. Davidson and Demaray (2007) examined the relationship among perceived social support, victimization, and internalizing-externalizing distress from bullying for 355 middle school students in Grades 6 through 8. As victims of bullying perceived increasingly more total social support, they reported less internalizing distress from bullying. Conversely, as victims perceived less social support in total, they reported more internalizing distress from bullying. The findings from these studies suggested that combined social support from several sources can buffer victims of bullying from internalizing distress.

S*ummary.* Types of social support are not interchangeable; each type of support differs in its relationship to outcomes. Students' perceptions of social support from different sources relate to adaptive socioemotional functioning, academic behavior, and achievement. Studies indicate that both global total and specific social support from several sources are distinct but related (Pierce et al., 1991) and both relate positively to students' behavioral and academic adjustment (Davidson & Demaray 2007; Demaray & Malecki, 2002a, 2002b, 2003b).

Social Support and Gender Differences

A review of the social support literature indicates that males and females experience social support differently. Research on social support in children and adolescents has found gender differences, specifically females perceiving more social support compared to their male counterparts (Bogard, 2005; Davidson & Demaray, 2007; Demaray & Malecki, 2002a; 2002b; Demaray et al., 2005; Malecki & Demaray, 2003, 2006) and that females reported more close-friend support than males (Demaray & Malecki, 2002a; Martínez, 2006; Rueger, Malecki, & Demaray, 2008). Females appear to regard social support as more important than their male counterparts. Studies have found that females had higher importance ratings of social support compared to males (Colarossi & Eccles, 2003; Demaray & Malecki, 2002a; Frey & Röthlisberger, 1996; Jackson & Warren, 2000; Lifrak et al. 1997; Schraeley et al., 1999). Thus, female and male students differ in their experiences of social support and these differences should be considered in the examination of social support.

Social Support and Adolescents

Adolescence is a period of development typified by dramatic life changes and transitions in almost every aspect of students' lives – physical, social, educational, and familial (Compas et al., 1986; Ellonen et al., 2008; Newman, Newman, Griffen, O'Connor, & Spas, 2007; Wenz-Gross, & Siperstein, 1998). Adolescents must master an increasing number of challenging academic and socioemotional goals (Ellonen et al., 2008; Frey, Ruchkin, Martin, & Schwab-Stone, 2009; Newman et al., 2007, Wentzel, 1993). Academic goals include mastery of more difficult and abstract concepts in various content areas in preparation for life after high school (Smith, 2006). Socioemotionally,

adolescents are expected to achieve independence associated with increasing freedom from parents and caregivers (Hirsch, 1985; Newman et al., 2007). Simultaneously, they are expected to form adaptive and positive relationships with peers (Wentzel, 1993) and rely increasingly on peers for support (Young, Berenson, Cohen, & Garcia, 2005). To understand adolescents' adaptive functioning, it is important to look at the role social support plays in how adolescents successfully cope with the stress that accompanies developmental challenges and transitions (Hirsch, 1985; Newman et al., 2007).

Because students in high school change their classroom every subject period and each class has a different composition of students, it is likely that friends will not necessarily be in the same class. Assistance may come from classmates who are not necessarily friends and there may be fewer opportunities to interact with the same peers (Newman et al., 2007; Wentzel & Cauldwell, 1997). The changes in adolescents' sources of social support (e.g., from parents to peers), as well as the structural changes of the high school environment that affect the social network, underscore the importance of understanding the availability of social support for this population (DeSantis King et al., 2006; Hirsch, 1985; Newman et al., 2007). Thus, several studies have focused exclusively on the role of social support for adolescents.

Hoffman, Ushpiz, and Levy-Shiff (1988) examined the effect of social support on adolescents' self-esteem during stressful life events. The authors found that social support from mothers had a strong influence on self-esteem, as did social support from friends when mothers were unavailable. These findings suggest sources of support are not independent and adolescents who fail to find support from one source may then seek social support elsewhere. In addition, Hoffman et al. found that social support had a

direct, functional relationship to self-esteem. Suldo and Huebner (2006) found that students who scored very high on the life-satisfaction measure also reported the highest levels of social support from five sources: parents, teachers, classmates, close friends, and the school.

Depression is one of the most common psychiatric disorders of adolescence. For over 30 years, Lewinsohn and colleagues have studied depression in adolescence and concluded, “Depression in the adolescent population is clearly a major mental health problem that is often under-recognized. Depression during adolescence is associated with numerous negative psychosocial consequences” (1998, p. 789). Because depression is so prevalent in this population, several investigators have examined the relationship between adolescent depressive symptoms and social support.

Colarossi and Eccles (2003) conducted a longitudinal study to determine the unique contribution of support from family, school, and peers on depression and self-esteem over the course of 1 year. They analyzed data from 217 adolescents ages 15 to 18. Social support from mothers, fathers, friends, and teachers were measured at time 1; depression and self-esteem were measured at times 1 and 2. While male and female adolescents reported different levels of support from different sources, the effects of these sources of support on depression outcomes were of equal importance for both genders. Specifically, perceived support from mothers, teachers, and friends was significantly related to decreased depression over time. Ellonen et al. (2008) found that students’ perception of social support from teachers and classmates was negatively related to depression. Students who perceived social support from teachers and classmates were less likely to display symptoms of depression.

Needham (2008) analyzed data from 10,828 young adults between the ages of 18 and 26 who participated in the National Longitudinal Study of Adolescent Health. Participants, interviewed at three different times, provided information on symptoms of depression and parent support (mother and father). Specifically, parental support during adolescence was negatively associated with initial symptoms of depression. Those adolescents at the start of the study who reported higher levels of depressive symptomatology also reported less parental support during young adulthood. Furthermore, increased levels of depressive symptomatology reported over time were associated with lower levels of parental support by the end of the study.

Young et al. (2005) determined the role of parent and peer support in predicting depression among a sample of 389 adolescents (ages 11–16). Participants completed a self-report questionnaire and interviews about parent and peer support and depressive symptoms. They affirmed a significant interaction between adolescents' perceptions of social support from parents and peers and depressive symptoms and diagnosis. Casey-Cannon et al. (2006) explored the protective role of nonparent social support in the lives of adolescents whose parents reported symptoms of depression and substance use. Participants in this study were adolescents (161 boys, 129 girls), 12 to 15 years old, from 290 families. Parent risk factors (depressive symptoms and substance use) and adolescent nonparent adult social support were measured at Year 1 by the Perceived Social Support–Family measure (Procidano & Heller, 1983). Adolescents also identified nonparent supportive adults (e.g., aunt, teacher). In Year 2, investigators interviewed the adolescents by phone. In general girls reported more depressive symptoms than boys, and more social support was associated with fewer symptoms of depression. Social support as

a protective factor against family risk factors was only found for girls whose fathers reported depressive symptoms and substance use.

Newman, Newman, Griffen, O'Connor, and Spas (2007) examined depressive symptoms as students transitioned from middle school to high school. In this study, 205 eighth- and ninth-grade students revealed that the transition to high school was associated with an increase in self-reported depressive symptoms. In addition, the transition from middle school to high school was associated with a decrease in students' perceptions of the school as supportive. Students with higher perceptions of social support from the school, friends, and parents also had higher grades in school.

Compas et al. (1986), examining 243 White, middle- and upper-middle-class high school seniors about to transition from high school to college, hypothesized that life events, like graduating from high school, are stressful and consequently place the adolescent at greater risk for adverse psychological symptoms. The authors found that lower levels of student satisfaction with social support were significantly related to symptoms of depression, somatization, interpersonal sensitivity, and anxiety. Graduating from high school and starting college were not related to psychological problems.

Thus, adolescents' level of satisfaction with school is related to the presence of social support. Importantly, social support appears to protect adolescents from internalizing and externalizing problems and may help adolescents cope with the challenges associated with the transitions of this developmental period.

Social Support and Students With Disabilities

While some adolescents may have depressive symptoms, others have other disabilities that qualify them for special education. Students identified as having a

disability defined by federal legislation under the Individuals With Disabilities Education Act (Silverstein, 2005; U.S. Department of Education, 2009) receive special education and related services. The purpose of the Act is to ensure that "all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living" (U.S. Department of Education, 2009, p. 118).

According to the U.S. Department of Education (2006), nearly 6 million students between the ages of 6 and 21 receive special education and related services, 3 million of them between the ages of 12 and 17. The largest group of students receiving special-education services is students with a specific learning disability (48.3%), followed by students with speech or language impairments (18.7%). Approximately 10% of the students receiving special education are mentally retarded; 8% have a serious emotional disturbance, and 6.6% have other health impairments. Since 1992, there has been a relative increase in the number of students receiving special education and related services; for example, the percentage of students between the ages 12 and 17 receiving special education due to a specific learning disability increased from 1992 to 2002 by almost 10% (U.S. Department of Education, 2006). At the same time, there is an emphasis on educating students with disabilities in general-education classroom settings, with their nondisabled peers (U.S. Department of Education, 2006).

Students with disabilities drop out of school at a higher rate than students without disabilities (U.S. Department of Education, 2006). While the U.S. Department of Education indicated that the number of students with disabilities graduating with a

regular high school diploma has increased over the years, the graduation rate of students with disabilities is 51.1%. The National Longitudinal Transition Study-2 (NLTS2), which is funded by the U.S. Department of Education, is an ongoing study designed to collect information on and document the experiences of adolescent students, providing a picture of the experiences and accomplishments of students as they transition from high school to adulthood.

A special report based on NLTS2 data by Wagner, Newman, Cameto, Levine, and Marder (2007) reported that students with disabilities identified two major challenges in high school: (a) academic demands and (b) interpersonal relationships. Students with disabilities reported problems getting along with teachers and students at a rate four times greater than students in the general population. Students with disabilities were more likely to report that they felt little or no sense of connection to their school, while those who did feel a sense of connection to their schools reported enjoying their school experience. Wagner et al. also found students who were involved in school activities, could identify a caring teacher, and believed school offered the services and support they needed were more likely to enjoy school.

The dissertation study builds upon the findings from an earlier pilot study (Jensen, 2007) that examined the relationship between perceived social support for special education students in two different educational settings (i.e., resource room and self-contained settings). Students in a resource room (the less restrictive special-education setting) perceived themselves as having more social support available to them from parents, classmates, and close friends compared to students in self-contained classrooms (the more restrictive setting), although students in both groups believed that social

support was equally important. This suggests that some students receiving special education were not receiving the social support they felt they needed.

Special-education services are intended to provide students with disabilities with the type of environmental learning conditions they need to succeed academically (Doll, Zucker, & Brehm, 2004). Research indicates that students with disabilities who became more socially integrated in their general-education classrooms benefited in academic and nonacademic ways. For example, Hunt, Soto, Maier, and Doering (2003) found that as a result of increased social integration with peers, students demonstrated an increased effort to learn and participate in academic activities, and were more academically productive, relying on peers rather than adults for support.

By law, students receiving special-education instruction must be placed in the least-restrictive setting to be educated and interact with general-education students (U.S. Department of Education, 2009). However, for students with learning disabilities, social integration in regular classrooms has obstacles. Students with learning disabilities (LDs) may have fewer friends (Vaughn, Elbaum, & Gould Boardman, 2001), and they are more likely to be rejected by their typically developing peers in regular-education settings. Also, Heiman (2006) found that students without disabilities perceived more social support from family, friends, and significant others than did students with disabilities. Students with LD reported more stress in their daily life and more academic stress than did students without LD (Heiman, 2006).

The social lives of students with disabilities. A sense of belonging is important for adjustment, and individuals with disabilities face obstacles in becoming integrated members of their communities (Abbott & McConkey, 2006). In a cross-sectional analysis

of 16,340 adolescents, Svetaz, Ireland, and Blum (2000) found that 1,603 students with LD were at twice the risk of emotional distress compared to their typically developing peers. The authors found that a sense of belonging promoted emotional well-being among adolescents with LDs and reduced their risk of emotional distress. Feelings of connection to parents and their school were identified as protecting students from emotional distress, suicidal attempts, and violence.

Panacek and Dunlap's (2003) descriptive study compared the social lives of 14 elementary students with emotional and behavioral disorders (E/BD) between the ages of 7 and 11 to the social lives of 14 same-aged typical peers without disabilities. Children with E/BD in self-contained classes reported that only 8% of their activities were integrated, providing few opportunities to engage with their peers in general education. In addition, the social networks of children with E/BD were smaller than those of their counterparts, and were comprised of more school adults and fewer peers, primarily those associated with special education. Children with E/BD primarily identified friends from home while their matched counterparts reported more school friends.

Demaray and Elliott (2001) compared the responses of 94 in Grades 3 through 6 on questionnaires measuring students' perceptions of social support from parents, teachers, classmates, and close friends. Using data on participants' academic performance, social skills, self-concept, and problem behaviors, Demaray and Elliott found that students classified with Attention Deficit Hyperactive Disorder and a comparison group of typically developing peers reported comparable social-support importance ratings, but those with Attention Deficit Hyperactive Disorder perceived

lower frequencies of overall social support and less support from classmates and close friends.

In another study, Demaray and Malecki (2003a) examined differences in students' perceptions of the importance of social support (i.e., specific supportive behaviors from others) with the CASSS (Malecki, Demaray, Elliott, & Nolten, 1999) among 1,688 students in Grades 3-12. Also, they collected data on participants' characteristics to determine if developmental differences and group differences (e.g., race, disability status, gender) existed among students' importance ratings of social-support behaviors. Students with disabilities rated classmate and close-friend support as significantly more important compared to students without disabilities. Students did not differ on importance ratings for parent and teacher social support.

Wenz-Gross and Siperstein (1997) found that children with learning problems did not turn to their peers for support. They also found that children with and without learning problems had social networks of comparable size. However, children with learning problems used peer support less often than children without learning problems. Compared to their peers without learning problems, friendships of children with LD differed in intimacy, loyalty, promoting self-esteem, and amount of contact. Demaray and Malecki (2003) found that students with disabilities placed greater importance on receiving social support from close friends and peers.

Wenz-Gross and Siperstein (1998) found that students with learning problems experienced more stress associated with peer relationships, with implications for student adjustment. Examining stress, social support, and adjustment of 397 general-education students and 40 students with a specific LD or mild mental retardation in Grades 6

through 8, they found that students with LDs perceived less social support from peers compared to students without learning problems. Students with learning problems also reported more academic stressors and more stressors related to teachers and following rules and experienced overall poorer adjustment than their peers without learning problems. Students who experienced more academic and peer-related stressors and problems with teachers and rules found it more difficult to control their behavior and had lower feelings about themselves (e.g., lower self-concept and greater feelings of depression), mitigating feelings of satisfaction with their school experience. In their study of students with LDs in inclusive settings, Pavri and Monda-Amaya (2001) found that students in special education may experience more school-related loneliness than their typical peers. Geisthardt and Munsch (1996) found that adolescents with LDs reported seeking support from significantly fewer peers when they were dealing with academic or interpersonal stressors than adolescents without LDs.

Adolescents who are not able to meet academic and social demands are at risk for isolation, depression, and failure. Whitney-Thomas and Moloney (2001) examined the struggles of 11 adolescents in their junior and senior year of high school, 6 received special education and 5 were in general-education. Students with disabilities reported higher levels of struggle. Students who reported lower levels of struggle identified teachers or school staff to whom they could turn for support and believed that they had a wide range of supports including parents, friends, and school personnel.

Although adolescents increasingly begin to rely on support from their peers, parents and other adults remain important sources of support, particularly for adolescents with LDs (Geisthardt & Munsch, 1996; Pavri & Monda-Amaya, 2001; Wenz-Gross &

Siperstein, 1997). Wenz-Gross and Siperstein (1998) found that students with learning problems experienced more support from adults outside the home compared to students without leaning problems. The two groups did not differ in the amount of support they experience from adults in their home.

Goldberg, Higgings, Raskind, and Herman (2003) conducted a 20-year follow-up to a larger longitudinal project following the lives of a group of individuals identified as having a LD between 1968 and 1975. Interviewing 41 participants between the ages of 28 and 35, the authors identified participants as successful or unsuccessful using a multidimensional definition of support in eight domains: employment, education, independence, family relations, social relationships, crime and substance abuse, life satisfaction, and psychological health. Goldberg et al. found that a larger percentage of participants identified as successful (93%) used their social-support systems compared to their unsuccessful counterparts (78%). The authors identified the ability to foster and maintain social relationships with others as an important component across the lifespan for individuals with LDs.

In summary, findings indicate that children with learning problems, including students with disabilities, experience less social support from peers during a time in their lives when peers take on an increasingly important role. Peer relationships for children with learning problems may be more stressful. More attention to the social lives of these students is required if they are to develop a rich social network and benefit from supportive friendships. Understanding the social-support needs of students with disabilities may be linked to these students being satisfied with their school experience and succeeding in school both academically and socially.

Students' perceptions of their school environment and of the helpfulness of school personnel do not necessarily match the perspectives of school personnel (Dunn, Chambers, & Rabren, 2004). Teachers and school personnel work to provide students with the support they perceive them to need; however, research has found that students do not necessarily see the same behaviors as supportive or helpful (Dunn et al., 2004). If students with disabilities are to stay and succeed in school, it is important to assess their perception of the learning environment to best meet their needs (Wenz-Gross, & Siperstein, 1997). An awareness of social-support needs may lead to interventions to increase the social networks of students with disabilities.

Transitions During Adolescence

Adolescence is a developmental period full of new challenges along with new freedoms. The transition from middle school to high school is associated with disruptions and often linked with such negative outcomes as lower attendance rates and a decline in grades (Smith, 2006). Furthermore, students can experience new discipline problems as well as feelings of disconnectedness from their new school and new peers (Newman, Newman, Griffen, O'Connor, & Spas, 2007). The transition from high school to adulthood is equally challenging and stressful (Frey, Ruchkin, Martin, & Schwab-Stone, 2009; Smith, 2006). Although the school environment affects adolescent development, psychologists have not studied the challenges associated with transitions during adolescence sufficiently (Newman et al., 2007).

In addition, the needs of adolescents with disabilities are likely to differ from those of their nondisabled peers. School psychologists need a better understanding of the differences between adolescents with and without learning disabilities in terms of their

school experience to help create school and classroom environments that foster success (Martínez, 2006). Attempts to improve individuals' well-being by increasing the amount of social support they receive must include an assessment of their social-support needs (Rueger, Malecki, & Demaray, 2008; Sheets & Mohr, 2009; Shinn, Lehmann, & Wong, 1984; Stecker, 2004). The sources of support that adolescents rely on change during developmental transitions associated with adolescence as well as with the transition into and out of high school (Newman et al., 2007).

Rationale for the Study

The review of literature indicates that social support has been found to positively contribute to mental and physical health among adults. While more is known about the role of social support in the lives of adults, research suggests that social support is also important for children and is associated with positive academic outcomes and adjustment. Thus, I conducted a dissertation pilot study (Jensen, 2007) in which I explored the relationship of perceived social support and the educational environment for adolescents with learning disabilities. The study also examined the relationship between students' perceived level of social support, their self-concept, and their educational placement for nine students who received resource room placement and six students in self-contained placements. The Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2004) assessed social support. The Student Self-Concept Scale (SSCS; Gresham, Elliott, & Evans-Fernandez, 1993) assessed self-concept.

The results indicated that students in the two different special-education placement settings (i.e., resource room and self-contained classroom) differed in terms of their perceived level of social support. Students in the resource-room group believed that

they had more social support available than did students in the self-contained setting. A closer examination of the sources of social support revealed that students in the resource-room setting perceived more social support to be available specifically from parents, classmates, and close friends. Students in both the self-contained setting and the resource-room setting did not differ in terms of how important they regarded the social support to be. There were no significant differences between the groups' self-concept scores. Because students with and without disabilities may be at risk of not receiving the kind of support needed to promote their academic and nonacademic success, social support in the lives of adolescents deserves further study, particularly as this population confronts the myriad of challenges inherent during the transition from childhood to adulthood.

Hypotheses

A review of the literature provides evidence that social support has a relationship to positive adjustment indicators and a significant negative relationship to maladjustment indicators. In other words, those students with overall support from the different sources are better adjusted (Davidson & Demaray, 2007; Levitt, Crooks, Hodgetts, Milevsky, 2005). Previous studies have found a significant, moderate, and negative relationship between emotional (internalizing distress) and behavior problems (externalizing distress) and perceived social support from several sources (parents, teachers, classmates, close friends, and school; Colarassi & Eccles, 2003; Davidson & Demaray, 2007). Furthermore, social support from several sources is important as youth cope with the challenges of adolescence (Casey-Cannon, Pasch, Tschann, & Flores, 2006).

One of the main goals of this study is to understand the sources of perceived social support related to behavioral and academic adjustment among general-education

and special-education high school students who are experiencing transition (i.e., entering and exiting high school). An additional goal of this study is to understand students' value of the perceived social support and how this support relates to students' postsecondary-school aspirations. On the basis of my review of the literature, I developed several hypotheses with respect to perceived social support in high school students. I hypothesize:

H01: CASSS total social support scores of girls, ninth graders, and general education will be higher than those of boys, twelfth graders, and special education students

H02: Students' CASSS total importance ratings of social support will differ according to gender and grade, but not according to educational placement. It is also predicted that there will be a gender by grade interaction such that girls' in both the ninth and twelfth grades would have similar social support importance scores while boys in ninth grade would have significantly higher importance scores than boys in twelfth grade.

H03: Students' CASSS total social-support scores (support from parents, teachers, close friends, classmates, and school) will be significant negative predictors of Behavior Assessment for Children-2 (BASC-2) Internalizing Composite, Emotional Symptoms Index, and School Problems composite scores and students' CASSS Total social-support scores will be significant positive predictors of BASC-2 Personal Adjustment composite scores.

H04: Students' CASSS total social support scores would significantly, positively predict their standardized academic achievement test scores.

H05: Students' CASSS Total Social Support scores will be significant negative predictors of students' number of days of absence from school during the first 70 school days.

H06: Students' CASSS total social support scores will be significant positive predictors of students' academic progress. In this context, "academic progress" references the number of credits amassed, the number of courses taken, exams passed, etc. and is operationalized as dichotomous variable indicating whether a student is "on-track" or "off-track" to graduate.

Implications for School Psychologists

Research has found that students' perceived levels of social support from different sources (e.g., peers, parents, teachers) is related to indicators of academic achievement and adjustment that are important for a successful school experience (Demaray & Malecki, 2002a, 2002b; Demaray et al., 2005; East et al., 1987; Ellonen et al., 2008; Lipschitz-Elhawi & Itzhaky, 2005; Malecki & Demaray, 2003; Malecki & Elliott, 1999). The research on students' perceptions of support, as well as the unique contribution of different sources of support to student outcomes (e.g., well-being, achievement) has focused on the role played by specific sources, such as teachers, parents, or friends.

Results from this study may help educators understand the contextual influences affecting students' behavior and emotions, and academic achievement. Educators may better understand the needs of their students so that they can reach academic goals. Furthermore, educators who work with students with disabilities may understand this population's unique needs to better help these students achieve the goals stated on their Individualized Education Programs. Students, who perceive social support to be

unavailable yet important, can be identified by educators, resulting in the implementation of appropriate interventions to better meet the needs of these students.

Chapter III

Method

This chapter presents the methodology of the study that examined the relationship between students' perceived social support, behavioral adjustment, and academic achievement/adjustment in ninth and twelfth grade high school students in both general education and special education programs. The chapter presents a description of the assessment measures followed by the study procedures. The chapter concludes with a section on data analysis.

Participant Selection and Description

The setting. I recruited students from special education and regular education programs in Grades 9 and 12 from a New York City public high school. The high school has an estimated student population of 3,644 students in grades 9 through 12. The gender composition of the school is 54% female, 46% male. The largest ethnic group is Asian (48%), followed by 19% White, 18% Hispanic, 14% Black, and 1% Other. Nine percent of the students are English Language Learners (ELL). Ninety-three percent of the students are in the general education program. The remaining 7% receive special education services; 6% receive their special education services in the least restrictive environment (resource room/ integrated co-teaching) and 1% are in the most restrictive environment (self-contained classes).

In the total school population, 34% of the students are eligible for free lunch and 11% are eligible for reduced-price lunch. The potential participant group was comprised of approximately 1,806 students in grades 9 and 12. I recruited students in general education and special education as participants because, while there have been a few

studies that examined the perceived social support in adolescents, none of these studies compared perceived social support among students in general and special education who are in transition (i.e., entering and graduating high school).

I conducted a power analysis (Cohen, 1992) and determined that I needed a minimum of 18 students in each group (ninth grade general education students, ninth grade special education students, twelfth grade general education students, twelfth grade special education students) to achieve a large effect size significant at the $p < .05$ level with a power of .80.

Selection procedure. As the principal investigator for this study, I obtained approval for this study from Institutional Review Board (IRB) Administrator, The Graduate Center, The City University of New York and the New York City Department of Education Proposal Review Committee, as well as from the high school's principal. Once I obtained these approvals, I invited approximately 250 students from special education and regular education programs in grades 9 and 12 to participate.

I introduced myself to the students in their classrooms and verbally stated my purpose (see Appendix A) and explained the study and the requirements of participation that includes a student assent form (see Appendix B) and a parental consent form (see Appendix C). I distributed consent packets (e.g., letter explaining purpose and procedures of the study, consent forms). The consent forms indicated that I was the principal investigator for the study, and that the data collected during the study would be confidential, including information from student records (e.g., test scores, attendance, disability classification). Data on students' attendance was obtained from school records. Attendance data was available for the first 70 school days, or first three calendar months.

This time period was selected in order to get a representative account of student attendance.

Participant demographics. Eighty-nine high school students in the grades 9 (n = 38, 43%) and 12 (n = 51, 57%) who attended a public school in New York City (See Table 1). As displayed in Table 2, the majority of these students were female (52%) and rather evenly distributed amongst Asian-Americans (33%), Whites (26%) and Hispanic-Americans (23%) with smaller complements of African-Americans (14%) and "Others" (6%) (See Table 3). With respect to their educational backgrounds, nearly 60% (58%) were general education students and the remainder were in special education (See Table 4). Of the students in special education, 87% were in the less restricted collaborative team-teaching setting and 13% were in the self-contained setting (See Table 5). The majority of special education students had been diagnosed with either learning disabilities (71%) or speech and/or language impairments (22%) (See Table 6). Seventy-eight percent of the special education students received counseling and 52% received speech and language therapy (See Tables 7 and 8).

Table 1

Grade Level of Participants

Grade	Frequency	Percent
9th Grade Students	38	42.7
12th Grade Students	51	57.3
Total	89	100

Table 2

Gender of Participants

Gender	Frequency	Percent
Male	43	48.3
Female	46	51.7
Total	89	100

Table 3

Ethnicity of Participants

Ethnicity	Frequency	Percent
African American	12	13.5
Asian American	29	32.6
White	23	25.8
Hispanic American	20	22.5
Other	5	5.6
Total	89	100

Table 4

Participants' Educational Placement

Educational Placement	Frequency	Percent
General Education	52	58.4
Special Education	37	41.6
Total	89	100

Table 5

Educational Placement of Students in Special Education

Educational Setting	Frequency	Percent
Collaborative Team Teaching	32	87
Self-Contained	5	13
Total	37	100

Table 6

Special Education Students' Disability Classification

Disability Classification	Frequency	Percent
Learning Disability	26	70.3
Speech and Language Impaired	8	21.6
Other Health Impaired	2	5.4
Emotionally Disturbed	1	2.7
Total	37	100

Table 7

Students in Special Education Receiving Counseling

Related Service	Frequency	Percent
Counseling	21	77.8
No Counseling	6	22.2
Total	27	100

Table 8

Students in Special Education Receiving Speech and Language Therapy

Related Service	Frequency	Percent
Speech and Language Therapy	14	51.9
No Speech and Language Therapy	13	48.1
Total	27	100

I collected measures of academic achievement for ninth and twelfth graders and analyzed these data separately. For students in ninth grade, I obtained their eighth grade English Language Arts Test scores. For students in twelfth grade who were graduating seniors, I obtained their eleventh grade English Regents Exam scores. In regards to academic achievement, ninth graders took the English Language Arts Exam; test scores on the English Language Arts exam that are between 650 and 714 are considered "Grade Level" and 602-649 are considered "Below Grade Level." The test data for the ninth graders indicated that, based on their mean score (M = 638.75, SD = 42.15) as a group, these students were slightly "Below Grade Level". The academic achievement of twelfth graders is based on their English Regents Exam score for which a score of 65 is considered passing. The twelfth graders' mean English Regents Examination score (M = 71.57, SD = 16.29) indicates that, as a group, these students receive "passing" grades.

Table 9

Participants' Academic Achievement Test Scores

Achievement Test	N	Mean	SD	Range
9th Grade- English Language Arts Exam	28	638.75	42.150	470 - 729
12th Grade- English Regents Exam	51	71.57	16.294	15 - 96

As a measure of students' progress, I obtained students' status toward graduation from their school records; this information is available for all students. In New York City public high schools, student progress is measured by their performance on Regents exams, pass rates, and credit accumulation (Office of Multiple Pathways to Graduation (OMPG) New York City Department of Education, 2009). Based on graduation requirements, students are either "on-track" or "off-track" to graduate. Students who are "on-track" have the credits and the required Regents exams or Regents Competency Test scores to graduate from high school (New York City Department of Education, 2009a). Students are considered "off-track" if they are over-age, under-credited , and are at least two years off-track relative to their cohort (i.e., their credits and exam scores place them two grades below that of their cohort) (OPMG, 2009).

Table 10

Participants' Status to Graduate

Status	Frequency	Percent
On-Track	70	78.7
Off-Track	19	21.3
Total	89	100

Participants were asked about their goals and aspirations upon graduating from high school. Essentially, 9 of every 10 students stated that they intended to attend either a 2- or 4-year college (92%) (See Table 11). The 12th-grade students also answered an open-ended question about their specific plans. Consistent with the first table, 9 of every 10 twelfth-graders stated that they intended to pursue academic studies (90%) (See Table 12).

Table 11

Students' Aspirations Upon Graduating High School

Student Aspirations	Frequency	Percent
Attend a 2- or 4-year college	79	91.9
Other (vocational or technical school, employment)	7	8.1
Total	86	100

Table 12

Post-Graduation Plans of 12th Graders

Plans	Frequency	Percent
Academic	46	90.2
Employment	3	5.9
Other	1	2.0
Don't Know	1	2.0
Total	51	100

Materials

Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2004). The CASSS assessed social support according to type and importance. Tardy's (1985) multidimensional model of social support forms the basis of the CASSS. The CASSS is a 60-item self-report measure for students in grades 3-12 that consists of five 12-item source subscales. Each of the five subscales corresponds to one of the sources of support (Parent, Teacher, Classmate, Close Friend, and School). Each item refers to one of four types of support (emotional, informational, appraisal, and instrumental). Students rate the frequency of support on a 6-point Likert scale ranging from 1 (*never occurring*) to 6 (*always occurring*). Students also rate the importance of support from each of the five sources on a 3-point Likert scale ranging from 1 (*not important*) to 3 (*very import*ant) (Malecki et al., 2004).

Students completing the CASSS are asked to read and respond to five sets of twelve sentences corresponding to the five types of support. Each sentence requires students give two responses, one to determine frequency of the support and the other to determine the importance of that support. For example, students read the sentence "My teacher(s) help me solve problems" and identify how often this occurs (never, almost never, some of the time, most of the time, almost always, always) and how important this is for them (not important, important, very important).

The CASSS includes two composite scores: a composite score of perceived social support (Total Support Score) and a composite score of importance (Total Importance Score). The Total Support Score reflects the four types of support from the five different sources of social support. Frequency items on the CASSS are scored by summing the 12

items from the five source subscales to obtain the Total Support. Total Support scores range from 60 to 360, which represents a global measure of perceived social support; higher scores indicate higher perceived support. The Total Importance Score, which is an indication of how important the social support is to the student, is obtained by summing the five importance subscale scores. Total Importance scores range from 60 to 180. In this study, I used both the Total Support and the Total Importance scores to identify how much and the importance of the types of support students perceive from the different sources. This information allowed for the assessment of students' social support needs.

The CASSS manual (Malecki, Demaray, & Elliott, 2004) provided evidence for strong internal consistency for the total frequency score ($\alpha = .97$), total importance score ($\alpha = .98$), frequency subscales (αs = .90 to .95) and importance subscales (αs = .89 to .96). Test–retest reliability (8–10 weeks) ranged from .75 to .78 for the frequency total score, .58 to .74 on the frequency subscales, and .45 to .65 on the importance subscales (Malecki et al., 2004). Psychometric data included a factor analysis that indicated a clear five-factor structure corresponding to the parent, teacher, classmate, close friend, and school subscales. Validity evidence was examined by correlating the CASSS with the Social Support Scale for Children (SSSC; Harter, 1985) and the Social Support Appraisals Scale (SSAS; Dubow & Ullman, 1989). The CASSS total frequency score was significantly correlated, $r = .55$, $p < .001$ with the SSSC total score and with the SSAS total score, $r = .56$, $p < .001$ (Malecki & Demaray, 2003). Preliminary analyses and subsequent studies provided evidence that the scores derived from the CASSS can be interpreted as reliable and valid for use with adolescents (Davidson & Demaray, 2007; Demaray & Malecki, 2002a, 2002b, 2003a, 2003b; Demaray et al, 2005; Malecki et al.,

2000; Malecki & Demaray, 2003a, 2003b, 2006; Suldo & Huebner, 2006). Other research studies (Demaray et al., 2002a, Demaray, 2002b; Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005) have used this measure to investigate the relationship between children and adolescents' perceived social support and adjustment and found significant relationships between the two constructs. For both subscales of the CASSS used in this study, internal consistency reliability estimates were generated. For both of these subscales, i.e., Total Social Support and Total Social Support Importance, the estimate of Cronbach's alpha coefficient is .95.

The authors of the CASSS provide preliminary descriptive data, which are not norms and are not from a representative sample. Data presented for high school students are based on sample of rural, middle-income Caucasian students. The mean and standard deviations of the CASSS Total subscales based on this sample are as follows: Total Social Support, *M*= 268.19, *SD*= 44.08 (*N*=259) and the Total Importance score, *M*= 137.41, *SD*= 24.82 (N= 257). The range of scores for the Total Support score is 60 to 360; for the Total Importance score the range is from 60 to 180. Other than the descriptive data, the authors do not provide a means by which to interpret the scores.

Behavior Assessment System for Children (BASC-2; Reynolds & Kamphaus, 2004). The BASC-2 is a multimethod, multidimensional system use to evaluate the adaptive and maladaptive behaviors and self-perceptions of children and young adults aged 2 through 25 years. The study used the BASC-2, Self Report of Personality-Adolescent version (BASC-2, SPR-A) to assess students' ratings of their behavioral adjustment. The BASC-2 SRP-A is a 176-item measure for adolescents that consists of the 5 composite scores: School Problems, Internalizing Problems,

Inattention/Hyperactivity, Personal Adjustment, and Emotional Symptoms Index. The BASC-2 is based on the earlier version, the Behavior Assessment System for Children, published in 1992 (Reynolds & Kamphaus). Extensive literature reviews, reviews of other similar behavior rating scales and self-report measures, as well as clinical consultation and feedback informed the development of both the BASC and BASC-2. Students respond to most items on the BASC-2, SRP-A on a 4-point scale but answer a few items as True or False. High scores on the Clinical Scales and their corresponding composite scores (e.g., Externalizing Problems Composite) indicate more maladaptive behavior while higher scores on the Adaptive scales and their composite score indicate more adaptive behavior or an absence of maladaptive behavior. The items are written at third grade level to allow for easy comprehension (Waston & Wickstrom, 2009). The BASC-2, SRP-A is used by school psychologists to assess students' emotional or behavioral problems, to facilitate design of treatment plans, and to evaluate programs (Reyonolds & Kamphaus, 2004; Stein, 2009; Watson & Wickstrom, 2009).

The BASC-2 SRP provides *T*-scores and percentile ranks for composite scores and individual scale scores; scores are based on national norms and can be separated by age grouping, gender, or clinical status. The BASC-2 SRP provides score classifications based on *T*-scores and identifies High or Low scale scores. In this study, I used and the BASC-2 Internalizing Composite, Emotional Symptoms Index scores, Personal Adjustment composite, and the School Problems composite score to determine the specific components of student adjustment.

The technical properties of the BASC-2 SRP (Reynolds & Kamphaus, 2004) described in the manual and in reviews (Stein, 2009; Watson & Wickstrom, 2009)

indicate that it has strong psychometric properties. Reliability of the BASC-2 SRP is supported by generally moderate to high internal consistency coefficients for the composites (ranging from mid-to-high .80s) and subscales (.72 to .82). Evidence of test-retest reliability (conducted twice over several weeks) was demonstrated by composite correlations primarily in the upper .70s to lower .80s, and .56 to .79 for the subscale scores. Three types of validity evidence are provided in the BASC-2 manual including scale intercorrelations (divergent and convergent validity), factor analyses, and correlations among the BASC-2 and other similar measures of child and adolescent behavior, and profiles of scores for groups of children with particular clinical diagnoses. I calculated the reliability estimates for the composite scores used in this study. The internal consistency reliabilities for each of the composites range from .81 (School Problems) to .96 (Internalizing Problems), all of which indicate good to excellent reliability.

Aspiration Survey. I developed the Student Aspiration Survey for use in this study (see Appendix E). The items on the survey are similar to those on the "Annual School Report Card Supplement" compiled by the New York City Department of Education, Division of Assessment and Accountability (DAA; 2006) from central databases, as well as information provided by school principals. This survey allowed me to collect information from students regarding their goals and aspirations when they graduate from high school, e.g., vocational school, 2-year or 4-year college, work, or no definite plans. There are 10 items on this questionnaire. I have ranked and assigned values to the 10 items; this subjective ranking is based on the duration and degree of commitment required for each goal. For example, attending a four year college is ranked

higher than attending a two-year college. See Appendix F for the ranking and assigned values of the Aspiration Survey items.

Procedure

Once students returned parental consent forms, I invited the students participating in the study to the social worker's office on specified days and times, where they completed the questionnaires and survey. For the one student who wanted the rating scales and survey read aloud, I arranged a specific time with them for me to do this. Participating students completed the CASSS to obtain information on students' perceived social support and the BASC-2 to obtain information on students' perceptions on their adjustment and maladjustment. Students completed the Aspiration Survey to obtain information on students' post-secondary school goals. The students completed the surveys during their free periods. Students filled out the rating scales and survey without being disturbed by other adults or other students. Students who receive mandated testing accommodations for all assessments as per their IEP were provided with the same accommodations to complete the ratings scales and survey if they requested it. Accommodations included completing the surveys in a separate classroom and reading the directions and questions/answers aloud. Five students requested to complete the surveys in a separate location and one student requested to have the questions and answers read aloud. This ensured that students with specific learning disabilities did not have an unfair disadvantage.

I assigned each student a number that I wrote on the consent forms, the rating scales, and surveys. Students' names did not appear on their surveys. This number allowed for matching students' survey responses and demographic information. I kept

only one copy of the name to number roster until all data sets were complete, at which time I destroyed the roster. I was responsible for collecting the data and coding them for confidentiality. I included as participants all students who receive parental permission for participation and provide their own assent.

Students were able to deposit the completed surveys, in sealed envelopes that I kept with me in a locked box. Upon depositing the surveys, students received a $10 gift card to either a bookstore (Barnes and Noble®) or a school supply store (Staples®). Any student who withdrew from the study and did not complete a survey also received a gift card.

Due to the initial response from 55 students, I returned to the classrooms of eligible students and invited them to participate in the study to ensure that all potential participants had the opportunity to take part in the study and that the study had a larger number of participants. After the second appeal, a total of 62 students agreed to participate in the study and had the requisite consent forms. I was asked by the faculty and students to return twice more to ensure that all students who expressed an interest in participating in the study had the opportunity to do so. After the final appeal, a total of 97 students were able to participate in the study; data for 8 students could not be used because their parent or legal guardian did not permit access to their school records. The final number of participating students was 89.

Data Analysis

This is a correlational study that compared ninth grade and twelfth grade general education and special education students' (ninth grade general education students, ninth grade special education students, twelfth grade general education students, twelfth grade

special education students) perceptions of social support, behavioral adjustment, and educational outcomes. Students in grades 9 and 12 did not take the same academic achievement test; as a result I analyzed the academic achievement data for these grades separately. I analyzed data for each of the hypotheses as follows:

Hypothesis 1 was statistically evaluated by conducting a multiple regression analysis. The dependent or criterion variable in this regression model was the CASSS Total Social Support Score. The independent or predictor variables in this model included gender, grade, (age), i.e., ninth *vs.* twelfth grade, and educational placement, i.e., special education *vs*. general education.

Hypothesis 2 was statistically evaluated by estimating a second multiple regression model in which the CASSS Total Importance score served as the dependent variable. Again, gender, grade (age), and educational placement served as the independent variables. In addition, a gender x grade (age) interaction term was included in this second regression model in order to test H02d.

Hypothesis 3 was statistically evaluated by using each of the four adjustment measures (BASC-2 Internalizing Composite, Emotional Symptoms Index, School Problems composite scores, Personal Adjustment composite scores) as separate dependent variables in four multiple regression analyses. In addition, in each of the four analyses, gender, grade (age), and educational placement were included as control variables. In effect, then, each hypothesis outlined above was tested statistically, removing the effects of gender, grade (age), and educational placement from the focal relationships between social support and the various aspects of psychological adjustment under investigation.

Hypothesis 4 was analyzed using two, grade-specific regression analyses because different achievement tests are used to assess academic performance in the ninth and twelfth grades. For ninth grade students, the measure of academic achievement was the eighth grade English Language Arts exam. For twelfth grade students, the measure of academic achievement was the eleventh grade English Regents exam. For both the ninth-grade regression model and the twelfth-grade regression model, these academic achievement tests served as the dependent variables. The CASSS Total Social Support measure was the focal independent variable in each regression model. Gender and educational placement were used as control variables in testing this hypothesis.

Hypothesis 5 was statistically evaluated by estimating a multiple regression model in which the number of days of attendance served as the dependent variable. The focal independent variable in this model was the CASSS Total Social Support score. Gender, grade (age), and educational placement served as control variables in this model.

Hypothesis 6 was evaluated by estimating a logistic regression model in which being on-track or off-track for graduation was the dependent variable. Again, the focal independent variable in this model was the CASSS Total Social Support score. Gender, grade (age), and educational placement served as control variables in this model. I also provided descriptive statistics for all variables.

CHAPTER IV

Results

This chapter describes the results including descriptive statistics and intercorrelations of study variables, as well as regression analyses and logistic regression analyses that addressed the six hypotheses in this study. The chapter also includes results of exploratory analyses conducted to further understand the results obtained.

Descriptive Statistics of Study Variables

To assess their total perceived social support and the importance that they placed on social support, participants completed the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 2004). Table 13 presents the descriptive statistics for participants' ratings of availability of social support and importance of social support on the CASSS. Based on the manual, scores for the first of these measures, the availability measure, can range from 60 to 360 with a mathematical midpoint value of 210. In this study, the Total Social Support scores (M = 247.00, SD = 39.05) for the sample fell within the top half of the range of possible scores. The CASSS Total Importance scores can range from 60 to 180 with a midpoint value of 120. The study sample's mean rating of the importance of social support (M = 127.85, SD = 19.00) is within the top half of the range. Overall, the mean Total Social Support and Total Importance scores of the study sample are within the top half of the range of possible scores suggesting that as a whole, students perceived a high amount of social support to be available and regarded this support as important.

Table 13

Descriptive Statistics Total Social Support and Importance of Social Support Scores on the Child and Adolescent Social Support Scale (CASSS)

	N	*M*	*SD*	Range
Total Social Support Score	89	247.00	39.51	186 – 360
Total Importance Score	89	127.85	19.00	68 – 180

To assess their social and emotional adjustment, participants completed the Behavior Assessment System for Children (BASC-2; Reynolds & Kamphaus, 2004). Table 14 presents descriptive statistics for participants' scores on the Internalizing Composite, the Emotional Symptoms Index, the School Problems Composite, and the Personal Adjustment Composite of the BASC-2. The BASC-2 subscales are calibrated using a *T*-score metric, i.e., $M = 50$ and $SD = 10$. As seen in Table 12, the study sample means for these four BASC-2 scores were all approximately 50 indicating that the study sample can be characterized as essentially "average" on these measures.

Table 14

Descriptive Statistics for Participants' Scores on Composites of the Behavior Assessment System for Children—Second Edition (BASC-2)

	N	*M*	*SD*	Range
Internalizing Problems Composite	89	50.08	10.61	36 – 94
Emotional Symptoms Index	89	49.91	9.83	34 – 84
School Problems Composite	89	49.69	8.82	32 – 76
Personal Adjustment Composite	89	50.39	8.01	22 – 71

The final outcome measure under investigation was number of absences from school during the first 70 days of the school year. Students had an average of 2.50 absences (*SD* = 2.99) during this time period.

Tests of Hypotheses

Hypothesis 1. Hypothesis 1 concerned difference in participants' perception of availability of social support according to their gender, grade, and educational placement. Specifically, the hypothesis predicted that social support scores of girls, 9th graders, and general education would be higher than those of boys, 12th graders, and special education students. A multiple regression analysis evaluated Hypothesis 1. The dependent or criterion variable in this regression model was the CASSS Total Social Support Score.

The independent or predictor variables in this model were gender, grade, i.e., 9th vs. 12th grade, and educational placement, i.e., special education *vs.* general education.

As displayed in Table 15, the three predictors, i.e., gender, grade and educational placement, taken as a set, were not significantly related to total availability of social support (R^2 = .04, F = 1.22, df = (3, 85), p = .31). As seen in Table 15, none of the individual predictors were statistically significant based on the conventionally used $p <$ .05 level. One predictor, educational placement, was marginally significant (p = .07). However, the direction of the relationship between this predictor and total social support was not consistent expectation as outlined in H01. Rather than being positively associated with total social support, education placement was negatively associated with this outcome measure. Contrary to expectation, students in general education reported less, not more, social support (M = 240.69, SD = 30.38) than students in special education (M = 255.86, SD = 47.77). As such, this finding failed, even marginally, to provide support for this sub-hypothesis. Hypothesis 1 was not supported.

Table 15

Regression Coefficients in Predicting Social Support Scores from Educational Placement, Gender, and Grade

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*F*	*p*
1	(Constant)	260.501	32.462		64.39	.000
	Educational Placement	-15.525	8.488	-.197	3.345	.071
	Gender	-3.044	8.340	-.039	.133	.716
	Grade	1.466	2.826	.056	.269	.605
	R^2	.041				.308

Hypothesis 2. Hypothesis 2 predicted that participants' importance ratings of social support would differ according to gender and grade, but not according to educational placement. Hypothesis 2 also predicted a gender by grade interaction such that girls' in both the 9th and 12th grades would have similar social support importance scores while boys in 9th grade would have significantly higher importance scores than boys in 12th grade.

I statistically evaluated Hypothesis 2 by estimating a hierarchical multiple regression model in which the CASSS Total Importance score served as the dependent variable. Gender, grade, and educational placement served as independent variables and, taken together, comprised a "main effects" model. In addition, a gender x grade

interaction term was included in a second "stage" of the model building process in order to test the latter part of H02.

As displayed in Table 16, the three "main effects" predictors, i.e., gender, grade, and educational placement, taken as a set, were not significantly related to total importance of social support (R^2 = .08, F = 2.38, df = (3, 85), p = .08). Still, it is of some interest to note that the "main effect" of educational placement, special *vs.* general education, was statistically significant (β = .23, p < .04). In substantive terms, this finding indicates, contrary to expectation that students in the general education track reported significantly higher scores on the CASSS Total Importance outcome (M = 131.33, SD = 15.15) than did students in special education (M = 122.97, SD = 22.70), controlling for the other predictors in the model.

The gender x grade interaction effect, when added in a second stage of the model building process, was also not statistically significant (F = .00, df = (1, 84), p = .95). The implication of the result is that, contrary to the claim made in this component of the second hypothesis, there was no support for the claim that there would be a differential gender effect on the importance scores contingent on the grade level of the students.

Taken together, then, the data did not support any of the claims made in the second hypothesis. That is to say, the importance scores did not vary significantly as a function of gender, grade, or their interaction. Moreover, but contrary to expectation, they did vary as a function of type of educational placement.

Table 16

Regression Coefficients in Predicting Social Support Importance Scores from Educational Placement, Gender, Grade and the Interaction between Gender and Grade

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*F*	*p*
1	(Constant)	127.935	15.489		68.22	.000
	Educational Placement	8.788	4.050	.229	4.709	.033
	Gender	4.142	3.979	.110	1.083	.301
	Grade	-1.892	1.349	-.149	1.969	.164
	R^2	.078				.075
2	(Constant)	130.935	46.386		7.956	.006
	Educational Placement	8.756	4.102	.228	4.556	.036
	Gender (Ge)	2.215	29.226	.059	.006	.940
	Grade (Gr)	-2.161	4.257	-.170	.258	.613
	Gr x Ge	.180	2.706	.058	.004	.947
	R^2	.078				.947

.

Hypothesis 3. Hypothesis 3 predicted that participants' total social support scores would negatively predict their BASC-2 Internalizing Composite, Emotional Symptoms Index, and School Problems scores and positively predict their Personal Adjustment

scores. To test this hypothesis, I conducted four regression analyses with the CASSS total support scores serving as predictors and each BASC-2 composite score being the criterion.

Table 17 presents the findings from the regression analysis in which the CASSS Total Availability of Social Support measure as well as the three "control" variables in this analysis, i.e., gender, grade, and educational placement, predicted the BASC Internalizing Composite. The four predictors, taken as a set, were not significantly related to this BASC outcome (R^2 = .07, F = 1.51, df = (4, 84), p = .21). The focal independent predictor in this hypothesis, the CASSS Total Social Support measure, was not significantly related to, i.e., predictive of, the BASC Internalizing Composite (β = .02, p = .86). Although there were no hypotheses with respect to any of the control variables, grade exhibited a statistically significant, net negative relationship to this outcome measure (β = -.21, $p < .05$). Substantively, 12th grade students report significantly lower Internalizing Composite scores (M = 50.63, SD = 11.03) than did the 9th grade students (M = 55.39, SD = 14.10), controlling for the other predictors in this regression model.

Table 17

Regression Coefficients in Predicting Internalizing Problems Composite from Social Support, Educational Placement, Gender and Grade

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*t*	*p*
1	(Constant)	64.573	13.755		4.694	.000
	Social Support Score	.006	.035	.019	.177	.860
	Educational Placement	4.576	2.766	.180	1.654	.102
	Gender	-1.108	2.668	-.044	-.415	.679
	Grade	-1.772	.905	-.205	-1.959	.053
	R^2	.067				.206

Table 18 presents the findings from the regression analysis in which the CASSS Total Social Support measure as well as the three "control" variables in this same analysis, i.e., gender, grade and educational placement, predicted scores on the BASC-2 Emotional Symptoms Index. The four predictors, taken as a set, were not significantly related to this BASC-2 outcome (R^2 = .10, F = 2.24, df = (4, 84), p = .07). The focal independent predictor in this hypothesis, the CASSS Total Social Support measure, was not significantly related to, i.e., predictive of, the BASC-2 Emotional Symptoms Index (β = -.12, p = .25). Although there were no hypotheses with respect to any of the control variables, grade, again, exhibited a statistically significant, net negative relationship to this outcome measure (β = -.25, p < .02). Substantively, 12th grade students reported

significantly lower Emotional Symptoms Index scores (*M* = 50.16, *SD* = 9.13) than did the 9th grade students (*M* = 55.50, *SD* = 12.73), controlling for the other predictors in this regression model.

Table 18

Regression Coefficients in Predicting Emotional Symptoms Index from Social Support, Educational Placement, Gender and Grade

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*t*	*p*
1	(Constant)	77.553	11.915		6.509	.000
	Social Support Score	-.053	.030	-.123	-1.157	.251
	Educational Placement	2.981	2.396	.133	1.244	.217
	Gender	-.752	2.311	-.034	-.325	.746
	Grade	-1.877	.784	-.253	-2.394	.019
	R^2	.096				.071

Table 19 presents the findings from a third regression analysis in which the CASSS Total Social Support measure as well as the three "control" variables in this same analysis, i.e., gender, grade and educational placement, predicted the BASC-2 School Problems scores. The four predictors, taken as a set, were significantly related to this BASC outcome (R^2 = .17, F = 4.32, df = (4, 84), $p < .01$). The focal independent predictor in this hypothesis, the CASSS Total Availability of Social Support measure, was not

significantly related to, i.e., predictive of, the BASC-2 School Problems measure (β = -.03, p = .79). In this analysis, both educational placement and grade exhibited statistically significant relationships to School Problems. For educational placement, students in general education report significantly more school problems (M = 54.04, SD = 9.36) (β = .35, p < .01) than did their counterparts in special education (M = 547.35, SD = 9.47), controlling for the other predictors in the model. And, similar to the analyses results of the two previous BASC outcomes (internalizing and emotional symptoms), 12th grade students reported significantly lower scores for school problems (M = 50.00, SD = 8.74) than did the 9th grade students (M = 52.95, SD = 11.19), controlling for the other predictors in this regression model (β = -.22, p < .04).

Table 19

Regression Coefficients in Predicting School Problems Composite from Social Support, Educational Placement, Gender and Grade

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*t*	*p*
1	(Constant)	53.215	10.216		5.209	.000
	Social Support Score	-.007	.026	-.027	-.269	.789
	Educational Placement	6.955	2.054	.348	3.386	.001
	Sex	2.656	1.981	.135	1.341	.184
	Grade	-1.427	.672	-.215	-2.123	.037
	R^2	.171				.003

Table 20 presents the findings from the final BASC-2 regression analysis in which the CASSS Total Social Support measure as well as the three "control" variables in this same analysis, i.e., gender, grade, and educational placement, predicted the BASC Personal Adjustment scores. The four predictors, taken as a set, were not significantly related to this BASC outcome (R^2 = .09, F = 2.13, df = (4, 84), p < .09). The focal independent predictor in this hypothesis, the CASSS Total Social Support measure, was significantly related to the BASC Personal Adjustment measure (β = .24, p < .03) indicating that students who perceived themselves as having more available social support reported higher levels of Personal Adjustment. None of the three control variables had a statistically significant relationship to personal adjustment (all, p > .05).

Table 20

Regression Coefficients in Predicting Personal Adjustment Composite from Social Support, Educational Placement, Gender and Grade

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*t*	*p*
1	(Constant)	26.921	9.697		2.776	.000
	Social Support Score	.056	.024	-.243	2.288	.025
	Educational Placement	-1.560	1.950	-.086	-.800	.426
	Gender	.064	1.881	.004	.034	.973
	Grade	.847	.638	.141	1.329	.188
	R^2	.092				.084

Hypothesis 4. Hypothesis 4 stated that participants' total social support scores would significantly, positively predict their standardized academic achievement test scores. Because 9th and 12th graders had different achievement tests, I used two, grade-specific regression analyses to test this hypothesis. For 9th grade students, the measure of academic achievement was the 8th grade English Language Arts exam. For 12th grade students, the measure of academic achievement was the 11th grade English Regents exam. For both the 9th-grade regression model and the 12th-grade regression model, these academic achievement tests served as the dependent variables with students' scores on the CASSS Total Social Support measure as the independent variable in each regression model. Gender was a control variable in testing this hypothesis. In order to mitigate the possibility of a tautology educational placement was not used as a control variable in these analyses since this variable is itself a measure of academic achievement.

Table 21 presents the findings for evaluating this fourth hypothesis. The two predictors, taken as a set, were not significantly related to this academic achievement measure (R^2 = .05, F = 0.71, df = (2, 25), p < .50). The focal independent predictor in this hypothesis, the CASSS Total Social Support measure, was not significantly related to the Academic Achievement ELA (β = -.22, p < .28). In addition, gender also exhibited no relationship to these academic achievement scores (β = -.04, p < .84).

Table 21

Regression Coefficients in Predicting Ninth Grade Students' Academic Achievement from Social Support Scores and Gender

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*t*	*p*
1	(Constant)	697.835	50.842		13.726	.000
	Social Support Score	-.215	.192	-.221	-1.121	.273
	Gender	-3.530	16.322	-.043	-.216	.831
	R^2	.054				.501

Table 22 presents the parallel set of findings for students in the 12th grade. Again, the two predictors, taken as a set, were not significantly related to the twelfth grade academic achievement measure (R^2 = .08, F = 2.14, df = (2, 48), p < .13). The focal independent predictor, the CASSS Total Availability of Social Support measure, was not significantly related to the Academic Achievement English Regents Test (β = -.13, p < .37). Again, as with the findings from the 9th grade students, gender was not significantly related to these academic achievement scores (β = .24, p < .10), but there was some evidence of a trend toward significance. Based on this result it appears that the academic achievement of the female students in the 12th grade was somewhat better (M = 75.17, SD = 11.18) than that of their male counterparts (M = 66.82, SD = 20.59).

Table 22

Regression Coefficients in Predicting Twelfth Grade Students' Academic Achievement from Social Support Scores and Gender

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	*SE*	*Beta*	*t*	*p*
1	(Constant)	72.985	17.468			
	Total Social Support Score	-.055	.060	-.128	-.918	.363
	Gender	7.813	4.544	.240	1.720	.092
	R^2	.082				.129

Hypothesis 5. Hypothesis 5 stated that students' social support scores would be significant negative predictor of the students' number of days of absence from school during the first 70 school days. In other words, students with higher social support scores would also have better attendance. A multiple regression model in which the number of days absent served as the dependent variable statistically evaluated this hypothesis. The focal independent variable in this model was the CASSS Total Social Support score. Gender, grade, and educational placement served as control variables in this model. In fact, the number of days absence from school during the first 70 days of the school year was positively skewed (skewness = 1.97). A square root transformation applied to the raw scores successfully reduced the skewness statistic to 0.31 and this transformed version of the number of days absent from school was used as the dependent variable in the regression model below.

As seen in Table 23, the set of predictors was not significantly related to, i.e., predictive of, the number of days absent from school (R^2 = .07, F = 1.59, df = (4, 81), p < .19). Visual inspection of the individual predictors finds that only type of educational placement approached being statistically significant. The direction and magnitude of its standardized regression coefficient indicated that there was some tendency for students in general education to be absent fewer days (M = 2.22, SD = 3.04) from school than are students in special education (M = 2.89, SD = 2.97) (β = -.20, p < .08).

Table 23

Regression Coefficients in Predicting Participants' Absenteeism from Social Support, Educational Placement, Gender and Grade

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	2.426	1.091		2.224	.029
	Total Social Support Score	-.004	.003	-.151	-.1.386	.170
	Educational Placement	-.407	.223	-.203	-1.831	.071
	Gender	-.266	.216	-.134	-1.231	.222
	Grade	.074	.073	.111	1.010	.315
	R^2	.073				.184

Hypothesis 6. Hypothesis 6 stated that students' social support scores would be significant positive predictors of students' academic progress. In this context, "academic

progress" references the number of credits amassed, the number of courses taken, exams passed, and is operationalized as a dichotomous variable indicating whether a student is "on-track" or "off-track" to graduate.

A logistic regression model in which being on-track or off-track is the dependent variable evaluated this hypothesis. Again, the focal independent variable in this model was the CASSS Total Social Support score. Gender, grade, and educational placement served as control variables in this model.

As outlined above, this hypothesis was initially analyzed using educational placement as a predictor along with gender and grade and the CASSS Total Social Support score. However, the standard error of the unstandardized logistic regression coefficient associated with type of educational placement was quite large suggesting an estimation problem involving this variable. This difficulty was most probably attributable to the fact that all students in the general education track were "on track" to graduate. The lack of "separation" of this particular predictor with respect to the dependent variable suggested that it should be removed from the model. After removing it, the model was re-estimated and the results are reported in Table 24.

As displayed in Table 24, the three predictors, taken together, were not significantly related to the outcome measure, on *vs.* off-track re graduation (*Nagelkerke* $R^2 = .05$, $\chi^2 = 2.88$ (3), $p < .42$). Moreover, none of the individual predictors exhibited statistically significant relationships with the dependent variable, being on- versus off-track. Thus, hypothesis 6 was not supported.

Table 24

Logistic Regression Coefficients in Predicting Participants' Status to Graduate from Social Support, Gender, and Grade

		B	*SE*	*Chi-Square*	*df*	*p*	*Exp (β)*
Step	Social Support	-.001	.007	.016	1	.900	.999
1	Sex	.409	.532	.591	1	.442	1.505
	Grade	.247	.177	1.958	1	.162	1.281
	Constant	-1.702	2.525	.454	1	.500	.182
	Nagelkerke R^2	.049					.411

Additional Analysis of Personal Adjustment and Specific Sources of Social Support

In view of the fact the "global" or "aggregate" CASSS social support measure was a significant predictor of BASC-2 Personal Adjustment Composite scores (see Table 20 for Hypothesis 3), I conducted an additional analysis in which this aggregate social support measure was replaced by CASSS subscales, which measure the amount of social support available from an array of sources. As seen in Table 25, Support from Parents (β = .28, $p < .02$) and Support from Close Friends (β = .24, $p < .09$ ("trend") seemed to be the specific sources of available social support that most likely contributed to the statistically significant "global" effect reported above.

Table 25

Regression Coefficients in Predicting Personal Adjustment Composite from Parent, Teacher, Classmate, Close Friend, and School Support, Grade, Gender, and Educational Placement

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	Beta	F	Sig.
1	(Constant)	25.423	10.338		6.048	.016
	Parent Support Score	.220	.092	.281	5.749	.019
	Teacher Support Score	-.029	.108	-.033	.072	.789
	Classmate Support Score	.177	.101	.236	3.075	.083
	Close Friend Support Score	-.111	.0901	-.143	1.524	.221
	School Support Score	.003	.102	.004	.001	.975
	Educational Placement	-1.232	2.024	-.068	.370	.544
	Gender	1.777	1.977	.099	.808	.371
	Grade	.918	.637	.152	2.080	.153
	R^2	.177				.040

Additional Data Analysis: Examining the Relationship between Social Support and Ethnicity

In order to determine if social support differed according to ethnicity, I used a one-way analysis of variance to examine the relationship between Social Support as measured by the CASSS Total Social Support Score and ethnicity (See Table 26 for the descriptive statistics). As shown in Table 27, the overall *F* test from this analysis is statistically insignificant ($F = 1.67$, $df = (3, 80)$, $p = .18$). Substantively, this result indicates that the mean Social Support scores did not differ among the four ethnic subgroups considered in this analysis.

Table 26

Descriptive Statistics of Social Support by Ethnicity

Ethnicity	N	M	SD
African American	12	224.92	29.32
Asian American	29	251.52	40.15
White	23	249.70	43.55
Hispanic American	20	254.80	38.18
Total	84	248.00	39.84

Table 27

Results of the ANOVA for the Effects of Ethnicity on Total Social Support Scores

	df	*F*	*p*
Ethnicity	3	1.665	.18
Error	80	(1550.10)	

Note. Value enclosed in parentheses represents the mean square error.

Overall, I did not find support for the study's main hypotheses. See Table 28 for a summary of the hypotheses and the outcomes. The statistical analyses reveal that five of the six primary hypotheses were not confirmed. A sixth hypothesis was only partially supported, specifically there was a significantly postive relationship between student CASSS Social Support and BASC-2 Personal Adjustment scores.

Table 28

Outcomes of Hypothesis Testing

Hypothesis	Outcome
1. CASSS total social support scores of girls, 9th graders, and general education will be higher than those of boys, 12th graders, and special education students.	Not Supported. Results opposite of prediction for educational placement.
2. Students' CASSS total importance ratings of social support will differ according to gender and grade, but not according to educational placement. There will be a gender by grade interaction such that girls' in both the 9th and 12th grades will have similar social support importance scores while boys in 9th grade will have significantly higher importance scores than boys in 12th grade.	Not Supported. Contrary to prediction, educational placement related significantly to importance of social support.
3. Students' CASS total social-support scores (support from parents, teachers, close friends, classmates, and school) will be significant negative predictors of Behavior Assessment for Children-2 (BASC-2) Internalizing Composite, Emotional Symptoms Index, and School Problems composite scores; and students' CASSS Total social-support scores will be significant positive predictors of BASC-2 Personal Adjustment composite scores.	Partially Supported for Personal Adjustment only. *Seniors reported fewer internalizing symptoms, emotional symptoms, and school problems than 9th graders. General education students reported more school problems than special education students.*
4. Students' CASSS total social support scores will significantly, positively predict their standardized academic achievement test scores.	Not Supported.

5. Students' CASSS Total Social Support scores will be significant negative predictors of students' number of days of absence from school during the first 70 school days.	Not Supported.
6. Students' CASSS total social support scores will be significant positive predictors of students' academic progress. In this context, "academic progress" references the number of credits amassed, the number of courses taken, exams passed, etc. and was operationalized as dichotomous variable indicating whether a student is "on-track" or "off-track" to graduate.	Not Supported. Senior females had better academic progress than senior males.

Chapter V

Discussion

This chapter discusses this study's findings and how they relate to previous research studies found in the literature. In addition, I discuss the study's limitations, offer suggestions for future research, and describe the educational implications.

Findings

The purpose of this study was to examine the role of nonacademic factors, specifically social support, in students' overall functioning. In particular, the goal of this study was to examine the differences between students in general education and in special education as well as male and female students in their perceptions of the types of social support they received and believed is important from different sources during the transitions at the beginning and end of high school. An additional goal of this study was to determine the relationship between students' perceived social support and their postsecondary-school aspirations. Study results, however, did not support any of the hypotheses, and in general, indicated few significant differences between males and females, 9th and 12th graders, and special and general education students in received or perceived importance of social support, adjustment, achievement, and post-graduation aspirations.

Although none of the study's hypotheses received support, data analyses revealed some interesting trends and some significant results in the opposite direction of predictions. While students in general and special education placements did not differ significantly from one another in how much social support they perceive to be available, students in general education tended to perceive less overall support from their teachers

compared to their counterparts in special education. Regarding the importance of social support, students in general education placed greater value on social support from their close friends than did their counterparts in special education. Based on these findings, it appears that students in special education, who because of their disability received additional support services from teachers and staff, recognized the availability of these added levels of support. The trend for students in the general education setting to place greater importance on social support from close friends may reflect what previous research has found, namely that students in special education have greater difficulty establishing close friendships with peers compared to their nondisabled counterparts (Hartman, 2009; Meadan & Monda-Amaya, 2008; Vaughn, Elbaum, & Boardman, 2001) and as such, may place less importance on this source of support. Future research is needed to understand if students not receiving needed support undervalue its importance.

Although there were no significant relationships between students' perception of their overall social support and their self-reported internalizing symptoms, adaptation to school, and symptoms of emotional disturbance, the perceived availability of social support predicted students' personal adjustment, (i.e., their interpersonal relationships with others including parents, self-esteem, and self-reliance). This suggests that students who perceived higher levels of social support also experienced positive relationships with others, had positive feelings about themselves, and believed they could rely on their own abilities and resources. This finding supports previous research on the relationship between social support and students' social and emotional adjustment (Demaray et al., 2003; Demaray et al., 2002a, Demaray, 2002b; Demaray et al., 2005; DeSantis King et

al., 2006; Hamre & Pianta, 2005; Hughes & Kwok, 2007; Malecki & Demaray, 2002; Malecki et al., 2003; Malecki et al., 2000; Malecki & Elliott, 1999; Natvig et al., 2003).

Although not an a priori hypothesis, there was a significant difference between students in general and special education placement on one aspect of behavioral adjustment. Students in general education scored higher on school problems than students in special education placement. This indicates that students in general education had a more negative attitude toward school (feeling alienated, hostile, and dissatisfaction with school) and toward their teachers (feelings of resentment and dislike of teachers; beliefs that teachers are unfair, uncaring, or overly demanding), and were more likely to take risks and seek excitement (sensation seeking). This finding suggests that students in general and special education placement experienced school differently.

One possible explanation for this finding is that the additional support services students in special education received affected their attitudes toward their teachers, school, and their need for novel physical and social risks. Future research is needed to examine the relationship between educational placement and school problems. Another explanation is that students in special education may see their problems differently than their peers in general education. Research studies (Carter, Trainor, Sun, & Owens, 2009; Greenan, 1987; Howard & Tryon, 2002; Klassen & Lynch, 2007; Meltzer, Roditi, Houser Jr., & Perlman, 1998; Moss, Prosser, Ibbotson, & Goldberg, 1996) have found that the self-ratings of students with disabilities do not reflect other informants' view of their same behavior. Moss et al. (1996) investigated the relationship between the self-reports of adults ages 16-69 with a learning disability and reports by their key informants of psychiatric symptoms (e.g., depression, anxiety) and found a significant lack of

agreement between the two. Howard and Tryon's (2002) study on depression in students with learning disabilities found that students' own ratings of their depressive symptoms were not in agreement with the ratings given by their guidance counselors. Other studies have found a similar lack of agreement between students' with disabilities self-assessment and the assessment of others concerning their academic skills (Greenan, 1987; Stone, 1997), academic strategy use and performance (Melzter et al., 1998), and self-efficacy beliefs (Klassen & Lynch, 2007). Carter, Trainor, Sun, and Owens (2009) conducted a study on needs of students with learning disabilities during the transition from high-school to post-secondary life from the perspective of students, teachers, and parents. The authors found that students' assessment of their needs and strengths differed significantly from teachers' and parents' assessment of these same domains. Therefore, it is possible that students in special education may not recognize the problems they have in school to the same degree as do students in general education settings.

There were significant differences between 9th and 12th-grade students' aspects of their behavioral adjustment. Although these were not a priori hypotheses, they do warrant further attention. Ninth grade students reported greater levels of internalizing problems, emotional symptoms, and school problems compared to 12thgrade students. This suggests that the younger students in this study experienced greater emotional difficulties during their first year of high school. This finding is important for educators to be aware of and the implication of this finding will be discussed later in the chapter.

In summary, for the most part, the results from this study failed to support existing research findings on the relationship between social support and students'

academic and social-emotional well-being. The lack of significant findings may reflect study limitations, particularly sample limitations.

Sample Limitations

An examination of the school's profile indicates that the student population is performing above average. Overall, there was little variation in participating students' academic progress. According to the profile, the student attendance rate at this school, to date, is 93% (New York City Department of Education [NYC DOE], 2010b), and the high school was designated as having one of the best graduation rates (80%), in the New York City public school system (NYC DOE, 2010c). The students in this study did not vary greatly in their school attendance, although there was a tendency for students in special education to have more absences compared to students in general education. More than 75% of participating students were on track to graduate. Based on a school profile, "School Demographics and Accountability Snapshot" (NYC DOE, 2010a), the high school received one of the top ratings of the No Child Left Behind Accountability Status, "In Good Standing."

By comparing this high school to other public high schools in the same borough, it is clear why this school is unusual. The high schools' above average functioning can be seen. One of the comparable high schools in the same borough has 1474 students, a diverse student body (58% Black, 18% Hispanic American, 23% Asian American, 1% White), a graduation rate of 46%, an attendance rate year to date of 74%, and did not make AYP as identified as in need of "Restructuring" under NCLB (NYC DOE, 2010d). Another high school has 3097 students, an equally diverse student body (21.6% Black, 55% Hispanic American, 18.5% Asian American, 3.5% White), a graduation rate of

54.6%, an attendance rate year to date of 82%, and also did not make AYP and is identified as in need of “Restructuring” (NYC DOE, 2010e). A third high school in the same borough has 2965 students with a comparable diverse student body (21.6% Black, 55% Hispanic American 55%, 18.5% Asian American 18.5% and 3.5% White 3.5%), a graduation rate of 42%, and attendance rate year to date of 80.8%, and failed to make AYP and is also identified as in need of “Restructuring” (NYC DOE, 2010f). In summation, the high school where I conducted my study has the highest graduation rate, the best attendance rate, and is making its targeted annual yearly progress (AYP) as identified by the its federal status under the No Child Left Behind Act (NCLB).

Overall, the study’s participants attend a school where most of the student body was performing well academically and exhibited behaviors (i.e., attendance) that are important for school success. In this study, there was little variation among students regarding their long-term goals; almost all (90%) planned on attending college, either at a 2-year or 4-year institution. This suggests that participants in this study aspired to similar goals, regardless of their age, gender, or educational placement.

In addition to functioning well academically and having similar goals, the students participating in this study did not differ significantly in terms of their perceptions of social support and their psychological, behavioral, and academic achievement. Eighty-three percent of students’ social support scores on the CASSS fell within the top half range of possible scores, suggesting that an overwhelming majority reported higher levels of social support. On the measures of adjustment, 10% or less of students’ scores fell within the clinical range on any of the four BASC-2 composite scales. The failure to find support for the role of social support on students’ academic and

psychological well-being may be attributed to the overall nature of the school environment and the student body, the study's pool of potential participants.

The current results differ from those in the pilot for this dissertation that found that some students receiving special education were not receiving the social support they felt they needed (Jensen, 2007). The high school underwent a number of changes since I conducted the pilot study. Since the fall of 2008, the high school has a new principal. Under his stewardship, the structure and environment of the school has undergone several changes, which may have implications for the study's findings. One change affects the administration of general and special education: Special education is no longer a separate department; rather the special educators are now housed within their own discipline (e.g., English, Math). Consequently, there is less distinction between general and special education teachers.

The new principal implemented an initiative to better prepare all students (in both general and special education) for college from early in their high school career. The Student Services Office is no longer a separate office providing college advising. Instead, all guidance counselors are responsible for all students in grades 9 – 12 and advising students on their postsecondary school plans and aspirations. This ensures that students begin thinking about and planning for their long-term academic future from the time they first enter the high school. In addition, the guidance counselors are responsible for making sure students' programs reflect their post-high school plans, for example, ensuring that students are on track to go to college, and that they take the Scholastic Aptitude Test (SAT). Student advisors complement the work of the guidance counselors by helping students participate in extra-curricular activities and keeping resumes so that

students have a record of all their academic and non-academic activities that college admissions offices value when reviewing applications of prospective students.

The school now provides a school-based SAT preparatory program that is free to interested students. In addition, the school offers 31 college accredited courses, thereby enabling students to graduate with 30 college credits. These college classes are open to all students. Teacher observations are conducted to ensure that they are communicating the relationship between succeeding in school and attending college and pursuing career goals. In summation, the recent changes implemented by the high school administration may have had substantial influences on the school environment and subsequently, the functioning of its student population.

The use of free and reduced lunch as an indicator of SES was flawed. According to the school principal, when families fill out forms in order to receive subsidized lunch, they can put down whatever amount of income they wish. There are incentives to being eligible for subsidized (free- or reduced-priced lunch) in addition to the cost of lunch. These include not paying for the SAT's, not paying the fee for some college applications, and paying $8 instead of $80 for AP exams. The school knows that no one routinely checks the forms and that perhaps a very few families are audited annually. According to the study statistics, 34% of the students were eligible for free lunch and 11% were eligible for reduced-price lunch. In contrast, there are 15 students school-wide who receive social services.

According to the most recent available U.S. Census Bureau data (2010), the median household income in 1999 for families living in the high school's zoned area was $63,630, compared to the national median income of $50,046. Approximately 5.6% of

families were living below the poverty level, compared to the national average of 9.2%. and 119 families (1.1%) were receiving public assistance. School-wide, 15 students (0.2%) received public assistance.

Additional Limitations and Suggestions for Future Research

This study has several additional limitations that may have affected the results and consequently must be addressed. First, students who participated in this study volunteered to do so and therefore not be a representative sample of the target population. Students received a ten-dollar gift card to a bookstore or an office supply store if they volunteered to participate in the study. If students were presented with different kinds of incentives or a greater incentive, a greater number of students may have participated.

As mentioned above, I recruited students from this one school where overall the students are functioning well academically as well as social-emotionally. The majority of special education students who participated in this study were identified as having either a learning disability or speech and language impairment; only one student was identified as being emotionally disturbed. It is possible that the general education students and special education students in this study are more similar than dissimilar in terms of their behavioral adjustment than students identified as emotionally maladjusted. The results of my study may have been affected by the lack of diversity of types of disabilities of special education students, particularly students identified as emotionally disturbed for whom social support may play a more significant role in affecting their social-emotionally well-being. Future research should include schools where the students have a wider range of academic and psychological levels of functioning.

Third, this is a cross-sectional study that relied on data from different students at different points in time. Ideally, future research should be longitudinal to better detect changes in students over the course of time. This would enable educators to understand the changing needs of students as the academic and social pressures evolve during their high school career.

Fourth, the measure of academic achievement differed for students from 9th and 12th grades. Due to financial and time constraints, I was not able to administer individual measures of achievement. If possible, future research should include the same measure given at different times in order to compare students as they begin and complete high school.

I chose to examine the social support needs of students entering and exiting high school because these are the only two high school grades for which there was available standardized academic test scores. By comparing younger and older students on the relationship between perceived social support and academic performance, educators may learn that needs of students change as they progress through high school. If students' need for support differs at different times, educators would be able to adjust their provision of support accordingly, consequently addressing their academic progress as well. These transition times are important in the lives of students and my results show that students' perceptions of social support differ according to grade. School psychologists should attend to these results when working with students in the 9th and the 12th grades.

A fifth limitation of this study is the instrument measuring social support, the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2004).

After reviewing the literature, I determined that the CASSS was the instrument best suited to measure students' perceived social support. To date, there is no instrument specifically designed to measure perceived social support among students in grades 3 through 12. Furthermore, the CASSS assesses different types of social support from different sources. Another instrument measuring social support, Harter's Social Support Scale for Children (SSSC; Harter, 1985), is a 24-item scale that examines positive social support from parents, teachers, friends and classmates and is designed for children in elementary and middle school. Based on my review of the social support literature, the CASSS appeared to be more comprehensive and suitable for my study. The CASSS is not a published instrument and does not have norms that would also aid in the interpretations of the scores. Currently, one can only interpret the scores mathematically (e.g., high *vs.* low scores). If the CASSS were normed on a large sample representative sample, school psychologists would be able to use the instrument with more confidence in both research and clinical work.

Sixth, the information on social support and student adjustment is based on students' self-reports. Research studies have found that a considerable lack of consensus between students' self-report of their behavior and reports by other informants (Cole & Gonyea, 2010; Okazaki, 2002). Students' reporting on their own behaviors tend to over- or underestimate their performance (Cleary, 2009). Cole and Gonyea (2010) found that students tended to overestimate their performance on standardized scholastic aptitude tests. For better accuracy, future research should have a multi-informant approach and include measures from students' teachers, parents, and peers (Ladd & Kochenderfer-Ladd, 2002).

Educational Implications

This study's finding that students' perception of social support from others is related to personal adjustment is in line with the results from others studies (Davidson & Demaray, 2007; Demaray & Malecki, 2002a; Heponiemi et al., 2006; Pierce et al., 1991) and consequently has implications for school psychologists. Students who experienced social support also reported positive relationships with others and have positive feeling about themselves and their ability to get take care of their needs. School psychologists can identify those students who lack social support and consequently may not have the same positive experiences. School psychologists are in the position to implement preventive measures as well as interventions for students who report deficits in social support in order to promote students' interpersonal relationships, self-esteem, and self-reliance.

The results from this study indicate that students in special education perceived additional support from teachers in their school, which suggests that these students recognized the receipt of the additional services provided as a result of their educational placement. This may be important for school psychologists who want to determine if students in special education perceive the importance of the mandated educational support services they receive. Prior research suggests that the perception of support is more valuable than the actual provision of support (Haber, Cohen, Lucas, & Baltes, 2007; Sarason, Pierce, & Sarason ,1990).

While not part of the study's hypotheses, results from this study suggest that younger students experience more adjustment difficulties compared to older students. It may be more critical for school psychologists to examine the needs of students adjusting

to the new demands of a new school compared to those students who are preparing to graduate from a familiar school environment. This is important for school psychologists, who are in the position to identify and address students' to ensure their school success.

For the most part, the results of this study did not support previous research on social support; however, the failure to find support for prior research may be indicative of other factors important to consider in future research. The study participants attended a large, public, urban high school where there is racial and ethnic diversity as well as diversity among educational placements (i.e., general and special education placements). Nearly all students attended school regularly, performed well academically, graduated with their peers, and aspired to attend college. It is important to understand the factors that promote such academic success and behavioral adjustment in order to replicate this school's success to other large, public, urban high schools.

Appendix A

Introduction

Fall 2009

My name is Mira Jensen. I am a student at the Graduate School and University Center of the City University of New York. I am studying how high school students think, feel and act and about the support they receive from adults in their school. This information will help teachers, principals and other educators in school work better with students who are not reaching their full potential. Participants often enjoy the experience of being involved in such a study.

To participate in this study you need to fill out two forms: 1) one will ask questions about what you think and feel about the kind of support you receive inside and outside the school, and 2) one will ask how you think and feel about yourself and the kinds of things you do. The questions on these forms have no right or wrong answers and relate to your own personal experiences. In order to accommodate students and their mandated test modifications, questions and answers will be read aloud. Filling out the surveys will take about 45 - 60 minutes, or one to two class periods. You will be able to complete the surveys during your free period, lunch period, or before/after your school day in the social worker's office, where I will be on specified days. Also, I will need to get information from your school records; this information is important to get an overall idea of your school experience. For agreeing to participate in this study, you will receive a $10.00 gift card of your choice from Barnes & Noble® or Staples®.

Information about you will only be used for this study. It will not be part of your school records. Results of the study will not show your name. I will keep the information private in a locked file cabinet. Participation in this study is your choice. If you do not want to participate, it is okay. If want, you may stop participating at any time without a problem. Around 75 students will be participating in this study. I will be happy to share the results of this study with students and parents who are interested. The school approves this project.

I will now be giving out the consent forms for you and your guardian to sign. Please ask me any questions you have or wait to speak to me in private if you like.

Appendix B

Student Assent Form

Fall 2009

Dear Student:

My name is Mira Jensen. I am a student at the City University of New York. I am studying how high school students' think, feel or act and about the support they receive from adults in the school. This study may help teachers, principals and others work better with students who are not reaching their full potential. Participants often enjoy the experience of being involved in such a study.

Participants in this study will fill out two forms: one asks questions about what you think and feel about the kind of support you receive inside and outside the school and the other asks how you think and feel about yourself and the kinds of things you do. The questions have no right or wrong answers and relate to your own personal experiences. If you would like, I can read the questions and answers aloud. You will also fill out a brief survey on what you plan on doing after graduating from high school (e.g., attend college). Filling out the forms will take about 45 - 60 minutes. You will complete the questionnaires during your free period, lunch period, or before/after your school day either in the social worker's office, where I will be on specified days. Also, I will need to get information from your school records (e.g., IEP, test scores on a standardized/city-/statewide test, attendance records); this information is important to get an overall idea of your school experience. For agreeing to participate in this study, you will receive a $10.00 gift card of your choice from Barnes & Noble® or Staples®.

Information about you will only be used for this study. It will not be part of your school records. Results of the study will not give your name. I will keep the information private in a locked file cabinet.

Participation in this study is your choice. If you do not want to participate, it is okay. If you start, you may stop at any time for any reason. Around 75 students will be participating in this study. I will be happy to share the results of this study with students and parents who are interested.

If you choose to participate in the study, please sign your name and write the date below. Keep one copy of these pages and give the other to me.

If you have any questions about this research, you can email me at mjensen@gc.cuny.edu or my advisor, Dr. Tryon, at 212-817-8293 or gtryon@gc.cuny.edu. If you have any questions about your rights in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York at (212) 817-7525 or kpowell@gc.cuny.edu. The high school approves this project.

Thank you for agreeing to participate. All signed assent forms will be kept on file at the school. Please complete the information below.

Please check one: I want to participate in the study ☐

I do not want to participate in the study ☐ ☐

_____ _____

Student's Name (printed) Student's Signature

_____ _____

Researcher's Signature Date

Appendix C

Parental Permission Form

Fall 2009

Dear Parent/Guardian:

My name is Mira Jensen and I am completing my doctorate in Educational Psychology at the Graduate School and University Center of the City University of New York (CUNY). As part of my studies, I am conducting a dissertation research project that examines how high school students' think, feel, or act and the support they receive from adults in school. This study may help educators work more effectively with students who are not reaching their full potential. Please take moment to read about this project to see if you are willing to allow your child to participate.

Your child's participation in this study will involve the completion of two questionnaires: one will ask questions about what your son/daughter thinks and feels about the kind of social support he/she receives inside and outside the school and the other one will ask students' how think and feel about themselves and the kinds of things they do. Your child will also fill out a brief survey on what his/her plans on doing after graduating from high school (e.g., attend college). In order to accommodate students and their mandated test modifications, questions and answers will be read aloud to students who request it. It should take your son/daughter 45 - 60 minutes to complete the questionnaires. Students will complete the questionnaires during their free period, lunch period, or before/after their school day either in the social worker's office, where I will be on specified days. Also, I will need to get information from students' school records; this information is important to get an overall idea of your child's school experience. Students who agree to participate in the study will receive a $10.00 gift card of their choice from Barnes & Noble® or from Staples®.

Information concerning your child will be used only for this research study and will not be a part of his/her school records. My research advisor and I will be the only people who see your child's questionnaires. Results will be reported as a group and will not identify the name of any individual child. I will keep the surveys in a locked file cabinet to which I have with sole access.

Participation in this study is voluntary. You may withdraw your consent at any time. Deciding not to have your child participate will in no way influence the educational opportunities available to your child. There is no known risk to your child from participating in this study. However, should your child want to stop completing the questionnaires, he or she may refuse to participate at any time without a problem.

To participate in the study, parents or guardians must to complete this consent form. Students will sign a separate form if they choose to participate. Around 75 students will be participating in this study. I will be happy to share the results of this study with students and/or parents who are interested.

If you have any questions about this research, you can contact me at (917) 763-7119 or mjensen@gc.cuny.edu or my advisor Dr. Tryon at 212-817-8293 or gtryon@gc.cuny.edu. If you have any questions about your child's rights in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu. The high school approves this research project.

Thank you for your permission to allow your son/daughter to participate in this study. You will receive a copy of this form to keep. All signed consent forms will be kept on file at the school.

Please complete and check one:

- I permit my child_____(print name) to participate in the study described above ☐

I agree that the researcher may access my child's school records (specifically, IEP, test scores on a standardized/city-/statewide test, attendance records). Please check one:

YES ☐ NO ☐

_____ _____

Parent/Guardian's Name (printed) Parent/Guardian's Signature

_____ _____

Researcher's Signature Date

Appendix D

Letter to School Personnel

Fall 2009

Dear Principal, Assistant Principal/ Guidance Counselor/ Social Worker/Educator:

My name is Mira Jensen and I am completing my doctorate in Educational Psychology at the Graduate School and University Center of the City University of New York (CUNY). As part of my studies, I am conducting a dissertation research project that examines how high school students' think, feel, or act and the support they receive from adults in school. This study may help educators work more effectively with students who are not reaching their full potential.

Students' participation in this study will involve the completion of two questionnaires: one will ask questions about what students think and feel about the kind of social support he/she receives inside and outside the school and the other one will ask students' how think and feel about themselves and the kinds of things they do. Students will also fill out a brief survey on what his/her plans on doing after graduating from high school (e.g., attend college). In order to accommodate students and their mandated test modifications, questions and answers will be read aloud to students who request it. It should take students 45 - 60 minutes to complete the questionnaires. Students will complete the questionnaires during their free period, lunch period, or before/after their school day in the social worker's office, where I will be on specified days. Also, I will need to get information from students' school records; this information is important to get an overall idea of students' school experience. Students who agree to participate in the study will receive a $10.00 gift card of their choice from Barnes & Noble® or from Staples®.

Information concerning students will be used only for this research study and will not be a part of his/her school records. My research advisor and I will be the only people who see students' questionnaires. Results will be reported as a group and will not identify the name of any individual student. I will keep the surveys in a locked file cabinet to which I have with sole access.

Participation in this study is voluntary. There is no known risk to students from participating in this study. However, should any student want to stop completing the questionnaires, he or she may refuse to participate at any time without a problem.

To participate in the study, parents or guardians must a complete a consent form. Students will sign a separate form if they choose to participate. Around 75 students will be participating in this study.

No school or individual identifying information will be included in any publications or presentations that may result from this study. All the data will be reported in aggregated form. If there is an emergency (e.g., information provided by an individual student indicates that he/she may be harmed in any way) the social worker and/or guidance counselor will be notified.

If you have any questions about this research, you can contact me at (917) 763-7119 or mjensen@gc.cuny.edu or my advisor Dr. Tryon at 212-817-8293 or gtryon@gc.cuny.edu. If you have any questions about students' rights in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu.

_____ _____

Researcher's Signature Date

Appendix E

Aspiration Survey

What are your plans after graduation from high school?

Please indicate your first, second and third choices. I plan on:

Choice # (1, 2, 3)	**Aspiration**
_____	Going to a 4-year college.
_____	Going to a 2-year college.
_____	Going to a technical or vocational school.
_____	Joining the military.
_____	Working and not going to college, technical or vocational school.
_____	Other _____ (please fill in).
_____	I don't have plans yet.

Appendix F

Rank and Assigned Values of the Aspiration Survey Items

Rank	Assigned Value	Item
1	5	Going to a 4-year college
2	4	Going to a 2-year college.
3	3	Going to a technical or vocational school.
4	2	Joining the military.
5	1	Working and not go to college.
N/A	0	I don't have plans yet.
N/A	TBD	other _____ (fill in)

Appendix G

Graduation Plans

You are going to be graduating from high school at the end of this school year. What will you be doing after graduation?

I will be:_____

(please fill in)

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