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Examination of the Relationship Between Perceived Social Support and Students' Academic Outcomes

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EXAMINATION OF THE RELATIONSHIP BETWEEN PERCEIVED SOCIAL SUPPORT AND STUDENTS' ACADEMIC OUTCOMES

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The present study sought to add to the current research by investigating perceived social support and academic outcomes as measured by the Pennsylvania System of School Assessment (PSSA) and grade point average (GPA). In addition, the study examined sex differences, differences in ethnicity, and socioeconomic status (SES) in relation to perceived social support as measured by the Child and Adolescent Social Support Scale (CASSS). Finally, correlations between frequency and importance ratings of the CASSS were analyzed.

The sample included 154 regular education 4th grade students from a suburban school district located in south central Pennsylvania. Students completed the CASSS in a large group setting during non-academic time. In addition, PSSA scores were obtained from the district database and students' GPAs were calculated. Results did not indicate a statistically significant difference between male and female levels of perceived social support. The appropriate statistically analyses were unable to be computed for differences among the perceived social support of ethnicity and SES. Based upon study results, overall perceived social support does not correlate with academic achievement as measured by both student GPA and PSSA scores. However, a small, but notable relationship was indicated between low SES students' reading PSSA scores and parent

frequency ratings. Finally, a moderate correlation (r = .50) was determined between Total Frequency and Total Importance ratings of the CASSS.

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CHAPTER I

INTRODUCTION

Throughout the years, social support has been defined various ways. Social support involves access to relationships that meet such needs as love and affection, freedom to express personal feelings, and validation of personal identity and worth. It also helps individuals to fulfill dependency needs, handle emotions, and control impulses (Caplan, 1974). Social support has also been described as consisting of three components including feeling loved, feeling valued, and belonging to a social network (Cobb, 1976). House (1981) describes four types of social support including emotional support, informational support, instrumental support, and appraisal support. Emotional support involves empathy, trust, and love. Instrumental support includes providing aid, time, or money. The third type of support, informational, includes providing advice or information. Finally, appraisal support provides one with constructive criticism or evaluative feedback for self-evaluation. The current study utilized the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2000), which was developed in order to assess the four different types of support as defined by House (1981). Social support also can be evaluated as to whether the child perceives the support to be available or enacted by people in their social network (Tardy, 1985). On the CASSS, students can indicate the frequency and importance of whether the support is given or received.

The family is the child's first level of interaction where relationships are developed and the child begins to experience social support. Parental support, and more specifically, parental academic support have been shown to improve student academic

outcomes (Chambers, Hylen, & Schreiber, 2006; Rueger, Malecki, & Demaray, 2010) and personal adjustment (Demaray & Malecki, 2002a; Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005; Elmaci, 2006). Parents provide academic support through a variety of means. For example, The Condition of Education (Planty et al., 2009) reported that in 2007 85% of students in kindergarten through 12th grade had homework checked by an adult. What happens, however, when familial relationships are poor and there is minimal family support? What if the parent does not want to be involved in the child's educational process or is not capable of providing social support due to extenuating circumstances? According to findings from the Metropolitan Life Survey of the American Teacher (1987), 45% of students, who earned class grades lower than a C, did not receive parental help in finding time and a place to study, 50% of students reported that their parents did not help with homework, and 49% of students reported that their parents did not encourage them to pursue their dreams. Low family social support has also been demonstrated to increase psychological distress and is associated with emotional symptoms (Demaray & Malecki, 2002a; Hoefnagels, Meesters, & Simenon, 2007; Klineberg et al., 2006).

As children reach school-age they may look towards other adults and peers within the school setting to find social support. In addition to parents, teachers and peers become a protective factor for teens and children (Bernard, 2004). The Search Institute has identified a caring school climate, which includes positive relationships with teachers and peers, as a developmental asset that promotes overall healthy development (Search Institute, 2003). The development of positive relationships with teachers may result in a positive impact on academic achievement (Nettles, Mucherah, & Jones, 2000). Through

the development of relationships with both teachers and classmates, children further expand their social capital. In contrast, lack of social support from peers may lead to more emotional problems in adolescents (DuBois, Felner, Brand, & George, 1999; Demaray & Malecki, 2002a).

Additionally, research has been conducted on the differences between males and females and their perception of social support with mixed results. Overall, female students report higher levels of social support in comparison to males (Demaray & Malecki, 2002b; Malecki & Demaray, 2003a; Malecki & Demaray, 2006; Malecki & Elliott, 1999; Rueger et al., 2010). Females have also been reported as perceiving higher levels of social support than males, particularly from classmates and close friends (Demaray & Malecki, 2002b; Malecki & Elliott, 1999). A study conducted with middle school students who had learning disabilities indicated that males reported lower perceived friend support than females (Martinez, 2006). Additionally, in a study conducted with 7th and 8th grade students, males perceived the least amount of support from classmates (Rueger et al., 2010). Previous research has indicated that there are no significant sex differences in perceived social support from parents (Demaray & Malecki, 2002b; Malecki & Demaray, 2003a; Rueger et al., 2010). However, in a study conducted by Martinez (2006) 8th grade males with multiple disabilities reported the lowest parent support, while 6th grade males with a reading disability perceived the lowest level of teacher support. Martinez also found no significant group differences between reading disabled, math disabled, reading and math disabled, and normally achieving students, and perceived teacher support.

In a review of the research on developmental status, younger students report more overall perceived support than older students (Demaray & Malecki, 2002b; Malecki & Elliot, 1999), and support from adults appeared to decrease as grade level increased. Teacher support also appeared to decrease as grade level increased, as did classmate support. Social support from friends was also found to decrease with an increase in age from young adulthood (Prezza & Pacilli, 2002). Coventry, Gillespie, Heath, and Martin (2004) reported a slight decline with age in perceived support from parents and friends, particularly in females. However, Malecki and Elliot (1999) indicated that support from a close friend appeared to be similar from 7th through 12th grades. Although no statistical differences were indicated between grade level and perceived parent support in the 1999 study, Demaray and Malecki (2002b) reported that the parent subscale was higher for middle school aged students in comparison to high school. Studies utilizing the CASSS have typically focused on middle and high school age students' perception of social support (Demaray & Malecki, 2002a; Demaray & Malecki, 2003b; Demaray et al., 2005; Malecki & Demaray, 2006; Rueger, Malecki, & Demaray, 2008; Rueger, Malecki, & Demaray, 2010). There is minimal research in regard to elementary students' perception of social support. In addition, it is important to identify student needs and implement interventions at earlier ages in order to improve rates of success. The sample within the present study includes 4th grade students, which expands upon the current research of students' perception of social support. By including elementary-aged students within the sample, the study provides important information suggesting the implementation of intervention at earlier stages.

The federal No Child Left Behind Act of 2001 states that children should be proficient in reading and mathematics by 2014 (U.S. Department of Education, 2001). One manner in which students' reading and mathematical proficiency is measured is through the Pennsylvania System of School Assessment (PSSA). The PSSA also assists in evaluating whether a school district meets Adequate Yearly Progress (PDE, 2014). In 2007, the Pennsylvania Department of Education began closely monitoring schools in order to assess test security and administration of the PSSA. Parents refer to their children's test scores in order to determine their children's proficiency in such areas as reading and math. Teachers utilize the scores as a measure of academic progress. Tax payers and community residents refer to their respective district's state standardized scores to determine if the district is educating the students effectively. From the perspective of the state, it is a means to hold the district accountable for student academic progress. By investigating social support and its impact on student achievement as measured by PSSA scores, school districts are provided with valuable information as to from whom social support is most beneficial.

With a focus on student achievement, the teacher may utilize standardized test scores in order to determine students in need of remediation and intervention. Various forms of teacher support are provided in order to assist in increasing student academic achievement. Teachers provide additional support to students through frequent check-ins in order to ensure understanding. They may pull small groups of students to provide additional instruction or informational support. Teachers also spend time further developing a positive relationship with the student through delivering emotional support. Malecki and Elliott (1999) found the correlation of students' grade point average (GPA)

and total social support, in addition to teacher support, to be low, yet statistically significant. Teacher support was also associated with higher levels of school achievement according to Malecki and Demaray (2003a). Malecki and Demaray completed additional research in 2006 in order to determine whether social support provided a buffering effect between socioeconomic status (SES) and academic performance. Results indicated that for students of low SES status, total, parent, and teacher support were related to total, reading, and language GPAs.

In addition to teachers, parents also provide academic support to their children in numerous ways. Some parents provide direct support by assisting with homework and studying. Others offer emotional support by listening to their children's concerns about school and providing encouragement. Still other parents have the time and opportunity to volunteer in the classroom or attend Parent Teacher Organization (PTO) meetings. Research on parental support and academic achievement has been conducted; however, results have been inconsistent. Several studies have indicated that parental support improves student academic achievement outcomes (Chambers, Hylen, & Schreiber, 2006; Rueger et al., 2010). However, additional studies have reported that family support was not significant for either reading or math achievement (Nettles et al., 2000) nor did parental involvement predict changes in achievement (Nokali, Bachman, & Votruba-Drzal, 2010).

The Problem

Research has been inconsistent in regard to social support and academic performance. Nettles et al. (2000) reported that teacher support was related to math achievement in elementary school-aged children, but it was not related to reading

achievement. In addition, the study revealed that family support was not significant for either math or reading achievement. Other research, however, has indicated that teacher support is associated with higher levels of school achievement overall (Malecki & Demaray, 2003a; Malecki & Elliott, 1999). An additional study completed by Malecki and Demaray in 2006 indicated no significant associations between social support and academic performance of higher SES Hispanic students; however, moderate associations were indicated for lower SES students. Woolley and Grogan-Kaylor (2006) investigated four family factors including family satisfaction, family support, family integrations, and home academic culture and their impact on school outcomes. Results indicated that although family support was associated with school behavior and the student's perception and feelings about school, it was not associated with academic performance. However, additional studies have indicated that parental academic support is associated with higher academic achievement (Chambers et al., 2006; Rueger et al., 2010). Although not synonymous with parental support, parental involvement may lead to the perception of parental support. Parental involvement pertains to specific parental behaviors that support the child's educational progress. These behaviors may include communicating with the teacher, attending school functions or events, volunteering, and discussing educational goals with the child. Data from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development indicated that parent involvement did not predict changes in achievement (Nokali et al., 2010). The proposed study is intended to add to the current research in regard to elementary-aged students' perception of social support and academic outcomes as measured by GPA and PSSA scores.

Studies have typically measured academic performance using the student's GPA (Malecki & Demaray, 2006; Rueger et al., 2010; Somers, Owens, & Piliawsky, 2008). Malecki and Demaray suggest that other types of academic assessment may result in different outcomes. The current study investigates social support and academic achievement as assessed by the PSSA, a state standardized achievement test, and GPA. PSSA results are intended to inform administrators as to program strengths and weaknesses and to assist in the improvement of curriculum (Pennsylvania Department of Education, 2010). In addition, the PSSA has been found to be a valid indicator of student academic achievement (Thacker, Dickinson, & Koger, 2004). As a result of the No Child Left Behind Act of 2001, all students are expected to be proficient in both reading and mathematics by the year 2014 (U.S. Department of Education, 2001). In 2011, President Obama announced flexibility with NCLB mandates "but only if they (states) are transitioning students, teachers, and schools to a system aligned with college- and career-ready standards for all students, developing differentiated accountability systems, and undertaking reforms to support effective classroom instruction and school leadership" (U.S. Department of Education, 2011, para. 2). School districts and administrators continue to be under an exceptional amount of pressure to show that their students are proficient academically. The present study assists in providing information to school districts as to the importance of social support in relation to academic achievement and from whom it is most beneficial for students.

According to Chambers et al. (2006), most research about academic achievement and support has focused on peers, family, and school support. In addition, the type of support has been categorized as either social support or academic support. Other research

has focused primarily on social support as a global construct. According to Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1992) the child is an inseparable part of a larger social system. These social systems include the microsystem, mesosystem, exosystem, and macrosystem. Each ecosystem is a critical contributing factor leading to the understanding that a child's development is a shared responsibility. Through interaction with varying levels within the ecosystem, the child further expands upon the availability of both resources and social support. Malecki et al. (2000) developed a social support scale that evaluates support from various sources including parent, teacher, classmate, close friend, and school. The present study expands upon current research in order to provide additional information as to the various sources of social support that may be related to academic achievement.

Sex differences in social support have been investigated; however, Rueger et al. (2010) indicate that there is limited information in regard to sex differences and social support from other sources, such as teachers and non-related adults. As a result, the present research investigates sex differences in perceived social support from not only parents, teachers, and friends, but also classmates and school. Finally, there has been minimal research on the perception of social support of students from various ethnicities and SES. The current research further defines whether perception of social support differences exist between students of various ethnicities and SES.

Research Questions

The research questions for this study helped in examining whether a significant difference exists between the sex of the student and perception of social support from parents, teachers, classmates, close friends, and the school. Further analysis assisted in

determining whether there are significant differences between students from various ethnic backgrounds regarding their perceived social support. Whether a significant difference exists between SES and perceived social support was also investigated. The study also examined whether a student's perceived social support from parents, teachers, classmates, close friends, and school is associated with reading and math academic achievement, and overall grade point average. Finally, the study sought to determine whether a correlation exists between frequency and importance ratings on the CASSS.

1. Does a statistically significant difference exist between students' sex, ethnicity, and/or socioeconomic status, and perceived social support from parents, teachers, classmates, close friends, and/or school?
2. Do students' perceived social support from parents, teachers, classmates, close friends, and/or school correlate with academic achievement as measured by state standardized test results (PSSAs) and academic grades (GPA)?
3. What is the relationship between students' frequency ratings and importance ratings on the CASSS?

Hypotheses

1. Does a statistically significant difference exist between students' sex, ethnicity, and/or socioeconomic status, and perceived social support from parents, teachers, classmates, close friends, and/or school?

Based on previous studies (Demaray & Malecki, 2002a; Demaray & Malecki, 2002b; Malecki & Demaray, 2003a; Malecki & Demaray, 2006; Malecki & Elliot, 1999; Rueger et al., 2010), it was hypothesized that female students would report overall higher levels of social support in comparison to males. Female students also would report higher

levels of social support from classmates and close friends (Demaray & Malecki, 2002b; Malecki & Elliott, 1999), while no significant differences would be reported between males and females in regard to parent support (Demaray & Malecki, 2002a; Malecki & Demaray, 2003a; Rueger et al., 2010) and teacher support (Martinez, 2006).

In regard to ethnicity, there has been minimal research conducted in relation to perceived social support. A study completed by Demaray and Malecki (2002b) indicated that African-American students perceived higher support from parents and teachers than White students. Native American students reported lower levels of parent, teacher, classmate, and close friend support. Lastly, White students perceived more teacher support than Hispanic students. An additional study conducted by Demaray and Malecki (2003a) investigated the importance ratings of the CASSS. Again, Native American students perceived significantly lower social support in comparison to African-American, Hispanic American, and White students. The only other significant finding was that Asian students had lower importance scores for classmate support in comparison to White students. In contrast, Holt and Espelage (2007) concluded that White students reported more close friend support and less maternal support than non-white students.

Despite the lack of research in this area, it was hypothesized that African-American students would perceive a greater amount of support from parents and teachers than White students (Demaray & Malecki, 2002b). Furthermore, Hispanic students would perceive less teacher support than White students. White students would perceive greater levels of social support from peers than non-white students (Holt & Espelage, 2007).

The research is lacking as to the relationship between students' SES and perception of social support. Research has primarily focused on low-income students' parent

involvement in their education. Nzinga-Johnson, Baker, and Aupperlee (2009) reported that African-American and Latino parents, in addition to parents of lower SES, were less involved in school than White parents and parents with a higher level of education. In addition, financial stress was related to parent depression leading to lower levels of parent support (Lee, Anderson, Horowitz, & August, 2009). Therefore, it was hypothesized that students of lower SES would report lower levels of parental support. In addition, it was hypothesized that students of lower SES would perceive greater levels of teacher support.

2. Do students' perceived social support from parents, teachers, classmates, close friends, and/or school correlate to academic achievement as measured by state standardized test results (PSSAs) and academic grades (GPA)?

Based upon previous research (Chambers et al., 2006; Rueger et al., 2010), it was hypothesized that parental support would be correlated with academic achievement. It was also hypothesized that teacher support would be correlated with academic outcomes (Malecki & Demaray, 2003a; Malecki & Elliott, 1999). Although no statistical significance is expected in regard to school support, it was hypothesized that decreased classmate and friend support would be associated with lower achievement scores as assessed by the PSSA and grade point average.

3. What is the relationship between students' frequency ratings and importance ratings on the CASSS?

Based upon previous research (Demaray & Malecki, 2003; Thompson & Mazur, 2009), it was hypothesized that there would be moderate to high correlations between students' ratings of social support frequency and ratings of importance of support.

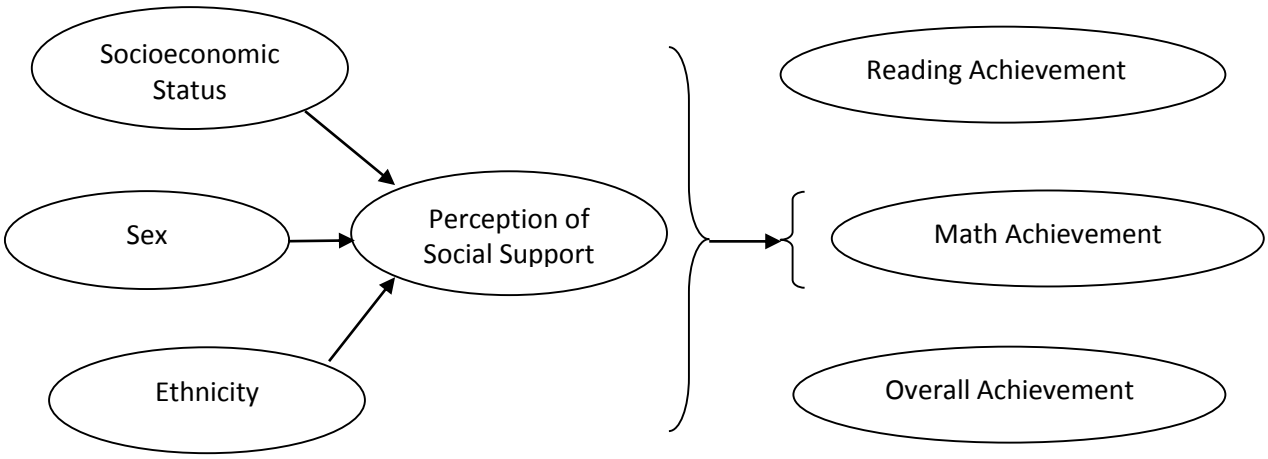

Figure 1. Research path diagram.

Problem Significance

By identifying student levels of perceived social support from parents, teachers, classmates, close friends, and school, both educators and family members can further understand the complex relationships among varying avenues of social support and academic success. Research has indicated a correlation between academic achievement and social support; however, it has been inconsistent in regard to the most important source of social support. The present study examined whether social support from parents, teachers, classmates, close friends, or school had the greatest impact on academic achievement. The current study also examined academic outcomes as measured by both GPA and state standardized assessments (PSSA). Research has typically focused on one outcome measure or the other. Research has also focused on the perception of social support of high school and middle school-aged students. Minimal research has been conducted with elementary-aged children and their perception social support. By including 4th grade participants, the study added to the current research in regard to social

support and younger students. In addition, this information pinpointed subsystems in which intervention is needed in order to help increase students' social support, thereby improving both students' educational outcomes and overall functioning.

Definitions

Actual Social Support- Actual social support is a more objective measure of social support that typically includes identifying the number of social outlets, for example the number of friends or membership in organizations (Vaux, 1988).

Bronfenbrenner's Ecological Systems Theory- Bronfenbrenner's Ecological Systems Theory is a theory developed by Urie Bronfenbrenner that argues development is influenced by environmental systems. "This system is composed of five socially organized subsystems that help support and guide human growth" (Bronfenbrenner, 1994, p. 37).

C*hild and Adolescent Social Support Scale (CASSS)*- The Child and Adolescent Social Support Scale is an instrument developed by Malecki, Demaray, and Elliott used to measure students' perception of social support from parents, teachers, classmates, close friends, and the school. The four types of social support measured include emotional, appraisal, informational, and instrumental. Each statement is rated based on frequency and importance of support (Malecki et al., 2000).

Developmental Status- Developmental status refers to the age of the student.

Grade Point Average (GPA)- A student's grade point average is the average of the student's current grades. The grade "value" is multiplied by the credit value and then the sum is divided by the credits attempted.

Educational Classification- Educational classification refers to whether a student's educational program is classified as regular education, special education, or gifted education. This is determined by whether a student has an Individualized Education Program (IEP) in accordance with Chapter 14 of the state regulations, a Gifted Individualized Education Program (GIEP) in accordance with Chapter 16 of the state regulations, or neither is in place indicating regular education programming.

Ethnicity- Ethnicity refers to a student's identification as White/non-Hispanic, Hispanic, Black/African-American, or Asian as indicated by district demographic information.

No Child Left Behind (NCLB)- The No Child Left Behind Act of 2001 is meant "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments" (U.S. Department of Education, 2001, "Statement of Purpose," para. 1).

Pennsylvania System of School Assessment (PSSA)- The Pennsylvania System of School Assessment is an annual, standards-based measure aligned to the Pennsylvania Common Core Standards used to determine students' proficiency in reading, mathematics, science, and writing. Students complete the assessments for reading and mathematics in grades 3, 4, 5, 6, 7, 8 and 11. The writing assessment is completed in grades 5, 8, and 11, and the science assessment is completed in grades 4 and 8.

Perceived Social Support- Perceived social support is "an individuals' perception 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" (Malecki, Demaray, & Elliott, 2004, p. 3).

Socioeconomic Status (SES)- Socioeconomic status is determined within this study by one's eligibility for free and reduced lunch. Students eligible for free and reduced lunch are considered of low socioeconomic status. Students not eligible for free and reduced lunch are considered of high socioeconomic status for the purposes of this study.

Social Support- Social support refers to access to relationships that meet such needs as love and affection, freedom to express personal feelings, and validation of personal identity and worth.

Assumptions

The researcher met with each 4th grade teacher and provided written instructions for disseminating and collecting the Consent Form. It was assumed that each teacher would accurately follow the instructions provided. The CASSS was developed for use with 3rd through 12th grade children. It was assumed that the 4th grade students completing the CASSS would be able to read and comprehend the statements provided. If a student did not understand a statement, it was assumed that they would ask one of the proctors for clarification. It was assumed that each CASSS protocol would include accurate information and that it would be scored with fidelity. Information regarding the student's sex, ethnicity, educational classification, participation in free and reduced lunch program, and English Language Learner status was collected from electronic student records and assumed to be accurate.

Limitations

The present study sought to evaluate students' perceptions of social support provided by parents, teachers, friends, peers, and the school. Within a descriptive study or correlational research, internal validity is impacted by the quality of the study including the research design and how the variables are measured. The CASSS has demonstrated strong reliability and validity for middle school and high school aged students; however, reliability and validity has not been assessed for elementary-aged students. In addition, the studies conducted utilized the form of the CASSS that did not include School as an area of perceived social support; therefore, the reliability and validity of this area are questionable, thus impacting internal validity.

Another threat to internal validity may be caused by a change in the students' perception of social support depending upon when the survey is given. For example, a student's perceived support can be impacted by previous events, such as a fight with a parent, prior to completing the CASSS. Teacher sex, teaching style, class size, and connection with peers are additional variables that may also impact a student's perception of social support and thus, CASSS ratings. Whom students consider to be their parent(s) may also impact the internal validity of the survey. Students, who are living with one parent versus both parents, or grandparents, are factors that have not been accounted for in the current study. Response bias may occur as students complete the survey within the large group setting of the cafeteria.

The generalizability of this study was restricted due to the convenience sample used, thus impacting external validity. In order to generalize the results of this study, the schools in which the study would be conducted must be of the same size, location,

diversity, etc. The students completing the CASSS were regular education 4th grade students, as such, the results would not generalize to students from other grade levels with either IEPs or GIEPs. In addition, the district within this study is 82% Caucasian, with 20% of the student population eligible for the Free and Reduced Lunch program. The results will only be generalizable to similar student populations.

Summary

A person's access to and perception of social support can greatly impact one's social emotional functioning and development. Research has shown that low family social support can increase psychological distress and is associated with emotional symptoms (Demaray & Malecki, 2002a; Hoefnagels et al., 2007; Klineberg et al., 2006). In contrast, parental support has been shown to increase student academic outcomes (Chambers et al., 2006; Reuger et al., 2010) and personal adjustment (Demaray & Malecki, 2002a; Demaray et al., 2005; Elmaci, 2006). Despite this research, additional studies have been inconsistent in regard to social support and academic achievement. The present study sought to add to the current research by investigating perceived social support and academic outcomes as measured by the PSSA and GPA. In addition, the study examined sex differences, differences in ethnicity, and SES in relation to perceived social support.

CHAPTER II

LITERATURE REVIEW

Introduction

At times, without realization, people rely on family, friends, coworkers, and even acquaintances for love, support, information, and guidance. Without the support of others, one's success in life can be significantly impacted. The concept of social support, the provision of supportive behaviors that enhance one's functioning, can be traced back to early attachment theorists (Vaux, 1988). Although initially difficult to define, social support has gained momentum and studies have explored its impact on parenting, psychological well-being, and recovery from illness. In addition, the perception of social support has often included adults as the sample in studies. More recently, studies have focused on students' perceived social support and its effect on various outcomes. Currently, the perception of supportive behaviors has been linked to students' increase in personal adjustment (Demaray, & Malecki, 2002a; Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005; Elmaci, 2006) and academic achievement (Chambers et al., 2006; Rueger et al., 2010). Conversely, a lack of social support can lead to emotional difficulties (Demaray, & Malecki, 2002a; Hoefnagels et al., 2007; Klineberg et al., 2006). The present literature review will summarize the theoretical history of social support and further define the construct. In addition, the chapter will provide a review of the research regarding sex differences in perceived social support. Differences in ethnicity and socioeconomic status (SES), and perceived social support will also be explored. Finally, how perceived social support is correlated to academic achievement will be discussed.

Social Support

The importance of social relationships stems from early research in attachment theory and psychoanalytical thought. Bowlby (1969) identified the importance of attachment behaviors between the infant and mother in order for the child to develop a secure attachment. The child elicits attachment behaviors from the mother by engaging in such acts as crying and smiling. Through sensitive and responsive interactions, the child can securely explore the environment and return to the parent under threatening conditions. By studying the lack of parental interaction in monkeys, Harlow (1965) noted later difficulties in mating, parenting, and interacting. Harlow placed infant monkeys with either a wire-mother or one covered in soft terry cloth. The monkeys were observed to spend a greater amount of time attached to the softer mother-substitute despite feedings provided by the wire monkey. Results of Harlow's studies indicated a greater need for affection from the mother in comparison to the provision of food. Monkeys raised by mother-substitutes displayed atypical behaviors as adults; in addition, as mothers, they exhibited either neglectful or abusive behaviors towards their infants.

Additional studies conducted on institutionalized children also demonstrated the negative effects that can result from a lack of a primary caregiver (Provence & Lipton, 1962; Spitz, 1962). Spitz (1962) completed a comparisons study of infants raised in an institution versus a nursery. The children raised in the institution received minimal interaction with adults in comparison to those raised in the nursery. In addition, they spent a majority of their time in cribs with little visual stimulation. Those in the nursery received more personalized attention. Results indicated that the children from the institution had significant mental and physical delays. Studies conducted by Provence

and Lipton (1962) also indicated deficits in emotional relationships, play, and impulse control in children raised in institutions.

Parental attachment in Freudian theory was addressed through the psychosexual development of the child known as the Oedipal and Electra complexes. The mother-child attachment occurs as the mother provides for the infant's basic needs. The mother is then directly connected to almost every pleasurable and unpleasurable activity in the infant's life (Monte, 1999). According to the Oedipus complex, attachment to the mother causes the male child to experience feelings of hostility towards his father. In contrast, the Electra complex explains that the female child's attachment to her mother leads to jealousy of rivals resulting in feelings of inferiority.

Freudian theory indicated psychological problems resulted from difficulties in social relationships as a child, while Karen Horney (1942) explained that feelings of helplessness and loneliness caused by basic anxiety pushed one toward a need for affection. Of the ten neurotic needs developed by Horney, the need for affection and approval is the first need identified. Horney, as did Freud, indicated that parent-child relationships may lead to later neurosis. Horney describes basic evil as an indifferent, rejecting parent who lacks warmth and affection towards the child. This parenting style may lead to what Horney coined basic hostility; the child represses feelings of anger and resentment towards the parent in order to sustain a relationship with the person who provides for the child's needs. The child may then generalize this attitude towards people in general known as basic anxiety (Monte, 1999). Sullivan (1953) also indicated that parent-child interactions impact development. The infant engages in such behaviors as crying in order to communicate needs, thus causing tension within the mother that can

only be thwarted by providing for the infant's needs. Pleasing interactions between mother and child lead to a "good-me" personification (Monte, 1999). Interactions that cause increased tension in the mother result in increased anxiety within the infant personifying the "bad-me."

In the 1970s, three prominent researchers provided the groundwork for current research within the area of social support. John Cassel (1974a) investigated psychosocial factors and the etiology of disease. He postulated that group supports provided to an individual assist in buffering or preventing disease. Cassel was also interested in how negative urban conditions were related to higher rates of physical and psychological disorders (1974b). He further indicated that support provided by others could serve as a "buffer" by providing protection from somatic or psychological consequences. Individuals' health and well-being was subsequently impacted by the availability and quality of support. In addition, the type and quality of support available could be impacted by stressful events.

Caplan (1974) built upon Cassel's ideas and further identified the types of support that may be provided. He explains that support can be short-term in response to a crisis or enduring in order to assist in long-term burdens. Supports provided are defined by three categories: helping to mobilize psychological resources and manage emotional burdens; sharing in tasks; and providing materials, money, skills, and guidance in handling the situation. The most universal support system is the family. However, peer support was also indicated as an important resource due to the provision of regular friendly interaction with those experiencing similar situations, and the ability to share in tasks. As a community health agent, Caplan (1974) also expressed the importance of

primary caregivers in obtaining and collaborating with informal support systems. Through the provision of various social support resources, such as through home, work, and church, a person may be completely buffered against stressors in the environment.

Cobb (1976) also agreed that supportive interactions with others help to protect against life stressors. Although not a panacea, social support was determined to be a protective factor across various ages and ailments; from low birth weight to depression, from tuberculosis to alcoholism, in addition to other psychiatric illnesses. He further indicated that social support can aid in medication compliance and acceleration of recovery. Cobb (1976) was the first to conceptually define social support as information that leads to the belief that one is cared for and loved, esteemed and valued, and belongs to a network of communication and obligation. The two main functions of support include fulfillment of social needs and protection from adverse consequences. By identifying the protective factor of social relationships and defining social support, Cassel, Caplan, and Cobb have paved the way for further research within the field of social support.

Vaux (1988) explains that the types of social support have been described by researchers as either supportive activities or functions of the support. Supportive activities include the behaviors demonstrated in providing support to an individual. This may include listening to another's problem, loaning money to the person, providing a list of resources or contacts, giving advice, and showing affection. The function of the support is the outcome when support is provided. This includes how one might perceive the support and feel as a result of the support. The resultant feeling may include love, trust, intimacy, or belonging. Despite this distinction between supportive activities and

functions of the support, it is very difficult to clearly delineate between the two. Often the act or behavior is closely related or linked to the function; however, having an understanding of the difference between activity and function helps to further conceptualize types of social support.

Caplan (1974) further defined social support by the kinds of activities enacted by the person. He placed the activities into three categories: providing assistance in obtaining resources and managing problems; sharing tasks; and providing material or cognitive assistance. Various other researchers have included money or providing financial support as a means of describing support. Cobb (1976) also included three components in his conceptualization of social support; feeling loved, valued, and belonging to a social network. Weiss (1974) further distinguished six resultant functions of relationships while investigating the impact of group membership in a single parent organization. The first function of a relationship is attachment, which is provided by the connection with another person through marriage, a close friendship, or family relation. The next function is social integration, which refers to membership in a network. Networks provide social connection and activities. Opportunity for nurturance is the next resultant function. Through taking the responsibility of a child, one develops a sense of being needed. The next function, reassurance of worth, provides the recipient with affirmation as to their competence in their social role. Siblings provide a sense of reliable alliance, the next function. Finally, obtaining guidance is the provision of emotional support in times of stress.

Additional terms used to describe types of support have included emotional support (which is further defined in the next paragraph), social reinforcement, belonging,

and self-esteem. Social reinforcement involves receiving acceptance, praise, and attention from others for appropriate behavior; whereas, belonging refers to feelings of connectedness (Vaux, 1988). Finally, self-esteem refers to one's evaluation of self-worth.

In 1981, House defined four different types of social support including emotional support, informational support, instrumental support, and appraisal support. Emotional support includes the provision of love, trust, and a feeling of empathy. Providing someone with advice or additional information is considered informational support. Instrumental support is a more tangible type of support that includes giving money and providing additional aid. The final area of support is appraisal support, which is considered to be providing constructive criticism and evaluative feedback.

Tardy (1985) further conceptualized the types of social support based upon the work of House (1981). Tardy developed a model defining five dimensions of social support: direction, disposition, content, network, and evaluation. Direction refers to whether the support is given or received. Disposition pertains to whether support is available or enacted. The modes of support assessed are considered content. Network identifies the persons providing the support, and evaluation relates to whether the support is described or evaluated. The Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliot, 2000) measures the four types of social support (emotional, informational, instrumental, and appraisal) identified by House (1981) and evaluates whether the support is available or enacted by indicating the frequency and importance of the support.

More recent research by the Search Institute has focused on determining the resources that encourage youth to succeed. The Institute has identified 40 Developmental Assets that are positive factors found within the child, family, and environment that lead to healthy development (Scales & Roehlkepartian, 2003). "The Developmental Assets weave all systems together to create the solid fabric of support for students" (Dollarhide & Saginak, 2012, p. 63). Of the 40 assets listed, the first six pertain to support. The first asset includes family support where one is provided with high levels of love and support. The second external asset includes having positive family communication. The third supportive factor involves having other adult relationships with nonparent adults who can provide support. The fourth external asset involves a caring neighborhood, while the fifth asset pertains to having a caring school climate. The last external asset in regard to support includes parent involvement in schooling. Parents are described as being actively involved in helping their child succeed in school.

Social support has also been investigated in correlation to college students. Thompson and Mazer (2009) identified four types of support for their college level social support scale, the Student Academic Support Scale. The authors maintained the Informational type of support identified by House (1981) and utilized by Malecki and Demaray in the CASSS. The three additional types of support identified included esteem support, motivational support, and venting support.

The concept of social support has been further defined in recent years. The term initially referred to the provision of resources, sharing in tasks, and providing materials (Caplan, 1964). Cobb (1976) further defined social support as leading to the belief of feeling cared for and valued. The focus was not only on the types of activities or

behaviors enacted, but also on the resultant feelings of love and belonging. House (1981) then categorized the types of support into emotional, informational, instrumental, and appraisal. Finally, Tardy (1985) questioned whether the support provided was available or enacted, given or received, and described or evaluated. Throughout the years, the concept of social support has become more defined, and yet, more complex.

Measurement of Social Support

It has been difficult to conceptually define the construct of social support. Theorists have been interested in various aspects of the construct and have not been able to focus their efforts on an accepted definition of social support. In addition, the concept of social support and its relationship to other constructs is vague and difficult to measure with reliability or validity. Authors had difficulty clearly defining the construct of social support, and therefore, constructs were often confounded when operating quite distinctly (Vaux, 1988). The construct of social support incorporates numerous additional concepts leading to various types of measures. In more recent years, improvement has been noted in reliability and validity due to more focused measures. Tardy (1985) reviewed seven published social support measures and organized them under a set of five issues: direction-whether support is given or received; disposition-whether support is enacted or available when requested; description/evaluation-whether support is described or evaluated; content-modes of support assessed; and network-the social identity of the person providing support. Through organizing the social support measures according to the five issues identified by Tardy, the measures are more easily examined.

It is important to have an understanding as to the difference between actual and perceived social support when conducting research within this area. When questioning

actual social support, the focus is on participation in events and activities. This may include the number of friends identified, membership in organizations, or participation in community activities. In this manner, the respondent provides a more objective measure of social support. However, how meaningful is the relationship between the respondent and identified friends? Although the respondent may report membership in organizations and participate in activities, does the respondent feel a sense of belonging?

Although more subjective, perceived social support provides information as to how the respondent perceives the social interaction. This includes evaluating the satisfaction of the support provided by others. It provides insight as to the respondent's feelings about the type of support received, relationships, and belonging. When a person perceives that they have the support necessary, even when not accurate, the perception may provide a sense of comfort. The opposite may also occur. A kind act may go unnoticed or provided support unrecognized. However, Vaux (1988) explains that typically the actual support and perceived support will correspond. According to Vaux (1988), initial research within the area of social support did not typically delineate between actual and perceived social support. The social support scales utilized often included both actual and perceived items.

An additional variable to consider when choosing a social support scale is the network of resource assessed. Various social support instruments measure support from specific persons or social situations. For example, the measure may focus on the support provided within the home, school, or workplace. These contexts are uniquely associated with corresponding types of tasks. The social setting also dictates particular sources of support such as the teacher within the school.

The purpose of the measure is also important to consider. Most measures of social support are for adult purposes. Of the two scales available at the time, Malecki and Demaray (2002) were most interested in the Student Social Support Scale (SSSS: Nolten, 1994). The SSSS was developed for children in 3rd through 8th grades. Concerns were noted with the length of the measure and items that were not appropriate for older children. As a result, Malecki and Demaray teamed with Elliott and Nolten in order to develop the CASSS (Malecki, Demaray, Elliott, & Nolten, 1999). Items from the SSSS (1999) were discontinued due to psychometric weaknesses. In addition, two versions of the CASSS were developed; one for children 3rd through 6th grades and one for 6th through 12th grades. The CASSS was a 40-item multi-dimensional scale measuring perceived social support from parents, teachers, classmates, and friends. Students responded to each statement based on the frequency of the behavior and importance. Strong reliability coefficients were determined when examining total scale scores and subscale scores on the CASSS (Malecki & Demaray, 2002).

In 2000, Malecki, Demaray, and Elliott revised the CASSS to include the fifth subscale of school support. In addition, one version is now used for students grades three through twelve. New items were also added, revised, or redistributed in each subscale resulting in a 60-item measure. There are now 12 items for each of the five subscales (parent, teacher, classmate, close friend, and school) including three question each for emotional support, informational support, instrumental support, and appraisal support. Students are asked to read each statement and indicate on a 6-point likert scale how often they perceive the type of support. On a 3-point scale, the student then responds to the importance of the support.

Recent psychometric evidence was gathered in order to provide further support of the reliability and validity of the CASSS (Malecki, Demaray, & Elliott, 2014). The psychometric data on the CASSS was comprised of smaller samples procured from 27 datasets collected between 2002 and 2013 mainly from studies conducted by the authors. The sample included 45.3% male participants (n = 2484) and 54.7% female participants (n = 2998). The data included scores from 3rd through 12th grade students. 69.1% of the students were Caucasian (n = 3395) and 38.2% of the subsample were eligible for free and reduced lunch (n = 852). Cronbach's alpha coefficient scores were calculated for grade level and gender which included the following: Total Frequency (.97), parent frequency (.88-.96), teacher frequency (.90-.96), classmate frequency (.91-.96), close friend frequency (.93-.97), and people in my school frequency (.95-.96). Cronbach's alpha coefficient scores were also calculated for Total Importance (.97), parent importance (.88-.96), teacher importance (.90-.96), classmate importance (.91-.96), close friend importance (.93-.97) and people in my school importance (.95-.96). These results are similar to the coefficient alphas determined in prior studies (Malecki & Demaray, 2003; Demaray et al., 2009). A coefficient alpha close to .70 is desirable.

Test-retest reliability refers to the consistency of a test across time. Test-retest correlations for Total Frequency was .772, which is an acceptable level (Malecki et al., 2014). Of the subscales, the friend subscale had the highest correlation (r = .703). The classmate subscale had a correlation of r = .638, and the parent subscale had the lowest correlation of r = .448. A prior study conducted by Malecki and Demaray (2003a) resulted in coefficient alphas ranging from .45-.65 for importance subscale scores. In addition, the authors extracted a five factor model corresponding to the five sources of

support. Employing Mplus, it was determined that the five factors were directly related to the five sources of support. Factor loadings exceeded the $\geq$ .70 criterion and ranged from 0.747 to 1.466 ($p < .001$ for all items). Exploratory factor analysis revealed five distinct sources of support.

These results are similar to the reliability and test-retest reliability determined by Malecki, Demaray, and Elliott in 2004 from two separate samples in three papers. The reliability was calculated and the coefficient alpha for middle school-aged students included the following: Total Frequency Scale-.96-.97, Total Importance Scale- .96-.97, Frequency Subscales- .92-.96, and Importance Subscales-.88-.95. Test-retest results included the following Total Frequency Scale .75-.78, Frequency Subscales .58-.74, and Importance Subscales .45-.65 (Malecki et al., 2004). Parent and teacher subscales were observed to have the lowest re-test ratings. Student perception of support from these persons may be situational and dependent upon more recent events as opposed to the support perceived by a friend, which could be more stable. Student perception of parent support would most likely be impacted by occurrences even that morning prior to school such as a fight. In addition, teacher support ratings could change based upon which teacher the student had in mind when completing the rating scale. There may be times throughout the school-year when the students' teachers are changed or the student may focus on a different teacher accounting for the variation in CASSS ratings.

Finally, additional analysis was conducted in order to determine the reliability of CASSS ratings. CASSS frequency ratings were found to be significantly correlated to the Social Support Scale for Children (SSSC: Harter, 1985) and the Social Support

Appraisals Scale (SSAS: Dubow & Ullman, 1989). Correlation coefficients ranged from .36 to .59 (Malecki & Demaray, 2003a.)

Frequency vs. Importance

As previously described, Tardy (1985) further defined social support as five dimensions: direction, disposition, content, network, and evaluation. Disposition is a way of indicating whether the support provided is available or enacted. The CASSS (Malecki et al., 2000) allows the respondent to identify whether support is available or enacted by rating the support's frequency and importance. Several studies have been conducted in order to investigate the correlation between frequency and importance ratings.

In 2003, Demaray and Malecki completed a study investigating the frequency and importance of perceived social support as reported by students in grades 3 through 12. Study results indicated that correlations between frequency and importance ratings of supportive behaviors from parents, teachers, classmates, and close friends were moderate. Teacher support items were indicated as most important; additionally, close friend support was rated as more important than classmate support. The authors suggested that the correlations support Tardy's model (1985) and frequency and importance ratings although related, are conceptually different.

In 2009, Demaray, Malecki, Rueger, Brown, and Summers conducted a study on the importance and perceived frequency of socially supportive behaviors and self-concept. A subset of the data used in the Demaray and Malecki study (2003) was included. The sample included 921 students in grades 3 through 12. In addition to CASSS results, students completed the Student Self-Concept Scale (Gresham, Elliott, Evans-Fernandez, 1993). The authors found that the frequency of support from parents,

teachers, classmates, and close friends was associated with self-concept; however, only importance ratings of teacher supportive behaviors were significantly related to self-concept. An interaction was determined between the frequency and importance ratings of social support of classmates and close friends, and self-concept.

Finally, Thompson and Mazur (2009) developed the Student Academic Support Scale in order to evaluate college students' perception of academic support. Study results concluded moderate and positive correlations between the frequency and importance of student academic support. These results are similar to that of Demaray and Malecki (2003a). The authors further cautioned that the associations were not strong enough to indicate that student perception of the frequency of academic support was the same as the importance of academic support. Overall, studies have indicated a correlation between frequency and importance ratings of social support, but continue to conceptualize frequency and importance differently.

Sex Differences in Social Support

Various studies have been conducted on sex differences in social support. The overall finding has indicated females perceive greater levels of social support than males (Demaray & Malecki, 2002a; Demaray & Malecki, 2002b; Malecki & Demaray, 2003a; Malecki & Demaray, 2006; Malecki & Elliott, 1999; Reuger et al., 2010; Prezza & Pacilli, 2002). In addition, female students have reported higher rates of classmates and close friend support in comparison to males (Malecki & Elliott, 1999; Demaray & Malecki, 2002b; Demaray & Malecki, 2003a).

Malecki and Elliott (1999) utilized the Student Social Support Scale (SSSS) in order to evaluate the social support experienced by adolescents, in addition to social skills

and self-concept. Subjects included 198 7th through 12th grade students attending either a rural or urban school. Higher levels of social support from classmates and close friends were reported by female students in comparison to male students. In addition, female students reported overall higher levels of social support. Furthermore, analyses indicated that the SSSS was related to student self-concept, indicating that the more support received, the more likely the student was to be socially self-confident. A significant positive relationship was also determined between perception of social support and social skills.

Social support among students with and without disabilities was investigated by Martinez (2006). Participants included middle school students with a reading disability, math disability, reading and math disability, and those identified as nondisabled. Results of the study indicated that females perceived greater levels of close friend support. In review of interaction effects for group, gender, and grade, 6th grade boys with reading disabilities perceived the lowest teacher support. Additionally, results suggest that students with multiple learning disabilities may experience lower levels of parent, classmate, and friend support compared to students with a single learning disability and nondisabled peers. In regard to teacher support, no group differences were determined.

A study conducted by Demaray and Malecki (2002b) provides additional evidence that females perceive greater levels of social support than males. The authors investigated the relationship between perceived social support and academic, behavioral, and social indicators. Students in grades 3 through 12 completed the CASSS (Malecki et al., 1999), the Social Skills Rating System (Gresham & Elliott, 1990), the Student Self-Concept Scale (Gresham, Elliott, & Evans-Fernandez, 1993), and the Behavior

Assessment System for Children (BASC; Kamphaus & Reynolds, 1998). Preliminary analyses revealed significant differences in perceived social support scores for gender, grade level, and ethnicity. Female students reported greater levels of overall perceived social support than males. No differences were found between males and females in relation to parent support; however, females reported more support from teachers, classmates, and close friends. Moderate, significant relationships were determined for self-concept and social support, and for adaptive skills and social support. A small but significant, negative relationship was determined between social support and both externalizing and internalizing problem behaviors as rated by teachers.

Similar results were indicated in a study by Malecki and Demaray in 2002, and yet again in 2006. Again, female students reported greater levels of perceived social support than male students. Third through 5th grade female students reported higher classmate support. For students in 6th through 12th grades, females reported higher levels of social support from classmates and close friends. An additional study by Demaray and Malecki (2003a) indicated that girls rate the importance of support from friends, teachers, and classmates higher than boys. Girls also perceive higher levels of support and value support more than boys, particularly in high school. Finally, high school girls reported greater levels of close friend support than males. This may be due to boys interpreting friend and classmate support similarly (Chapin & Yang, 2009); whereas, girls differentiate between source of support.

As previously described, House (1981) identified four types of support: informational, emotional, appraisal, and instrumental. Malecki and Demaray (2003a) completed a study in order to further investigate the specific types of support provided to

both male and female students. Preliminary results indicated that early adolescent males and females perceived similar levels of support from parents and teachers, but females perceived more types of support from classmates and friends (Malecki & Demaray, 2003a). Interestingly, emotional and informational support were the highest rated type of support from parents. Teachers and school were rated as providing informational support; whereas, classmates and close friends provided emotional and instrumental support (Malecki & Demaray, 2003a). Qualitative findings by Clayton (2009) indicated that females identified emotional support as a factor for success; whereas, males indicated that behavioral support was important in school success.

Additional research was conducted by Rueger, Malecki, and Demaray (2008) in order to further evaluate sex differences in perceived social support and student adjustment. Participants included 6th through 8th grade students from a suburban middle school. In addition to the CASSS (1999), the BASC (Reynolds & Kamphaus, 1992) was used to evaluate adaptive skills and behavior problems as observed within the home and community. Total perceived support was significantly associated to internalizing and adaptive behaviors for boys, and externalizing and adaptive behaviors for girls. In other words, global support was related to anxiety and depression for boys, and hyperactivity and aggression for girls. Global support was also related to leadership and social skills for both boys and girls. For boys, parent support was a predictor for higher leadership and social skills; whereas, parent support for girls was a predictor for lower aggression and conduct problems. Classmate support was a predictor for leadership in boys. For girls, classmate support was a predictor for lower hyperactivity and depression, and leadership and social skills. Close friend support was determined to be a predictor of higher conduct

problems and lower social skills for girls (Rueger et al., 2008). Surprisingly, friend support appeared to negatively impact girls' socialization and behavior.

In a more recent study, Reuger et al. (2010) found no significant differences in sex regarding parental support. However, girls perceived more support than boys from all other sources. Additional conclusions indicated that girls perceived the most support from close friends, and boys perceived the least amount of support from classmates. The authors also investigated the relationship between perceived social support, and psychological and academic adjustment. Longitudinal analyses indicated that adult support for girls remained significant over time, but not for boys. Support from classmates remained significant over time for boys and was a predictor of lower depressive symptoms. Parental support was found to be a predictor of depressive symptoms, self-esteem, and GPA. It also predicted attitude toward school for girls, but not for boys.

In summary, the research clearly indicates that female and male students perceive social support differently. Female students perceive overall greater levels of social support than males. In addition, they typically perceive greater classmate, close friend, and teacher support. However, Malecki and Demaray (2003a) determined that in early adolescence, both males and females perceive parental support similarly. An additional study conducted in 2010 by Rueger et al. also indicated no difference between male and female perception of parent support. An overall increase in perception of social support predicted higher levels of self-concept and social skills (Demaray & Malecki, 2002b, Malecki & Elliott, 1999). Higher parent support ratings were correlated with leadership skills in boys, and lower aggression and conduct problems in girls (Rueger et al., 2008).

Sadly, a study conducted by Martinez (2006) indicated that 6th grade boys with reading disabilities perceived the lowest teacher support.

Ethnicity and Social Support

There has been minimal research in regard to ethnicity and perceived social support. Some studies on perceived social support have included analyses of race or ethnicity when evaluating various outcome variables. Also, the studies that have been conducted have not included representative samples of the population. It is important to consider the generalizability of the studies that have been completed. Holt and Espelage (2007) evaluated the protective factor of social support by exploring peer and maternal support among bullies, bully-victims, and victims. Students were placed within each group depending upon their responses on a bullying measure and a peer victimization measure. The top 25th percentile on the bullying measure were considered "bullies," the top 25th percentile of the peer victimization measure were "victims," and students who scored at the 25th percentile and above for both measures were placed in the "bully-victim" group. Students who did not score within either of these ranges were considered "uninvolved."

When evaluating main effects, White students perceived greater levels of peer support than non-White students. Additionally, interaction effects between bully/victim groups and race was indicated. The authors found that White students within the uninvolved, bully-victim, and victim group reported lower levels of maternal support than non-Whites. However, White students identified as bullies reported higher levels of maternal support in comparison to non-White bullies. Despite these results, Demaray and Malecki (2003b) determined no differences between bully or victim social support scores

when grouped by SES or race. However, in this study the number of students for each ethnicity was not representative of the population. The majority of participants were Hispanic American, and therefore, not representative thus, these results may not generalize to the overall population.

In addition to generalizability issues, some studies have combined different ethnicities into one category. This adds to the confusion when evaluating students of various ethnicities and their perception of social support. For example, Malecki and Elliott (1999) found no significant differences between SSSS scores for minority and white students, for rural and urban students, or between college bound and vocational students. However, there was a lack of diversity of respondents and students of various ethnicities were combined into one category of "minority." An additional study conducted in 2002 by Malecki and Demaray also placed students of various ethnic backgrounds into a minority group. Minority students in 3rd through 6th grades reported higher levels of teacher support than White students. However, changes were evident when analyzing 7th through 12th grade responses. White students perceived greater levels of support than minority students for teacher, classmate, close friend, and total support.

Demaray and Malecki (2002b) investigated social support, in addition to academic and behavioral outcomes. Data was combined from several studies in order to form the database. Participants included 1,711 3rd through 12th grade students from seven states. Several instruments were used to collect data, including the Child and Adolescent Social Support Scale (Malecki, Demaray, Elliott, & Nolten, 1999), the Social Skills Rating System (Gresham & Elliott, 1990), the Student Self-Concept Scale (Gresham, Elliott, & Evans-Fernandez, 1993), and the BASC (Kamphaus & Reynolds, 1998). In

review of the analysis on ethnicity, the authors concluded that Native American students reported overall less social support than other ethnic groups. In addition, Native American students reported lower levels of support from parents, teachers, classmates, and close friends than other ethnicities. Although White students perceived higher support from parents than Hispanic students, African-American students perceived higher parent and teacher support than White students.

Ultimately, the research on the differences between perceived social support and ethnicity has been negligible at best. The samples have either been too restrictive or the different ethnicities have been combined into one "minority" category. Despite these tribulations, research has indicated that African-American students (Demaray & Malecki, 2002b) and minority students in general (Malecki & Demaray, 2002) perceive greater levels of teacher support than White students. In addition, African-American students (Demaray & Malecki, 2002b) and minority students in general (Holt & Espelage, 2007) have reported greater levels of parental support than White students.

SES and Social Support

When evaluating for SES and perceptions of social support, it is important to consider extenuating circumstances that may make support more difficult for parents to provide and children to perceive. Those of lower income face varying obstacles that impact social support. Negative environmental factors may include such issues as health, safety, and housing. In addition, low family income and economic stress are related to higher levels of parental depression (Gjesfield, Greeno, Kim, & Anderson, 2010; Lee, Anderson, Horowitz, & August, 2009), which is then negatively correlated with positive

parenting and positively correlated with parent-child relational frustration (Lee, Anderson, Horowitz, & August, 2009).

Previous research has not primarily focused on economic status and perception of social support alone. The studies described discuss the mediating effects social support has for those of low-income status on academic achievement. In 2006, Malecki and Demaray investigated the potential moderating effects of social support for low SES students on academic achievement as measured by GPA. Students were identified as lower SES if they received free or reduced lunches. Students were considered higher SES if they did not receive free or reduced lunches. Results indicated that children from low SES families demonstrated higher GPAs with increased social support. In contrast, no significant associations between social support and academic achievement were indicated for students of higher SES. Specifically, support from parents, teachers, classmates, close friends, and school were not found to be significantly related to higher SES students' GPAs. Students of both high and low SES status who received greater levels of social support achieved similar GPAs. Ultimately, the amount of social support perceived by students of lower SES provided a moderating effect on GPA (Malecki & Demaray, 2006).

In 2006, Dearing, Kreider, Simpkins, and Weiss completed a longitudinal study comparing family involvement in school to children's literacy performance. Family involvement was assessed by the mother's self-report of participation in such activities as visiting the classroom and attending parent-teacher conferences. As previously discussed, although family involvement is not synonymous with parental support, family involvement is related to supportive behaviors. Socioeconomic status was based upon

the mother's level of education. Data were evaluated from Kindergarten to 5th grade for an ethnically diverse, low income population. Results indicated that increased school involvement predicted improved literacy. In addition, the authors found that when family involvement was high, an achievement gap was not indicated between children of more and less educated mothers. Higher levels of family involvement not only increased literacy skills, but also was a protective factor for low income children with low parent education (Dearing et al., 2006).

Despite the importance of parental involvement in the child's education, this can be difficult for lower income families. Work schedules, transportation issues, and parental view on education can impact parental involvement and ultimately, the child's perception of support. Those of higher SES status may have more of an opportunity to volunteer in the classroom setting and provide the additional support necessary within the home environment for the child to succeed. Parents of higher SES status, as indicated by maternal education, have been reported to be more involved in their children's education in comparison to lower SES (Nzinga-Johnson, Baker, Aupperlee, 2009). Based upon the research, it is safe to hypothesize that due to lower levels of parental involvement, children may perceive less support from their parents.

Academic Achievement and Social Support

The Search Institute has developed a framework identifying 40 Developmental Assets that promote healthy development in children and youth (Scale & Roehlkepartian, 2003). The developmental assets reflect various types of support from family, non-related adults, and peers. It also includes such aspects as a caring school climate and encouragement from teachers. Research conducted by the Search Institute on

developmental assets indicates that a higher level of assets contributes to GPA (Scales, Benson, Roehlkepartain, Sesma, & Dulman, 2006; Scales & Roehlkepartain, 2003). A positive relationship was also determined between current asset levels and future academic achievement. Students who reported higher asset levels maintained the same GPA one year later; however, students within the two lowest asset levels had declined in their GPA. In addition, the higher the assets reported the higher the GPA three years later. Scales and Roehlkepartain (2003) also reported that males with higher asset levels earn GPAs similar to females with higher asset levels. Furthermore, female students with higher asset levels achieve math grades similar to that of higher asset level male students.

The concept of developmental assets incorporates multiple internal and external factors beyond supportive behaviors. In examining more specific sources of support, teacher support and impact on academic outcomes has been inconsistent. Some studies have indicated that teacher support is associated with academic performance (Demaray, Malecki, Rueger, Brown, & Summers, 2007; Woolley & Grogan-Kaylor, 2006). A study conducted by Malecki and Elliot (1999) found the correlation between GPA and teacher support to be low, yet statistically significant. Nettles et al. (2000) reported that teacher support impacted only math achievement as assessed by standardized assessments. An additional study conducted by Chambers et al. (2006) investigated at-risk students' perception of academic support and impact on academic achievement. Results indicated that teacher support was only significant for the lowest risk group, which included students who experienced one risk factor. Risk factors included single parent family, low parent education, sibling who had dropped out of school, 3 or more hours home alone, low English proficiency, and/or low SES (Chambers et al., 2006).

Parental support and family involvement are two of the six developmental assets related to support (Scale & Roehlkepartian, 2003). In looking specifically at family support, Woolley and Grogan-Kaylor (2006) studied protective family factors and impact on school outcomes. The family protective factors included family satisfaction, family support, family integration, and home academic culture. Of the four protective factors, only home academic culture was associated with students' school academic performance. Home academic culture included such parental behaviors as attending school events, checking homework, and encouraging the child to do well. Desimone (1999) indicated that parent involvement was more predictive of grades than test scores for children of various racial groups and SES. In addition, parent volunteering was twice as predictive of grades than were test scores.

An additional study conducted on family involvement and low-income children's literacy demonstrated improved child literacy for low income, ethnically diverse populations (Dearing et al., 2006). Higher levels of family involvement also reduced the achievement gap for children of less educated mothers when compared to higher educated mothers. Alternatively, a study conducted by Nokali, Bachman, and Votruba-Drzal (2010) indicated that there was no association between parent involvement and achievement. The authors explain the differences in study outcomes to be attributed to sample and measurement characteristics. The Dearing et al. (2006) study included a more socioeconomic homogenous sample and used parental report to determine involvement. Specifically, the Dearing et al. (2006) study assessed parental involvement by self-report of participation in school-related activities versus the Nokali et al. (2010) study which included a more detailed measure of parent involvement as assessed by both

parent and teacher. Further analyses by Nokali et al. (2010) indicated that although parent involvement did not impact achievement, it did increase children's social skills and reduced problem behaviors.

A study conducted by Somers, Owens, and Piliawsky (2008) indicated that social support from peers and parents was most strongly correlated with GPA. The sample included predominantly African-American students from an urban public school. Additional findings showed that support from parents, teachers, and peers were correlated with students' "educational intentions to complete school and pursue further schooling, educational commitment behavior, and identification of the personal value of education" (Somers et al., 2008, p. 6). Parent support alone was related to "identification of financial value of education" (Somers et al., 2008, p. 5) . In another study, results indicated that longitudinally parental support predicted higher GPA at the end of the school year for girls and boys (Rueger et al., 2010).

Chambers et al. (2006) investigated at-risk students' perception of academic support and impact on achievement. The at-risk groups were identified by the number of factors experienced such as single parent home, low parent education, low English proficiency, and low SES. Students who perceived greater levels of parent and peer support received higher achievement scores (Chambers et al., 2006). Remarkably, students who received higher levels of counselor support attained lower achievement scores. This may be due to the nature of the questions asked. Student responses were based upon whether they discussed high school groups and post-high school outcomes unrelated to actual academic achievement.

Overall, social support appears to increase student academic achievement. Studies have demonstrated a correlation between parent support and achievement (Rueger et al., 2010; Somers et al., 2008; Woolley & Grogan-Kaylor, 2006). Family involvement has also shown to improve outcomes for at-risk students (Chambers et al., 2006; Dearing et al., 2006). Additionally, peer support was found to be correlated with academic achievement (Chambers et al., 2006; Somers et al., 2008). Finally, teacher support has been found to be associated with achievement (Malecki & Elliott, 1999; Nettles et al., 2000; Woolley & Grogan-Kaylor, 2006).

State Standardized Assessments

The Pennsylvania System of School Assessment (PSSA) was implemented in 1992 as a school evaluation model assessing math and reading for Grades 5, 8, and 11. In 1994 the PSSA became mandatory for all districts, and student level reports were generated in addition to school level reports. By 1999, the State Board of Education adopted the Pennsylvania Academic Standards for Reading, Writing, Speaking and Listening, and Mathematics (Pennsylvania State Board of Education, 1999). The Academic Standards identify what a student should know and accomplish at differing grade levels. Consequently, the State Board developed levels of academic proficiency including Advanced, Proficient, Basic, and Below Basic. Students in grades 3 through 8, and 11 complete the reading and math PSSA. Writing is assessed in grades 5, 8, and 11, and science is assessed in grades 4 and 8. By 2000, the PSSA had become a standards-based, criterion-referenced assessment measuring student achievement based on the Academic Standards. In addition, the assessment assists in determining the extent to which school programs instruct students to meet proficiency of the standards. Although

districts have the freedom to design their own curriculum and instruction, all students are expected to reach proficiency in reading and mathematics by the year 2014 as defined by the No Child Left Behind Act of 2001 (U.S. Department of Education, 2001). The 2001 Act also defined the minimum level of improvement expected by each school known as adequate yearly progress (AYP). School level assessment results are disseminated to districts in order to identify curricular strengths and weaknesses, and to aid in further development of instructional strategies.

By 2005, the Assessment Anchor Content Standards were introduced in order to clarify content structure and to improve instruction related to the assessment. The Assessment Anchors for the area of mathematics include: Numbers and Operations, Algebraic Concepts, Geometry, Measurement, and Data Analysis and Probability. Assessment items include both multiple choice and open-ended questioning formats. The reading assessment includes the following categories: Comprehension and Reading Skills, and Interpretation and Analysis of Fictional and Nonfictional Text. The reading assessment also employs multiple-choice and open-ended questions.

Assessments have been conducted on the validity of the PSSA and its correlation to various tests. Comparison tests were found to be highly correlated to the PSSA (Thacker, Dickinson, & Koger, 2004). Correlations for the area of mathematics ranged from 0.7 to 0.9, while reading correlations ranged from 0.6 to 0.8. Demographic factors were also analyzed in order to determine differential impact according to sex, ethnicity, English proficiency, and SES. In regard to sex, males and females scored similarly. Asian and White students' means were larger than Hispanics', while Hispanic means were larger than Black students' means with moderate to large effect sizes for ethnicity.

Those of limited English proficiency (LEP) and lower SES scored lower than those not identified as LEP and of higher SES, respectively. Despite these differences, there was no evidence indicating that the PSSA added bias toward a particular group (Thacker, Dickinson, & Koger, 2004).

An additional study conducted by Human Resources Research Organization (HumRRO), evaluated the validity of the PSSA by examining student performance on the PSSA, Scholastic Aptitude Test (SAT), and self-reported GPA. Results indicated that the PSSA demonstrated overall strong convergent validity coefficients (Koger, Thacker, & Dickinson, 2004). Correlations were determined to be strong between the PSSA and SAT. Although not as strong, GPA and course grades were related to PSSA and SAT. Additional analysis indicated that the PSSA and SAT are positively correlated. Overall, the PSSA was determined to be a valid measure of student achievement.

Summary

The concept of social support has historically been a complex and often confusing construct. In more recent years, the term has been further defined, and therefore, assessment measures have improved in reliability and validity. With the development of the CASSS (Malecki, Demaray, & Elliott, 2000), researchers now have a tool with which to measure children's and adolescents' perception of social support. The CASSS is used to evaluate whether support is available or enacted by measuring the frequency and importance of support. Differences between sex, ethnicity, and SES, and social support have been investigated. Although research has clearly shown a distinction between male and female perception of social support, the research is lacking in regard to ethnicity and economic status. When considering social support and impact on academic achievement,

parent (Reuger et al., 2010, Somers et al., 2008; Woolley & Grogan-Kaylor, 2006) and teacher (Malecki & Elliott, 1999; Nettles et al., 2000; Woolley & Grogan-Kaylor, 2006) support appear to be positively correlated. The current study adds to the research on demographic factors and impact on social support. In addition, social support and academic achievement were investigated by evaluating both PSSA scores and GPA.

CHAPTER III

METHODS

Introduction

The purpose of this study was to investigate the relationship between perceived social support and academic outcomes. The study also explored sex differences of perceived social support, in addition to differences regarding socioeconomic status (SES) and ethnicity. Multiple analyses were conducted in order to answer the research questions proposed. The population included 4th grade students from a suburban school district located in south central Pennsylvania. Only regular education students were included in the sample. No students with either an Individualized Education Program (IEP) or Gifted Individualized Education Program (GIEP) were included. Informed consent forms were collected by the homeroom teacher and submitted to the principal investigator. The principal investigator distributed the Child and Adolescent Social Support Scale (CASSS) to students in a large group setting during nonacademic time. The students then took the Pennsylvania System of School Assessment (PSSA) as scheduled in April 2014. All data was then compiled and analyzed through the Statistical Package for the Social Sciences (SPSS) software program.

Design

The design for this study was considered quasi-experimental or correlational. A treatment was not implemented nor was random assignment possible. The sex, ethnicity, and SES of the student, in addition to perception of social support (including parents, friends, classmates, school, and teachers) were the variables investigated. The sex, ethnicity, and SES of the student were considered block variables. Sex was determined by the identification of the

student as either male or female. Ethnicity was identified as White/Non-Hispanic, Black/African-American, Latino/Hispanic, Asian, or Multi-Racial. These categories were listed under the description of race within the district demographic data. For the purposes of this study, the term ethnicity was used. Socioeconomic status was determined by eligibility for the Free and Reduced Lunch Program. Students who were eligible for the Free and Reduced Lunch Program were considered of low SES whereas, students who were not eligible were considered of high SES. The latent outcome variables included academic achievement. Math and reading achievement were measured by PSSA scores. In addition, students' overall achievement was determined by grade point average (GPA). Students' grades, including math, reading, science, and social studies, were converted to a grade point average (GPA) in order to provide another measure of academic achievement. The students' perception of social support, considered a predictor variable or primary response variable, was measured by the Child and Adolescent Social Support Scale (2000). Additional subscales on the CASSS included parents, teachers, close friend, classmates, and school. Also, total frequency and importance ratings were calculated. Refer to Figure 2.

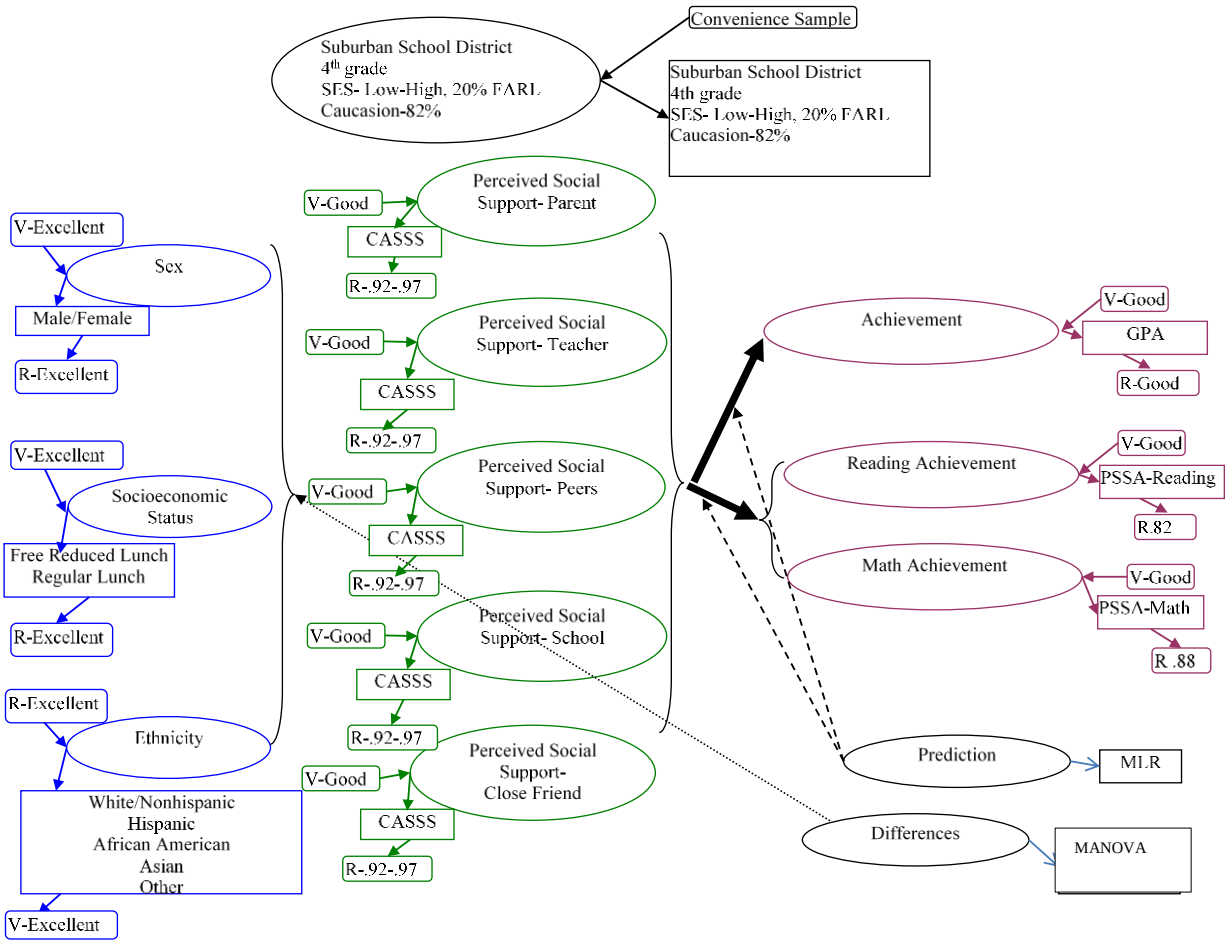

Figure 2. Research design diagram

Population

This study included male and female 4th grade students from a suburban school district located in south central Pennsylvania. The school district is of low to upper middle SES with approximately 20% of the district's population participating in the National School Lunch Program (i.e., Free and Reduced Lunch). Approximately 82% of the population is Caucasian, while 18% are of minority status. More specifically, the population included only regular education students; excluding students who have an IEP or GIEP.

Sample

Due to the sample being a convenience sample, the sample was the same as the population. The final sample was comprised of 154 4th grade students. The south central Pennsylvania school district population falls within the low to upper middle SES. An average of 20% of the district's population participate in the National School Lunch Program. Approximately 82% of the student population is Caucasian, and 18% are of minority status. Again, only students who did not have an IEP or GIEP participated in the study.

Table 1

Sample Demographic Characteristics

	Male	Female
Sample Size	59	95
Mean Age		
4th Grade	10	10
Race (% Caucasian)	82%	82%

Assignment

Random assignment was not appropriate within this study. Only 4th grade regular education students were included within this study, and therefore, there was no assignment to groups. Students could not be randomly assigned to their sex, grade level, and ethnicity. These are pre-existing conditions known as block variables and therefore, an assignment method was not appropriate. Ethnicity was divided into White/Non-Hispanic, Black/African-American, Latino/Hispanic, Asian, and Multi-Racial.

Measurement

The variables of interest included the students' sex, ethnicity, SES, and perception of social support. The outcome variables included reading achievement, math achievement, and overall achievement. The study was considered correlational research; therefore, an independent variable was not manipulated.

The ancillary variables include students' sex, ethnicity, and SES. Sex was used to determine if there was a difference among perceived social support, academic success, and sex of the student. Sex is a block variable. Students' sex was indicated as male or female and is considered "excellent" for reliability and validity. Ethnicity was an additional ancillary variable, which was determined by reported demographic information. Although the present study utilized the term "ethnicity," the district information on students included the category of race. However, the category of race incorporated both race and ethnic identifications. Therefore, for the purpose of this study, ethnicity included White/Non-Hispanic, Black/African-American, Latino/Hispanic, Asian, and Multi-Racial. Students' ethnicity is considered "excellent" for both reliability and validity. The final ancillary variable included students' SES. This

was determined by eligibility for the Free and Reduced Lunch Program. Students eligible for the Free and Reduced Lunch Program were considered of low SES, and students who were not eligible were considered high SES.

The anticipated dependent variables, or criterion variables, included reading achievement and math achievement as assessed by the PSSA. Total reading achievement and math achievement was utilized. The PSSA reading and math achievement tests were chosen because they are standards-based, criterion-referenced assessments of reading and math skills, which are aligned to the state Academic Standards. In addition, PSSA reading and math test scores are available for 4th grade students. Coefficient alpha is the internal consistency reliability index reported for the PSSA. The reliability for reading for 4th grade is .82. The reliability for math for 4th grade is .88 (PDE, 2010).

In addition to PSSA scores, GPA was calculated from student grades in order to evaluate overall student achievement. Student grades were obtained for reading, math, science, and social studies. Students' grade point averages were calculated by summing all four marking period grade values and dividing by 16. An "A" equaled the value of 4.0, "B" equaled 3.0, "C" equaled 2.0, and a "D" equaled 1.0. Reliability and validity for student grade point average as a measure of achievement is considered good. The variables, instruments, validity, and reliability are summarized in Table 2.

Table 2

Perceived Social Support Study Measurement Table

Latent Variable	Observed Variable	Instrument/Source	Validity	Reliability
Sex	Male/Female	School Records	Excellent	Excellent
Ethnicity	White/Non-Hispanic, Black/African-American, Latino/Hispanic, Asian, and Multi-Racial.	School Records	Excellent	Excellent
Socioeconomic Status	Low-Eligible for FRL High-not eligible for FRL	School Records	Good	Good
Perceived Social Support	Frequency scores Importance scores	CASSS	R=.36-.59	.88-.97
Reading Achievement	Achievement scores	PSSA	Good	.82-.94
Math Achievement	Achievement scores	PSSA	Good	.88-.96
Overall Achievement	Student Grades	GPA	Good	Good

The anticipated independent variable, or predictor variable, was perceived social support, which was measured in order to determine if an association exists between perceived social support and academic outcomes. The instrument used in order to assess the students' level of perceived social support was the Child and Adolescent Social Support Scale (CASSS) revised by Malecki et al. (2000). The CASSS was originally developed by Malecki et al. (1999) in order to evaluate the perceived social support of parents, teachers, classmates, and close friends. The revised CASSS incorporates School

as a fifth factor impacting social support. The CASSS is a multidimensional self-report measure of perceived social support. It is used with children from grades 3-12 and evaluates the perception of support from parents, teachers, classmates, school, and friends. Each of the five subscales corresponds to one of the sources of support and includes 12 statements. The student completing the scale indicates how often they receive support from the source (frequency ratings) and how important it is to them (importance ratings). Frequency is rated on a 6-point Likert scale, while importance ratings are rated on a 3-point Likert scale. The twelve frequency ratings can then be summed in order to obtain total frequency scores for each source. The same is calculated for the importance ratings. The five subscale scores can then be summed to a Total Frequency score and a Total Importance score.

Scores on the CASSS have demonstrated strong evidence for reliability and validity. Previous studies indicated internal consistency for the Frequency scale and subscale (without the inclusion of the School subscale) as falling within the range of .92 to .96 (Malecki & Demaray, 2003a). Internal consistency for the Importance scale and subscales fell within the range of .93 to .96. More recent standardization indicated coefficient alphas of the following: Total Frequency .97, and subscales ranged from .88-.97 (Maleck et al., 2014). The alpha for Importance Total was .96-.98 while subscales range from .84-.97. A study completed by Malecki and Demaray (2003a) on middle school bullying reported a Cronbach's alpha coefficient for the CASSS (1999) Total Frequency score of .97 with subscales ranging from .92 to .96. Test-retest reliability was computed for the CASSS with coefficients of .75 for Overall Support and .58 to .74 on subscale measures (Malecki & Demaray, 2003a). More recent calculations indicated test-

retest correlations of the following: Total Frequency r = .772, Parent subscale r = .448, Teacher subscale r = .475, Classmate subscale r = .638, Friend subscale r = .703, and School subscale r = .457, all below $p < .001$ (Malecki et al., 2014). In addition, the CASSS (1999), excluding the School subscale, has been correlated with other perceived social support measures. The CASSS Total Frequency score was reported as significantly correlated with the Social Support Scale for Children (Harter, 1985), r=.55, $p < .001$. The Total Frequency score also correlated with the Social Support Appraisals Scale (Dubow & Ullman, 1989) r = .56. A copy of the CASSS is available in Appendix A. Coefficient alphas for the CASSS (2000) are reported in Table 3.

Table 3

Frequency and Importance Reliability for Total CASSS and Subscale Scores

	Coefficient Alphas					
	Total CASSS Score	Parent subscale	Teacher subscale	Classmate subscale	Close Friend subscale	People in my School subscale
Frequency	.97	.88–.96	.90–.96	.91–.96	.93–.97	.95–.96
Importance	.96–.98	.84–.93	.88–.92	.90–.95	.84–.97	.93–.95

Procedures

A District Approval Letter (see Appendix B) was signed by the district's superintendent's office and Intermediate School Principal prior to seeking approval to implement the study, and it was submitted with the Human Subjects Review Protocol to the Institutional Review Board (IRB) at Indiana University of Pennsylvania (IUP). Approval through the IUP IRB was then obtained to conduct the study and gather data.

The researcher met with the 4th grade teachers in order to discuss and provide written instructions (see Appendix C) for distributing and collecting Informed Consent Forms (see

Appendix D). The Informed Consent Form was sent home by the 4th grade homeroom teachers in the regular education students' backpacks. Parents were given seven days to complete and return the permission forms. An additional Informed Consent Form and Follow-Up Letter (see Appendix E) was sent to all parents in student backpacks. Again, seven days were given for the parent to sign and return the Informed Consent Form. Once the Informed Consent Forms were returned, the teacher forwarded the Informed Consent Forms to the principal investigator in a sealed envelope.

The principal investigator contacted the teachers to schedule a date to have the students complete the CASSS during homeroom period. On this date, the students were directed to the school cafeteria in order to complete the CASSS. Each student who had returned the Informed Consent Form was provided with a Child Assent, which was signed indicating whether the student was willing to participate in the study. The principal investigator then distributed the CASSS to those who had signed the Child Assent form. The completion of the CASSS did not interfere with academic instruction time. An alternate assignment, a Word Find, was given to students who had not signed the Child Assent form. Once the measures were completed, the principal investigator and research assistants collected all forms so the data could be compiled and analyzed.

Each student was given a research identification number. Identifying information was then removed from the students' CASSS and it was coded with the students' research identification number. In this manner, information was recorded in a way that protected the confidentiality of the student. The list of names and identification numbers was saved on a password protected computer. Once all student information was collected and recorded with the identification number, the master list containing both student name and research number

was destroyed. In this manner, student confidentiality was further protected. In addition, the Informed Consent, Child Assent, and CASSS forms were collected and maintained in a locked filing cabinet.

As the researcher of the study, student PSSA scores, grades, and demographic information were obtained through the district network system. The principal investigator had access to student data within the network system for the purposes of this study and as a researcher. Demographic information including student sex, ethnicity, and eligibility for the Free and Reduced Lunch program were then saved in an excel spreadsheet on a password protected computer. In addition, the CASSS results, and reading and mathematics PSSA scores were saved in the excel spreadsheet. Grades were converted to a grade point average and also saved on the spreadsheet. Again, data was recorded by the students' identifying number. Only the principal investigator had access to this information.

There were minimal risks for students when completing the CASSS. The CASSS required the student to respond to the importance and amount of support provided by parent, teacher, classmate, friend, and school. In completing the CASSS, the student may have become aware of uncomfortable feelings as they answered the questions presented in relation to perceived support. If a student became visibly upset, the teacher was to refer the student to the guidance office. The investigator included the guidance counselors' and the Intermediate School Psychologist's contact information with the Informed Consent Form should the parent had wanted additional support for their child. In addition, should parents have any questions or concerns, they were encouraged to contact the investigator.

An additional potential risk was the investigator's dual role as the investigator of the study and an employee of the school district as a school psychologist. The risk for a dual role

was addressed by choosing a school site to which the investigator was not assigned for the study to be conducted. The likelihood of the principal investigator serving one of the student participants was very low. However, the investigator is assigned to the Middle School and may work with one or more of the students later in their schooling, which is work outside of the role as researcher on this project.

Finally, further protection was provided to the student with the provision of parent permission. A student only participated with parent permission and after signing the Child Assent form. In addition, only the principal investigator had access to the student information, CASSS forms, PSSA scores, and GPA, which was saved on a password protected computer. Finally, each student was assigned a research identification number and only this number was connected to student data, thus further protecting student confidentiality. An outline of the procedures and events that occurred is provided in Table 4.

Table 4

Perceived Social Support Study Project Task Table

#	Name	Description	Begin	End	Person(s)
1	Obtain materials and permission	Obtain a copy and permission to utilize the CASSS	9/11	9/11	CASSS developers
2	Prospectus Meeting	Present Pre-Dissertation Information paper to committee and refine study	12/11	12/11	Researcher and Committee
3	Refine study and write RTAF proposal	Write RTAF Proposal and submit after approved edits	2/13	5/13	Researcher and Dissertation Chair
4	IRB proposal and approval	IRB proposal, submission, and approval	5/13	12/13	Researcher, Dissertation Chair, DRB, IRB
5	Chapter 1-3 Defense	Submit chapters 1-3 to committee and complete defense	1/14	2/14	Researcher and Dissertation Committee
6	Meet with teachers	Meet with 4th grade teachers to explain study and provide Informed Consent Forms	2/14	2/14	Researcher and 4th grade teachers
8	Data collection	4th grade students will sign Child Assent, complete the CASSS or Word Find	2/14	2/14	4th grade teachers
9	Scoring and Data Entry	Gather and score the CASSS, and enter data in Excel	2/14	5/14	Researcher and scoring assistants
10	Obtain additional data	Obtain PSSA scores and enter data in Excel	7/14	7/14	Research and scoring assistants
11	Statistical Analysis	Statistical analysis of findings using SPSS	4/14	9/14	Researcher
12	Final Report Preparation	Interpret analysis results and complete report.	4/14	10/14	Researcher and Committee member
13	Dissertation Review	Meet with dissertation committee and chair to review and refine report	10/14	11/14	Researcher and Committee
14	Present and Defend Dissertation	Present final dissertation to IUP faculty	11/14	11/14	Researcher and Committee

Sample Size

Of the initial 368 Informed Consent Forms sent home with 4th grade regular education students, 164 were returned. One student moved, two students chose not to complete the CASSS, and seven students were removed from the study due to incomplete data. As a result, the sample size included data from 154 4th grade regular education students. When determining sample size, Tabachnik and Fidell (2007) suggest $N \geq 50 + 8m$ (where m is the number of independent variables) when completing multiple correlations and $N \geq 104 + m$ for evaluating individual predictors. When using these rules of thumb, it is assumed that there is a medium-size relationship between the independent variables and the dependent variable.

Statistical Analyses

The study sought to examine the relationship between perceived social support and academic achievement. Academic achievement included both reading and math scores from the PSSA. In addition, student grades were converted to a GPA. The questionnaire used within this study, the CASSS, evaluates the frequency and importance of perceived social support provided by parents, teachers, classmates, close friend, and school. Additional research questions explored whether differences existed between the sex, ethnicity, and SES of the student and perception of social support in both frequency and importance. Finally, whether there is a correlation between frequency and importance on the CASSS was explored.

All statistical analyses procedures were conducted using SPSS. Several statistical methods were used in order to analyze the data. Table 5 outlines the research questions, hypotheses, statistical procedures, and assumptions that were proposed within the study.

Table 5

Statistical Analysis of Study

Research Questions	Hypotheses	Variables	Statistic	Assumptions
1.Does a statistically significant difference exist between students' sex, ethnicity, and/or socioeconomic status and perceived social support from parents, teachers, classmates, close friends, and/or school?	Female students will report higher levels of perceived social support in comparison to males from classmates and close friends. No significant difference will be determined for parent and teacher support. African-American students will perceive greater levels of support from parents and teachers. White students will perceive greater levels of peer support. Hispanic students will perceive less teacher support than Whites. Students of lower SES will perceive lower levels of support from Parents, but more support from teachers	Sex Ethnicity Socioeconomic Status Perceived Social Support from parents, teachers, classmates, close friend, school: frequency and importance ratings	MANOVA	1. Interval or ratio data 2. Normality 3. Equal variances 4. Sample size 5. Linearity

Table 5 (continued)

Research Questions	Hypotheses	Variables	Statistic	Assumptions
2. Does students' perceived social support from parents, teachers, classmates, close friends, and/or school correlate with academic achievement as measured by state standardized test results (PSSAs) and academic grades (GPA)?	Higher ratings of parent and teacher support will predict higher GPA and PSSA scores. Lower classmate and friend support will be associated with lower GPA and PSSA scores.	Perceived Social Support from parents, teachers, classmates, close friend, school: frequency and importance ratings Reading PSSA scores Math PSSA scores GPA	Multiple Linear Regression Pearson Correlation	1. Interval, ratio, absolute data 2. Normality 3. Equal variances 4. Sample size 5. Linearity
3.What is the relationship between students' frequency ratings and importance ratings on the CASSS?	Moderate to high correlations between frequency and importance ratings.	Frequency ratings Importance ratings	Pearson Correlation	1. Interval or ratio data 2. Normality 3. Equal variances 4. Linearity

The first research question investigated differences between the gender of the student, student's ethnicity, SES, and perception of social support. The hypothesis for this question ascertained that females will perceive higher levels of social support than males from classmates and close friends. It was further hypothesized that there would be no significant difference between females and males and their perception of social support from parents or teachers. In regard to ethnicity, it was hypothesized that African-American students will perceive higher social support from parents and teachers than White students. However, White students will perceive greater levels of social support from peers. Hispanic students were hypothesized to perceive less social support from teachers than White students. Finally, it was hypothesized that students of lower SES

will perceive lower levels of parent social support, but higher levels of teacher social support.

A one-way multivariate analysis of variance (MANOVA) was conducted in order to determine differences between group means. The assumptions included that the data are interval or ratio. The ratings on the CASSS are a Likert scale; therefore, this assumption is met. The second assumption is that the distribution resembles a normal curve indicating normality. By constructing a histogram and examining the skewness or kurtosis of the data, the shape of the distribution can be determined and computed. The third assumption states that there are equal variances. Through visual inspection of the statistical output it was determined that the standard deviations of both groups are the same. The next assumption states that the sample size is appropriate. It is suggested that $N \geq 50 + 8m$ (where m is the number of independent variables) when completing multiple correlations and $N \geq 104 + m$ for evaluating individual predictors (Tabachnik & Fidell, 2007); therefore, this assumption is met. The final assumption of linearity is determined by visual inspection of the scattergram or bivariate plot. When the data are close to a straight line, indicating small error, a better prediction results.

Summative indices were created for each area using the statement within that area. The summative index was the mean of the statement ratings within the area. Separate summative indices were created using the frequency and importance ratings. In addition to examining the differences between sex, ethnicity, SES, and perceived social support, the ratings were examined for each individual statement as well as for each type of person, such as my parents.

The second research question investigated the relationship between perceived social support and academic achievement within the areas of math and reading, and overall achievement. It was hypothesized that levels of perceived social support from parents and teachers would be positively correlated with scores on the PSSA and GPAs. In addition, it was predicted that lower perceptions of social support from friends and classmates would be correlated with lower PSSA scores and GPAs. No hypothesis was made in regard to the impact of school support. The statistical procedure for this question was a multiple linear regression. Multiple linear regression allows for the analysis of several factors that may simultaneously affect a dependent or criterion variable. In this study the independent variable was considered perceived social support while academic achievement was the dependent variable. In addition, bivariate correlation analysis using Pearson's product moment correlations was conducted between the independent and dependent variables.

The first assumption for correlation analysis includes reviewing the data in order to determine if it is interval, ratio, or absolute. Next, it is important to determine if a normal distribution exists through visual inspection of a histogram. The third assumption indicates that the variances are equal at each "x." The standard deviations are the same and the spread of data points are evenly distributed around the line of best fit. Next, there should be an appropriate sample size. Finally, linearity was determined through visual inspection of a scattergram or bivariate plot. When the data are close to a straight line, indicating small error, a better prediction results. Multicollinearity exists if the independent variables are highly correlated making it difficult to determine the contribution of each variable in predicting the dependent variable. If multicollinearity is

determined, one of the highly correlated variables may be removed or a new composite of the highly correlated variables may be created.

The final research question focused on whether a correlation exists between the importance ratings on the CASSS and the frequency ratings on the CASSS. Based upon previous research, it was hypothesized that there would be a moderate to high positive correlation between importance and frequency ratings. In order to assess this relationship, a Pearson Correlation was calculated. Bivariate correlations were performed on the individual frequency and importance ratings, as well as on the summative indices composed of these ratings. First, it was assumed that the data are interval or ratio. Next, the frequency distribution was examined in order to determine normality. Then, bivariate plots or scattergrams were conducted in order to check for linearity. Finally, Pearson Correlation coefficients were computed and a correlation matrix constructed.

Summary

The present chapter reviewed the research questions, hypotheses, and statistical procedures proposed for the study. The first research question included whether the student's sex, ethnicity, and SES were significantly different in relation to perceived social support. The differences between group means were analyzed by a one-way MANOVA. The second research question pertained to the perception of social support and correlation to overall achievement as indicated by GPA, and academic achievement in reading and writing as reported by PSSA scores. Multiple linear regression and correlation coefficients were completed. Finally, correlation coefficients were examined between frequency and importance ratings on the CASSS.

CHAPTER IV

RESULTS

Introduction

This study utilized the Child and Adolescent Social Support Scale (CASSS) in order to investigate 4th grade students' perceptions of social support from parents, teachers, classmates, close friends, and people in the school. Differences between male and female students' perceptions of social support were explored. In addition, perceived social support differences between students of various ethnicities and socioeconomic status (SES) were also to be examined. Additionally, the study evaluated the relationship between students' perceived social support and academic achievement. Student PSSA results and GPA were used as measures of academic achievement. Finally, correlations between frequency and importance ratings of the CASSS were analyzed.

Participants included 154 4th grade regular education students from a suburban school district located in South Central Pennsylvania. Each student completed the CASSS, in a large group setting, evaluating the importance and frequency of perceived social support from parents, teachers, classmates, close friend, and people in the school. In addition to Total Frequency and Total Importance ratings, summative indices were created for each area (parent, teacher, classmate, close friend, and school). The summative index was determined by calculating the mean score of each area. This was completed for both frequency and importance ratings. Demographic information including the student's sex, ethnicity, and SES was obtained through the district's network system. A research assistant accessed student grades and PSSA scores through

the district's network system and input the data into an Excel spreadsheet. All statistical analyses procedures were completed by use of SPSS.

The first research question investigated the differences between male and female students' perceptions of social support. Multivariate analysis of variance (MANOVA) was used to determine the difference among the means of multiple dependent variables. In addition, differences between the perceptions of social support from students of high and low SES were to be examined. Students were identified as high or low SES based upon eligibility for the Free and Reduced Lunch program. Students that were eligible for Free and Reduced Lunch were considered low SES. Due to the low number of students within the low SES group, the appropriate statistical analysis could not be conducted. The study also sought to examine the differences in perceived social support based on ethnicity. However, due to the low number of students in each ethnic group, there was not an adequate sample size in order to complete the necessary statistical analysis.

The second research question addressed the relationship between perceived social support and academic outcomes as measured by the PSSA and student GPAs. Summative indices were used to analyze the perception of social support from parents, teachers, classmates, close friends, and people in the school. Both reading and math PSSA scores were obtained in order to measure academic achievement. In addition, students' GPAs were calculated by adding all four marking period grade values and dividing by 16. Stepwise linear regression analysis was performed in order to determine the relationship between perceived social support and academic outcomes.

The third research question investigated the relationship between importance and frequency ratings of the CASSS. A correlation matrix was created in order to examine

the relationship between frequency and importance ratings, in addition to summative indices. Pearson Correlation coefficients were computed and the relationships were determined.

Demographic Summary

The participants within this study included 154 4th grade students. Of the final sample, 59 (38%) were male and 95 (62%) were female. Ethnicity included 131 (85%) White/Non-Hispanic, 8 (5%) Black/African-American, 4 (3%) Latino/Hispanic, 7 (5%) Asian, and 4 (3%) identified as Multi-Racial. Overall, 15% were of minority status. Twenty-five (16%) students received Free and Reduced lunch and were classified as low SES, while 129 (84%) did not receive Free and Reduced lunches and were classified as high SES. A total of seven participants were excluded from the study due to incomplete CASSS forms. Two students chose not to complete the CASSS, and one student's information was removed due to moving out of the district.

Table 6

Demographic Summary

Demographic Characteristics	Frequency	Percentage
Sex		
Male	59	38%
Female	95	62%
Ethnicity		
White/Non-Hispanic	131	85%
Black/African-American	8	5%
Latino/Hispanic	4	3%
Asian	7	5%
Multi-Racial	4	3%
Socioeconomic Status		
Low	25	16%
High	129	84%

Descriptive Statistics

Descriptive statistics were calculated for each index area of the CASSS and for Total Frequency and Total Importance scores. Frequency ratings were scored on a Likert scale from 1-6; whereas, importance ratings were reported as 1-3. Visual inspection of the descriptive statistics revealed that all ratings were negatively skewed. The following index areas had the most significant skewness: Frequency of friend support (skewness = -1.62) and importance of friend support (skewness = -1.56). The skewness and kurtosis were inspected and determined to be within acceptable levels. It has been suggested that values +/- 3 are acceptable (Greer, Hunter, Dunlap, & Berman, 2006). Frequency ratings had similar standard deviations (*SDs*) as did importance ratings. Frequency of friend support (M = 5.13) and importance of friend support (M = 2.68) had the highest means.

Table 7

Descriptive Summary of CASSS Ratings

Index	N	Mean	*SD*	Skew	Kurt
FQ Parent	149	4.95	.91	-1.33	1.38
FQ Teacher	139	4.97	1.01	-1.26	.90
FQ Classmates	142	4.35	1.20	-.56	-.46
FQ Friend	145	5.13	1.07	-1.62	2.26
FQ School	148	4.51	1.13	-.53	-.57
IM Parent	145	2.60	.34	-.75	-.10
IM Teacher	134	2.60	.41	-1.10	.97
IM Classmates	144	2.49	.46	-.80	-.02
IM Friend	142	2.68	.41	-1.56	2.36
IM School	144	2.49	.49	-.79	-.11
FQ Total	120	4.86	.79	-.75	-.17
IM Total	111	2.60	.34	-.75	-.03

Note. FQ = Frequency; IM = Importance; SD=Standard Deviation; Skew = skewness; Kurt = kurtosis.

Complications

It was proposed that the current study would investigate the differences between White/Non-Hispanic and minority students' perception of social support. In addition, differences in perceived social support of high and low SES students were to be investigated. A one-way MANOVA was identified as the appropriate statistical analysis in order to investigate the differences among the group means. In addition, moderate correlations between dependent variables were determined. However, due to the small number of participants in each of the minority groups, as well as the low SES group, it was concluded that the statistical analysis would be compromised, and therefore, differences between White/Non-Hispanic and minority students, in addition to students of high and low SES status were not calculated. Furthermore, the practice of combining students of different ethnicities into one minority group is questionable. Students of various ethnicities pose significant differences between one another, and therefore, it would be inappropriate to assume that they are similar enough to combine into one group.

Data Analysis

Research Question 1. Does a statistically significant difference exist between students' sex, ethnicity, and/or socioeconomic status, and perceived social support from parents, teachers, classmates, close friends, and/or school?

Sex Differences

It was hypothesized that females would report greater levels of perceived social support in comparison to males. Several previous studies have concluded that females report overall higher levels of perceived support than males (Demaray & Malecki, 2002a; Demaray & Malecki, 2002b; Malecki & Demaray, 2003a; Malecki & Demaray, 2006;

Malecki & Elliot, 1999; Rueger et al., 2010). It was further hypothesized that female students would report greater levels of perceived support from classmates and friends when compared to male students as confirmed by prior research (Demaray & Malecki, 2002b; Malecki & Elliott, 1999). Finally, female and male students were hypothesized to report similar levels of perceived social support from parents (Demaray & Malecki, 2002a; Malecki & Demaray, 2003a; Rueger et al., 2010) and teachers (Martinez, 2006).

A one-way multivariate analysis of variance (MANOVA) was conducted to determine whether a significant difference existed between groups (male and females) regarding perceived social support, as measured by the CASSS. For this analysis, the independent variable was sex, and the two groups included male students and female students. The dependent variables included parent frequency, teacher frequency, classmate frequency, close friend frequency, people frequency, parent importance, teacher importance, classmate importance, close friend importance, and people importance. First, preliminary analyses were conducted in order to ensure that assumptions were met. Data type included interval, ratio, or absolute data. Sample size was appropriate and assumptions of normality, equal variances, and linearity were met. Multicollinearity was ruled out through inspection of correlations between index scores. Homogeneity of variance was measured by use of Box's M Test of Equality of Covariance Matrices ($p<.001$). A significant difference was determined between the covariance matrices; therefore, the assumption was violated and Pillais' criterion was used to evaluate multivariate significance. Results of the MANOVA indicated no significant multivariate effect for sex on perceived social support, Pillais' Trace = .07, $F(10, 93) = 1.81$, $p = .07$, $\eta^2 = .16$.

Ethnic Differences

The first research question also investigated possible differences between students of various ethnicities and their perceptions of social support. Despite minimal research within this area, it was hypothesized that African-American students would perceive greater levels of social support from parents and teachers in comparison to White students. It was also hypothesized that White students would perceive greater levels of peer support in comparison to students of other ethnicities, and greater levels of teacher support than Hispanic students.

Due to an extremely small number of student participants in each ethnic group, the students were combined into one "minority" group; however, there were not enough students in the group to complete the appropriate statistical analysis. Additionally, it was determined that this analysis would not yield the most accurate information as assumptions cannot be made that all ethnic/racial minorities could be combined into one minority group.

SES Differences

Finally, differences between students of low and high SES and perceptions of social support were to be analyzed. It was hypothesized that students of lower SES would report lower levels of perceived parental support and higher levels of perceived teacher support. As previously described, students were placed in the low SES category based upon eligibility for Free and Reduced lunch. Students within the high SES category were not eligible for the Free and Reduced lunch program. Due to a low number of student participants in the low SES group, the statistical analysis could not be completed.

Research Question 2. Do students' perceived social support from parents, teachers, classmates, close friends, and/or school correlate with academic achievement as measured by state standardized test results (PSSAs) and academic grades (GPA)?

It was hypothesized that parental support (Chambers et al., 2006; Rueger et al., 2010) and teacher support (Malecki & Demaray, 2003a; Malecki & Elliott, 1999) would be correlated with academic achievement. Furthermore, it was hypothesized that lower levels of perceived classmate and friend support would be associated with lower achievement scores as assessed by the PSSA and grade point average.

Correlations

A correlation matrix was computed in order to review the relationship between students' perceived social support ratings and GPA. Correlation coefficients ranging from .5 - .7 were considered moderately correlated, .7 - .9 highly correlated, and coefficients .9 – 1.0 very highly correlated (Calkins, 2005). Correlations between perceived social support, GPA, and PSSA scores are included in Table 8. A small, but significant, correlation was indicated between GPA and student Total Frequency scores, $p < .05$. In addition, there was a small, but significant, correlation between GPA and student Total Importance scores, $p < .05$. Next, the indices for each social support area were reviewed to determine a correlation with GPA. Small, but significant, correlations were determined between the teacher frequency index and GPA, $p < .01$. Small, but significant correlations were also determined between the teacher importance index and GPA, $p < .01$.

Next, PSSA results were analyzed in relation to perceived social support. As indicated in Table 8, no discernable relationship was indicated between math PSSA

scores and Total Frequency, p = n.s. In addition, no discernable relationship was indicated between reading PSSA scores and Total Frequency, p = n.s. Results also indicated no significant relationship between math PSSA and Total Importance scores, p = n.s. No significant relationship was also indicated between reading PSSA and Total Importance, p = n.s. Next, the indices for each social support area were reviewed along with PSSA scores, and again, no significant relationships were found.

Table 8

Correlations between Frequency and Importance Ratings of the CASSS, GPA, and PSSA Scores

	FQ Parent	FQ Teacher	FQ Classmate	FQ Friends	FQ School	IM Parent	IM Teacher	IM Classmate	IM Friends	IM School	FQ Total	IM Total	GPA	RPSSA	MPSSA
GPA	.12	.29**	.06	.11	.06	.13	.29**	.14	.13	.08	.18*	.21*	___		
RPSSA	.01	-.00	.04	-.07	-.07	.03	.14	.08	-.06	.03	-.02	.13	.61	___	
MPSSA	-.03	.03	.01	-.01	.07	-.04	.07	.16	-.01	.13	.01	.12	.64	.64	___

Note. FQ = Frequency; IM = Importance; GPA = Grade Point Average; RPSSA = Reading PSSA; MPSSA = Math PSSA; **p < .01, *p < .05

Multiple Regression Analysis

Multiple regression analysis was conducted to evaluate whether perceived social support significantly predicted students' GPA. Stepwise multiple regression was performed in order to determine which index of perceived social support has the strongest correlation with GPA. In using stepwise multiple regression analysis, the most highly correlated variable with GPA is identified first and used in the analysis. First, regression analysis was conducted on frequency ratings. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. At step 1 of the analysis teacher frequency was entered into the regression equation. Results of the regression indicated a coefficient of determination equal to .31 (adjusted $R^2 = .09$). Teacher frequency of support explained 9% of the variance in student GPA, $F(1, 118) = 12.69$, $p = .001$. Teacher frequency was the only significant predictor variable, $\beta = .31$, $p = .001$. No variables were entered at Step 2. Further analysis was conducted including both frequency and importance index scores; and again, none entered into the equation of the analysis.

Similar results were determined when importance ratings were analyzed for correlation to GPA. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. At step 1 of the analysis, teacher importance was entered into the regression equation and results indicated a coefficient of determination equal to .30 (adjusted $R^2 = .08$). Teacher importance of support explained 8% of the variance in student GPA, $F(1, 109) = 10.95$, $p = .001$. Teacher importance was the only significant predictor variable, $\beta = .30$, $p = .001$. No additional variables were entered at Step 2.

Next, stepwise multiple linear regression was completed with both frequency and importance ratings. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. Teacher frequency was entered into the regression equation at Step 1 and results indicated a coefficient of determination equal to .35 (adjusted $R^2 = .11$). Teacher frequency of support explained 11% of the variance in student GPA, $F(1, 102) = 4.92$, $p < .001$. Teacher frequency was the only significant predictor variable, $\beta = .35$, $p < .001$. No additional predictor variables were entered into the equation at step 2 of the analysis.

Additional stepwise multiple linear regression analyses were completed in order to determine whether perceived social support significantly predicted the GPA of male and female students, White and minority students, and low and high SES students. Both frequency and importance ratings were included in the analysis. The first regression analysis was conducted on male students. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. At step 1 of the analysis teacher importance entered into the regression equation. Results of the regression indicated a coefficient of determination equal to .40 (adjusted $R^2 = .14$). Teacher importance of support explained 14% of the variance in student GPA, $F(1, 35) = 6.69$, $p = .014$. Teacher importance was the only significant predictor variable, $\beta = .40$, $p = .014$. No additional variables were entered into the equation at step 2 of the analysis. When investigating female students' perception of social support and GPA, no variables were entered in the equation at step 1 indicating no significant relationships.

Next, ethnicity and GPA were investigated. The first analysis included White/Non-Hispanic students' perceptions of social support and GPA as the dependent

variable. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. At step 1 of the analysis teacher importance entered into the regression equation. Results of the regression indicated a coefficient of determination equal to .40 (adjusted $R^2 = .15$). Importance of teacher support explained 15% of the variance in student GPA, $F(1, 87) = 16.55$, $p < .001$. Teacher importance was the only significant predictor variable, $\beta = .40$, $p < .001$. No additional variables entered into the equation at step 2 of the analysis. When investigating minority perceptions of social support and GPA, no variables were entered in the equation at step 1 indicating no significant relationship.

Lastly, SES and relationship to GPA were investigated. High SES students' perceived social support ratings were entered as the independent variables and GPA as the dependent variable. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. At step 1 of the analysis teacher importance entered into the regression equation. Results of the regression indicated a coefficient of determination equal to .43 (adjusted $R^2 = .18$). Teacher importance of support explained 18% of the variance in student GPA, $F(1, 84) = 19.1$, $p < .001$. Teacher importance was the only significant predictor variable at Step 1, $\beta = .40$, $p < .001$. At step 2, classmate importance, in addition to teacher importance, was entered into the equation resulting in a coefficient of determination equal to .48 (adjusted $R^2 = .21$) accounting for 21% of the variance in GPA, $F(2, 83) = 12.5$, $p < .001$. An inverse relationship was determined between classmate importance ratings of high SES students and GPA, $\beta = -.27$, $p = .028$. No variables were entered into the equation for low SES, indicating no significant relationship between low SES students' perceptions of social support and GPA.

Multiple regression analysis was conducted to evaluate whether perceived social support significantly predicted students' math and reading PSSA scores. Stepwise multiple regression was performed in order to determine which index of perceived social support has the strongest correlation to math PSSA scores. Regression analyses were conducted on frequency ratings, importance ratings, and frequency and importance ratings. No variables were entered into the equation for each of these analyses. In addition, no variables were entered into the equation for Total Frequency and Total Importance. Finally, regression analysis was completed on each group including males, females, White/Non-Hispanic, minority, low SES, and high SES. In each analysis, no variables entered into the equation at step 1. Therefore, no significant relationships were indicated between male, female, White/Non-Hispanic, minority, low SES, and high SES students' perception of support, and math PSSA scores.

Next, stepwise multiple regression analysis was conducted to determine if perceived social support predicts reading PSSA scores. Again, regression analyses were conducted on frequency, importance, and frequency and importance ratings. No variables were entered into the equation for each analysis. This also occurred when investigating Total Frequency and Total Importance ratings. No variables were entered into the equation when further investigation of male and female, minority, and high SES perceived social support was compared to reading PSSA scores. When White/Non-Hispanic student reading PSSAs scores were investigated, at step 1 of the analysis teacher importance entered into the regression equation. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. Results of the regression indicated a coefficient of determination equal to .21 (adjusted $R^2 = .03$).

Teacher importance of support explained 3% of the variance in White/Non-Hispanic students' reading PSSA scores, $F(1, 87) = 3.98$, $p = .049$. Teacher importance was the only significant predictor variable, $\beta = .21$, $p = .049$. No additional variables were entered into the equation at step 2 of the analysis.

Finally, low SES perceived social support scores were included in the analysis in order to determine their prediction of reading PSSA scores. The adjusted R^2 was used to control for overestimates of the population R^2 resulting from small samples. At step 1 of the analysis parent frequency entered into the regression equation. Results of the regression indicated a coefficient of determination equal to .47 (adjusted $R^2 = .18$). Parent frequency of support explained 18% of the variance in low SES students' reading PSSA scores, $F(1, 16) = 4.63$, $p = .047$. Parent frequency was the only significant predictor variable, $\beta = .47$, $p = .047$. No additional variables were entered into the equation at step 2.

Research Question 3. What is the relationship between students' frequency ratings and importance ratings on the CASSS?

It was hypothesized that there would be a moderate to high correlation between frequency and importance ratings on the CASSS. Again, correlation coefficients ranging from .5 - .7 were considered moderately correlated, .7 - .9 highly correlated, and coefficients .9 – 1.0 very highly correlated (Calkins, 2005). A correlation matrix was produced in order to evaluate the relationship between students' frequency ratings and importance ratings for the areas of parent, teacher, classmate, close friend, and people in my school, in addition to total frequency and total importance ratings. The Pearson product-moment correlation was used in order to determine inter-correlations. Total

Frequency scores were moderately to highly correlated with frequency parent, frequency teacher, frequency classmate, frequency close friend, and frequency school scores, $p <$ .01. In addition, Total Importance scores were moderately to highly correlated with importance parent, importance teacher, importance classmate, importance close friend, and importance school scores, $p < .01$. Equally high correlations, $r = .70$ or above, were determined between frequency ratings of school and classmates, and importance ratings of both school and classmates, $p < .01$. Additional moderate correlations were determined between frequency ratings of parent and teacher, and parent and classmates, $p < .01$. Importance parent ratings were moderately correlated with teacher importance, classmate importance, and close friend importance ratings, $p < .01$. Teacher frequency was moderately correlated to teacher importance ratings, and school frequency was moderately correlated to school importance ratings, $p < .01$. Finally, moderate correlations were determined between teacher importance ratings and classmate importance ratings, and Total Importance ratings and Total Frequency ratings, $p < .01$. Refer to Table 9 for inter-correlations between variables.

Table 9

Correlations between Frequency and Importance Ratings of the CASSS

	FQ Parent	FQ Teacher	FQ Classmate	FQ Friends	FQ School	IM Parent	IM Teacher	IM Classmate	IM Friends	IM School	FQ Total	IM Total
FQ Parent	___											
FQ Teacher	.54**	___										
FQ Classmate	.53**	.46**	___									
FQ Friends	.36**	.30**	.40**	___								
FQ School	.49**	.47**	.75**	.43**	___							
IM Parent	.49**	.37**	.34**	.24**	.29**	___						
IM Teacher	.38**	.65**	.30**	.27**	.33**	.60**	___					
IM Classmate	.17**	.31**	.42**	.15	.41**	.51**	.52**	___				
IM Friends	.26**	.30**	.12	.47**	.18*	.58**	.48**	.48**	___			
IM School	.13	.22**	.33**	.15	.51**	.47**	.41**	.73**	.50**	___		
FQ Total	.74**	.69**	.85**	.63**	.84**	.45**	.44**	.39**	.33**	.33**	___	
IM Total	.36**	.44**	.37**	.30**	.45**	.76**	.76**	.86**	.74**	.80**	.50**	___

Note. FQ = Frequency; IM = Importance; **p < .01, *p < .05

Summary

This chapter reviewed the data analyses conducted to test each hypothesis presented. Significant differences in perceived social support were investigated between male and female students. Utilizing a one-way MANOVA, no statistically significant differences were indicated between male and female students' perception of social support, Pillais' Trace = .07, $F(10, 93) = 1.81$, $p = .07$. Due to a significantly low sample size, differences between White/Non-Hispanic and minority students, and low and high SES students were not analyzed.

Correlation coefficients were computed indicating no significant correlation between perceived social support and academic outcomes as measured by PSSA scores. In addition, very small correlations were indicated between perceived social support and GPA. Stepwise multiple regression analysis indicated a low, but significant relationship between GPA and teacher frequency of perceived social support when only frequency ratings were entered into the model, $\beta = .31$, $p = .001$. Teacher importance accounted for 14% of the variance in GPA for male students, and 15% of the variance for White/Non-Hispanic students. Finally, teacher importance accounted for 18% of the variance for high SES students' GPA; however, when classmate importance was added, the variance increased to 21%. Although classmate importance provided additional explanatory effect on GPA; this resulted in an inverse relationship, $\beta = -.27$, $p = .028$. Stepwise multiple regressions were also completed for PSSA scores, and although no significant relationship was determine between perceived social support and math PSSA, a small, but statistically significant relationship was identified between reading PSSA scores and parent frequency of perceived social support of low SES students, $\beta = .47$, $p = .047$.

Parent frequency of low SES students accounted for 18% of the variance in reading PSSA scores. Finally, moderate correlations were determined between frequency and importance ratings of the CASSS, also supported by previous study results. The following chapter will further explore the results of the statistical analyses and provide additional explanation as to inconsistencies between study outcomes and prior research.

CHAPTER V

DISCUSSION

Introduction

Studies have shown that social support has a positive impact on students' lives. Improvement has been noted in student adjustment (Demaray & Malecki, 2002a; Demaray et al., 2005) in addition to self- concept and social skills (Malecki & Elliott, 1999; Demaray & Malecki, 2002b). Additional research conducted by Bernard (2004) indicated that support from parents, teachers, and peers provides a protective factor for teens and children. On the other hand, lack of social support has been shown to increase problematic behaviors (Demaray & Malecki, 2002b). In addition, lower levels of family social support have been shown to increase negative symptoms of psychological distress and emotional difficulties (Demaray & Malecki, 2002a; Hoefnagels et al., 2007; Klineberg et al., 2006).

Despite the available research, evidence has been inconsistent in regard to social support and academic outcomes. Some studies have shown that parent support improves academic outcomes (Chambers et al., 2006; Rueger et al., 2010). In addition, teacher support has been associated with school achievement (Malecki & Demaray, 2003a; Malecki & Elliott, 1999) and specifically, math achievement (Nettles et al., 2000). However, additional research has indicated no significant relationship between family support and academic performance (Nettles et al., 2000, Woolley & Grogan-Kaylor, 2006). Results have also shown that teacher support is not related to reading achievement (Nettles et al., 2000).

The present study utilized the Child and Adolescent Social Support Scale (CASSS), which evaluates the perception of four different types of social support including emotional, instrumental, informational, and appraisal support provided by teachers, parents, classmates, close friend, and people in the school. The study explored differences between male and female 4th grade students' perception of social support. Due to small sample size, differences of perceived social support between 4th grade students identified as of low or high socioeconomic status (SES) and from different ethnic groups were not investigated.

Several statistical procedures were used in order to investigate the proposed hypotheses. The present chapter will review the research questions and hypotheses. Furthermore, it will include a discussion of data analysis results in addition to the implications and limitations of the study. Finally, recommendations for future research are provided.

Research Questions and Hypotheses

Research Question 1. Does a statistically significant difference exist between students' sex, ethnicity, and/or socioeconomic status, and perceived social support from parents, teachers, classmates, close friends, and/or school?

Sex Differences

Results of the one-way multivariate analysis of variance (MANOVA) did not indicate significant differences between male and female students' perceptions of social support. The initial hypothesis indicated that females would report greater levels of perceived social support than males overall. In addition, female students would report greater levels of classmate and close friend support. In contrast, it was hypothesized that

there would be no significant differences between male and female perceived support from parents and teachers. Results supported the hypothesis that there were no significant differences between male and female students' perception of support from parents and teachers. However, differences were not determined between male and females' perception of support from classmates and close friends as initially hypothesized. In addition, no significant differences were indicated between overall male and female perceptions of social support.

There are several possible reasons for the difference between the current study results and prior research. A majority of the studies cited employed either middle and/or high school aged students in their sample (Demaray & Malecki, 2002a; Malecki & Elliott, 1999; Malecki & Demaray, 2003a; Malecki & Demaray, 2006; Rueger et al., 2010). The current study focused on 4th grade students only. There is minimal research on social support and elementary-aged students' perceptions. However, studies conducted with younger children have indicated that they report greater levels of perceived support in comparison to older students (Demaray & Malecki, 2002b). Elementary-aged students reported greater levels of perceived social support from parents, teachers, classmates, and close friends. Further research including elementary-aged students is suggested in order to investigate sex differences to add to the existing research, which is minimal.

An additional factor impacting the current results include the use of CASSS importance ratings. Several studies utilizing the CASSS focused primarily on frequency ratings and did not include the importance scale in the data collection process (Demaray & Malecki, 2002a; Malecki & Demaray, 2006; Rueger et al., 2010). Demaray and

Malecki (2002a) suggested that the total importance and subscale scores "are intended only for use in clinical interpretation" (p.308). In 1999, Malecki and Elliott utilized importance scores in order to evaluate correlations between frequency and importance ratings, and they employed descriptive techniques to determine top ranked items. The hypotheses tested are, therefore, developed based upon previous research focusing on frequency scores. Interestingly, Demaray et al. (2009) suggested that the importance placed on perceived social support from different sources may not be as important as the frequency of perceived social support in reference to global self-concept.

Malecki and Demaray (2003a) investigated sex differences and types of support perceived. Results indicated that female students perceived higher levels of emotional and instrumental support from close friends. Additional results from the Malecki and Demaray (2003a) study concluded that the most important types of support include emotional support from parents and informational support from teachers. Further research investigating the type and source of support perceived by males and females as indicated by individual statements on the CASSS is necessary.

Ethnic Differences

Next, the differences between students of various ethnicities and their perceptions of social support were investigated. Due to a small sample size for the minority group, statistical analyses were not completed. As previously discussed, there has been minimal research including a representative sample in order to appropriately investigate the perceived social support of students of various ethnicities. Although the present study initially categorized students as White/Non-Hispanic, African- American, Hispanic, Asian, and Multi-Racial and then combined the students into one minority category, a

small sample size continued to result. In addition, it is questionable to combine minority students into one group due to significant differences between ethnic and racial groups. Prior studies also incorporated minority or non-White students into one category for classification (Malecki & Elliott,1999; Malecki & Demaray, 2002; Holt & Espelage, 2007). Holt and Espelage (2007) indicated that White students perceive greater levels of support from peers in comparison to non-White students. In a study by Malecki and Demaray (2002), it was concluded that non-White students perceived greater levels of teacher support than White students in grades 3 through 6; however, White students perceived greater levels of support from teachers, classmates, and close friends in grades 7 through 12. These results suggest that the differences between White and non-White students' perceptions of support changes as students age.

Prior studies have included various population differences, which also impact generalizability. A study conducted by Demaray and Malecki (2003b) included participants who were predominantly Hispanic American. Demaray and Malecki's 2002 study included a minority group comprised of Native American students. Ultimately, the perceived social support of students from various ethnic backgrounds continues to be an area in need of additional investigation.

SES Differences

Finally, differences between students categorized as low and high SES and their perceptions of social support were to be evaluated. It was hypothesized that lower SES students would report lower levels of parent support and greater levels of teacher support in comparison to high SES students. Due to the small sample size for the low SES

student group, the appropriate statistical analyses could not be completed. Prior research has failed to explore SES and perceived social support alone.

Studies regarding SES have typically investigated supportive behavior in comparison to perceived social support. Supportive behaviors are typically measured by parental involvement scales that are completed either by the parent or teacher. Although not synonymous, parental involvement is related to parental perceived support. Research conducted on parental involvement has indicated that students of lower SES have parents who are less involved in their education (Nzinga-Johnson et al., 2009); however, the current study suggested no significant differences between students of low and high SES and their perception of parental support. Additional studies have identified a buffering effect when parental involvement (Dearing et al., 2006) or social support (Malecki & Demaray, 2006) is increased for lower SES students, thus improving academic outcomes.

Research Question 2. Do students' perceived social support from parents, teachers, classmates, close friends, and/or school correlate with academic achievement as measured by state standardized test results (PSSAs) and academic grades (GPA)?

For this research question, it was hypothesized that perceived parental support (Chambers et al., 2006; Rueger et al., 2010) and teacher support (Malecki & Demaray, 2003a; Malecki & Elliott, 1999) would be correlated with academic achievement. It was further hypothesized that decreased classmate and friend support would be associated with lower achievement scores (Chambers et al., 2006; Somers et al., 2008). First, a correlation matrix was developed in order to review possible relationships between perceived social support and academic achievement as measured by GPA, math PSSA scores, and reading PSSA scores. Analyses completed by reviewing Pearson Product-

Moment correlations revealed that there were very small, but significant correlations between perceived social support index scores, total scores, and student GPA. Non-significant results were indicated between social support, and math and reading PSSA scores.

Next, stepwise multiple linear regression analysis was used in order to determine whether perceived social support significantly predicted students' GPA and PSSA scores. Results of the stepwise multiple regression analysis indicated that teacher frequency ratings accounted for 9% of the variance in GPA. Although statistically significant, the percent of variance is not strong for predicting GPA. Additional analyses were conducted in order to further investigate the individual groups including males, females, White/Non-Hispanic, minority, low SES, and high SES. Teacher importance ratings accounted for 14% of the variance for male students' GPAs and 15% of the variance for White/Non-Hispanic students' GPAs. In regards to SES, high SES students' teacher importance scores accounted for 18% of the variance in GPAs; however, when classmate importance was added an inverse relationship was determined increasing the variance by 3%. When lower classmate importance was added to the model, students resulted in higher GPAs. This could indicate that despite low ratings of the importance of peer support, students may obtain higher GPAs when teacher importance is high.

In review of PSSA results, no significant relationships were determined between math or reading PSSA scores and perceptions of social support. However, when further analyses were conducted on the individual groups of students, parent frequency ratings accounted for 18% of the variance in low SES students' reading PSSA scores. Based upon study results, overall perceived social support does not correlate with academic

achievement as measured by both student GPA and PSSA scores. However, a small, but notable relationship was indicated between low SES students' reading PSSA scores and parent frequency ratings.

The initial hypothesis stated that students reporting greater levels of perceived social support from parents and teachers would demonstrate higher achievement as assessed by GPA and PSSA scores. In addition, a relationship would exist between lower levels of classmate and friend support and lower achievement results. The present analysis partially supported the initial hypothesis despite prior research within this area. Current study results indicated a small significant correlation between GPA and teacher importance and teacher frequency ratings. No significant correlations between students' perceived social support and academic achievement as measured by the PSSA. However, teacher and classmate importance accounted for 18% of the variance in GPA for high SES students, and parent frequency accounted for 18% of the variance in reading PSSA scores of low SES students.

Interestingly, research has been conducted by the Search Institute indicating that higher levels of developmental assets including, but not limited to, teacher and parental support, contributes to student GPA (Scales et al., 2006; Scales & Roehlkepartain, 2003). In 1999, Malecki and Elliott determined a small, but statistically significant, correlation between teacher support and GPA. However, Nettles et al. (2000) indicated that teacher support only impacted math achievement as assessed by standardized assessments. An additional study conducted by Chambers et al. in 2006 reported that teacher support was only significant for the lowest at-risk group of students. In review of parental support and academic outcomes, Somers et al. (2008) found that peer and parent support was

most strongly correlated to GPA. An additional study conducted longitudinally indicated that parental support was correlated with a higher GPA at the end of the school-year (Rueger et al., 2010).

Several differences are noted between the present study and prior research investigating social support and academic achievement. A majority of the studies previously cited included middle school-aged students and/or high school students in their samples (Chambers et al., 2006; Malecki & Elliott, 1999; Malecki & Demaray, 2006; Reuger et al., 2010; Somers et al., 2008). Also, the tool utilized to measure perceived social support often varied within the studies discussed. In studies conducted by Malecki and Demaray (2006) and Rueger et al., (2010) only the frequency ratings of the CASSS were utilized. Desimone's (1999) study used a measure that documented parent involvement activities by both parent and child, while research by Woolley and Grogan-Kaylor (2006) focused specifically on family support. The current study does little to clarify the already inconsistent results in regard to social support and academic performance.

Research Question 3. What is the relationship between students' frequency ratings and importance ratings on the CASSS?

It was hypothesized that a moderate to high correlation would result between students' ratings of social support frequency and social support importance. Results of the Pearson product-moment correlation analysis revealed strong correlations between the Total Frequency score and each summative index area including parent, teacher, classmate, close friend, and people in my school. Similar results were determined between the total importance score and each summative index area. A strong correlation

was also noted between the frequency and importance ratings of classmates and people in my school. This may be due to students' difficulty in differentiating between the two types of social support. Some students may have interpreted the index areas similarly and may not have accounted for such persons as janitorial staff, secretaries, cafeteria workers, etc. when evaluating for people in my school. In reviewing prior research conducted by Malecki and Demaray, the researchers at times either excluded the "People in My School" index (Malecki & Demaray, 2003a), or they utilized the older version of the CASSS that did not include the "People in My School" index (Demaray & Malecki, 2002b; Demaray et al., 2009; Reuger et al., 2008).

Moderate correlations were indicated for frequency ratings of parent and teacher, and parent and classmates. Similar results were determined for importance ratings of parent and teacher, parent and classmates, parent and close friend, and teacher and classmate. Additional moderate correlations were determined between importance and frequency ratings for both teachers and people in my school. Teachers' frequency ratings were correlated with importance ratings, just as people in my school importance ratings are correlated with frequency ratings. The initial hypothesis stated that a moderate to high correlation would be determined between frequency and importance ratings. In review of the results, a moderate correlation was determined between Total Frequency and Total Importance ratings; therefore, the hypothesis was supported, $r = .50$. Demaray and Malecki (2003a) identified moderate correlations ranging from .55 to .68 between frequency and importance ratings of perceived social support from parents, teachers, classmates, and close friends.

Implications

The purpose of this study was three-fold. First, it sought to determine whether differences existed between male and female perceptions of social support. Second, the relationships between student-perceived social support and academic outcomes as measured by GPA and PSSA scores were investigated. Finally, correlations between frequency and importance ratings of the CASSS were calculated and interpreted.

Results of the present study did not indicate a significant difference in perceived social support between male and female students even though the results of prior research indicate otherwise (Demaray & Malecki, 2002a; Demaray & Malecki, 2002b; Malecki & Demaray, 2003a; Malecki & Demaray, 2006; Malecki & Elliott, 1999; Reuger et al., 2010). Although Martinez (2006) did not find significant differences between male and female perceptions of teacher support; Demaray and Malecki (2002b) concluded that females reported greater levels of social support than males from teachers, classmates, and close friends. Several studies have indicated that parental support is higher for females than for males (Demaray & Malecki, 2002a; Malecki & Demaray, 2003a; Reuger et al., 2010) in addition to close friend support (Demaray & Malecki, 2002b; Malecki & Elliott, 1999). In addition, research has indicated that younger students perceive greater support from parents and teacher in comparison to older students (Demaray & Malecki, 2002b). Further research is necessary within this area in order to extend the current research as to the differences that may exist between male and female students' perception of social support.

Minimal research exists investigating the differences between ethnicity/race or SES and perception of social support. Also, the studies conducted have not always been

representative samples of the population. Complications arose in the current study due to a small sample size, thus statistical analyses were not conducted. Despite the lack of findings within these areas, with a larger sample size, different results may be found.

No significant correlations were found between perceived social support and academic achievement as measured by PSSA scores. Significant, but small correlations were indicated between GPA and teacher perceived support. When stepwise regression analyses were completed, teacher frequency scores accounted for 9% of the variance in GPA, and teacher importance accounted for 8% of the variance. When separated into groups, teacher importance accounted for 14% of the variance for male students, 15% for White students, and 18% for the high SES group. Interestingly, when classmate importance was added for high SES students, the variance increased to 21% and an inverse relationship was indicated. In other words, when classmate importance was rated as low, but teacher importance was high, students achieved higher GPAs. No discernable relationships were indicated between perceived social support, and reading or math PSSA scores. Further investigation revealed that parent frequency ratings accounted for 18% of the variance in reading PSSA scores for low SES students.

It appears as though teacher importance and frequency ratings may only be minimally associated with GPA and PSSA scores. However, when broken down further into specific groups, teacher importance accounted for 18% of the variance in GPA for high SES students. In addition, parent frequency similarly accounted for 18% of the variance in reading PSSA scores for low SES students. Children from lower SES families are indicated as having lower parental involvement (Nzinga-Johnson et al., 2009; Lee et al., 2009), which could impact students' perception of social support. Parental

support for low income children has been determined to be a protective factor. Previous research demonstrated that lower SES students with increased social support achieved higher grades (Malecki & Demaray, 2006), and higher parental involvement reduced the achievement gap between high and low income students (Dearing et al., 2006). The results of the present study could be due to the age of the students in the sample. Studies have indicated that younger students perceive greater levels of social support (Demaray & Malecki, 2002b; Malecki & Elliot, 1999) and higher importance ratings (Demaray & Malecki, 2003a). In addition, a study conducted by Rueger et al. (2010) indicated that parental support predicted higher student GPAs longitudinally. Since the sample included elementary-aged students, predictability of GPA may improve over time.

The final purpose of the study was to determine whether correlations existed between frequency and importance ratings on the CASSS. In accordance with prior research (Demaray & Malecki, 2003a), moderate correlations were determined between frequency and importance ratings in the present study (r = .50). This indicates that although the frequency and importance ratings are associated, they are still theoretically different. In 2009, Demaray et al. conducted a study investigating students' perceptions of social support and self-concept. Results suggested that the importance placed upon perceived social support from parents, classmates, and friends may not be as imperative to self-concept as the frequency of the perceived support. The amount of support provided appears to be more important than the value placed upon the support. However, the present research suggests that the importance of perceived support may more crucial than the frequency of support for younger students. Additional research is necessary in order to further determine which is more critical, frequency or importance.

Limitations

Several limitations were identified as a result of the present study. First, the study included a convenience sample, which impacts generalizability of the results. The sample included 4th grade regular education students from a suburban school district located in south central Pennsylvania. It would be difficult to generalize results to urban and rural school districts, in addition to other states and regions of the country. Furthermore, results could differ when evaluating students of various grade levels, school district location, and special education status. Through further inspection of student participant demographics, it was determined that two students received English as a Second Language services and four students were provided Chapter 15 Service Agreements for such identified needs as anxiety, Asperger's Disorder, and Attention Deficit Hyperactivity Disorder. It is unknown how these factors may have contributed to study outcomes; however, including these students within the data set most likely did not significantly impact study results. Generalizability is also impacted by the use of a state standardized test, the PSSA. Since the PSSA is only standardized for Pennsylvania, results may not generalize to other states.

The present study sought to identify differences between perceived social support of students from different ethnic groups, in addition to students of high and low SES. The sample included very few students of varying ethnicities and the sample size was too small in order to complete the necessary statistical analyses. In addition, there were far too few low SES students in order to investigate differences between SES groups. Generalizability would have been impacted due to the small number of students in the groups discussed.

Study results did not reveal significant differences between male and female perceptions of social support. Interestingly, male and female students may perceive social support in different ways. Research has indicated that males may view social support in a more general manner and by whom the support is provided may not be as important in comparison to females (Chapin & Yang, 2009). What is important to a male and how it is perceived may be different than what is important to a female; therefore, one may not be measuring the exact same construct. In addition, the type of relationship and with whom may be perceived and valued differently by boys and girls. Therefore, male and female students may interpret the questions on the CASSS scale differently. Furthermore, frequency of support is a much more objective means by which to rate perceived support; whereas, importance appears to be more subjective in nature. Further investigation as to the differences between frequency and importance ratings for male and female students would add to the current research.

Another limitation identified within this study was possible response bias. Students completed the CASSS within the large group setting of the cafeteria in close proximity to peers. It was difficult to control for students discussing their answers and responses with peers. This could certainly impact students' ability to honestly self-report and respond to the CASSS statements. In addition, students completed both the frequency and importance scales of the CASSS. In prior research, the authors typically utilized only the frequency portion of the scale. General observations of the 4th grade students completing the CASSS revealed that at a certain point, some students simply began to haphazardly circle their responses possibly due to boredom, seeing that their peers were finished, or wanting to go back to their homeroom. It appeared as though

adding the requirement of completing the importance scale may have made the CASSS scale too long for elementary students to complete with accuracy and fidelity.

Another limitation is the fact that level of parent involvement could not be controlled for within the study. This most likely impacted a student's perception of parental support and ultimately the study's findings. As previously described, parental involvement includes specific behaviors that support the child's educational progress; for example communicating with the teacher, attending school functions, and volunteering. Vaux (1988) explains that social support can include either supportive activities or behaviors and functions of support which correspond to perception. The CASSS is a measure of perceived social support, not actual support. Therefore, parental involvement is not directly measured. Parental involvement is typically measured through self-report and teacher rating scales. It is unclear as to the impact that parental involvement has in regard to students' perception of social support. Further investigation into the correlation between parental involvement and perceived parental support is warranted.

Recommendations for Future Research

The present study included a small sample from a suburban school district located in central Pennsylvania. In future research, it would be important to include students from other states in addition to various regions of the country. The sample should include not only students from suburban schools districts, but also from urban and rural settings. A larger, more robust sample size would provide a more representative sample of the general population and may lead to more significant findings. In addition, it would be important to include a greater number of students of various ethnicities or race, in addition to students of high and low SES, in order to further investigate the differences

between the perception of social. Furthermore, including students of various age groups would also allow for a comparison across developmental stages.

The population within this study only included regular education students. Students with IEPs or GIEPs were excluded from the sample. Four students who completed the CASSS were indicated as having a 504 Plan requiring accommodations in order to meet their needs within the regular education setting. One student was indicated as diagnosed with ADHD, while another student was identified as having Asperger's Disorder. A study conducted by Martinez (2006) investigated social support among students with and without learning disabilities. Interestingly, students identified as having multiple disabilities, including both a reading and math learning disability, reported lower levels of parent, classmate, and friend support. Additional research comparing regular education and special education students' perceptions of social support would add to the current research base. Furthermore, looking at specific diagnoses and perceptions of social support may provide valuable information for school psychologists and teachers.

As discussed as a limitation to the present study, parental involvement may impact a student's perception of social support. The CASSS is an instrument meant to evaluate the student's perceived supportive actions provided by parents, teachers, classmates, close friend, and the school. However, it does not measure actual behaviors conducted by such persons as parents or teachers. A more objective measure would include the use of an involvement scale, which identifies actual supportive behaviors in which the parent engages such as attending parent nights, volunteering within the school, or membership in a parent-teacher organization. Further research comparing student

perception of support with actual support provided by others, such as parents and teachers, through involvement scales may add to the conceptualization of social support.

The present study did not result in significant differences between male and female CASSS ratings. Further analysis of male and female frequency and importance ratings is needed. In addition, further investigation into the types of support and sources of support would be beneficial. Clayton (2009) determined that females perceived the emotional type of support to be a factor in success; whereas, males perceived behavioral support to be a factor in school success. A study conducted by Demaray and Malecki (2003a), also indicated that emotional support was the most important type of support from parents; however, informational support was the most important form of support from teachers. Moreover, the type of support perceived from teachers that was most related to students' academic competence and social skills was emotional support.

Conclusion

The present study did not support prior research indicating that female students overall perceive greater levels of support in comparison to male students. However, the research findings did support the hypothesis that no significant differences exist between male and female perception of support from teachers and parents. Due to small sample size, statistical analyses could not be completed in order to determine whether differences existed in the perception of social support for ethnicity and SES. Additional research is necessary in order to further differentiate whether differences exist.

When investigating the relationship between perceived social support and academic achievement, general findings did not result in significant correlations. However, teacher importance accounted for the greatest amount of variance in GPA

(18%) for high SES students. When lower levels of classmate importance were added, the variance increased to 21%. Therefore, high SES students reporting low levels of classmate importance and high levels of teacher importance achieve higher GPAs. Alternatively, parent frequency accounted for a similar level of variance in reading PSSA scores (17.6%) for low SES students.

The current research findings did not result in a significant relationship between perceived social support and academic outcomes. Reuger et al., (2010) determined that longitudinal parental support predicted higher student GPAs. As a result, it would be valuable to replicate the study over a period of time. In addition, investigating parental involvement versus perceived social support and correlation with GPA may result in a different conclusion.

Summary

The present study utilized the CASSS in order to explore differences between sex, ethnicity, or SES and perceived social support as provided by teachers, parents, classmates, close friends, and the school. Although sex differences in perceived social support have been documented, there is minimal research in regard to differences in ethnicity or SES. The present study did not result in a significant difference between male and female perceptions of social support. In addition, statistical analyses could not be conducted in order to determine whether differences existed between White and minority students, and students from low versus high SES backgrounds due to small sample size.

The relationship between perceived social support and academic outcomes as measured by GPA and PSSA scores was also investigated as a means to further identify

the most important source of support when accounting for academic success. Pearson Product-Moment correlations did not reveal any significant correlation between perceived social support and PSSA scores. Although significant, the correlation between teacher perceived social support and GPA was small. Stepwise regression analyses results indicated a low, but statistically significant relationship between teacher importance and GPA for male students and White students separately. Teacher importance also accounted for 18% of the variance in high SES students' GPAs; however, an inverse relationship was revealed when classmate importance was added to the model at step 2, increasing the variance to 21%. An additional notable finding was that parent frequency ratings accounted for 18% of the variance in low SES students' reading PSSA scores. Finally, correlations between importance and frequency ratings of the CASSS were completed and analyzed. Moderate correlations were indicated between Total Frequency and Total Importance ratings supporting the initial hypothesis ($r = .50$, $p < .05$).

Several limitations were noted including the use of a convenience sample and impact upon generalizability of results. The sample size for both students of various ethnic backgrounds and low SES was too small in order to conduct the correct statistical analyses. Also, prior studies often included frequency ratings ignoring the importance scale; whereas, the present study included the importance ratings in the analysis further impacting study results. Finally, in addition to possible response bias, issues with parental involvement were discussed.

Future research was recommended with the inclusion of a larger, more diverse sample. In addition, further investigation into the differences between frequency and

importance ratings is imperative. Studies focusing on the perception of social support from special education populations versus regular education students would add to the current research and provide essential information for school psychologists, teachers, and parents. The need for additional investigation into the correlation between parental involvement and perceived social support was identified. Finally, a closer examination of the types of support provided by each resource and impact on academic outcomes would be beneficial.

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Appendix A

Child and Adolescent Social Support Scale

CHILD AND ADOLESCENT SOCIAL SUPPORT SCALE - CASSS

Grades 3 – 12

Christine Kerres Malecki, Michelle Kilpatrick Demaray, and Stephen N. Elliott

NAME: _____ AGE: _____ GRADE: _____

TEACHER: _____ SCHOOL: _____

MALE or FEMALE (circle one) DATE: _____

RACE (circle one)

1 – African American
2 – Asian American
3 – White
4 – Hispanic American
5 – Native American
6 – Other

On the next three pages, you will be asked to respond to sentences about some form of support or help that you might get from either a parent, a teacher, a classmate, a close friend, or people in your school. Read each sentence carefully and respond to them honestly. There are no right or wrong answers.

For each sentence you are asked to provide two responses. First, rate how often you receive the support described and then rate how important the support is to you. Below is an example. Please read it carefully before starting your own ratings.

	HOW OFTEN?						IMPORTANT?		
	NEVER	ALMOST NEVER	SOME OF THE TIME	MOST OF THE TIME	ALMOST ALWAYS	ALWAYS	NOT IMPORTANT	IMPORTANT	VERY IMPORTANT
1. My teacher(s) helps me solve problems.	1	2	(3)	4	5	6	1	(2)	3

In this example, the student describes her 'teacher helps me solve problems' as something that happens 'some of the time' and that is 'important' to her.

Please ask for help if you have a question or don't understand something. Do not skip any sentences. Please turn to the next page and answer the questions. Thank you!

My Parent(s)...

E	I	A	I	My Parent(s)...	How Often? Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Important? Not Important	Important	Very Important
				1. ...show they are proud of me.	1	2	3	4	5	6	1	2	3
				2. ...understand me.	1	2	3	4	5	6	1	2	3
				3. ...listen to me when I need to talk.	1	2	3	4	5	6	1	2	3
				4. ...make suggestions when I don't know what to do.	1	2	3	4	5	6	1	2	3
				5. ...give me good advice.	1	2	3	4	5	6	1	2	3
				6. ...help me solve problems by giving me information.	1	2	3	4	5	6	1	2	3
				7. ...tell me I did a good job when I do something well.	1	2	3	4	5	6	1	2	3
				8. ...nicely tell me when I make mistakes.	1	2	3	4	5	6	1	2	3
				9. ...reward me when I've done something well.	1	2	3	4	5	6	1	2	3
				10. ...help me practice my activities.	1	2	3	4	5	6	1	2	3
				11. ...take time to help me decide things.	1	2	3	4	5	6	1	2	3
				12. ...get me many of the things I need.	1	2	3	4	5	6	1	2	3

My Teacher(s)...

E	I	A	I	My Teacher(s)...	How Often? Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Important? Not Important	Important	Very Important
				13. ...cares about me.	1	2	3	4	5	6	1	2	3
				14. ...treats me fairly.	1	2	3	4	5	6	1	2	3
				15. ...makes it okay to ask questions.	1	2	3	4	5	6	1	2	3
				16. ...explains things that I don't understand.	1	2	3	4	5	6	1	2	3
				17. ...shows me how to do things.	1	2	3	4	5	6	1	2	3
				18. ...helps me solve problems by giving me information.	1	2	3	4	5	6	1	2	3
				19. ...tells me I did a good job when I've done something well.	1	2	3	4	5	6	1	2	3
				20. ...nicely tells me when I make mistakes.	1	2	3	4	5	6	1	2	3
				21. ...tells me how well I do on tasks.	1	2	3	4	5	6	1	2	3
				22. ...makes sure I have what I need for school.	1	2	3	4	5	6	1	2	3
				23. ...takes time to help me learn to do something well.	1	2	3	4	5	6	1	2	3
				24. ...spends time with me when I need help.	1	2	3	4	5	6	1	2	3

My Classmates

E	I	A	I	My Classmates...	How Often? Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Important? Not Important	Important	Very Important
				25. ...treat me nicely.	1	2	3	4	5	6	1	2	3
				26. ...like most of my ideas and opinions.	1	2	3	4	5	6	1	2	3
				27. ...pay attention to me.	1	2	3	4	5	6	1	2	3
				28. ...give me ideas when I don't know what to do.	1	2	3	4	5	6	1	2	3
				29. ...give me information so I can learn new things.	1	2	3	4	5	6	1	2	3
				30. ...give me good advice.	1	2	3	4	5	6	1	2	3
				31. ...tell me I did a good job when I've done something well.	1	2	3	4	5	6	1	2	3
				32. ...nicely tell me when I make mistakes.	1	2	3	4	5	6	1	2	3
				33. ...notice when I have worked hard.	1	2	3	4	5	6	1	2	3
				34. ...ask me to join activities.	1	2	3	4	5	6	1	2	3
				35. ...spend time doing things with me.	1	2	3	4	5	6	1	2	3
				36. ...help me with projects in class.	1	2	3	4	5	6	1	2	3

My Close Friend

E	I	A	I	My Close Friend...	How Often? Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Important? Not Important	Important	Very Important
				37. ...understands my feelings.	1	2	3	4	5	6	1	2	3
				38. ... sticks up for me if others are treating me badly.	1	2	3	4	5	6	1	2	3
				39. ... helps me when I'm lonely.	1	2	3	4	5	6	1	2	3
				40. ...gives me ideas when I don't know what to do.	1	2	3	4	5	6	1	2	3
				41. ...gives me good advice.	1	2	3	4	5	6	1	2	3
				42. ...explains things that I don't understand.	1	2	3	4	5	6	1	2	3
				43. ...tells me he or she likes what I do.	1	2	3	4	5	6	1	2	3
				44. ...nicely tells me when I make mistakes.	1	2	3	4	5	6	1	2	3
				45. ...nicely tells me the truth about how I do on things.	1	2	3	4	5	6	1	2	3
				46. ...helps me when I need it.	1	2	3	4	5	6	1	2	3
				47. ...shares his or her things with me.	1	2	3	4	5	6	1	2	3
				48. ...takes time to help me solve my problems.	1	2	3	4	5	6	1	2	3

People In My School

E	I	A	I	People in My School...	How Often? Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Important? Not Important	Important	Very Important
				49. ...care about me.	1	2	3	4	5	6	1	2	3
				50. ...understand me.	1	2	3	4	5	6	1	2	3
				51. ...listen to me when I need to talk	1	2	3	4	5	6	1	2	3
				52. ...give me good advice	1	2	3	4	5	6	1	2	3
				53. ...help me solve my problems by giving me information.	1	2	3	4	5	6	1	2	3
				54. ...explain things that I don't understand.	1	2	3	4	5	6	1	2	3
				55. ...tell me how well I do on tasks.	1	2	3	4	5	6	1	2	3
				56. ...tell me I did a good job when I've done something well.	1	2	3	4	5	6	1	2	3
				57. ...nicely tell me when I make mistakes.	1	2	3	4	5	6	1	2	3
				58. ...take time to help me decide things.	1	2	3	4	5	6	1	2	3
				59. ...spend time with me when I need help.	1	2	3	4	5	6	1	2	3
				60. ...make sure I have the things I need for school.	1	2	3	4	5	6	1	2	3

Appendix B

District Approval Letter

Dallastown Area School District

700 New School Lane
Dallastown, Pennsylvania 17313-9242
(717) 244-4021 Telephone
(866) 337-8119 Facsimile
www.dallastown.net

Joshua A. Doll, Ed.D., Assistant Superintendent

November 25, 2013

Dear Heather L. Bravener and Indiana University of Pennsylvania:

It is the intent of the Dallastown Area School District (DASD) to support the proposed research efforts of Heather L. Bravener, Doctoral Student of Educational and School Psychology at the Indiana University of Pennsylvania (IUP). *With approval from IUP's Institutional Review Board, Mrs. Bravener will be permitted to conduct her study as described in the Human Subjects Review Protocol.* Specifically, Mrs. Bravener will be permitted to do the following:

Mrs. Bravener will meet with 4th grade level teachers in order to provide written instructions on distributing and collecting Informed Consent Forms. She will distribute Informed Consent forms to 4th grade teachers, which will be sent home with students in their backpack. Parents will be given 7 days to complete and return the permission forms. A second Informed Consent Form will be sent home with all students in order to provide parents an additional opportunity to give consent. Parents again will be given 7 days to sign and return the Informed Consent Form. Once the permissions are returned, Mrs. Bravener will then schedule with each 4th grade teacher a date in order to distribute the Child Assent forms, CASSS, and Word Find to students. The Child Assent forms, CASSS, and Word Finds will be completed during the non-academic time of homeroom. The Child Assent forms will be distributed only to those students who have returned the Informed Consent Form signed by a parent. Once the child signs the Child Assent form, Mrs. Bravener will provide the student with the CASSS. Those students who have not returned the Informed Consent Form or who have chosen not to sign the Child Assent form will complete a Word Find.

Mrs. Bravener will also gather demographic information of student participants to include sex, ethnicity, and eligibility for Free and Reduced Lunch program from the district network system. She is also permitted to obtain student PSSA results for the areas of reading and mathematics, and student grades.

There are minimal risks for students in completing the CASSS. The CASSS requires the student to respond to the importance and amount of support provided by parent, teacher, classmate, friend, and school. A student will only participate with parent permission and after signing the Child Assent form. In addition, only the principal investigator will have access to the student information, CASSS forms, and PSSA scores. All information will be kept confidential and saved on a password protected computer.

Dr. Joshua Doll — Assistant Superintendent

Mrs. Paula March — Intermediate School Principal

Appendix C

Teacher Instructions for Disseminating and Collecting Informed Consent Form

Thank you for taking the time to disseminate and collect the necessary paperwork for my dissertation study. The following study will provide information as to students' perception of support provided by teachers, parents, peers, friends, and the school and possible impact on academic achievement as measured by PSSA scores and GPA. All forms will be provided to you by Mrs. Heather Bravener, principal investigator. Please contact Mrs. Bravener should you have any additional questions or concerns.

- Distribute the Informed Consent Form to each student listed to be sent home in the student's backpack. The Informed Consent Form should be returned by parent within the next 7 days. Please forward Informed Consent Forms to Mrs. Bravener in a sealed envelope.
- Mrs. Bravener will then provide additional Informed Consent Forms and Follow-Up letter to be sent home with all students listed in backpacks.
- Allow 7 more days for parents to return the Informed Consent Forms. Please forward all Informed Consent Forms and class roster to Mrs. Bravener in a sealed envelope.
- Mrs. Bravener will then schedule with each 4th grade teacher a date in order for her to disseminate and collect the CASSS, Child Assent, and Word Finds.

Thank you again for your assistance in this project.

Sincerely,

Mrs. Heather Bravener
Principal Investigator
Doctoral Candidate, Indiana University of Pennsylvania
Email: h.l.bravener@iup.edu
Phone number: 244-4021 ext. 2534

Appendix D

[IUP Letterhead]

Informed Consent Form
"Perceived Social Support and Academic Outcomes"

My name is Heather Bravener, and I am a doctoral student in the School Psychology program at Indiana University of Pennsylvania (IUP). As part of my research for my doctoral dissertation, your child is invited to participate in this research study. The study has been approved by the school district's office of the Superintendent. The following information is provided in order to help you decide whether to allow your child to participate. In addition, participation is voluntary. If you choose to allow your child to participate, you may withdraw this consent at any time by notifying the Project Director via email or phone contact. There will be no penalty or loss of benefit should you choose not to permit your child to participate or should you withdraw your consent at a later time.

The purpose of this study is to examine whether a relationship exists between how a child views support from parents, teachers, close friends, classmates, and school, and math and reading skills. Demographic information, in addition to math and reading scores on the Pennsylvania System of School Assessment (PSSA) and GPA, will be obtained by the Project Director and kept confidential on a password protected computer. Students also will complete a 60-item questionnaire indicating (1) how often they receive the support described and (2) how important the support is to them. The questionnaire will be completed during non-academic time. All 4th grade regular education students will have the opportunity to participate in this study. Participation is voluntary, and your child may decide not to participate or complete the questionnaire at any time without consequence.

Examples of the statements on the questionnaire include:
My Parent(s)… show they are proud of me.
My Teacher(s)… treats me fairly.
My Classmates … pay attention to me.
My Close Friend … gives me good advice.
People In My School … tell me how well I do on tasks.

There is minimum to no risk involved in completing this survey. If for some reason your child would become visibly upset, guidance services are available. The following are the community counselors available to provide assistance at 244-4021: Mrs. Gina Dougherty- Red Community ext. 1374, Mrs. Cori Fetrow- Blue Community ext. 1574, and Miss. Marjie Whye- Yellow Community ext. 1174. Additional assistance can also be provided by the Intermediate School School Psychologist- Mrs. Christina Bertok ext. 1353. In addition, parents are encouraged to contact the Project Director with any additional questions.

Project Director: Mrs. Heather Bravener
Doctoral Candidate, Indiana University of Pennsylvania
700 New School Lane
Dallastown, PA 17313
Email: h.l.bravener@iup.edu
Phone: 717-244-4021 ext. 2534

Faculty Supervisor: Dr. Lynanne Black
Associate Professor, Doctoral Chairperson
Educational and School Psychology
246 Stouffer Hall
Indiana, PA 15705
Email: lblack@iup.edu
Phone: 724-357-4757
This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).

Informed Consent Form
(Please return)

Voluntary Consent Form:

I have read and understand the information on the form, and I consent to allow my child to participate in this study. I understand that my child's responses will be kept completely confidential, and I have the right to withdraw consent at any time by notifying the Project Director via email or phone contact. I have received an unsigned copy of this Informed Consent Form to keep in my possession.

Child's Name:

Parent/Guardian Name (PLEASE PRINT):

Signature:

Date:

Appendix E

(IUP Letterhead)

Follow-Up Letter
Informed Consent Form

Dear Parent(s):

Approximately one week ago an Informed Consent Form was sent home to you in your child's backpack. For those of you who have returned this form, thank you. Please disregard this letter.

For those students who have not retuned the Consent Form, a second form is being sent in order to provide you with an additional opportunity to allow your child to participate. The Informed Consent Form permits your child to participate in a study conducted by Mrs. Heather Bravener, doctoral student in School Psychology at Indiana University of Pennsylvania. The study is entitled "Perceived Social Support and Academic Outcomes." Attached is an additional Informed Consent Form describing the purpose of the study. Again, participation in the study is voluntary, and your child has the right to withdraw at any time without consequence. All information will be kept confidential. Please feel free to contact the Project Director, Mrs. Heather Bravener, should you have any additional questions.

Sincerely,

Heather L. Bravener
Doctoral Candidate, Indiana University of Pennsylvania
700 New School Lane
Dallastown, PA 17313
Email: h.l.bravener@iup.edu
Phone: 717-244-4021 ext. 2534

Appendix F

(IUP Letterhead)

Child's Assent Form

My name is Mrs. Heather Bravener. I am a Doctoral student at Indiana University of Pennsylvania. I am also a School Psychologist at the Middle School. I am going to school to get my Doctorate degree in School Psychology. I would like for you to help me with my study. I am going to tell you about the study, so that you can decide if you would like to participate. If you have any questions about the study, please raise your hand and I will answer your question. All 4th grade students are being asked if they would like to participate.

I would like to know how much support you feel that you get from your parents (guardians), teachers, classmates, friends, and the school. I would also like to know how important this support is to you. You will be asked to complete a questionnaire that includes 60 statements. You will circle a "1" for never to a "6" for always to show how often you get support and then a "1," "2," or "3" to show how important this support is to you.

Some of the questions are:
My Parent(s)… show they are proud of me.
My Teacher(s)… treats me fairly.
My Classmates … pay attention to me.
My Close Friend … gives me good advice.
People In My School … tell me how well I do on tasks.

You will not be tricked in any way and if you have any questions, please feel free to ask me. The questionnaire will take about 25 minutes during homeroom time. Only I will see your answers and I will keep it private. I will also obtain additional information from the school such as your grades and PSSA scores. I will discuss what I have learned from this study with my teacher and I will write a report about it; however, I will never use your name or specific information about you.

Your parent(s) know about this and agree that it is okay for you to help me if you want to. Even if your parent(s) has given permission, you can say no at this time. If you would like to participate, please sign the bottom of this page. There will be no consequences if you choose not to complete the questionnaire. If you choose to complete the questionnaire now and later decide that you do not want to participate, you or your parent/guardian can email me, and I will destroy your questionnaire. If for some reason a question upsets you and you would like to talk to someone, I can contact the guidance counselor for you.

I hope that you chose to help me with my study. Your answers could help provide our school with important information on how we can better support our students.

If you chose to participate, please print your name at the bottom of this page and I will collect it. Thank you so much for your help with this study.

Project Director: Mrs. Heather Bravener
Doctoral Candidate, Indiana University of Pennsylvania
700 New School Lane
Dallastown, PA 17313
Email: h.l.bravener@iup.edu
Phone: 717-244-4021 ext. 2534

Faculty Sponsor: Dr. Lynanne Black
Associate Professor, Doctoral Chairperson
Educational and School Psychology
246 Stouffer Hall
Indiana, PA 15705
Email: lblack@iup.edu
Phone: 724-357-4757

NAME: _____

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).