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To the Graduate Council:

I am submitting herewith a dissertation written by Christi LaNet Culpepper entitled "The Effects of Social Support on At-Risk Youth." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Deborah P. Welsh, Major Professor

We have read this dissertation and recommend its acceptance:

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The Effects of Social Support on At-Risk Youth

A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Christi LaNet Culpepper
August 2014

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Dedication

iii

I dedicate this work to my three angels, who gave me all they had and ensured that I understood the value of giving back, building bridges, and helping others; the ones who taught me the power of love and the importance of support. To the three people who told me I could realize all my dreams and gave me the tools I needed to achieve every goal... until we meet again

Acknowledgements

iv

First, I would like to thank my Lord and Savior, Jesus Christ for making all things possible. A very sincere thanks to my dissertation chair and faculty mentor, Dr. Deborah Welsh, who has provided a wealth of support, knowledge, guidance, and care that allowed me to successfully maneuver through the last four years of my life. Thank you to Dr. Bob Kronick for his expertise on at-risk youth as well as the many opportunities that he provided and professional relationships that he fostered. Thank you to Dr. Jenn Bolden for her willingness to share her expertise on children, her experiences, and her time. Thank you to Dr. Delores Smith for sharing her expertise on adolescents and research design as well as her time.

Many thanks to the mentoring program officials that allowed me to collect data and learn more about their unique impact on the Knoxville community. Special thanks to the youth who took the time to complete the questionnaires and to their parents for allowing me to delve into their lives.

This work could not have been completed without financial support from the University of Tennessee's Psychology Department and the Knoxville Alliance for Doctoral Women.

Thank you to Rachel Holmes, Katie Kivisto, Samantha Gray, Nick Bishop, Terri Preddy, and Jerika Norona for all of the help, support, and good times in the "Development of Adolescent and Young Adults" Lab. Special thanks to all of the research assistants, especially Amber Russell, for all of the hard work.

Endless thanks to my family and friends for all of the love, support, encouragement, and resources provided throughout this process. Finally, a very special thank you to Julius H. Culpepper, III for always having high expectations for me, and to Kevin C. Walker for consistently being present when it mattered most.

Social support is conceptualized as a protective factor that buffers against distress and dysfunction. Social support can be beneficial to all individuals and is usually available through a support system consisting of family and friends. Unfortunately, there are populations that lack effective support systems and consequently do not receive social support. One such population is at-risk youth. In this project, I examined the effects of social support, within the context of participation in youth programs, on the academic, emotional, and behavioral functioning of at-risk youth. Twenty-three adolescents participating in three youth programs were assessed at three time points: the beginning of the youth program (Time 1), four months into the program (Time 2), and at the end of the program (Time 3). Results showed that overall social support increased across the program year. Social support was also found to have a significant relationship with reported self esteem, academic performance, and behavioral dysfunction. These findings can have important implications for mentoring program development.

Table of Contents

vi

Chapter 1 Introduction	1
Theoretical Perspective.....	1
Social Support.....	2
Mentoring.....	4
Adolescence.....	7
At-Risk Youth.....	8
Environmental Risk Factors.....	8
Individual Risk Factors.....	10
Ecological Explanation.....	11
Research Questions.....	12
Chapter 2 Methods	13
Youth Programs.....	13
National Service Sorority Mentoring Program.....	13
Community Schools Program.....	15
Community Male Youth Program.....	17
Procedure.....	18
Measures.....	20
Demographic Information Form.....	20
Multidimensional Scale of Perceived Social Support.....	20
Center for Epidemiologic Studies Depression Scale.....	21
Strengths and Difficulties Questionnaire.....	22
Rosenberg Self Esteem Scale.....	23
Attrition.....	24
Chapter 3 Results	26
Research Question #1.....	27
Research Question #2.....	28
Research Question #3.....	30
Chapter 4 Conclusions	33
Discussion.....	33
Limitations.....	36
Contributions.....	38
Future Direction.....	38
References	40
Appendices	49
Figure 1. Demographic Questionnaire Form.....	50
Figure 2. Multidimensional Scale of Perceived Social Support.....	55
Figure 3. Center for Epidemiologic Studies Depression Scale- Child Version.....	56
Figure 4. Strength and Difficulties Questionnaire.....	57
Figure 5. Rosenberg Self Esteem Scale.....	58
Figure 6. Perceived Social Support Scores (Means).....	59
Table 1. Attrition Group vs. Non-Attrition Group.....	60
Table 2. Attrition Group Demographic Information.....	61
Table 3. Participant Demographic Information.....	62
Table 4. Participant Ethnicity Information.....	63
Vita	64

Chapter I - Introduction

Social support is conceptualized as a protective factor that buffers against distress and dysfunction (Richman, Rosenfeld, & Bowen, 1998). Social support can be beneficial to all individuals and is usually available through a support system consisting of family and friends (Letourneau, Stewart, & Barnfather, 2004). Unfortunately, there are populations that lack effective support systems and consequently do not receive social support. One such population is at-risk youth. At-risk youth can be plagued by academic difficulties, emotional distress, and behavioral issues that are exacerbated by personal and environmental hardships. Social support is not usually available for at-risk youth (Dumont & Provost, 1999), which can also contribute to the myriad of problems (Furstenberg & Hughes, 1995). In this project, I examined the effects of social support, as measured by participation in youth programs, on the academic, emotional, and behavioral functioning of at-risk youth.

Theoretical Perspective

Urie Bronfenbrenner (1979) developed an ecological perspective to describe human development. Bronfenbrenner posited that the relationship between individuals and their environment facilitate development. This model consists of five nested systems of interaction: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The microsystem consists of the child's immediate relationships and environment. The mesosystem consists of interconnections between the microsystems. The exosystem is made up of the institutions of society that indirectly affect the child's development. The macrosystem is seen as the cultural context in which development occurs and the chronosystem is the interaction between the other four systems across time. While all of the systems discussed have an impact on development,

when considering the impact of protective factors in the development of children, it is important to closely examine microsystem and the mesosystem.

The microsystem includes any direct relationships and organizations that the child interacts with, such as family, teachers, and mentors. Bronfenbrenner believed that the more encouraging and nurturing these relationships and environments are, the healthier their development will be (Oswalt, 2008). The mesosystem examines the relationship between the different facets of the child's microsystem. For example, if the child's parents have healthy relationships with the child's school officials, healthy development will be facilitated in all facets of the environment. For the purpose of this study, the presence or absence of social support in the microsystem and mesosystem will be assessed.

Social Support

Social support can be defined as a multidimensional concept that takes into account resources (emotional, informative, and instrumental) as well as the source of the resources (friends, family, teachers, mentors, etc.). House (1981) created a broad definition of social support that included four types of supportive behaviors/acts: emotional, instrumental, informational, and appraisal. Emotional support includes empathy, caring, love, trust, concern, and the act of listening. Instrumental support includes the act of providing aid of any kind (time, money, direct help, labor, etc.). Informational support includes providing advice, directives, suggestions, or help with personal issues. Appraisal support includes providing encouragement, affirmation, feedback, and help with self-evaluation. All of these supportive behaviors/acts are intended to be beneficial to the recipient. In the current study, social support is defined and measured as supportive behaviors/acts that are provided through structured youth programs.

Research on the effects of social support has focused on two roles of social support: a direct role and a protective, preventative role. Social support has been found to have a direct role in promoting recovery from stress and crisis experiences as well as a protective, and somewhat preventative, role as a buffer against the effects of stress (House, 1981; McCubbin et al., 1980). Social support has been shown to have numerous positive influences as a direct effect on the healthy adjustment and growth of individuals as well as a buffer against the effects of stressful life events (Bell, Leroy, & Stephenson, 1982).

Social support has been considered a protective factor in terms of development and adaptation of children and youth (Dubois, Felner, Brand, Adan, & Evans, 1992). There are numerous benefits for youth to having a strong social support network. Research suggests that social support has been useful when working to alleviate adolescent depression (Barrera & Garrison-Jones, 1992), improving academic and behavioral adjustment (Dubow, Tisak, Causey, Hryshko, & Reid, 1991), as well as aiding children and youth that have been labeled at-risk (Dumont & Provost, 1999). It is also believed that the effects of stress are not as impactful for individuals who possess protective resources, such as social support, when compared to those who do not possess protective resources (Dumont & Provost, 1999).

Social support may come from a number of sources including family, friends, teachers, and organized programs. The first form of social support that a child usually encounters comes from a primary caregiver. As a child grows older, social support is also derived from friends. The benefits of social support have been a popular research focus. Family support has been shown to reduce stress and buffer against depression (Letourneau, Stewart, & Barnfather, 2004; Davis, Rhodes, and Hamilton-Leaks, 1997). Social support from friends has been shown to help youth

with identity formation and adjustments to their academic environment. Unfortunately, social support seems to be less available for at-risk children and youth (Richman, Bowen, & Woolley, 1997). In an attempt to provide social support as a preventative and protective measure, youth mentoring programs have been created.

Mentoring

Mentoring is a popular method used to provide social support. Mentoring can be defined as a "sustained relationship between a young person and an adult" (Jekielek, Moore, Hair, & Scarupa, 2002). The adult is thought to provide support, assistance, and guidance to the youth. This support can include time, advice, financial assistance, appropriate modeling, and/or instruction.

While it is believed that mentoring occurs naturally in most environments, structured mentoring has been created, in part, in order to provide support to children who lack these positive relationships with adults (Dubois, Holloway, Valentine, & Cooper, 2002). Mentoring programs have become prevalent; in 2002, an estimated five million American youth were involved in school-based and community-based mentoring programs through the United States (Jekielek et al., 2002). In 2011, Dubois, Portillo, Rhodes, Silverthorn, and Valentine reported that there were more than 5,000 different mentoring programs in existence.

Mentoring programs have been created to facilitate the development of youth and have been found particularly beneficial to the development of at-risk youth (Jekielek et al., 2002). The benefits of mentoring programs have been found in numerous studies. Mentors are thought to promote positive developmental outcomes through modeling and appropriate relationship skills (Grossman & Rhodes, 2002). Mentors can also model appropriate coping strategies and

skills to effectively deal with stressors and conflict. Research on mentoring programs posits that supportive relationships with non-parental adults are correlated with positive social and emotional outcomes for youth (Scales & Leffert, 1999). There is also evidence that mentoring programs can create connections that promote better behavioral and academic functioning for youth (Rhodes, 2002). Consequently, mentoring can serve as a protective factor against many of the negative outcomes that befall at-risk youth.

Mentoring programs have been known to help mentees feel supported and encouraged and as well as promote positive social attitudes and relationships (Jekielek et al., 2002; Spencer, 2007). Mentoring programs have also been found to also yield academic improvements. A Meta analysis conducted by Jekielek et al. (2002) found that youth participating in mentoring programs reported higher attendance rates, more positive attitudes towards school, and an increased chance of attending higher education than youth that did not participate in mentoring programs. Mentoring has also been shown to have a positive effect on a child's behavior. Jekielek et al. (2002) found that four mentoring programs that assessed behaviors related to delinquency showed a reduction in the negative behaviors. Benefits of mentoring programs have been found for mentors as well. These mentoring relationships have been found to give mentors personal satisfaction because they know that they are helping others (Spencer, 2007).

Research also shows that if mentoring programs are not carried out correctly, they can be damaging to youth (Grossman & Rhodes, 2002). Research has found that one of the most important factors in the success of mentoring programs is the consistency and longevity of the relationship between mentors and mentees. If relationships are terminated prematurely, there can be emotional repercussions for the adolescent. Wallerstein (1988) found this particularly true for

youth that would be deemed "at-risk." Wallerstein stated that youth from single-parent homes may have already experienced loss of contact with a nonresidential parent, and thus may be more sensitive to termination of the mentoring relationship. Some of these youth might also feel responsible for the termination of the relationship, thus providing emotional distress.

Inappropriate or abrupt termination of the mentoring relationship can also have negative effects on the mentor. Mentors can also have negative experiences, specifically they can feel unappreciated, overwhelmed, and burned out (Styles & Morrow, 1992). This is directly counter to the purpose of mentoring programs.

When assessing mentoring programs, it is important to try and understand the underlying mechanisms that make these programs effective. Researchers have found that the benefits (or effectiveness) of mentoring programs tend to increase when the quality of the relationship is perceived to be higher and a variety of support is provided (Jekielek et al., 2002; Spencer, 2007). Jekielek et al. (2002) found that when the youth had consistent contact with their mentor and deemed the relationship as extremely positive, they reported higher grades and were more likely to attend college. Research has also shown that mentoring programs are more successful when they are based on the needs and interests of the youth. This mechanism seems to encourage the mentee's commitment to the program as well as attendance. The effectiveness of mentoring programs also improve when the youth involved in the program have some type of environmental risk factor (e.g., low socioeconomic status) rather than an individual risk factor (i.e. academic difficulties). Jekielek et al. (2002) also found that mentoring programs are more effective for youth that have been deemed overall at-risk as oppose to youth that are not at-risk. Specifically, researchers found that youth involved in mentoring programs that were already

excelling academically did not improve, but instead remained on a plateau. One of the most consistent mechanisms across the literature is the duration of the mentoring relationship. Research has shown that benefits of mentoring are more effective when the duration of the mentoring relationship is longer. Youth involved in mentoring relationships for more than one year reported more confidence, better attendance, and higher grades than youth in mentoring relationships shorter than one year.

Mentoring programs also seem to be more effective for younger adolescents. This can be explained when considering the developmental perspective. As adolescents get older, they begin to seek independence from adults in an attempt to establish their identity. This could make it difficult to establish a strong relationship with an adult mentor.

Adolescence

It is important to examine the benefits of mentoring during different developmental periods. For the purpose of this paper, I am examining the benefits of mentoring during adolescence. Adolescence is the transitory period between childhood and adulthood, and used to describe youth between the ages of 10-21. Adolescence is characterized by biological, cognitive, social, and psychological development. Adolescence is a period in which there is a tremendous amount of growth and change in individuals (Gray et al., 2011).

While adolescence is a period of transition for all youth, some youth have a more challenging time than others. Adverse environmental factors such as dysfunctional family systems, poverty, racist communities, dangerous neighborhoods, and poor school systems are associated with poorer developmental processes (McLoyd, 1998). Additionally, individual characteristics of certain youth such as poor mental and physical health, low self-esteem, poor

impulse control, and other behavioral problems have also been associated with poor developmental outcomes in youth (Campbell & Ramey, 1995). Youth in adverse environments or with deficits in individual characteristics are at risk for developmental problems (Evans, 2004).

At-Risk Youth

At-risk can be defined as vulnerable or statistically more likely to fail and can be contributed to a number of circumstances ("At-Risk Youth"). Youth can be deemed at-risk for a number of circumstances including poverty, juvenile delinquency, neighborhood violence, and school dropout. For the purposes of this study, at-risk youth are defined and measured as students experiencing academic dysfunction, emotional dysfunction, and/or behavioral dysfunction. These students may also experience one or more of the environmental and individual factors described below.

Environmental risk factors.

The transition from childhood to adolescence can be stressful and this stress can be compounded by environmental and individual risk factors. There has been a wealth of literature that posits a significant relationship between socioeconomic status and functioning in adult and child populations. For children and adolescents, socioeconomic status is known to play a role in development, nutrition, long-term health status, academic performance, educational attainment, and mental health (Cohen, Janicki-Deverts, Chen, and Matthews, 2010). Socioeconomic status can be conceptualized as "the social standing or class of an individual or group; it is often measured as a combination of education, income and occupation" ("Socioeconomic Status"). Examinations of socioeconomic status are important because they often reveal inequities in

access to resources, as well as issues related to privilege, power and control. McLaughlin, Costello, Leblanc, Sampson, and Kessler (2012) examined the association between various aspects of socioeconomic status and mental health disorder. The researchers found that parental educational attainment was associated with adolescent risk for anxiety disorders and interestingly, the adolescents' perceived social status was associated with mood, anxiety, substance, and behavioral disorders.

Low socioeconomic status has been linked with poor academic performance, adjustment difficulties, and behavioral difficulties (Evans, 2004). It has been widely accepted that lower socioeconomic status has a damaging effect on the well-being of children and adolescents (Mendelson, Kubzansky, Datta, & Buka, 2008). There is also a well-established relationship between low socioeconomic status, behavioral dysfunction (internalizing and externalizing), and development (cognitive and language) (Keating & Hertzman, 1999; Willms, 2002).

One of the side effects of low socioeconomic status is living in areas overrun with poverty and crime. Youth that reside in inner cities are considered at-risk due to the violence and poverty witnessed in some inner city areas. Bowen, Desimone, & McKay (1995) believe that poverty can have one of the most harmful effects due to its association with a myriad of other issues, including academic failure, dysfunctional home life, unemployment, and crime. Adolescents that live in areas with violence, crime and a constant sense of fear have been found to experience psychological distress, participation in crime, academic struggles, incarceration, as well as physical harm (DuRant, Getts, Cadenhead, Emans, and Woods, 1995). Leventhal and Brooks-Gunn (2000) conducted a Meta analysis and found several studies that identified links between neighborhood SES and educational attainment. Several studies have also found that the

levels of female family-headship and female employment are also associated with educational attainment. Low SES neighborhoods have also been linked to poor mental health, specifically for externalizing (acting out and aggressive) behaviors more so than internalizing behaviors (Leventhal & Brooks-Gunn, 2000).

When assessing at-risk status, it is important to examine the amount of caretakers for youth. As stated earlier, children and adolescents need guidance, protection, and encouragement. When there is only one caretaker in the home, it might be difficult to provide these things. The marital status of the caretakers can indicate the potential number of caretakers in the home and may also help describe the family structure (Manning & Lamb, 2003). Children and adolescents that live in single parent households can be at-risk for behavioral, academic, and emotional dysfunction for a number of reasons. Two parent households are more likely to have better economic situations (which impacts socioeconomic status) than single parent households. This is important because socioeconomic status is related to child outcomes. Also parental monitoring is important in regards to the child's safety as well as behavior. McLanahan (1997) found that lack of supervision by parents is associated with poor academic performance in single parent households. Parental support is another aspect of the family affected by the number of caretakers in the home. Adequate parental support has been found to be positively related to desirable outcomes for children and adolescents (Baumrind, 1991).

Individual risk factors.

There are numerous individual factors that can affect an adolescent's functioning. For the purpose of this study, I will assess self esteem. Self esteem can be conceptualized as an evaluative component of self-process (Smoll, Smith, Barnett, & Everett, 1993). It has been

defined as an individual's overall sense of self-worth or personal value. Although self esteem can correspond to specific areas of experience, most theorists subscribe to a superordinate construct of global self esteem that responds to an individual's generalized sense of self worth (Tafarodi & Milne, 2002). Research has found that global self esteem is correlated with many important developmental outcomes including juvenile delinquency, academic performance, and depression (Rosenberg, Schooler, & Schoenback, 1989).

Ecological Explanation

Although many adolescents consistently experience these risk factors, not all of them experience the negative outcomes associated with these risk factors. Some at-risk youth avoid the violence and crime, present successful academically, and maintain healthy levels of psychological well-being. So, how do we go about explaining the variation between these youth and other at-risk youth who experience negative outcomes?

A key theme in Bronfenbrenner's theory is the relationship between sociocultural risk and protective factors in children's lives. Environmental risk factors, such as low socioeconomic status, neighborhood danger, lack of parental support, coupled with individual risk factors such as low self esteem, threaten the development of children by depriving them of essential experiences, relationships, and opportunities. Protective factors, such as social support, enhance the development of children by providing opportunities, resources, and interaction needed to address the physical and psychological demands from their environment (Bowen and Chapman, 1996).

To summarize, social support can be a protective factor against the effects of stress. Individual and environmental risk factors including low self-esteem, high crime neighborhoods,

and low socioeconomic status can exacerbate the effects of stress. This stress can affect an individual's functioning, including academic performance, emotional distress, and behavior. It is hypothesized that the presence of social support in the form of a structured, youth program will be associated with better adjustment. It is also hypothesized that social support will have a greater impact on the functioning of individuals with more environmental and individual risk factors.

Research Questions

Research questions included:

1. Does perceived social support increase over the course of the year for each mentoring program?
2. Is perceived social support related to overall functioning (emotional functioning, behavioral functioning, and academic performance)?
3. Given there are significant relationships, does self esteem moderate the relationship between perceived social support and outcome measures (emotional functioning, behavioral functioning, and academic performance)?

Chapter II - Methods

Youth participating in this study were recruited from three local youth programs: a mentoring program created by a local chapter of a national service sorority, a local community schools program, and a local community mentoring program.

Youth Programs

National service sorority mentoring program.

The first mentoring group examined was created by a national service sorority that has numerous chapters in each state throughout the United States and abroad. The purpose of this program set forth by the national body was to equip youth with the skills and resources needed to be productive citizens of society. This program sought to help save youth from the "perils of academic failure, low self esteem, and crippled futures." This program also aimed to enrich and enhance the lives of youth that receive its services through exposure to new experiences, modeling of appropriate behaviors, and academic instruction.

The local chapter of this national service sorority recruited program participants from Knoxville and surrounding areas. Recruitment consisted of alerting local schools, churches, and other youth programs through flyers and electronic correspondence about the purpose of the mentoring program and requesting referrals for youth that could benefit from the program. Program participants were referred by teachers, parents, other family members, as well as members of the sorority. The mentoring program consisted of two mentoring groups: an adolescent female group and an adolescent male group. At the time of the assessment, there were 15 adolescent females and 7 adolescent males in the youth program. There were approximately 10 adult mentors that volunteered for both groups.

Both mentoring groups met on the third Sunday of each month, from September until May, between the hours of 2:30 PM and 5:00 PM at a local church. The participating youth were provided with all needed materials (i.e. school supplies, workshop materials, arts and crafts, etc) as well as meals at each meeting. Each mentoring group followed a curriculum that included specific monthly topics approved by the mentors and considered to be age- appropriate for group members. The mentors worked together to conduct each meeting. Each group included academic instruction, character building, and exposure to new experiences. The program also included social skills training and etiquette instruction. Each group was exposed to guest speakers, field trips, and community service projects.

The participant pool for this study included males and females between the ages of 10-17 years old. These participants were predominantly African American youth from Knoxville and surrounding areas. 36.4% of these participants reported that their mothers did not receive a bachelor's degree, 27.2% of these participants reported that their mothers received at least a bachelor's degree, and 36.4% of the participants did not complete this item. 54.5% of the participants reported that they lived in single parent homes (with their mothers) and 63% of the participants did not provide demographic information about their fathers (they either did not complete the item or the reported that they were not aware of their father's educational information). Out of the 36.4% of participants who were able to answer demographic questions about their father, 18.2% reported that their fathers did not receive bachelor's degrees or graduate level degrees. Youth from this mentoring group were 54.5% males (n = 6) and 45.5% females (n = 5). The participants ranged in age from 10 years old to 15 years old (See Table 1). 81.8% of the participants identified themselves as African American (n = 9), while 18.2% of the

participants identified themselves as "Mixed Race"(n = 2). Mixed Race was defined as "African American and Native American" for one participant and "African American and White" for the other participant. 72.7% of these participants reported that they participated in extracurricular activities and 81.8% of these participants reported that they had at least one best friend.

Community schools program.

Participants were also recruited from a community schools program. Community Schools programs have broadened the mission of traditional schools to include meeting the basic needs of students. Specifically, Community Schools are designed to address the unmet academic, economic, social, mental, and physical needs of the children and their families. Community schools programs provide additional academic instruction, exposure to new experiences, as well as economic support for families when needed.

Youth involved in the local community schools program were referred to the program by local elementary school officials. Referrals were completed after students were found to meet specific criteria: academic difficulty, excessive absences, and/or excessive office referrals. This particular community schools program operated at Pond Gap Elementary School. Pond Gap Elementary School is classified as a Title I school. Title I is a federal program that provides funds to schools based on the student enrollment and the percentage of free and reduced lunch students at the school.

The Community School program met each day throughout the school year (August through May) from 3 pm until 7 pm. The Community School students were grouped according to their academic classification. Each "class" followed a specific curriculum appropriate for their academic ability. The program included academic instruction, musical instruction, physical

activity, counseling, and meditation. The program also included character building, exposure to new experiences, and social skills training. Each class included a Community School teacher and at least one "helper." There were also high school students and college students that volunteered as youth helpers/mentors. The youth were also provided with meals each day. The program consisted of program administrators, one music teacher, a speech pathologist, special event instructors (i.e. circus class), an educational psychologist, and a social worker.

At the time of the research study, there were approximately 60 students involved in the Community School program. These students ranged from 5 to 11 years old and were all students at Pond Gap Elementary School. For the purpose of this research study, only males and females between the ages of 10-11 years old were included. This was done in order to have consistency in the age ranges of participants. The potential population for this research study consisted of approximately 20 students involved in the Community Schools program. There were 6 students from the Community Schools program that participated in this research study. Initially, there were approximately 10 families that expressed interest in the research study, but at least 3 of those students were no longer participating in the Community Schools program when data collection began. Despite the recruitment efforts of the Community Schools officials and the research team, the remainder of the families expressed no interest in participating in the study.

Youth that participated in this research study included 33.3% males ($n = 2$) and 66.7% females ($n = 4$). The participants ranged in age from 10 years old to 11 years old. 33.3% of the participants identified themselves as African American ($n = 2$), 33.3% of the participants identified themselves as White Non-Hispanic ($n = 2$), 16.7% of the participants identified themselves as Hispanic ($n = 1$), and 16.7% of the participants identified themselves as "Mixed

Race" (n = 1). Mixed Race was defined as "Native American and White." See Table 1 for other descriptives. 50% of these participants reported that they lived in a single parent home. 66.3% of the participants reported that their mother did not obtain a bachelor's or graduate school degree. Of the 50% of participants that completed demographic information about their fathers, 16.7% reported that their fathers did not obtain a bachelor's degree. 50% of these participants reported that they participate in extracurricular activities and all of the participants reported that they have at least one best-friend.

Community male youth program.

Participants were also recruited from an all-male youth community mentoring program. This program was founded in 2003 with the purpose of "assisting in the holistic development (mind, body, and spirit) of the African-American youth in order to produce responsible adults" ("Üunik Academy"). Recruitment consisted of alerting local schools, churches, and other youth programs through flyers and electronic correspondence about the purpose of the mentoring program and requesting referrals for youth that could benefit from the program. Program participants were referred by teachers, parents, other family members, as well as members of the community. The participating youth were provided with all needed as well as meals at each meeting. The program included social skills training, etiquette instruction, guest speakers, field trips, and community service projects.

The group members engaged in activities geared towards academics, leadership, and life skill enrichment. Their group objectives included: to respect themselves and others, to honor and respect elders, to define personal goals including physical, spiritual and educational development, to become knowledgeable of African and African-American history and culture, to

become responsible for self and be able to control behavior towards others, to understand how to work communally and lead when needed, and to understand basic money management.

This program met twice each week (every Thursday and Saturday) for 2 ½ hours and 4 hours respectively; every Thursday (5 pm to 7:30pm) and Saturday (9am to 1pm). There were two full time mentors working with this youth program.

In order to be a participant in this mentoring program, youth had to be minority males between the ages of 10-17 years old. At the time of this study, there were 6 youth involved in this program. All of these youth participated in this research study. All of the participants in the research study identified themselves as African American. The current program participants ranged from ages 10-16 years old. 66.7% of the participants reported that they live in a single parent home. Fifty percent of these participants reported that their mothers did not receive a bachelor's degree and 33% of the participants reported that they were not sure about their mother's educational attainment. Out of the 50% of participants that completed demographic information about their fathers, 16.7% reported that their fathers did not receive bachelor's degrees. All of these participants reported that they participate in extracurricular activities and have at least one best-friend. See Tables 1 and 2 for other descriptives.

Procedure

The researcher contacted the administrators of each mentoring program during the Spring Semester, 2012 and obtained permission to assess their mentoring groups for research purposes. After permission was granted, the researcher obtained institutional approval from the University's Institutional Review Board. In August, 2012, the researcher presented the study to

the parents and mentors of the each program. It was highlighted that participation in the study in no way affected participation in the mentoring program.

Parents were given a consent form that explained the project and youth were given an assent form. The researcher highlighted that participation would be voluntary and participants will be allowed to discontinue their participation at any point. Families were also informed that participating in this research study in no way affects the child's ability to participate in their respective mentoring program.

Participants were assessed during three time points. The first assessment (Time 1) was during the first month and a half after the youth programs began (August-September), Time 2 evaluations were conducted after the programs resumed in January, and Time 3 evaluations were conducted at the end of the program year (May).

For each time point, the participants were assessed at their respective program sites. At the Time 1 assessment, participants were given survey packets that included a demographic questionnaire and measures of self esteem (RSES), perceived level of social support (MPSPP), behavior (SDQ), and emotional functioning (CESD). The participants were asked to complete the questions and they were reminded that they could take breaks and did not have to answer any questions that made them uncomfortable. The questionnaires were read to the participant if needed. At Time 2, participants were given survey packets that include measures of self esteem (RSES), perceived level of social support (MPSPP), behavior (SDQ), and emotional functioning (CESD). At Time 3, participants were given survey packets that included demographic forms to obtain updated personal information, as well as measures of self esteem (RSES), perceived level

of social support (MPSPP), behavior (SDQ), and emotional functioning (CESD). At Time 3, participants were also given a form to capture their satisfaction with their respective program.

Measures

The adolescent participants were given a demographic information form, the Multidimensional Scale of Perceived Social Support, Center for Epidemiologic Studies Depression Scale, Strengths and Difficulties Questionnaire, and the Rosenberg Self Esteem Scale at time one. The participants were given the Multidimensional Scale of Perceived Social Support, Center for Epidemiologic Studies Depression Scale, Strengths and Difficulties Questionnaire, and the Rosenberg Self Esteem Scale at times two and three.

Demographic information form.

The Demographic Information form created for this project asked general demographic questions including participants' gender, age, ethnicity, family status, primary caregiver, socioeconomic status (which was measured by parent's level of education), school grade, academic performance (which was measured by reported grades/GPA), and religion. (See Figure 1 for the complete list of questions)

Multidimensional scale of perceived social support.

The Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet and Farley, 1988). The 12-item scale assessed perceived social support along three subscales: social support from family members, social support from friends, and social support from special persons (Zimet, et al., 1988). The subscales were combined for a total score. Participants were asked to indicate how they feel about each item. The items were scored with a Likert scale which ranged from "1" for "very strongly disagree" to "7" for "strongly agree".

Canty-Mitchell and Zimet (2000) assessed the psychometric properties of the MSPSS with 237 adolescent volunteers in a large Midwestern city. They found that assessing support from a significant other is a unique aspect of the MSPSS that makes the scale particularly relevant to adolescents who are establishing their independence and forming bonds with people outside of family members (i.e. romantic relationships, mentoring relationships). The researchers found that the MSPSS is a valid and reliable instrument with excellent internal consistency overall and across race and gender subgroups. The reliability, validity, and factor structure of the scale have also been assessed in a number of populations, including college students, pregnant women, and adolescents in psychiatric hospitals. Reliability of this scale was also assessed in this study. The Cronbach alphas ranged from .89 to .94 for the three time points. Zimet et al. (1988) also found that the Multidimensional Scale of Perceived Social Support showed adequate construct validity. In the current study, internal consistency for Time 1 (T1) data was .89, for time two (T2) data was .86, and for time three (T3) data was .94. (See Figure 2 for the complete questionnaire)

Center for epidemiologic studies depression scale.

The Center for Epidemiologic Studies Depression Scale for Children (CES-DC) is a 20-item self-report instrument designed to measure the amount of depressive symptoms reported by children and youth. This measure was modified from the Center for Epidemiologic Studies Depression Scale (CES-D) in order to enhance comprehension and relevance to a younger audience (Fendrich, Weissman, & Warner, 1990). The questionnaire measured 6 broad symptom areas including depressed mood, guilt/worthlessness, helplessness/hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. For each item, participants indicated the

extent to which they have felt this way in the past week using a scale from 0 (“not at all”) to 3 (“a lot). Total scores ranged from 0 to 60, with higher scores indicating more symptomatology reported. (See Figure 3 for the complete questionnaire)

Fendrich, et al (1990) assessed 220 children, adolescents, and young adults at high or low risk for major depression during a longitudinal study. The researchers found that the CESD-C has good internal consistency ($\alpha = 0.89$) and good convergent validity (significantly correlated with the Child Trait Checklist, the Coopersmith Self-Esteem Inventory, and the Children’s Global Assessment Scale). Reliability of this scale was also assessed in the current study. The Cronbach alphas ranged from .73 to .86 for the three time points. Internal consistency for Time 1 (T1) data was .76, for time two (T2) data was .84, and for time three (T3) data was .75.

Strengths and difficulties questionnaire.

The Strengths and Difficulties Questionnaire (SDQ) is a brief measure of prosocial behavior and psychopathology (Goodman, 1997). The SDQ consists of 25 closed-ended questions that can be completed by parents, teachers, or youth. The items assessed the extent to which mental health difficulties have impacted aspects of the youth’s functioning. This questionnaire gathered information on 5 domains: conduct symptoms, emotional symptoms, hyperactivity, peer relationships, and prosocial behavior. (See Figure 4 for the complete questionnaire)

Research on the psychometric properties of the SDQ has shown that this questionnaire is an effective measure of adjustment and psychopathology in children and youth (Bourdon, Goodman, Rae, Simpson, & Koretz., 2005; Goodman, 2001). Goodman (2001) assessed a

sample of British youth between the ages of 5 and 15 years old. He found that reliability was generally satisfactory, whether judged by internal consistency (mean Cronbach alpha), cross-informant correlation (mean: 0.34), or retest stability after 4 to 6 months (mean: 0.62). Bourdon and colleagues (2005) tested the psychometric properties of the parent version of the SDQ with 10,367 parents of 4 to 17 year olds. Results indicated good internal consistency. Normative scoring bands were similar, but not identical, to the original British bands.

Reliability of this scale was also assessed in the current study. The Cronbach alphas ranged from .50 to .79 for the Emotional Symptoms subscale, .68 to .78 for the Hyperactivity subscale, .47 to .64 for Conduct Symptoms subscale, .50 to .69 for Peer Problems subscale and .57 to .81 for the Prosocial subscale. Internal consistency for the entire scale across time points was .68 (Time 1), .76 (time 2), and .69 (time 3).

Rosenberg self esteem scale.

The Rosenberg Self Esteem Scale (Rosenberg, 1965) is a ten-item self report measure designed to measure global self esteem (overall evaluation of worthiness as a human being). Participants used a 4-point Likert scale to answer the scale items. The Likert scale ranged from "1" strongly disagree to "4" strongly agree. Tafarodi and Milne (2002) researched the Rosenberg Self Esteem Scale and computed two subsections: self-competence and self-liking. The self competence subsection (i.e. individuals feel they are doing things as well as others) consisted of the first five items of the scale. The self-liking subsection (i.e., individuals have positive attitudes toward themselves) consisted of the last 5 items of the RSES. (See Figure 5 for the complete questionnaire)

The Rosenberg self-esteem scale is considered a reliable and valid quantitative tool for self-esteem assessment and has been used extensively, including with early adolescent samples (Bagley, Bolitho, & Bertrand, 1997). The original sample for which the scale was developed consisted of 5,024 high-school juniors and seniors from 10 randomly selected schools in New York State. Whiteside-Mansell and Corwyn (2003) assessed 414 adolescents throughout 10 counties in Arkansas. The researchers found evidence to support the use of the RSES in adolescent and adult populations.

Reliability of this scale was also assessed in the current study. The Cronbach alphas ranged from .75 to .84 for the three time points. Internal consistency for Time 1 (T1) data was .76, for time two (T2) data was .84, and for time three (T3) data was .75.

For this study, overall functioning was defined as academic, behavioral and emotional functioning. Academic functioning was measured by self-reported grades, behavioral functioning was measured the SDQ, and emotional functioning was measured by the CESD. The SDQ has four subscales that are summed together to create a Total Difficulties score. Higher scores indicated higher levels of dysfunction. The SDQ also has a fifth subscale (Prosocial Behavior) that is assessed independently of the other subscales and is not included in the Total Difficulties score. Higher scores on the Prosocial Behavior scale indicated lower levels of dysfunction. Items on the CESD are summed together to create a total score. Higher scores on the CESD indicated a higher report of depressive symptomatology.

Attrition.

Twenty-three participants completed Time 1 questionnaire packets, but only 17 youth completed Time 3 questionnaire packets; leaving 6 participants that did not complete the study

(26% attrition). Although none of the youth opted out of the study, some of the participants opted out of the mentoring program, and therefore could not continue participating in the study. While analyzing the data, it was found that 100% of the attrition was seen within the national service sorority mentoring program. When examining the demographics of participants that dropped out of the study compared to the participants that remained in the study, it was found that the participants who did not complete the mentoring program met more of the at-risk criteria than participants who completed the program. Specifically, 80% of the participants who did not complete the mentoring program lived in single parent homes whereas only 40% of the participants who completed the mentoring program lived in single parent homes. Also, participants who did not complete the mentoring program reported lower levels of self esteem, perceived social support and academic functioning than participants who completed the mentoring program. See Tables 1 and 2.

Chapter III - Results

This current study assessed the effectiveness of using youth programs to provide at-risk youth with a social support system. This study also sought to test the research question that social support in the form of group mentoring programs is an effective buffer against the internal and environmental risk factors that are common in at-risk populations.

Specifically, I hypothesized that perceived social support would increase over the year for each mentoring group. I also hypothesized that there would be a significant relationship between perceived social support and overall functioning (as measured by academic performance, emotional functioning, and behavior). Specifically, participants reporting higher levels of perceived social support would also report higher academic functioning, emotional functioning, and better behavior. I also hypothesized that self esteem would moderate the relationship between social support and overall functioning. Specifically, the relationship between social support and overall functioning would be stronger for participants who report low self esteem than for participants who report high self esteem.

Social support, self esteem, emotional functioning and behavior were measured with self-report measures. Academic performance was measured with grades/GPA reported by participants.

Research questions included:

1. Does perceived social support increase over the course of the year for each mentoring program?
2. Is perceived social support related to overall functioning (emotional functioning, behavioral functioning, and academic performance)?

3. Given there are significant relationships, does self esteem moderate the relationship between perceived social support and outcome measures (emotional functioning, behavioral functioning, and academic performance)?

Prior to performing any analyses, the Kolmogorov-Smirnov test was performed. The Kolmogorov-Smirnov test calculates the probability that the sample was drawn from a normally distributed population. Using the Kolmogorov-Smirnov Test, it was found that all variables were normally distributed. Therefore, parametric statistical analyses were employed.

Research Question 1: Does perceived social support increase over the course of the year for each program?

As mentioned earlier, perceived social support scores, as measured by the MSPSS, were obtained at each of the three data collection time points. A repeated measures ANOVA was conducted to determine if perceived social support significantly differed over the course of the year. The MSPSS scores for times 1, 2, and 3 were selected as within-subject variables, while youth program was selected as the between-subject variable. The analysis determined that perceived social support significantly increased from Time 1 to Time 3 ($F(2, 22) = 3.540, P = .046$). Interestingly, there was a decrease in reported perceived social support for each group at Time 2; this will be discussed more in the next section. (See Figure 1)

This repeated measures ANOVA was also used to determine if overall perceived social support significantly differed between groups A, B, and C. The analysis determined that overall perceived social support was not significantly different between groups A, B, and C ($F(4, 22) = .137, P = .967$). However, results did show that perceived social support at Time 1 was

significantly different ($F(2, 19) = 4.225, P = .032$). Specifically, a Post Hoc Comparison Test (LSD) determined that, at Time 1, Group C (the community male mentoring program participants) reported a significantly lower level of perceived social support when compared to Group A ($p = .020$) and Group B ($p = .018$). A Post Hoc Comparison Test (LSD) also determined that, at Time 3, Group C (the community male mentoring program participants) reported a significantly lower level of perceived social support when compared to Group B ($p = .043$).

Research Question 2: Is perceived social support associated with overall functioning (emotional functioning, behavioral functioning, and academic performance)?

Pearson product-moment correlations were conducted to determine if there was a significant relationship between perceived social support and overall functioning (emotional functioning, behavioral functioning, and academic performance). Scores from the MSPSS, CESD, SDQ, and reported grades/GPA were used. For all significant correlations, multiple regressions were then conducted.

Correlations indicated that perceived social support at Time 1 and Time 2 were significantly and negatively related to peer problems, as measured by the SDQ, at Time 1, Time 2, and Time 3. Specifically, participants who reported higher levels of perceived social support at Time 1 and Time 2 also reported lower levels of difficulty with their peers at Time 1, Time 2, and Time 3. A linear multiple regression analysis was then conducted; the T3 SDQ Peer Problems variable was entered as the dependent variable while the T1 MSPSS variable and the T1 SDQ Peer Problems variable were entered as independent variables. The regression analysis indicated that, while controlling for peer problems at Time 1, there was no longer a significant

relationship between perceived social support and peer problems at Time 3 ($F(2, 15) = 7.696$, $p = .13$).

Correlations also indicated that perceived social support at Time 3 was significantly and positively related to prosocial behavior, as measured by the SDQ, at Time 1 and Time 2. Specifically, participants that reported higher levels of prosocial behavior at Time 1 and Time 2 also reported higher levels of perceived social support at Time 3. Multiple Regression analysis was conducted; the T3 MSPSS variable was entered as the dependent variable and the T1 SDQ Prosocial variable and the T1 MSPSS variables were entered as independent variables. The analysis determined that, while controlling for perceived social support at Time 1, there was no longer a significant relationship between perceived social support at Time 3 and prosocial behavior at Time 1 ($F(2, 15) = 5.778$, $p = .157$).

Analyses revealed that academic functioning (as measured by self-reported grades) at Time 1 and Time 3 was significantly and positively related to perceived social support at Time 1 and Time 2. Specifically, participants who reported higher levels of perceived social support at Time 1 and Time 2 also reported better grades at Time 1 and Time 3. A Linear Multiple Regression analysis was conducted with the T3 Grades variable entered as the dependent variable and the T1 MSPSS variable and the T1 Grades variable entered as the independent variables. The analysis determined that, while controlling for grades at Time 1, there was no longer a significant relationship between perceived social support at Time 1 and academic performance at Time 3 ($F(2, 15) = 37.217$, $p = .923$).

Research Question 3: Given there are significant relationships, does self esteem moderate the relationship between perceived social support and outcome measures?

Self Esteem (RSES) and Emotional Functioning (CESD-C)

In order to conduct a moderated regression, correlations were performed to determine if there were significant relationships between the self esteem variable and the outcome variables (emotional functioning, behavioral functioning, and academic performance).

Correlations did not indicate a significant relationship between self esteem at Time 1 and emotional functioning at Time 3. However, correlations did indicate that self esteem at Time 1 was significantly and negatively related to emotional functioning at Time 1. Specifically, participants who reported higher levels of self esteem reported lower levels of emotional dysfunction, as measured by scores on the CESD.

Although there was a significant relationship between self esteem and emotional functioning at Time 1, as stated earlier, there was not a significant relationship between social and emotional functioning. Therefore, moderation analyses could not be performed.

Self Esteem (RSES) and Behavioral Functioning (SDQ)

Correlations did not indicate a significant relationship between self esteem at Time 1 and behavioral functioning at Time 3. However, correlations did show that self esteem at Time 1 was significantly and negatively related to the Time 1 overall Total Difficulties score as well as the Time 1 Emotional subscale score and the Time 1 Conduct score. Specifically, participants who reported higher levels of self esteem reported lower levels of overall difficulties, especially emotional and conduct difficulties. Self esteem was also significantly and positively related to

prosocial behavior. Participants who reported higher levels of self esteem also reported higher levels of prosocial behavior.

Correlations indicated that self esteem at Time 2 was significantly and negatively related to the Time 2 overall Total Difficulties score as well as the Time 2 Emotional subscale score. Thus, participants who reported higher levels of self-esteem at Time 2 reported lower levels of overall difficulties, especially emotional difficulties.

Correlations indicated that self esteem at Time 3 was significantly and negatively related to the Time 3 overall Total Difficulties score as well as the Time 3 Emotional subscale score and the Time 3 Conduct score. Specifically, participants who reported higher levels of self esteem reported lower levels of overall difficulties, especially emotional and conduct difficulties. Self esteem was also significantly and positively related to prosocial behavior. Participants who reported higher levels of self esteem also reported higher levels of prosocial behavior.

Although initially there was a significant relationship between social support and behavioral functioning, further analyses indicated that the variation was better accounted for by previous reports of behavioral functioning. Therefore, a moderation was not performed.

Self Esteem (RSES) and Academic Functioning (Self Reported Grades)

Academic functioning at Time 1 and Time 3 (as measured by self-reported grades) was significantly and positively related to self esteem at Time 1. Specifically, participants who reported better grades at Time 1 and Time 3 also reported higher levels of self esteem at Time 1. A Linear Multiple regression analysis was conducted, the Time 3 Grades variable was entered as the dependent variable and the Time 1 RSES variable and T1 Grades variable was entered as the independent variables. The analysis determined that while controlling for grades at Time 1, there

was no longer a significant relationship between self esteem at Time 1 and self-reported grades at Time 3 ($F(2,13) = 40.382, p = .254$).

There was a significant relationship between social support, self esteem, and academic performance. In order to conduct moderation analyses, an interaction variable was created (social supportXself esteem) in order to test the interaction between the independent variable (social support) and the proposed moderator (self esteem). Before the interaction variable was created, both variables were converted to Z score with a mean of 0 and standard deviation of 1. When entered into the regression model, the interaction variable is not significant ($F(1, 15) = .468, p = .50$).

Chapter IV - Conclusions

Discussion

In the current study, adolescents participating in three separate mentoring programs were assessed at three time points to measure their perceived social support and its possible impact on emotional functioning, behavioral functioning, and academic performance. It was hypothesized that adolescents participating in these mentoring programs would report more perceived social support as the program year progressed. It was also hypothesized that participants who reported higher levels of perceived social support would also report higher levels of emotional functioning, behavioral functioning, and academic performance. Self esteem was predicted to be a protective factor that could moderate the relationship between perceived social support and overall functioning (emotional, behavioral academic). Specifically, the relationship between perceived social support and overall functioning would be stronger for adolescents who reported lower levels of self esteem than for adolescents who reported higher levels of self esteem.

Results showed that perceived social support significantly increased over the course of the program year. Interestingly, there was a significant decrease in perceived social support from Time 1 to Time 2 across each mentoring group. The Time 2 assessment was conducted in January, shortly after the Christmas holidays, and it is possible that perceived social support decreased due to the extended amount of time away from their respective programs. Although not hypothesized, this finding is important because it highlights the impact that external support can have on adolescents. As mentioned in the literature review, consistent contact between mentors and mentees has a positive impact on adolescent outcomes (Jekielek et al, 2002), and the decrease of perceived social support at Time 2 in this study could suggest that the mentees felt a

lack of contact during the holidays. This finding is important when considering the format of mentoring programs. This suggests that program creators should consider meeting during holiday breaks in order to provide continuous contact and support.

It was also found that perceived social support was related to individual factors, such as self esteem, and outcomes, such as problems with peers and academic functioning. Results indicated that perceived social support at Time 1 had a significant and positive relationship with self esteem at Time 1, a significant and positive relationship with grades at Time 1 and a significant and negative relationship with problems with peers at Time 1. Specifically, participants who reported having a higher level of perceived social support at Time 1 also reported having higher levels of self esteem, better grades, and fewer problems with peers at Time 1. Self esteem at Time 1 had a significant and positive relationship with grades at Time 1, a significant and negative relationship with emotional dysfunction at Time 1, and a significant and negative relationship with behavioral dysfunction at Time 1. Specifically, participants who reported higher self esteem at Time 1 also reported better grades at Time 1, lower scores on the depression scale at Time 1, and lower reports of behavioral difficulties at Time 1. This corresponds with the literature and emphasizes the importance of environmental factors (social support) and individual factors (self esteem) on the functioning of adolescents. Although there was a significant relationship between perceived social support, self esteem, and grades, the analyses did not find a significant interaction between perceived social support and self esteem.

These findings suggest that supportive relationships between the youth in this study and non-familial adults served as protective factors for these youth.

These findings also suggest that social support and participation in mentoring programs can improve adolescent resiliency. Resiliency is important and can prove useful not only in childhood, but also in adulthood. Consequently, it is important to identify factors that can improve resiliency.

Although there were significant relationships found between perceived social support, self esteem, and outcome measures (peer problems and grades), these relationships were no longer significant when controlling for earlier reports of the outcome measures. Specifically, linear regressions suggested that the significant relationships were found to be better accounted for by earlier reports of the outcomes. These findings could be due to the lack of power. The small sample size limited the amount of variables that could be included in the models, consequently limiting the power to find significant results. While there was not a significant amount of power, due to the small sample size, it is important to note that there were findings in the expected direction.

As these results indicate, there is a relationship between the amount of support that adolescents perceive they have and their overall functioning. While all of the study research questions were not proven, it was found that social support increased over the course of the program year for each mentoring group. The results of this study suggest that the proposed link between perceived social support and functioning should be further explored. It is also believed that these results provide tentative evidence that support gathered by group mentoring programs can have a positive impact on at-risk youth.

Limitations.

Limitations of this study include the lack of a control sample, a high attrition rate among one group of participants, and small sample size. The lack of a control sample is an important limitation. It is difficult to attribute the increase in social support specifically to the presence of the mentoring programs without having a comparable control group. Obtaining a control group was very difficult given that none of the youth programs that participated in this study had access to an adolescent control group. Each program implemented the policy to accept any adolescents that could benefit from the intervention.

Although none of the research participants opted out of the study, some of the participants opted out of the mentoring program, and therefore could not continue participating in the study. There were 23 participants who completed Time 1 packets but only 17 participants that completed Time 3 packets (26% attrition). When examining the data, it was found that all of the attrition was seen in sorority mentoring group. As stated in the literature, participants in mentoring programs sometimes lose interest when there are infrequent points of contact. The sorority mentoring group met once a month, which is considered infrequent, when compared to community schools group and community male mentoring program, who met daily and twice weekly, respectively. McCarthy, Sundby, Merladet, and Luxenberg (1997) found that the attrition rate could be related to the amount of social support as well as other variables such as the frequency of contact, length of program, and demographic information. When examining the difference between participants in the sorority mentoring group who continued in the mentoring program versus the participants who opted out of the program, it was found that the participants who did not complete the mentoring program met more of the at-risk criteria than participants

who completed the program. This is important because, as discussed in the background section, mentoring programs are more beneficial for youth who are at-risk, but youth who are at-risk have more circumstances that could hinder their attendance. It is important for mentoring programs to be sensitive to the circumstances that could promote attrition and structure mentoring programs in ways to encourage participation.

There are also a number of methodological limitations that should be considered when analyzing this study. First, the sample size is considered small ($N = 23$), which consequently limits the power to detect significant effects. A post hoc power analysis was performed, and in order to detect a moderate effect size (.3), 100 participants would have been required. In order to detect a large effect size (.5), 32 participants would have been required.

Second, the sample was taken from a small subpopulation of people in only one city (convenience sample), so random sampling was not used, which consequently limits the generalizability of the results. Third, the measures used in this study were self-report measures (i.e. Multidimensional Scale of Perceived Social Support, CESD-CD, and RSES). Self-report only provides the participant's view, which may be knowingly or unknowingly skewed. Fourth, these scales also were not created for the exact purposes of this study. For example, the Multidimensional Scale of Perceived Social Support did not include a specific subscale for mentor support.

The researcher was aware of some of these limitations before the study began and worked to counteract their effects. To offset the historically high attrition rate in at-risk populations, the participants were contacted throughout the year to remind them about their participation in the

study. The researcher also encouraged mentoring program officials to contact families of participants who missed sessions.

Contributions.

Although there are apparent limitations of this study, this research makes contributions in this area. Assessing the effectiveness of three different types of group mentoring programs for at-risk youth is an important contribution. The use of group mentoring formats can be more time efficient and less expensive than one-on-one mentoring formats. This suggests that an impact can be made on the functioning of at-risk youth within a group setting.

This research also highlights some of the difficulties that are common among at-risk populations (i.e. high attrition rates) and specifically adolescent populations. The results showed that the mentoring program that met only once per month showed more attrition than the two programs that met more frequently. This is important to consider when structuring the format of future programs.

This research is unique in that it provides only the youth's perspective. Most studies that assess youth outcomes gather information from parents and other adults in the adolescents' lives. This study assessed protective factors and overall functioning as perceived by the youth. This contributes to the literature by providing a look into the mind and feelings of adolescents, helping to provide insight into how they experience the world.

Future Direction

While the results of this study suggested a relationship between perceived social support and overall functioning, future studies should include a control sample in order to test this theory more thoroughly. It will also be important to increase the sample size in order to increase the

likelihood that effects will be detected. The frequency of data collection should also be increased in order to more thoroughly follow the mentoring program schedules. Specifically, data should be collected before and after each extended absence from the program (i.e. holidays) in an attempt to identify the relationship between reported social support and frequency of participation in mentoring programs.

References

- At-Risk Youth. (n.d.) In National Center for School Engagement. Retrieved from <http://www.schoolengagement.org/index.cfm/index.cfm/At-risk%20Youth>
- Bagley, C., Bolitho, F., & Betrand, L. (1997). Norms and construct validity of the Rosenberg self-esteem scale in Canadian high school populations: Implications for counseling. *Canadian Journal of Counseling, 31*, 82-89.
- Barrera, M. & Garrison-Jones, C. (1992). Family and peer social support as specific correlates of adolescent depressive symptoms. *Journal of Abnormal Child Psychology, 20*, 1-16.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence, 11*, 56-95.
- Bell, R.A., Leroy, J.B., & Stephenson, J.J. (1982). Evaluating the mediating effects of social support upon life events and depressive symptoms. *Journal of Community Psychology, 10*, 325-340.
- Bourdon, K.H., Goodman, R., Rae, D., Simpson, G., & Koretz, D. (2005). The Strengths and Difficulties Questionnaire: U.S. normative data and psychometric properties. *Journal of American Academy of Child and Adolescent Psychiatry, 44*, 557-564.
- Bowen, G. L., & Chapman, M.V. (1996). Poverty, neighborhood danger, social support, and the individual adaptation among at-risk youth in urban areas. *Journal of Family Issues, 17*, 641-665.

- Bowen, G., Desimone, L., & McKay, J.K. (1995). Poverty and the single mother family: A macroeconomic perspective. *Marriage & Family Review, 20*, 115-142.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Campbell, F., & Ramey, C. (1995). Cognitive and school outcomes for high-risk African-American students at middle adolescence: Positive effects of early intervention. *American Educational Research Journal, 32*, 743-772.
- Canty-Mitchell, J. & Zimet, G. D. (2000). Psychometric properties of the multidimensional scale of perceived social support in urban adolescents. *American Journal of Community Psychology, 28*, 391 - 400.
- Cohen, S., Janicki-Deverts, D., Chen, E., & Matthews, K.A. (2010). Childhood socioeconomic status and adult health. *The Biology of Disadvantage: Socioeconomic Status and Health, 1186*, 37-55.
- Davis, A. A., Rhodes, J. E., Hamilton-Leaks, J. (1997). When both parents may be a source of support and problems: An analysis of pregnant and parenting female African American adolescents' relationships with their mothers and fathers. *Journal of Research on Adolescence, 7*, 331-348.

- DuBois, D.L., Felner, R.D., Brand, S., Adan, A.M., & Evans, E.G. (1992). A prospective study of life stress, social support, and adaptation in early adolescence. *Child Development, 63*, 542-557.
- DuBois, D. L., Holloway, B.E., Valentine, J.C. & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*, 157-197.
- DuBois, D. L., Portillo, N., Rhodes, J.E., Silverthorn, N., & Valentine, J.C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest, 12*, 57-91.
- Dubow, E.F., Tisak, J., Causey, D., Hryshko, A., & Reid, G. (1991). A two-year longitudinal study of stressful life events, social support, and social problem-solving skills: Contributions to children's behavioral and academic adjustment. *Child Development, 62*, 583-599.
- Dumont, M. & Provost, M. (1999) Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence, 28*, 343-363.
- DuRant, R.H., Getts, A., Cadenhead, C., Emans, S.J., and Woods, R. (1995). Exposure to violence and victimization and depression, hopelessness, and purpose in life among

- adolescents living and around public housing. *Journal of Developmental & Behavioral Pediatrics, 16*, 1-10.
- Evans, G. W. (2004). The environment of childhood poverty. *American Psychologist, 59*, 77-92.
- Fendrich, M., Weissman, M., & Warner, V. (1990) Screening for depressive disorder in children and adolescents: Validating the center for epidemiologic studies depression scale for children. *American Journal of Epidemiology, 131*, 538-551.
- Furstenberg, F.F., & Hughes, M.E. (1995). Social capital and successful development among at-risk youth. *Journal of Marriage and Family, 57*, 580-592.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38*, 581-586.
- Goodman, R. (2001). Psychometric properties of the Strengths and Difficulties Questionnaire. *Journal of American Academy of Child and Adolescent Psychiatry, 40*, 1337-1345.
- Gray, S., Culpepper, C.L., & Welsh, D.P. (2012). Adolescence. Encyclopedia of Human Behavior, 2nd Ed. Academic Press.
- Grossman, J.B. & Rhodes, J.E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30*, 199-219.
- House, J.S. (1981). Work stress and social support. Reading, MA: Addison-Wesley.

- Jekielek, S.M., Moore, K.A., Hair, E.C., & Scarupa, H.J. (2002). Mentoring: A promising strategy for youth development. *Child Trends*, 1-8.
- Keating, D., & Hertzman, C. (1999). *Developmental health and the wealth of nations: Social, biological, and educational dynamics*. New York, NY: Guilford.
- Letourneau, N. L., Stewart, M. J., & Barnfather, A. K. (2004). Adolescent mothers: Support needs, resources, and support-education interventions. *Journal of Adolescent Health*, 35, 509-525.
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin*, 126, 309-337.
- Manning, W.D., & Lamb, K.A. (2003). Adolescent well-being in cohabiting, married, and single-parent families. *Journal of Marriage and Family*, 65, 876-893.
- McCarthy, P., Sundby, M., Merladet, J., & Luxenberg, M. G. (1997). Identifying attendance correlates for a teen and young adult parenting program. *Family Relations*, 46, 107 – 112.
- McCubbin, H.I., Joy, C.B., Caubie, A.E., Comeau, J.K., Patterson, J.M., & Needle, R.H. (1980). Family stress and coping decade review. *Journal of Marriage and the Family*, 42, 855-871.

- McLanahan, S. S. (1997). Parent absence or poverty: Which matters more? In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 35–48). New York: Russell Sage Foundation.
- McLaughlin, K.A., Costello, J., Leblanc, W., Sampson, N., & Kessler, R. (2012). Socioeconomic status and adolescent mental disorders. *American Journal of Public Health, 102*, 1742-1750.
- McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist, 53*, 185-204.
- Mendelson, T., Kubzansky, L.D., Datta, G.D., & Buka, S.L. (2008). Relation of female gender and low socioeconomic status to internalizing symptoms among adolescents: A case of double jeopardy? *Social Science & Medicine, 66*, 1284-1296.
- Oswalt, A. (2008). Urie Bronfenbrenner and child development. In *Child and Adolescent: Overview*. Retrieved from <http://www.mentalhealth.net>
- Rhodes, J.E. (2002). *Stand by me: The risks and rewards of mentoring today's youth*. Cambridge, MA: Harvard University Press.
- Richman, J.M., Bowen, G.L., & Woolley, M.E. (1997). School failure: an eco-interactional-developmental perspective. In M.W. Fraser (Ed.), *Risk and resiliency in childhood: An ecological perspective* (pp. 95-116). Washington, DC: National Association of Social Workers.

- Richman, J.M., Rosenfeld, L.B., & Bowen, G.L. (1998). Social support for adolescents at risk of school failure. *Social Work, 43*, 309-323.
- Rosenberg, M. (1965). *Society and adolescent self-image*. Princeton, NJ: Princeton University.
- Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems: Modeling reciprocal effects. *American Sociological Review, 54*, 1004-1018.
- Scales, P.C., & Leffert, N. (1999). *Developmental assets: A synthesis of the scientific research on adolescent development*. Minneapolis, MN, US: Search Institute.
- Smoll, F.L., Smith, R.E., Barnett, N.P., & Everett, J.J. (1993). Enhancement of children's self-esteem through social support training for youth sport coaches. *Journal of Applied Psychology, 78*, 602-610.
- Socioeconomic Status. (n.d.) In American Psychological Association online topics. Retrieved from <http://www.apa.org/topics/socioeconomic-status/>
- Spencer, R. (2007). "It's not what I expected": A qualitative study of youth mentoring relationship failures. *Journal of Adolescent Research, 22*, 331-354.
- Styles, M.B., & Morrow, K.V. (1992). *Understanding how youth and elders form relationships: A study of four Linking Lifetimes programs*. Philadelphia: Public/Private Ventures.
- Tafarodi, R. W., & Milne, A. B. (2002). Decomposing global self-esteem. *Journal of Personality, 70*, 443-483.

Uunik Academy. (n.d.) Uunik Academy, Inc. Retrieved from <http://www.uunikacademy.org>

Wallerstein, J. S. (1988). Children of divorce: Stress and developmental tasks. In N. Garmezy & M. Rutter (Eds.), *Center for advanced study in the behavioral sciences. Inc.: Stress, coping and development in children* (pp. 265–302). Baltimore, MD: Johns Hopkins University Press.

Whiteside-Mansell, L. & Corwyn, R. F. (2003). Mean and covariance structures analyses: An examination of the Rosenberg self-esteem scale among adolescents and adults. *Educational and Psychological Measurement, 63*, 163-173.

Willms, J. D. (2002). *Vulnerable children: Findings from Canada's national longitudinal survey of children and youth*. Edmonton, Alberta, Canada: University of Alberta Press.

Zimet, G.D., Dahlem, N.W., Zimet, S.G., & Farley, G.K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*, 30-41.

Appendices

Appendix A

Figure 1. Demographic Questionnaire Form

Demographic Questionnaire

Please tell us about yourself.

1. Gender

- Male
- Female

2. Age _____

3. How would you describe your ethnic background? (check all that apply)

- Asian American
- Black/African American
- Hawaiian or Pacific Islander
- Hispanic/Latino
- Middle Eastern
- Native American
- White/Caucasian
- Mixed Race _____

4. Current grade in school:

- 4th
- 5th
- 6th
- 7th
- 8th
- 9th
- 10th
- 11th
- 12th
- Other (please specify) _____

Figure 1. Continued

5. What is your current grades?
- All A's
 - Mostly A's
 - All B's
 - Mostly B's
 - All C's
 - Mostly C's
 - All D's
 - Mostly D's
 - Not passing most classes
 - Not passing any classes
6. Do you know your GPA? _____ If so, what is it? _____
7. Who lives in your home (check all that apply)
- Mother
 - Father
 - Sister
 - Brother
 - Grandmother
 - Grandfather
 - Aunt
 - Uncle
 - Other _____
8. What is your current religious affiliation?
- Catholic
 - Baptist
 - Methodist
 - Other Protestant

Figure 1. Continued

- Jewish
 - Muslim
 - Buddhist
 - None
 - Other (please specify) _____
9. What is your mother's highest level of education? (select the highest)
- Some High School
 - GED
 - High School Diploma
 - Some College
 - Associate's Degree
 - Bachelor's Degree
 - Master's Degree
 - Law Degree/Medical Degree/PhD
 - DK (Don't Know)
10. What is your father's highest level of education? (select the highest)
- Some High School
 - GED
 - High School Diploma
 - Some College
 - Associate's Degree
 - Bachelor's Degree
 - Master's Degree
 - Law Degree/Medical Degree/Ph.D.
 - DK (Don't Know)
11. How do you travel to school? (select all that apply)
- Someone from my home drives me
 - I ride the school bus

Figure 1. Continued

- I ride with someone else (e.g. classmate, teacher, etc.)
 - Other _____
12. Do you participate in extra-curricular activities?
- Yes
 - No
13. If so, what extra-curricular activities do you participate in?
- _____
14. Do you currently have a best friend?
- Yes
 - No
15. Do you currently have a boyfriend or girlfriend?
- Yes
 - No
16. If you have a boyfriend or girlfriend, how long have you been dating?
- _____

Figure 1. Continued

Appendix B

MSPSS

Please read each statement and answer how much you disagree or agree with it.

	1 very strongly disagree	2 strongly disagree	3 mildly disagree	4 neutral	5 mildly agree	6 strongly agree	7 very strongly agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

Figure 2. Multidimensional Scale of Perceived Social Support

Appendix C

CES-DC

Below is a list of the ways you might have felt or behaved. Mark how often you have felt this way during the past week.

	During the Past Week			
	Not at All	A Little	Some	A lot
1. I was bothered by things that usually don't bother me.				
2. I did not feel like eating; I wasn't very hungry.				
3. I wasn't able to feel happy, even when my family or friends tried to help me feel better.				
4. I felt like I was just as good as other kids.				
5. I felt like I couldn't pay attention to what I was doing.				
	During the Past Week			
	Not at All	A Little	Some	A lot
6. I felt down and unhappy.				
7. I felt like I was too tired to do things.				
8. I felt like something good was going to happen.				
9. I felt like things I did before didn't work out right.				
10. I felt scared.				
	During the Past Week			
	Not at All	A Little	Some	A lot
11. I didn't sleep as well as I usually sleep.				
12. I was happy.				
13. I was more quiet than usual.				
14. I felt lonely, like I didn't have any friends.				
15. I felt like kids I know were not friendly or that they didn't want to be with me.				
	During the Past Week			
	Not at All	A Little	Some	A lot
16. I had a good time.				
17. I felt like crying.				
18. I felt sad.				
19. I felt people didn't like me.				
20. It was hard to get started doing things.				

Figure 3. Center for Epidemiologic Studies Depression Scale- Child Version

Appendix D

SDQ

For each item, please write Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of how things have been for you over the last six months.

Not True	Somewhat True	Certainly True
-----------------	----------------------	-----------------------

1. I try to be nice to other people. I care about their feelings
2. I am restless, I cannot stay still for long
3. I get a lot of headaches, stomach-aches or sickness
4. I usually share with others, for example CD's, games, food
5. I get very angry and often lose my temper
6. I would rather be alone than with people of my age
7. I usually do as I am told
8. I worry a lot
9. I am helpful if someone is hurt, upset or feeling ill
10. I am constantly fidgeting or squirming
11. I have one good friend or more
12. I fight a lot. I can make other people do what I want
13. I am often unhappy, depressed or tearful
14. Other people my age generally like me
15. I am easily distracted, I find it difficult to concentrate
16. I am nervous in new situations. I easily lose confidence
17. I am kind to younger children
18. I am often accused of lying or cheating
19. Other children or young people pick on me or bully me
20. I often offer to help others (parents, teachers, children)
21. I think before I do things
22. I take things that are not mine from home, school or elsewhere

Figure 4. Strength and Difficulties Questionnaire

Appendix E

RSES

Below is a list of statements dealing with your general feelings about yourself. Please check one answer that tells how much you agree or disagree with each statement.

STATEMENT		Strongly Agree	Agree	Disagree	Strongly Disagree
1.	I feel that I am a person of worth, at least on an equal plane with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	I feel that I have a number of good qualities..	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	All in all, I am inclined to feel that I am a failure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	I am able to do things as well as most other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	I feel I do not have much to be proud of.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	I take a positive attitude toward myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	On the whole, I am satisfied with myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	I wish I could have more respect for myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	I certainly feel useless at times.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	At times I think I am no good at all.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 5. Rosenberg Self Esteem Scale

Appendix F

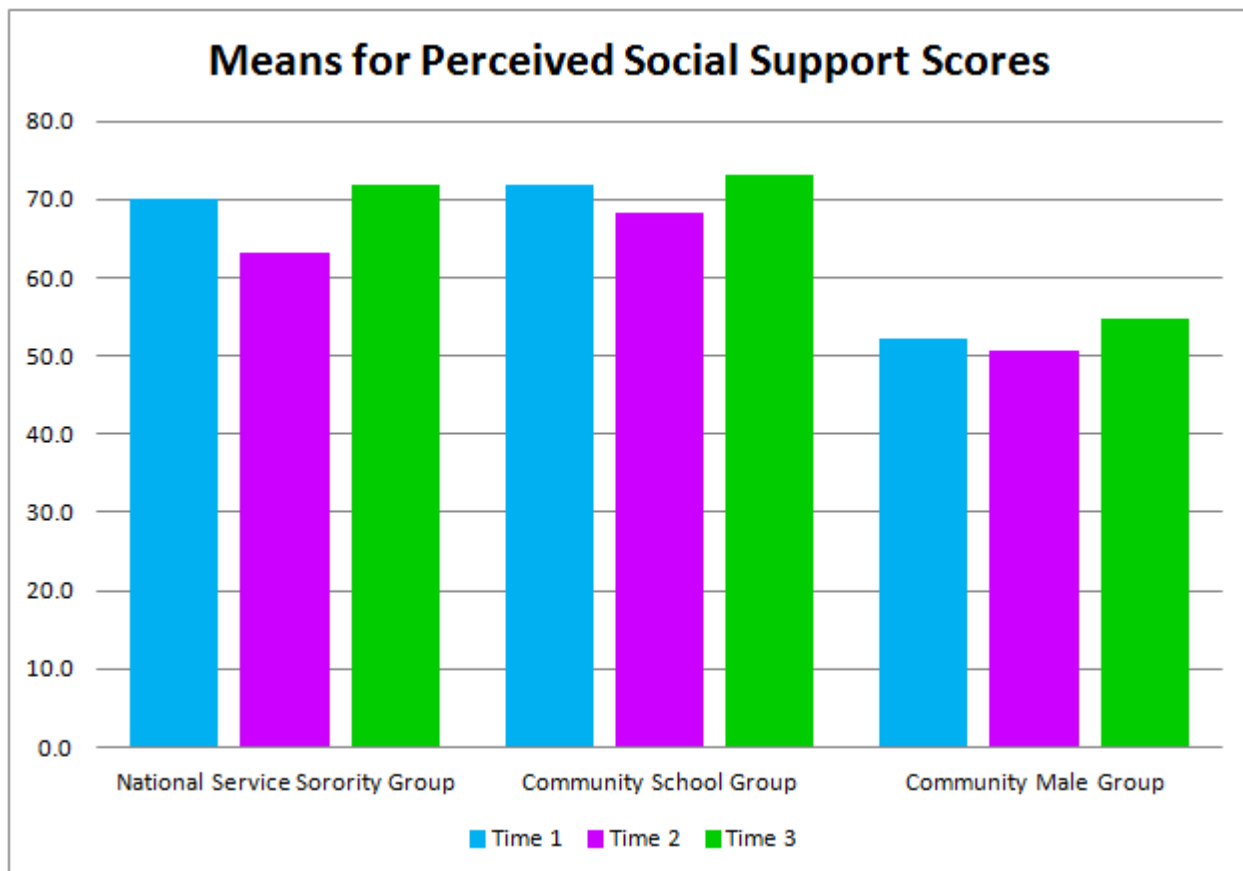


Figure 6. Perceived Social Support Scores (Means)

Appendix G

Table 1

Attrition Group vs. Non-Attrition Group

	Participants in National Service Sorority Group Who Completed The Study (n = 5)	Participants in National Service Sorority Group Who Did Not Complete The Study (n = 6)
Single Parent Household (percentage)	40%	80%
Grades: A's and B's (percentage)	80%	67%
T1 Self Esteem (Mean)	18.00	16.20

Appendix H

Table 2
Attrition Group Demographic Information

	National Service Sorority Group (n = 6)
Male	50%
Female	50%
Age (Mean)	13
Black/African American	67%
Biracial/Multiracial	33%

Appendix I

Table 3
Participant Demographic Information.

	National Service Sorority Group (n = 11)	Community School Group (n = 6)	Community Male Group (n = 6)
Black/African American	81.8%	33.3%	100.0%
Hispanic/Latino	-	16.7%	-
White/Caucasian	-	33.3%	-
Biracial/Multiracial	18.2%	16.7%	-

Appendix J

Table 4
Participant Ethnicity Information.

	National Service Sorority Group (n = 11)	Community School Group (n = 6)	Community Male Group (n = 6)
Male	54.5%	33.3%	100.0%
Female	45.5%	66.7%	-
Age (Mean)	13.00	10.00	13.33
Single Parent Household	54.5%	50.0%	66.7%

VITA

Christi LaNet Culpepper received her B.S. degree in Psychology from Tuskegee University in 2004. She obtained a M.S. degree in Applied Psychology from the University of South Alabama in 2007. After working as a program manager for an R01 funded research study in the Neurology department at the University of Alabama at Birmingham, she entered the doctoral program in Clinical Psychology at the University of Tennessee, Knoxville in 2009. From 2009 until 2013, Christi worked as a graduate student under the supervision of Dr. Deborah Welsh in the Development of Adolescents and Young Adults Lab. Christi also worked as a student therapist in the University of Tennessee's Psychological Clinic from 2010 - 2013 and Cherokee Health Systems from 2011-2012. Also, while attending the University of Tennessee, Christi taught Psychology 110 Introduction to Psychology. During her time at the University of Tennessee, Christi was awarded numerous scholarships/grants, including the Carl Cowan Minority Scholarship (2012), the Office of Technology Graduate Student Teaching Grant (2012), the Psychology Department Dissertation Grant (2013), and the Knoxville Alliance of Doctoral Women's Scholarship (2013).