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EFFECTS OF SOCIAL SUPPORT ON THE SOCIAL SELF-CONCEPTS OF GIFTED ADOLESCENTS

A Thesis
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Specialist in Education

By
Caroline S. Cochran
May 2009

EFFECTS OF SOCIAL SUPPORT ON THE SOCIAL SELF-CONCEPTS OF GIFTED ADOLESCENTS

Date Recommended _April 27, 2009__

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EFFECTS OF SOCIAL SUPPORT ON THE SOCIAL SELF-CONCEPTS OF GIFTED ADOLESCENTS

Caroline S. Cochran May 2009 40 pages

Directed by: Dr. Anne Rinn, Dr. Carl Myers, and Dr. Lakeisha Meyer

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The current study investigates the relationship between social support and the social self-concepts of gifted adolescents. Participants include 245 gifted students who had completed the fifth through the tenth grade during the previous academic year. Social self-concept was measured using the Self-Description Questionnaire II (Marsh, 1990). Social support was measured using the Child and Adolescent Social Support Scale (Malecki & Demaray, 2002). Results indicate multiple relationships between perceived social support and social self-concept, as well as a significant gender difference for the frequency of close friend social support. No gender differences were found for the parent, teacher, classmate, or school social support scores. Conclusions and implications for education and counseling are discussed.

Introduction

Increased attention is being directed toward meeting the educational, social, and emotional needs of gifted students. The term "gifted" has a number of definitions such as those related to high intelligence quotient (IQ) and those that include multiple criteria that might not be measured through an IQ test. The National Association for Gifted Children (2008) defines a gifted person as, "someone who shows, or has the potential for showing, an exceptional level of performance in one or more areas of expression" (2008). The current federal definition of "gifted," which is located in the Elementary and Secondary Education Act, is "students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities" (National Association for Gifted Children).

As most attention and research revolves around the academic experiences of gifted students, research regarding the social experiences of gifted students is definitely needed. The social challenges faced by gifted students in adolescence are multifaceted and complex. Adolescents must balance the demands of their talents and the biological and emotional needs of adolescent development (Buescher, 1991). While most adolescents undergo similar developmental changes (Erikson, 1963), gifted adolescents may handle these changes in different ways than their non-gifted peers (Dixon, 1998). Often, while forming their identities, gifted adolescents realize their exceptionality makes them different from their peers and sets them apart (Gross, 1998). In fact, gifted adolescents often report that they feel "different" from their peers and state that the

feeling of being different may affect their social relationships (Rimm, 2002). According to Lovecky (1992), gifted children appear to share some social-emotional traits including: heightened sensitivity, feeling different, perfectionism, and uneven development of intellectual and emotional areas. Additionally, gifted adolescents tend to rate themselves low in terms of social self-esteem, perhaps because of the discrepancy between their talents and social experiences (Bireley & Genshaft, 1991). Clearly, it is important for professionals to determine how to support the social needs of gifted youth as they face changes and challenges during adolescence.

Given the social challenges and difficulties gifted adolescents may face, factors such as positive self-concept and social support that may buffer adolescents from poor outcomes are important to consider. A large amount of research had been conducted on the self-concepts of gifted students (e.g., Bain & Bell, 2004; Hoge & Renzulli, 1993; Robinson, 2002). Yet, relative to academic self-concept and general self-concept, less is known about the social self-concepts of gifted students (Bain & Bell, 2004).

Self-concept theories emphasize the importance of significant others in helping children understand themselves (Forman, 1988). Specifically, self-concept theories suggest that one's self-concept is influenced in part through social interaction with persons who are significant to children as they travel through developmental stages, including social interactions with peers, teachers, classmates, and family members (Byrne, 1984). It appears one possible factor affecting the self-concept is the impact of social support. Research on social support is associated with many positive outcomes for students and the lack of social support is related to negative outcomes. For example, research has documented significant, positive relationships between social support and

self-concept in high-risk adolescents and children with learning disabilities (Malecki & Demaray, 2002; Wenz-Gross & Siperstein, 1998). Previous research with gifted adolescents has established a relationship with between social support and adjustment in gifted adolescents and found family support and adjustment to be related to school adjustment and academic self-concept (Dunn, Putallaz, Sheppard, & Lindstrom, 1987; Wenz-Gross & Siperstein, 1998). A lack of social support is related to negative outcomes such as withdrawn behavior, hopelessness, delinquency, adjustment and behavioral problems, and emotional problems (Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005). Because social support is related to positive outcomes for students, social support may be a key component in the development of a positive social self-concept in gifted adolescents.

The following review of the literature will explore what is known about the social self-concepts of gifted adolescents and the effects of social support. The current study examines the relationship between gifted adolescents' social self-concept and their perceived amount of social support, while also exploring potential gender differences with regard to perceived social support.

Literature Review

Before discussing the current study, the following review of the literature will discuss what is known about the social self-concepts of gifted adolescents, social support, and the potential for a relationship between social self-concept and social support.

Self-Concept

Self-concept can be specifically defined as "our attitudes, feelings, and knowledge about our abilities, skills, appearance, and social acceptability" (Byrne, 1984, p. 429). Simply stated, self-concept is the image we hold of ourselves (Hoge & Renzulli, 1993). A person's self-concept is formed through experience with, and the interpretation of, one's environment. The perception held of the self is influenced by the evaluation of an individual by significant others, reinforced perceptions, and one's attributions for their own behavior (Marsh & Shavelson, 1985).

Researchers have acknowledged the importance of self-concept for various psychological, behavioral, and social outcomes. Self-concept has been associated with many educational benefits, such as improved academic achievement, persistence, coursework selection, and approaches to learning (Burnett, Pillay, & Dart, 2003; Delugach, Bracken, Bracken, & Schicke, 1992; Marsh & Craven, 2006; Marsh & Yeung, 1997). Self-concept may also mediate a variety of other psychological and social outcomes, such as healthy development of personal and social skills in children (Harter, 1990), coping skills (Shirk, 1988), social interaction (Gurney, 1986), general happiness (Harter, 1990), emotional adjustment and socialization (Donahue, Robins, Roberts, & John, 1993), and parent-adolescent relations (Barber, Hall, & Armistead, 2003).

A popular model of self-concept proposed by Shavelson, Hubner, and Stanton (1976) describes self-concept as multifaceted and hierarchical. Self-concept is multifaceted in that one's self-concept is not a unidimensional construct, but is derived from various facets including academic, emotional, physical and social facets, all affecting one's general self-concept. Additionally, as one transitions from infancy to adulthood, self-concept becomes increasingly multifaceted (Marsh, Parker, & Barnes, 1985). Self-concept is also hierarchically organized, as perceptions of personal behavior in specific situations are located at the base of the hierarchy, inferences about self in broader domains (e.g., social, physical, and academic) are at the middle of the hierarchy, while a global, general self-concept is found at the apex (O'Mara, Marsh, Craven, & Debus, 2006). For the purpose of the current study, self-concept will be investigated with regard to social self-concept.

Social self-concepts of gifted students. Social self-concept can be defined as "one's perception of his or her social competence with respect to social interaction with others and derives from the assessment of one's behavior within a given social context" (Byrne & Shavelson, 1996, p. 601). Studies that have addressed social self-concept among gifted students yield conflicting results. Specifically, there have been inconsistent results when comparing gifted students to students of other ability levels. Some studies have suggested that gifted students have lower social self-concepts than those of average ability students; other studies have indicated that the social self-concept of gifted students are higher than those of their non-gifted peers, and some indicate no difference. For example, in a study of 173 gifted adolescents and 205 high achieving children, Brody and Benbow (1986) found no difference between the two groups on self-concept measures.

Additionally, Bracken (1980) found no significant difference in self-concept between gifted and non-gifted groups.

In comparing the social self-concepts of gifted and high achieving adolescents, though, Bain and Bell (2004) found that gifted students in the fourth through sixth grade had significantly higher self-concepts in the area of peer relations than did higher achieving students in a comparison group. Similarly, Kelly and Colangelo (1984) found that gifted junior high students had significantly higher social self-concepts than students of average ability and students with special needs.

In contrast, Winne, Woodlands, and Wong (1982) found that gifted students scored lower on social self-concept measures than students with learning disabilities. Additionally, gifted adolescents, including both males and females, have reported lower closeness in their same-sex relationships than non-gifted adolescents (Mayseless, 1993). Some researchers have compared different facets of self-concept between gifted children instead of in relation to other students. For example, Stocking, Porter, Goldstein, and Oppler (1993) found approximately 20 percent of both males and females out of a sample of 148 gifted adolescents scored below the 25th percentile on the opposite-sex relationship subscale of the Self-Description Questionnaire II (Marsh, 1990). Ross and Parker (1980) found that gifted students scored lower in the area of social self-concept than in academic self-concept. Similarly, although Hoge and Renzulli (1993) found no differences between gifted students and average-ability students with regard to social self-concept, they did find that gifted children had lower social self-concepts than both their general and academic self-concepts.

Social self-concept is likely gender specific for early and late adolescence (Marsh, 1990). However, research findings are mixed in regards to gender differences. Some studies have reported no gender differences in social self-concept (Kelly & Jordan, 1990; Pyryt & Mendaglio, 1994; Ross & Parker, 1980). For example, in a study of 140 gifted adolescents at a summer program for the gifted, Rinn (2006) found no gender differences in perceived same-sex or opposite-sex peer relations. In contrast, other studies report significant gender differences. In studies of gifted students in grades 7 through 11, females reported higher levels of social self-concept than males (Ablard, 1997; Gabelko, Roth, & Worrell, 1997; Worrell, Roth, Gabelko, 1998). Similarly, Norman, Ramsay, Martray, and Roberts (1999) found gifted adolescent females to score higher than gifted adolescent males on measures of perceived honesty-trustworthiness, opposite-sex relations, and same-sex relations. Schneider, Clegg, Byrne, Ledingham, and Combie (1989) found gifted boys to out-perform gifted girls on a measure of global self-concept. Yet, Rinn and Wininger (2007) found no gender differences among gifted adolescents on measures of perceived physical abilities or physical appearance. Conflicting findings regarding the social self-concepts of gifted students may be due to differences in instrumentation used to measure self-concept, as well as differences in number of participants and participants' ages. However, these conflicting findings also point to the need for more research in this area.

Social self-concept is influenced by multiple factors. According to a theoretical model of self-concept, social self-concept is influenced by one's self-perceptions of social competence relative to peers. Further, self-concept is influenced by social behavior with peers and significant others including teachers, classmates, and family members

(Byrne, 1984). Academic success, ability level, gender, age, participation in academic programs, attribution for social success and failure, and peer status are also factors that contribute to self-concept (Marsh, Craven, & Debus, 2006; Rinn, 2006; Van Tassel-Baska & Olszewski-Kubilius, 1994). Among these factors that contribute to social self-concept, research indicates social support may play a significant role.

Social Support

Social support refers to general support and/or specific supportive behaviors from others that enhance an individual's functioning and/or buffer him or her from adverse circumstances (Malecki & Demaray, 2002). Tardy (1985) proposed a model that defined the important aspects of social support. First, social support comes from people in one's social network. This could include parents, other family members, teachers, classmates, close friends, neighbors, and the school. Social support can take multiple forms such as emotional support (e.g., listening), instrumental support (e.g., providing time or resources), informational support (e.g., providing needed information), and/or appraisal support (e.g., providing feedback). Additionally, social support can be given to someone or received, and can be perceived to be available and/or actually used.

Having low levels of perceived social support has been related to a variety of poor psychological (Compas, Slavin, Wagner, & Vannatta, 1986; Forman, 1988; Garnefski & Diekstra, 1996), social (Bender & Losel, 1997; Demaray & Elliott, 2001; Lifrak, McKay, Rostain, Alterman, & O'Brian, 1997; Malecki & Elliott, 1999), academic (Levitt, Guacci-Franco, & Levitt, 1994; Richman, Rosenfeld, & Bowen, 1998) and health (Frey & Rothlisberger, 1996) outcomes. Further, Wenz-Gross, Siperstein, and Untch (1997) found

that higher peer stress and less companionship support from peers were associated with lower social self-concept.

Perceived social support has been found to be related to more positive outcomes for children of divorce (Cowen, Pedro-Carroll, & Gillis, 1990), children with learning disabilities (Forman, 1988; Kloomok & Cosden, 1994; Rothman & Cosden, 1995; Wenz-Gross & Siperstein, 1997), high-risk or disadvantaged children (Cauce, Felner, & Primavera, 1982; Van Tassel-Baska & Olszewski-Kublius, 1994), and gifted children (Dunn et al., 1987). Positive outcomes include better adjustment during transitions to middle school (DuBois, Felner, Meares, & Krier, 1994; Hirsch & DuBois, 1992), and fewer symptoms of depression and somatization (Compas et al., 1986).

Forman (1988) examined the effects of perceived social support on the self-concepts of children and adolescents with learning disabilities. Students with higher levels of perceived social support were found to score higher in the areas of general self-worth, athletic competence, scholastic competence, and positive behavioral conduct than students with fewer social supports. Support from classmates was the most important predictor of four aspects of self-concept including self-worth, scholastic competence-specific behaviors, athletic competence, and physical appearance. Support from parents was the most important predictor of positive behavioral conduct. Support from teachers and friends were a less important predictor of self-concept.

Wenz-Gross and Siperstein (1997) examined social-support, social networks, friendships, and adjustment differences between children with and without learning problems. They found that there were differences in the source (family or friends) and type (problem-solving, companionship, or emotional) of social support between children

with learning problems and those without learning problems. Specifically, children with learning problems sought problem solving support less from their family and other children than non-disabled peers.

Dunn et al. (1987) investigated the role of perceived social support in facilitating the adjustment of gifted adolescents to a new school. The authors found that perceived family support was related to successful school adjustment; perceived support in general and perceived support from peers was related to successful psychological adjustment. The authors suggest that family support provides a strong base of personal security, and support from others, including one's peers, affects adolescent's self-perception or self-esteem.

Van Tassel-Baska and Olszewski-Kubilius (1994) investigated the differences in perceptions of self-concept and social support among 147 gifted seventh and eighth grade students who were participating in full time intensive programs for the gifted. The authors examined the gifted students' self-esteem, perceptions of social support, conditions of work, and perception of self-competence. With regard to perceived social support and self-concept, a significant gender effect was found. Specifically, female gifted students perceived less support from classmates and friends did their male counterparts. Females also perceived themselves as less socially competent and scored lower on scales of positive behavioral conduct. These findings suggested that gifted girls may receive less support from their social network than gifted boys.

Purpose of the Current Study

The purpose of the current study is to examine the relationship between gifted adolescents' social self-concepts and their perceived amount of social support, while also

exploring potential gender differences with regard to perceived social support. Specifically, two research questions will be examined:

1) Is there a relationship between perceived social support and social self-concept among gifted adolescents? Is there a relationship between the importance of perceived social support and social self-concept among gifted adolescents?
2) Do gifted males and gifted females perceive differing levels of social support among various potential providers of social support?

First, it is predicted there will be a positive relationship between social support and social self-concept. Specifically, perceived social support from parents will be related to parental self-concept; perceived social support from classmates and close friends will be related to same-sex social self-concept and opposite-sex social self-concept. Gifted students who feel that they have access to support from parents, teachers, classmates, and friends, as well as believe that support is important, are expected to demonstrate higher levels of social self-concept than students with fewer social supports.

It is also predicted there will be group differences with regard to social support when comparing groups based on gender. Based on prior research (Van Tassel-Baska & Olszewski-Kubilius, 1994), it is predicted that males will more frequently report social support than females.

There is currently a limited understanding of the relationship between social support and social self-concept among gifted adolescents. Understanding social self-concept and social support among gifted students is important for theoretical, practical, and policy-related reasons. First, most theories in the field of gifted education focus on

the academic experiences of gifted students. Some researchers have examined the social dimension of gifted students' experiences, yet researchers are still calling for more work in this area (Rinn, 2006). The current study will contribute to this call. Knowing more about social support and social self-concept may lead to interventions to help improve the support gifted adolescents are receiving from significant individuals in their lives. Understanding how social support is related to the social self-concepts of gifted adolescents may provide policy-makers with evidence that creating supportive experiences can effectively influence the social lives of gifted adolescents. Educators and practitioners should be aware of the potential relationship between social support and social self-concept such that specific accommodations can be made if gifted adolescents' social self-concept changes as a function of social support. Because social support is associated with many positive outcomes for students, it is an important variable to understand in schools. An understanding of the relationship between social support and social self-concept can be a critical piece to planning appropriate services for gifted students.

It is important to consider gender differences as well. There is some evidence that gifted girls may have lower self-concepts than other gifted students (Van Tassel-Baska & Olszewski-Kubilius, 1994). A tendency toward low expectations, challenge avoidance, attributing failure to lack of ability, and debilitation under failure are characteristics Dweck (1986) found of gifted females when compared to gifted males. Additionally, Kramer (1985) found that gifted adolescent females used social interaction to determine the quality and acceptability of their achievement and to determine, through social comparison, the extent of their own abilities. If male and female adolescents do in fact

perceive social support differently, it is important to recognize these perceptions in order to appropriately plan additional support for these students. Understanding gender differences will help intervention and support strategies focus on helping the gifted females versus the gifted male to meet gender specific needs.

Method

Participants

Participants were recruited from two residential summer camps for gifted students held at a comprehensive university in the southern United States. These summer programs have been in operation for over 20 years. The first summer camp for academically talented middle school students is a two-week, residential program for gifted students entering the seventh, eighth, or ninth grades the following school year. In order to participate in the program, students must show high interest and/ or achievement in one or more content areas; be eligible for services as a gifted child or have an IQ score of 125 or above; score at or above the 90th percentile on the total battery or above the 95th percentile on the total mathematics or language/reading section of the most recent achievement test, or have scored at the proficient or distinguished level on performance assessment measures; and be nominated by a teacher, counselor, or principal. During the camp the students go to class six hours per day, five days a week, for two weeks. The students enroll in four classes and can choose from a variety of classes including, but not limited to, acting, ecology, geography, and science. After classes and on the weekend students participate in other activities such as board games, athletic activities, and talent shows.

The second summer camp for mathematically and verbally gifted students is a three-week residential program for gifted students entering the eighth, ninth, tenth, or eleventh grades the following school year. In order to participate in the program students must have been eligible to attend talent search programs, such as the Duke Talent Identification Program, and have earned SAT or ACT scores as a seventh grader (or

comparable scores for an older student) qualifying them for the class selected. During the camp students have six hours of class and one hour of study hall per day, five days a week, for three weeks. The students enroll in one class and can choose from a variety of classes including, but not limited to, humanities, psychology, or mathematics. Similar to the other summer program, the students engage in other social activities after class and on the weekends throughout the program.

A total of 245 gifted adolescents participated in this study. 112 students (45.7%) participated in the first summer camp and 132 students (45.7%) participated in the second summer camp. Participants included 126 males and 119 females. Their ages ranged from 11 to 16; the mean age of participants was 13.45 years old. The sample consisted of 8.2% Asian or Pacific Islander, 4.9% African-American, 1.2% Hispanic or Latino, 0.4% American Indian or Alaskan Native, 78.6% Caucasian, and 6.5% other.

Materials

Data collected for this study include demographic information, self-concept information, and perceived social support information.

Demographics. Participants were given a demographic questionnaire to assess gender and age, among other information. Other data were collected from participants' applications for summer camp participation, including ethnic background and grade level.

Social self-concept. Students who participated completed the Self Description Questionnaire II (SDQ-II; Marsh, 1990). The SDQ-II is a multidimensional scale designed to measure the self-concepts of adolescents aged 13-17. The SDQ-II has 102 items and measures self-concept in the following areas: mathematics, verbal, general-school, physical abilities, physical appearance, same-sex peer relations, opposite-sex peer

relations, parent relations, emotional stability, honesty/trustworthiness, total academic, and general-self (Marsh, 1990). The items are presented as statements, which the student evaluates on a 6-point Likert-type scale (1 = *False* to 6 = *True*). Thus, a higher score on the scale reflects a higher self-concept, whereas a lower score reflects a lower self-concept.

There is strong evidence that the SDQ-II is reliable and valid for its intended purposes. Coefficient alphas for the subscales range from 0.83 to 0.91 (0.94 for the total self-concept scale), based on data gathered from the normative sample (Marsh, 1990). Tomchin and Callahan (1996) investigated the relationship between the self-concepts and coping strategies of 457 academically gifted students by administering the SDQ-II. They found alpha coefficients to range from 0.69 to 0.87, and internal consistency for the general self-concept subscale was 0.86. Plucker, Taylor, Callahan, and Tomchin (1997) examined the reliability and validity evidence for the SDQ-II with 459 academically gifted adolescents attending a summer residential program, and found alpha coefficients ranging from 0.83 (general school) to 0.93 (female opposite-sex relations) with a mean alpha of 0.89. Test-retest reliability coefficients for the SDQ-II range from 0.72 (emotional stability) to 0.88 (math; Marsh, 1990). Further, Gilman, Laughlin, and Hubner (1999) investigated the psychometric properties of the SDQ-II by assessing 291 gifted students in an American middle school. Factor loadings were consistent with those reported in the SDQ-II manual, ranging from 0.51 to 0.86, thus providing support for the convergent validity of the domains.

For the purposes of this study, only the same sex peer relations, opposite sex peer relations, parent relations, emotional stability, and general-self subscales were used in

order to measure social self-concept. The same sex peer relations subscale measures interactions with peers of the same sex. A sample item from this subscale is, “Not many people of my own sex like me” (Marsh, 1990, p. 4). From the normative sample, internal consistency was reported as 0.86 and factor loadings range from 0.57 to 0.68. The opposite-sex peer relations subscale measures interactions with peers of the opposite sex (e.g., “I have lots of friends of the opposite sex”; Marsh, p. 3). Internal consistency was reported as 0.90 and factor loadings range from 0.69 to 0.78. The general self subscale measures one’s feeling of self-worth, self-confidence, and self-satisfaction (e.g., “If I really try I can do almost anything I want to”; Marsh, p. 6). From the normative sample, internal consistency was reported as 0.88 and factor loadings range from 0.49 to 0.64. The emotional stability subscale measures one’s emotional well-being and freedom from emotional dysfunction (e.g., “Other people get more upset about things than I do”; Marsh, p. 5). From the normative sample, internal consistency was reported as 0.83 and factor loadings range from 0.57 to 0.66. The parent relations subscale measures perceived interactions with parents (e.g., “I get along well with my parents”; Marsh, p. 4). From the normative sample, internal consistency was reported as 0.87 and factor loadings range from 0.68 to 0.77.

Social support. Students who participated also completed the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2000). The CASSS is a rating scale designed to measure perceived social support of students in grades 3 through 12. It is a 60-item, multidimensional scale measuring perceived social support from five sources including parents, teachers, classmates, close friends, and school. Each of the five subscales corresponds to one of the sources of support and

consists of 12 statements. Each statement describes a specific supportive behavior. An example of a parent item is, “My parents show they are proud of me.” An example of a teacher item is, “My teachers care about me.” An example of a classmate item is, “My classmates treat me nicely.” The student responds by rating how often they receive that support from that source (frequency ratings) and how important that support is to them (importance rating). Frequency ratings consistent of a 6-point Likert scale (1 = *Never* to 6 = *Always*). Importance ratings consist of a 3-point Likert scale (1 = *Not Important* to 3 = *Very Important*).

Extensive support for the reliability and validity of the CASSS has been reported in research. Factor analyses on the frequency scores have revealed a clear five-factor structure corresponding to the five subscale scores (Parent, Teacher, Classmate, Close Friend, and School) with no dual-loading items and factor loadings ranging from 0.52 to 0.81 (Demaray & Malecki, 2002). Previous research on the CASSS (without the inclusion of the School subscale) has reported the internal consistency of the Total Frequency score as 0.96, and the subscales as 0.92 to 0.95. Additionally, the internal consistency of the importance scores has been demonstrated with Cronbach’s alpha coefficients of 0.96 on the Total Importance score and 0.99 to 0.93 on the importance subscale scores (without the inclusion of the School subscale; Malecki & Demaray, 2002).The CASSS has been correlated with other measures of social support including the Social Support Scale for Children (Harter, 1985), $r = 0.55$, and with the Social Support Appraisals Scale $r = 0.56$ (Malecki & Demaray, 2002).

Procedure

Parental consent was obtained prior to the start of the summer programs. During a general student assembly, adolescents whose parents gave consent were invited to take part in the study, but they were given the option to decline participation. All adolescents whose parents consented agreed to participate. The participating students signed a consent form and were given a survey packet that contained the rating scales. Data were gathered at a single session on the second night of each program. Although all students participated, some adolescents did not complete every item on the questionnaires, resulting in missing data.

Results

The following section will discuss the findings of this study. Correlations were run to investigate the relationships among the variables. A multivariate analysis of covariance (MANCOVA) was performed to explore differences between genders.

Social Self-Concept and Frequency of Social Support

Correlations were run between social self-concept and frequency of social support. Many significant correlations were present. A correlation matrix of all the variables of interest can be found in Table 1. Results revealed that 24 correlations were positively and significantly correlated. Only close friend social support and emotional stability self-concept were not significantly correlated ($r = .09$). Correlations are designated as small (0.10-0.29), medium (0.30-0.49), and large (0.50-1.00) (Cohen, 1988). Four of the 24 correlations were considered to be large. The strongest correlations were achieved between classmate social support and same-sex peer relations self-concept ($r = 0.56$, $p < 0.05$) and opposite-sex peer relations self-concept ($r = 0.55$, $p < 0.05$), and between parent social support and general self self-concept ($r = 0.51$, $p < 0.05$) and parent relations self-concept ($r = 0.73$, $p < 0.05$). Twelve of the 24 correlations were considered to be medium and 8 of the 24 correlations were considered to be small.

Social Self-Concept and Importance of Social Support

Correlations were run between social self-concept and importance of social support. Many significant correlations were present and are listed in Table 2. Results revealed that 17 correlations were positively and significantly correlated. None of these correlations were considered large (0.50-1.00). Four of the 17 correlations were considered to be medium and 13 or the 17 correlations were considered to be small.

Table 1

Correlations between Social Self-Concept and Frequency of Social Support

	Classmate	Close Friend	School	Parent	Teacher
Same-Sex SC	.56**	.32**	.42**	.38**	.22**
Opposite-Sex SC	.55**	.35**	.48**	.25**	.21**
General Self SC	.39**	.38**	.46**	.51**	.37**
Emotional Stability SC	.25**	.09	.26**	.28**	.17**
Parent Relations SC	.31**	.14*	.42**	.73**	.40**

Note. SC = Self-concept.
* $p < 0.05$. ** $p < 0.01$.

Table 2

Correlations between Social Self-Concept and Importance of Social Support

	Classmate	Close Friend	School	Parent	Teacher
Same-Sex SC	.22**	.08	.26**	.24**	.14*
Opposite-Sex SC	.20**	.06	.14*	.15*	.15*
General Self SC	.16*	.17**	.37**	.38**	.25**
Emotional Stability SC	.08	-.10	.10	.16*	.06
Parent Relations SC	.12	.02	.33**	.44**	.27**

Note. SC = Self-concept.
* $p < 0.05$. ** $p < 0.01$.

Gender and Social Support

To examine differences between gifted adolescents' gender with regards to each of the five measures of social support, a series of multivariate analysis of covariance (MANCOVA) were performed. Specifically, each dependent variable (e.g., social support subscale score) was examined to see if it was affected by the adolescent's gender (male, female). A MANCOVA was conducted to control for the covariate, namely importance of social support, as so many significant correlations were found between the importance of social support and perceived social support. These correlations ranged from 0.19 to 0.62 ($p < 0.01$). The means and standard deviations of each dependent variable can be seen in Table 3.

Table 3

Means and Standard Deviations of Variables of Interest

Perceived Social Support Subscale	Male		Female	
	M	*SD*	*M*	*SD*
Close Friend	57.14	12.92	63.06	8.77
Parent	57.61	10.59	56.86	12.32
Teacher	54.51	13.01	57.04	11.03
Classmate	48.95	14.82	51.25	13.26
School	45.57	17.02	48.66	14.70

Results of the MANCOVA did not indicate a significant multivariate gender difference with regard to the perceived frequency of social support ($F = 1.55$, $p = 0.18$, partial eta squared = 0.04). Further, Levene's Test of Equality of Error Variances indicated a violation in the assumption of equality of variances with regard to the close friend frequency of support ($F = 6.11$, $p = 0.01$). In cases such as these, Tabachnick and Fidell (2007) suggest using an alpha of 0.025 or 0.01, rather than the conventional alpha of 0.05 to interpret results. Using an alpha of 0.025, a significant difference existed with regard to close friend frequency of support ($F = 6.46$, $p = .012$, partial eta squared = 0.03) in the follow up univariate tests, such that females had higher perceptions of close friend social support than did males. No other significant differences were found. See Table 4 for more information.

Table 4

Multivariate Analysis of Covariance Results

Variable	*df*	*F*	*p*
Close Friend	1	6.46	0.01
Parent	1	0.14	0.71
Teacher	1	0.29	0.63
Classmate	1	2.07	0.15
School	1	1.15	0.29

Discussion

The purpose of this study was to explore the relationship between social support and the social self-concept of gifted adolescents, while also examining the effects of gender on social support. Results of this study indicate a significant gender difference for the frequency of close friend social support. No gender differences were found for the parent, teacher, classmate, or school social support scores. Further, multiple relationships were found between social self-concept and the frequency of social support and between social self-concept and the importance of social support.

Social Self-Concept and Social Support

As hypothesized, numerous significant correlations were found between the five sources of social support and the social self-concept subscales. The results of the current study lend support to the proposed notion that social support may affect gifted adolescents' social self-concepts (Forman, 1988; Wenz-Gross & Siperstien, 1998), although this study did not examine causation. In regards to the correlations between social self-concept and frequency of social support, all five subscales of social-self concept were correlated with each of the sources of social support. Further, there were several significant correlations between social self-concept and the importance of social support, but these were relatively weak, so the practical relationship between these two constructs may be limited.

Of the five sources of social support, the frequency of classmate social support is most positively correlated with the same-sex peer relations self-concept and opposite-sex peer relations self-concept subscales. This is consistent with prior research that found support from classmates as the most important predictor of self-worth, scholastic

competence-specific behaviors, athletic competence, and physical appearance self-concept (Forman, 1988). Of particular interest is the fact the significant relationships between classmate support and each subscale of social self-concept were stronger than the relationships between close friend social support and the social self-concept scales. This observation has particular implications for the manner in which classroom environments are maintained. For example, it may be important to provide gifted students time to interact with their classmates in a positive manner. Additionally, educators may benefit from the results of this study when considering planning additional programs for gifted adolescents to interact with classmates, such as summer programs.

Of the five sources of social support, the frequency of parent support is the most positively correlated with general self-concept and parent relations self-concept subscales. The importance of parent support is also the most positively correlated source of support to general self-concept. Although adolescence is a critical time for students to develop relationships with peers and adults other than family members, it may still be very important to continue to establish and maintain a parent-child bond. Future research might examine potential age differences, as younger adolescents may perceive parental support to be more important than older adolescents. A simple implication of these results may be that efforts should be made to increase the amount of social support that adolescents perceive from their parents. For example, interventions through the school that increase parents' supportive roles in their children's lives such as parent nights and family events might be appropriate.

The correlations between the frequency of school social support and same-sex, opposite-sex, general self, and parent relations self-concept scales are similar and fairly

equal. This is the only source of social support where this is a clear pattern. Making school staff aware of the potential effects of the support they provide their students at school may be an important implication. Specifically, the findings from this study can provide adults who provide social support to students encouraging data regarding how students are perceiving their support, as students who rate a high frequency of social support from people in their school are also rating themselves higher in social self-concept.

Gender Differences

In the current study, gifted adolescent females reported more support from a close friend than did gifted males. Although it is noteworthy that this finding has a low significance level and low effect size, meaning the finding may not be practically useful. This finding is inconsistent with previous research by Van Tassel-Baska and Olszewski-Kubilius (1994) who found that female gifted students perceived less support from classmates and friends than gifted males, yet consistent with previous research where gifted girls perceived higher levels of classmate and close friend support than did males (Demaray, et al., 2005.) This is, however, the only source of social support where a gender difference occurred. This gender difference may be explained by research that suggests adolescent females develop more emotionally close friendships, stress the importance of maintaining close friendships, and report more closeness and commitment in their friendships when compared to adolescent males (Johnson, 2004). It may be important to involve gifted males in programs that help them form bonds with other peers and develop close friendships.

Limitations and Directions for Future Research

Results of the current study open a new window to the investigation of the relationship between gifted adolescents' social self-concepts and social support. Continued exploration of the effects of social support on social self-concept is necessary to further solidify the current findings. Further research is needed to determine if the relationships between social support and social self-concept are causal relationships rather than just correlational relationships. Future research should examine specific findings of the current study in greater detail in order to examine whether or not social support predicts social self-concept.

A limitation that should be noted is that, as the SDQ-II was used to measure self-concept and is appropriate for ages 13-17, the current sample included ages 11 and 12. As the current sample consisted only of gifted students from two summer programs, replication of the current study in settings other than summer programs, such as in the regular classroom, as well as using a more diverse sample is suggested. Examining if there is something unique about the gifted students who participate in a summer camp versus those that do not may also reveal beneficial results. For example, examining if the students who participate in a camp have a higher social self-concept than those who do not participate in a camp. Future research is also needed to explore the relationship between social support and social self-concepts of younger and older gifted students, as well as compared to average ability students. Examining different levels of giftedness or different types of giftedness with regard to social support and social self-concept might also provide interesting results.

Conclusion

The present study contributes to the literature on gifted adolescents' self-concepts, particularly with regard to the relationship between social self-concept and social support. Results suggest gifted adolescent females may score higher than males in the frequency of close friend social support. In addition, this study revealed multiple relationships among social self-concept and social support. It is suggested that social support may be affecting gifted adolescents' social self-concept. More research in needed, however, to clarify if the relationship is causal.

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