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THE ROLE OF COOL GIRLS, INC. PARTICIPATION AND PARENT-CHILD
RELATIONSHIP QUALITY IN THE PREDICTION OF SOCIAL CAPITAL AND HOPE FOR
THE FUTURE AMONG FEMALE YOUTH

By

SCOT SEITZ

Under the Direction of Gabriel Kuperminc, PhD

ABSTRACT

Social capital, or access to resources through relationships with other people, can facilitate the socioeconomic mobility of youth living in low-income communities. This study examined whether parent-child relationship quality and participation in a youth development program (YDP) were associated with gains in hope for the future, and whether those associations were mediated by parent social capital (i.e., access to resources through relationships with parents) and non-parent social capital (i.e., access to resources through relationships with people other than parents). The sample included 216 participants of one YDP program, Cool Girls, Inc., and 92 comparisons. Path analyses indicated that program participation for over one year predicted gains in non-parent social capital, and increases in both parent and non-parent social capital predicted increases in hope for the future. There was also evidence that first-year program participation was associated with gains in hope for the future. Implications for practice and research are discussed.

INDEX WORDS: Social capital, hope for the future, youth development program, positive youth development, Cool Girls, Inc., parent-child relationship quality

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SCOT SEITZ

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

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Scot Raymond Seitz
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1 INTRODUCTION

Social capital, or access to resources through relationships with other people, is theorized to be an important factor in facilitating the socioeconomic mobility of youth living in low-income communities (Portes, 1998; Putnam, 2015). Specifically, members of youths' social networks can provide support for activities that facilitate academic and vocational success, such as completing academic tasks, navigating college application processes, and applying for jobs. Indeed, youth who have more social capital are more engaged in school, have better conduct at school, and are more likely to pursue higher education and obtain competitive jobs (Garcia-Reid, Peterson, & Reid, 2015; Verhaeghe, Van der Bracht, & Van de Putte, 2015). Social capital can also contribute to improved mental health by providing youth with social support and resources to cope with stressful situations (e.g., advice, financial loans) (Kiwachi, Subramanian, & Kim, 2008). In addition, social capital is correlated with youths' *hope for the future*, which involves identifying routes to achieve goals and feeling capable of attaining those goals (Snyder, 2002). Social capital may increase youths' hope for the future by providing youth with more pathways to successfully attain their goals.

Increasing social capital and hope for the future are especially important for youth living in low-income communities because these youth often experience limited socioeconomic mobility. In fact, of the children who grow up in the poorest one-fifth of families in the United States, 42% remain in the poorest quintile income bracket as adults and another 42% fall within the second or third lowest quintile income brackets as adults (Issacs, 2008). In addition, compared with their more affluent peers, youth living in low-income communities report lower levels of both social capital and hope for the future (Bennett, Wood, Butterfield, Kraemer, & Goldhagen, 2014; Putnam, 2015; Rankin & Quane, 2000). Thus, many youth living in low-

income communities have smaller social networks that they can rely on to help them achieve socioeconomic success.

Youth development programs (YDPs) can facilitate the development of social capital and hope for the future among youth living in poor communities. YDPs aim to provide youth with opportunities to develop adaptive skills and build supportive relationships (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004). By providing opportunities for youth to build relationships with peers, program staff members, and community members, YDPs may increase youths' social capital and, in turn, their hope for the future.

Youths' relationships with their parents may also play a role in youths' ability to build social capital. For instance, positive relationships with parents may help youth develop strong interpersonal skills (Laursen & Collins, 2009; Rice, 1990) that enable them to develop robust social capital networks. The goal of this study is to examine whether parent-child relationship quality and participation in one YDP, Cool Girls, Inc., are associated with gains in social capital and, in turn, hope for the future.

1.1 Social Capital

Many YDPs aim to increase youths' access to resources, including social capital. Although social capital has been conceptualized at both the individual and community level (Coleman, 1988; Putnam, 1993), most researchers examining social capital among youth have conceptualized it as an individual asset (Ferguson, 2006). Social capital can be broadly defined as access to resources through relationships with other people, organizations, and institutions (Portes, 1998). The resources obtained through social capital can be instrumental (e.g., goods and services), emotional (e.g., supportive listening), and/or informational (e.g., knowledge about job opportunities) (Laser & Leibowitz, 2009). Pierre Bourdieu (1985, p. 88), one of the first theorists

to delineate social capital, defined it as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group...” Social capital results from networks of relationships which can involve close connections among members of the same group (e.g., members of a community center) as well as connections among members of different groups who have distinct social networks (e.g., a YDP participant and her mentor) (Putnam, 2001). These relationships are important for youth because they provide avenues for youth to acquire resources to which they might otherwise not have access.

Social capital overlaps conceptually with another construct that focuses on the support that people receive through relationships: social support. Social support can be divided into emotional and instrumental support (Siceloff, Wilson, & Horn, 2014). Emotional support is defined as “communication of caring, empathy, and esteem” (Semmer et al., 2008, p. 236), and it differs from social capital because emotional support does not emphasize the provision of tangible resources. In contrast, instrumental support can be defined as “assistance in problem solving by tangible help or information” (Cohen & Wills, 1985; Semmer et al., 2008, p. 236). Although both instrumental support and social capital involve the exchange of resources through relationships with other people, the two concepts were developed in separate research literatures. As such, researchers have focused on how these two constructs affect different outcomes. The concept of social support was developed in the fields of mental health and public health (e.g., Caplan, 1974; Cassel, 1976), and researchers have historically focused on the connection between social support and health outcomes (Barrera, 1986). In contrast, the theory of social capital was primarily developed by sociologists (e.g., Bourdieu, 1985; Coleman, 1988) and researchers have often explored the role of social capital in social stratification and

socioeconomic mobility (e.g., educational achievement, employment opportunities) (Portes, 1998). Since this study focuses on an YDP that aims to increase the socioeconomic mobility of female youth, this study utilizes a social capital framework.

Coleman (1988) differentiated two types of social capital: social capital in the family and social capital outside of the family. Although social capital in the family can be defined as youths' access to resources from all family members, Coleman focused on access to resources from parents. For example, when parents teach their children about appropriate social behaviors, the youth are acquiring resources (i.e., information) from their parents. Because social capital in the family focuses on resources from parents, this form of social capital will be referred to as *parent social capital*. In contrast, social capital outside of the family (hereinafter referred to as *non-parent social capital*) reflects resources that can be accessed outside of the parent-child relationship. Although Coleman's (1988) conceptualization of non-parent social capital focused on relationships that parents have with other people and community organizations, *non-parent social capital* can also be conceptualized as resources that youth can access directly through relationships with non-parents (e.g., non-familial adults, extended family members). An example of non-parent social capital is a YDP staff member providing homework help to a YDP participant after school. The distinction between parent and non-parent social capital is useful because it provides a framework for understanding how youth can benefit from resources provided through relationships with their parents as well as other people in their lives.

Researchers have operationalized the social capital of children and youth in various ways. Some indicators of social capital used in previous research include parental involvement, the frequency of youths' interactions with extended family members, the quality of schools and neighborhoods, civic engagement in local institutions, and social relationships that family

members have with other community members (Ferguson, 2006). Another common method for measuring social capital is assessing youths' social networks (Lin, 1999). For example, Baay, van Aken, de Ridder, and van der Lippe (2014) measured social capital by providing youth with a list of professions and asking the youth to indicate whether they know someone with each profession. Thomason and Kuperminc (2014) measured social capital by asking youth to nominate an individual from whom they could get help within each of four different domains (schoolwork, support and guidance, problem solving, goal setting). Although the aforementioned measures of social capital are distinct, they all provide insight into youths' relationships and possible avenues for acquiring resources.

1.2 Social Capital and Youth Development

Social capital can promote youth development by giving youth access to a variety of resources that facilitate well-being, such as educational resources (e.g., knowledge of effective study techniques), financial resources (e.g., monetary loans), and physical resources (e.g., material goods) (Bassani, 2007). For example, an adolescent can further develop academic skills by asking a well-educated parent for guidance in completing a school project. Similarly, a working professional may invite an older adolescent to complete a paid internship, thereby increasing the adolescent's access to financial resources. Social capital may also promote youths' emotional and physical well-being. For example, the feelings of security associated with having a supportive social network may reduce youths' day-to-day stress, thereby improving health outcomes (Schaefer-McDaniel, 2004).

The theoretical link between social capital and positive youth development is supported by empirical evidence (Ferguson, 2006). For instance, diverse and supportive social networks were associated with increases in social acceptance and behavioral conduct over a one-year

period among elementary and middle school girls (Thomason & Kuperminc, 2014). Having a supportive network of peers and parents is associated with school enrollment among adolescent girls living in disadvantaged communities in five urban cities within and outside of the United States (Marshall et al., 2014). Similarly, teacher and parental support were associated with higher levels of school engagement and lower levels of school trouble among Latino immigrant youth in the United States (Garcia-Reid et al., 2015). Overall, there is compelling evidence that social capital is associated with positive development for youth from diverse backgrounds.

Social capital plays an especially important role for the positive development of youth living in poverty. Compared to residents of affluent neighborhoods, residents of poor neighborhoods have fewer friends who are college-educated and stably employed (Rankin & Quane, 2000). Thus, youth living in poor communities likely have less access to resources through their social networks than their more affluent peers (Putnam, 2015). This lack of social capital among youth living in poverty may be an important determinant of intergenerational poverty (Wolf, 2007). Specifically, youth living in poor neighborhoods have lower levels of social capital that could support their efforts to gain more financial security. Indeed, among a sample of residents in low-income communities, social capital in mid-adolescence predicted various indicators of success in early adulthood, including high school graduation and stable employment (Furstenberg & Hughes, 1995). Given that social capital is associated with positive outcomes, yet youth in poor communities have limited opportunities to develop social capital, it is important to understand strategies for increasing social capital among youth who live in low-income communities.

1.3 Social Capital and Youth Development Programs

YDPs are promising settings for increasing social capital for all youth, including youth living in disadvantaged communities (Erbstein, 2013). These programs seek to promote both internal resources (e.g., social competence, hope for the future) and external resources (e.g., connections with supportive peers and adults (i.e., social capital)) (Gootman & Eccles, 2002; Lerner et al., 2013). YDPs are well-positioned to promote social capital because they intentionally facilitate interactions among youth, prosocial peers, and adults in a supportive context (Jarrett, Sullivan, & Watkins, 2005).

Cool Girls, Inc. is one YDP that seeks to increase social capital as part of its theory of change. Specifically, this organization aims to empower its participants by exposing them to a “broader world of opportunity” and by providing a network of mentors and volunteers that support “all aspects of [the participants’] development” (Cool Girls, Inc., 2016b). Cool Girls, Inc. works with girls in elementary through high school who live in low-income communities in the metropolitan Atlanta area (Kuperminc, Thomason, DiMeo, & Broomfield-Massey, 2011). The organization offers a variety of programs including a weekly after school “Cool Girls Club” that provides academic tutoring and life-skills workshops, monthly field trips, and annual conferences (Cool Girls, Inc., 2016a). In all of these activities, Cool Girls have opportunities to connect with their peers and adults (e.g., teachers, guest speakers, volunteers, community mentors) and, subsequently, to build social capital.

After the first year of the program there are additional opportunities for Cool Girls to build social capital. Specifically, after one year of program participation Cool Girls are eligible to receive a mentor through the Cool Sisters one-on-one mentoring program (Cool Girls, Inc., 2016a). In addition, Cool Girls who have been in the program for over one year have had more

time to build relationships with their peers in the program as well as Cool Girls, Inc. staff and volunteers.

Findings from several qualitative studies suggest that YDPs effectively promote social capital by providing opportunities for youth to connect with their peers and community members (Hennes, Ball, & Moncheski, 2013; Jarrett et al., 2005; Kahne & Bailey, 1999; Kinsey, 2013; Sullivan & Larson, 2010). These studies have also provided important information about the processes through which youth in YDPs are able to build relationships with peers and adults. For example, youth reported that they built relationships with community members through both long-term YDP activities (e.g., community service projects) and brief interactions (e.g., presentations by experts) (Jarrett et al., 2005; Sullivan & Larson, 2010). However, these studies did not include control groups and therefore it is unclear whether YDP participation is associated with gains in social capital beyond the social capital that youth may access through their involvement in other settings (e.g., school, church). Furthermore, the qualitative nature of these studies limits the ability of researchers to infer whether YDP participation is associated with quantifiable gains in social capital for the average program participant.

Only one published study has quantitatively explored the development of youths' social capital through YDPs. Using a different sample than the current study, Thomason and Kuperminc (2014) assessed social capital by asking participants to nominate people that they could turn to for help within each of four different domains (schoolwork, support and guidance, problem solving, goal setting). They found that Cool Girls, compared to demographically-matched controls, reported larger and more diverse social capital networks at post-test. Additionally, Cool Girls reported slightly greater ($p < .10$) increases in social capital over one academic year. Although this finding suggests that Cool Girls, Inc. is only marginally associated

with gains in social capital, Thomason and Kuperminc (2014) used a measure of social capital that may not have been sensitive enough to detect meaningful differences between Cool Girls and controls. Specifically, the measure only allowed participants to nominate up to four people within their social capital networks, and there is some evidence that this may have resulted in a ceiling effect and limited variability (i.e., the mean number of domains that participants reported they could access help was close to the upper limit of four domains ($\bar{X} = 3.74$ for Cool Girls and $\bar{X} = 3.49$ for comparisons at post-test)). Thus, there is a need for further research on the association between participation in Cool Girls, Inc. and gains in social capital.

1.4 Hope and Youth Development Programs

Many YDPs also strive to promote youths' positive outlook on the future, and this construct can be conceptualized as *hope*. Although hope has been defined in various ways (Sun & Shek, 2013), Snyder's (2002) definition of hope has been widely accepted. According to Snyder, hope consists of two separate but related constructs: pathways thinking (i.e., generating plausible routes to achieving goals) and agency thinking (i.e., feeling capable of utilizing the pathways to successfully achieve the desired goals). The construct of hope is different from other similar constructs such as self-efficacy and optimism (Magaletta & Oliver, 1999). Self-efficacy refers to the perception of being able to perform a *specific* task in a particular situation (Bandura, 1982, 1989), whereas hope reflects a general sense of being able to identify and successfully utilize pathways to achieve goals. Optimism refers to the perception that positive outcomes will occur, regardless of the cause of those positive outcomes (e.g., personal actions or external forces) (Scheier & Carver, 1993). In contrast, hope reflects the perception that *personal actions* will lead to goal attainment. In addition to the theoretical differences among hope, self-efficacy,

and optimism, factor analysis has provided evidence that these constructs are distinct (Magaletta & Oliver, 1999).

Sun and Shek (2013) reviewed developmental outcomes associated with hope, including life satisfaction, self-esteem, academic achievement, and positive affect. Hope may facilitate these positive outcomes since individuals with higher levels of hope set more ambitious goals, are more motivated to achieve goals, and persist even under difficult circumstances (Snyder, 2002). Thus, youth with higher levels of hope may have more ambitious goals for their health and well-being and they may be more likely to achieve these goals, thereby promoting their positive development.

Developing strategies to increase hope is especially important for youth living in poverty since these youth report lower levels of hope than their more affluent peers. Bennett et al. (2014) found a positive correlation between household income and levels of hope. Although not all youth living in poverty report hopelessness, those who do are more likely to engage in suicidal ideation, violence, substance use, sexual activity, and other risk behaviors (Bolland, 2003). Given the association between high levels of hope and positive developmental outcomes (Sun & Shek, 2013), it is critical to develop strategies for increasing hope among youth living in low-income communities.

Participation in YDPs is associated with increased hope among youth, including youth living in poverty (Hahn, 1994; Kuperminc et al., 2011; Marques, Lopez, & Pais-Ribeiro, 2011; McDermott & Hastings, 2000; Robitschek, 1996; Shek et al., 2014; Ullrich-French & McDonough, 2013). One YDP sought to increase sixth graders' hope through activities that explored goal-setting, generating pathways to achieve goals, perseverance, and navigating obstacles (Marques et al., 2011). In this five-week program, the youth were also encouraged to

make their own goals and plan future steps to attain their goals. Compared to demographically-matched controls, the program participants reported higher levels of hope at post-test and at 18-months follow up (Marques et al., 2011). The Quantum Opportunities Program was also found to increase youths' hope (Hahn, 1994). This program organized a range of educational, developmental, and service activities for high school youth living in low-income communities. Compared to controls, program participants reported higher levels of hope for the future post-intervention. Finally, Cool Girls, Inc. participants reported larger gains in hope from pre- to post-test than demographically-matched controls (Kuperminc et al., 2011). Although Cool Girls, Inc. and other YDPs are associated with gains in hope for the future, the specific mechanism explaining this relationship is not known.

1.5 Hope and Social Capital

The association between participation in YDPs and increases in hope may be explained by social capital. Specifically, YDPs are associated with gains in social capital which may, in turn, lead to increased hope. Theoretically, social capital may contribute to increases in hope by providing more pathways to achieve goals and by promoting both pathways thinking and agency thinking. For example, if an adolescent with a robust social capital network aims to pass all of her classes, she will likely have access to many peers and/or adults to ask for academic support (i.e., plausible pathways to academic success). Additionally, people in an adolescent's network who can help set goals and solve problems provide resources that can directly improve pathways thinking (i.e., determining strategies to achieve goals). Similarly, an adolescent with a robust social capital network is more likely to have supportive peers and/or adults who can encourage her to continue to work towards her goals, thereby increasing agency thinking (Snyder et al., 1997).

The association between social capital and hope is supported by both quantitative and qualitative evidence. In one study, hope was positively associated with four different measures of social capital (e.g., perceptions of connectedness with friends, teachers, parents, and other adults) (Bennett et al., 2014). Qualitative research with individuals living in poverty also found that those who were more socially connected and involved with community organizations were more likely to express hope for the future (Cattell, 2001). Although the relationship between social capital and hope has not been studied extensively, the literature suggests that they are positively correlated.

1.6 The Role of Parent-Child Relationship Quality

Parent-child relationship quality may also play a role in facilitating social capital and hope for the future. Parent-child relationship quality is often conceptualized as the degree of affection, communication, and parental knowledge present within a parent-child dyad (García-Moya, Moreno, & Jiménez-Iglesias, 2013). Affection refers to the emotional connection between parents and their children; communication reflects the frequency and comfort of sharing information across the parent-child dyad; and parental knowledge refers to the quantity and type of information that parents know about their children (e.g., knowledge of the child's friends, how the child spends her free time). In a review of the research literature, Laursen and Collins (2009) found that parent-child relationship quality is positively correlated with psychosocial adjustment, mental health, academic achievement, and other indicators of positive youth development.

There are at least three ways that high parent-child relationship quality may positively affect youths' social capital. First, a positive parent-child relationship can help youth build relationships with people inside and outside of the family. Parent-child relationship quality is correlated with attachment, an affective bond between young children and their parents (Allen et

al., 2003; Bowlby, 1982). According to attachment theory, youth with secure attachments tend to view others as trustworthy and reliable (Ainsworth, Blehar, Waters, & Wall, 2014; Bowlby, 1982). This positive view of others can facilitate social engagement and relationship-building, resulting in larger social capital networks (Laser & Leibowitz, 2009). In fact, children with secure attachments have been found to process social interactions with peers more accurately than children with insecure attachments and are more likely to display effective interpersonal functioning as adolescents (Cassidy, Kirsh, Scolton, & Parke, 1996; Schneider, Atkinson, & Tardif, 2001). Thus, secure attachment seems to enable youth to more effectively notice and respond to interpersonal dynamics (Allen et al., 2002). Additionally, a positive parent-child relationship *during adolescence* is thought to provide youth with a sense of security from which they can build relationships with peers and other adults (Allen & Land, 1999).

Second, positive relationships with parents may provide youth with the opportunity to build social competence, which can, in turn, help young people access social capital more effectively. According to the “spillover hypothesis,” behaviors between parents and children are replicated by children when they interact with other people (Gallagher, Huth-Bocks, & Schmitt, 2015). “Spillover” can be explained by social learning theory (Gerard, Krishnakumar, & Buehler, 2006). Specifically, parental behavior serves as a model that is copied by children when they interact with other people. For example, if a parent-child relationship involves prosocial behaviors and emotional support, the child is likely to repeat these behaviors with other people. The child will then build social competence as she learns that other people respond positively to these prosocial behaviors. Furthermore, through these positive social interactions the child is more likely to develop relationships with other people and have more opportunities to practice interpersonal skills. In support of this theory, Clark and Ladd (2000) found that 5-year-olds who

reported a strong connection to their parents tended to have more friends compared to children who reported less positive relationships with their parents. Moreover, the association between parent-child relationship quality and peer friendships was mediated by the children's prosocial behavior during peer interactions. Indeed, parent-child relationship quality is positively correlated with adolescents' interpersonal functioning, assertiveness, and social competence (Rice, 1990). These interpersonal skills may help facilitate the development of robust social capital networks by helping youth build and maintain social relationships (Laser & Leibowitz, 2009).

Third, the parent-child relationship is an important vehicle through which resources (e.g., knowledge, money) are transferred from parents to children (Coleman, 1988; Furstenberg & Hughes, 1995). Parents who communicate regularly with their children and have knowledge of their children's experiences will likely be more able to identify and address their children's needs. Although researchers have measured parent-child relationship quality as an indicator of social capital (Ferguson, 2006), to our knowledge the link between parent-child relationship quality and children's access to resources from parents (i.e., social capital) has not been examined.

By facilitating the development of social capital, parent-child relationship quality may also indirectly lead to increased hope for the future. If high parent-child relationship quality increases social capital, the gains in social capital may facilitate increased hope for the future. Parent-child relationship quality may also directly affect hope for the future. Parents who have strong connections with their children can encourage their children to identify pathways for and work towards achieving goals (Snyder et al., 1997). In support of this theory, Westburg (2001) found that adult women with the lowest levels of hope had experienced a disruption in their

mother-daughter relationship due to their mother's death or separation from the family. Thus, the available evidence suggests that parent-child relationship quality may indirectly and directly contribute to hope for the future.

1.7 Current Study

The aims of this study are to (1) examine the association between participation in Cool Girls, Inc. and gains in hope for the future, (2) explore whether parent-child relationship quality is associated with increases in hope for the future, and (3) investigate whether the associations in aims (1) and (2) are mediated by gains in social capital. The study extends previous research on social capital in the context of a YDP (Thomason & Kuperminc, 2014) by providing youth with the opportunity to nominate a larger number of people in their social capital networks and by allowing youth to indicate the extent to which they believe each person they nominate would actually be helpful for addressing various concerns. Whereas Thomason and Kuperminc (2014) asked youth to nominate one individual from whom they could seek help within each of four different domains (schoolwork, support and guidance, problem solving, and goal setting), in the current study youth were asked to nominate up to *three* individuals in five different domains (sexual health and the four domains previously mentioned). Thomason and Kuperminc (2014) noted that one limitation of their measure of social capital was that the people youth nominated may not have actually been helpful on a consistent basis. Lin (1999) argues that relationships with other people only contribute to social capital when they provide access to useful resources (e.g., academic knowledge, financial resources). To address this limitation, participants in the present study were asked to rate the extent to which they expected each individual to provide the help that they needed.

The measures of social capital included in this study also differ from those used in Thomason and Kuperminc's (2014) research in that this study includes separate measures for parent and non-parent social capital. Parent social capital represents access to resources that youth have through their relationships with their parents, and parent-facilitated resources may play a critical role in youths' positive development (Coleman, 1988). At the same time, relationships with people other than parents are theorized to be especially important for helping youth gain access to resources (e.g., career advice, homework help) to which they may otherwise not have access (Putnam, 2015). YDPs can play an important role in connecting youth with these influential non-parents and promoting non-parent social capital (Jarrett et al., 2005; Sullivan & Larson, 2010). Differentiating parent and non-parent social capital also allows for the examination of whether parent-child relationship quality has an effect only on the development of social capital through relationships with parents or a broader effect on the development of social capital through relationships with both parents and non-parents.

It is expected that participation in Cool Girls, Inc. will be associated with increased parent social capital, non-parent social capital, and hope for the future. Although Cool Girls, Inc. is not likely to facilitate new relationships between program participants and their parents, Cool Girls, Inc. may facilitate gains in parent social capital by encouraging youth to draw on their current support systems (including parents) when seeking help. The current study builds on previous research by examining whether increased social capital explains the association between participation in Cool Girls, Inc. and changes in hope for the future. Since social capital may contribute to increased levels of hope for the future by providing youth with more pathways to achieve goals, it is hypothesized that the relation between program participation and hope for the future will be mediated by social capital.

Since high parent-child relationship quality is associated with social competence and effective interpersonal functioning (Rice, 1990; Schneider et al., 2001), it is also expected that positive parent-child relationships will contribute to gains in social capital. As described above, these gains in social capital are expected to contribute to increased hope for the future. Parent-child relationship quality is also hypothesized to be directly related to increased hope for the future since parents who have close connections with their children can encourage their children to identify and work towards pathways for achieving goals (Snyder et al., 1997).

Previous research suggests that the longer youth participate in YDPs, the more likely they are to benefit from the programs (Meltzer, Fitzgibbon, Leahy, & Petsko, 2006). Continued involvement in a program may be particularly likely to increase non-parental social capital because of increased opportunities to deepen relationships with adults (and peers) that youth come into contact with through the program (Jarrett et al., 2005). By encouraging youth to continue to draw on their current support networks (including parents), continued program involvement may also result in increased parent social capital. Therefore, this study examines whether program participation for more than one year (i.e., advanced program participation) provides an added benefit beyond program participation for only one year. It is expected that advanced program participation will be associated with greater gains in both social capital and hope for the future than program participation for only one year.

2 METHOD

2.1 Program Description

Cool Girls, Inc. is a free after school program that serves more than 350 girls across eight schools in the metropolitan Atlanta area (Cool Girls, Inc., 2016b). The program enrolls girls from 2nd through 12th grade, and most participants are African American and Latina students living in

low-income communities. As a comprehensive YDP, Cool Girls, Inc. offers a variety of program activities (Cool Girls, Inc., 2016a). Elementary and middle school students participate in the weekly after-school Cool Girls Club. The Cool Girls Club follows a life-skills curriculum that focuses on academic success, healthy relationships, sexual health, personal hygiene, self-esteem, and cultural understanding. Youth also participate in technology and fitness programs, monthly field trips, and an annual pregnancy prevention conference. Participants who have been in the program for at least one year can also participate in the Cool Sisters mentoring program.

2.2 Participants

Participants in the current study included Cool Girls, Inc. members ($N = 216$) and demographically matched comparisons ($N = 92$) who were recruited in the 2009-10 and 2010-11 academic years. Cool Girls and comparisons in this sample were in 5th through 8th grades at baseline. All study participants were females and the majority were African American and eligible for free or reduced-price lunch (see Table 1).

Table 1. Demographic Characteristics of Study Participants

	Comparisons (<i>n</i> = 92)		Cool Girls (<i>n</i> = 216)					
	Means (<i>SD</i>)	Freq. (%)	All Cool Girls (<i>n</i> = 216)		1 st Yr. Cool Girls (<i>n</i> = 105)		Adv. Cool Girls (<i>n</i> = 111)	
			Means (<i>SD</i>)	Freq. (%)	Means (<i>SD</i>)	Freq. (%)	Means (<i>SD</i>)	Freq. (%)
Ethnicity								
African American		73 (79.3)		174 (80.6)		85 (81.0)		89 (80.2)
Latina/Hispanic		6 (6.5)		21 (9.7)		10 (9.5)		11 (9.9)
Asian/Vietnamese		4 (4.3)		6 (2.8)		2 (1.9)		4 (3.6)
Pacific Islander		1 (1.1)		1 (0.5)		1 (1.0)		0 (0.0)
Caucasian/White		2 (2.2)		1 (0.5)		1 (1.0)		0 (0.0)
Other		6 (6.5)		13 (6.0)		6 (5.7)		7 (6.3)
Age	12.10 (1.09)*		11.57 (1.15)*		11.64 (0.99)		11.50 (1.27)	
Extracurr. Activities	1.32 (0.94)		1.28 (1.00)		1.22 (0.96)		1.36 (1.02)	
Two-Parents House		30 (32.6)		86 (39.8)		41 (39.0)		45 (40.5)
Live w/ Extend. Fam		24 (26.1)		47 (21.8)		18 (17.1)		29 (26.1)
Free/Red.-Price Lun.		84 (91.3)		208 (96.3)		100 (95.2)		108 (97.3)

*Significant difference between Cool Girls and comparisons, $p < .05$.

2.3 Procedure

All 5th through 8th grade Cool Girls at 10 elementary and middle schools in Atlanta, Georgia were invited to participate in the study. Cool Girls who returned informed consent documents signed by a parent or guardian and who signed an assent form were eligible to participate in the study. Although the response rate is difficult to determine due to variable enrollment during the beginning of the school year, it is estimated that at least 60% of eligible Cool Girls (i.e., those in 5th through 8th grades) participated in the study. This estimate is based on a previous study using similar recruitment procedures (Kuperminc et al., 2011).

To identify comparisons, the research team asked guidance counselors at schools with Cool Girls, Inc. programs to provide a list of students who were demographically similar to Cool Girls at the same schools. Cool Girls were also asked to nominate three girls at their schools who were similar to them but not in Cool Girls, Inc. Research staff sent letters explaining the study and informed consent documents to the students identified as potential comparisons. Cool Girls, Inc. site coordinators at each school collected the signed informed consent documents from comparisons. To participate in the study, comparisons were required to return an informed consent document signed by a parent or guardian and to sign an assent form.

Two cohorts of participants completed baseline surveys in the fall of 2009 or 2010. Follow-up surveys were completed during the spring semester of the same academic year. The surveys took an average of 45 minutes to complete and the surveys were administered through an online software program. Participants completed the surveys in computer labs at their schools and research staff members circulated the rooms to monitor progress and answer questions. Participants who were absent from school when data collection took place were contacted by research staff members and invited to take the surveys at Georgia State University, at events

sponsored by Cool Girls, Inc., or at a home computer. Participants received a \$5 gift card for completing each baseline and follow-up survey. This study was approved by Georgia State University's Institutional Review Board.

2.4 Measures

Program Participation. A dummy code was created to differentiate Cool Girls (1) and comparisons (0). A separate dummy code was also created to differentiate Cool Girls who had been in the program for over a year (1) and all other study participants (0; i.e., Cool Girls who were in their first year of the program and comparisons).

Social Capital. Expanding on Thomason and Kuperminc's (2014) methods, social capital was measured by asking participants to nominate up to three people from whom they could seek help within five different domains (schoolwork, goal-setting, support and guidance, sexual health, and problem solving). For instance, participants were given the following prompt: "The next time I need help with schoolwork, the name of the 1st person I will ask is." Participants then described their relationship to each nominee (e.g., mother, friend, brother). Researchers categorized each response into the following relationship categories: parent/guardian, extended family member, non-familial adult, familial peer, and non-familial peer. For each nominee, participants were also asked, "When you go to this person for help, how often do you get the help you need?" Response options included "Almost never" (1), "Sometimes" (2), "Often" (3), and "Almost always" (4). See Appendix A for the complete social capital measure.

Two measures of social capital were calculated: parent social capital and non-parent social capital. These measures were used because parents play an especially important role in providing resources to their children (Coleman, 1988) and YDPs have been found to facilitate

meaningful relationships between program participants and non-parents (Jarrett et al., 2005; Sullivan & Larson, 2010). By creating these two separate measures of social capital, we were also able to examine whether parent-child relationship quality had a differential effect on resources accessed through parents versus non-parents. For the parent social capital measure, the helpfulness ratings for each parent nominee were totaled. For example, if a participant nominated a parent three times across the five domains and assigned a helpfulness rating of “2” (“sometimes helpful”) each time, this participant’s total parent social capital score would be 6. For the non-parent social capital measure, the helpfulness ratings for each non-parent nominee were totaled.

Hope for the Future. Hope for the future was measured with the 6-item Children’s Hope Scale (Snyder et al., 1997). Items within this measure include, “I can think of many ways to get the things in life that are most important to me” and “I think the things I have done in the past will help me in the future.” The measure uses a 6-level Likert-type scale with response options ranging from “None of the time” to “All of the time.” The measure was designed for children 8-16 years old and its construct validity was established among a diverse sample of youth in four U.S. cities (Snyder et al., 1997). In the current study, the items were averaged to form a composite score (Cronbach’s alpha = .84 at pre- and post-test). See Appendix B for the complete hope for the future measure.

Parent-Child Relationship Quality. Parent-child relationship quality was assessed by a 5-item scale adapted from the Communities that Care Survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Glaser, Van Horn, Arthur, Hawkins, & Catalano, 2005). The items were modified to ask about parents/guardians collectively instead of asking about mothers and fathers separately. The items measure the extent to which youth feel close to their

parents/guardians, enjoy spending time with their parents/guardians, share thoughts and feelings with their parents/guardians, feel that their parents/guardians notice when they are doing a good job, and perceive that their parents/guardians are proud of them. The items were rated on a 4-point Likert-type scale ranging from “Not true” to “Always true.” Item responses were averaged to create a composite score (Cronbach’s alpha = .82 at pre-test and .87 at post-test). The original scale was designed for youth 11-18 years old and its construct validity was established among a diverse group of youth in 7 U.S. states (Arthur et al., 2002; Glaser et al., 2005). See Appendix C for the complete parent-child relationship quality measure.

2.5 Data Analysis

Three path models were tested using the multiple imputation feature of Mplus Version 7.4. Due to non-normality of the outcome variables, the MLR estimator was used. As part of the preliminary analyses, the first path model examined whether pre-test levels of parent social capital, non-parent social capital, and parent-child relationship quality predict changes in hope for the future (see Figure 1). Analysis of the second path model examined whether participation in Cool Girls and parent-child relationship quality predict changes in hope for the future, and whether those associations are mediated by changes in parent and non-parent social capital (see Figure 2). Analysis of the third path model examined the same associations, except this analysis included both dummy codes described above to differentiate the effects of program participation and *advanced program participation* (i.e., program participation for over one year) (see Figure 3). To assess model fit, three standard fit indices were considered: the model chi-square, the standardized root mean square residual (SRMR), and the comparative fit index (CFI). Although summary model fit statistics are not reported in Mplus Version 7.4 when the MLR estimator is used in conjunction with multiple imputation, model fit was examined by calculating the average

of each model fit statistic across all ten multiple imputation datasets. A non-significant chi-square statistic ($p > .05$) indicated excellent model fit. Based on Hu and Bentler's (1999) analyses, SRMR values less than .10 in combination with CFI values greater than .96 suggested good model fit.

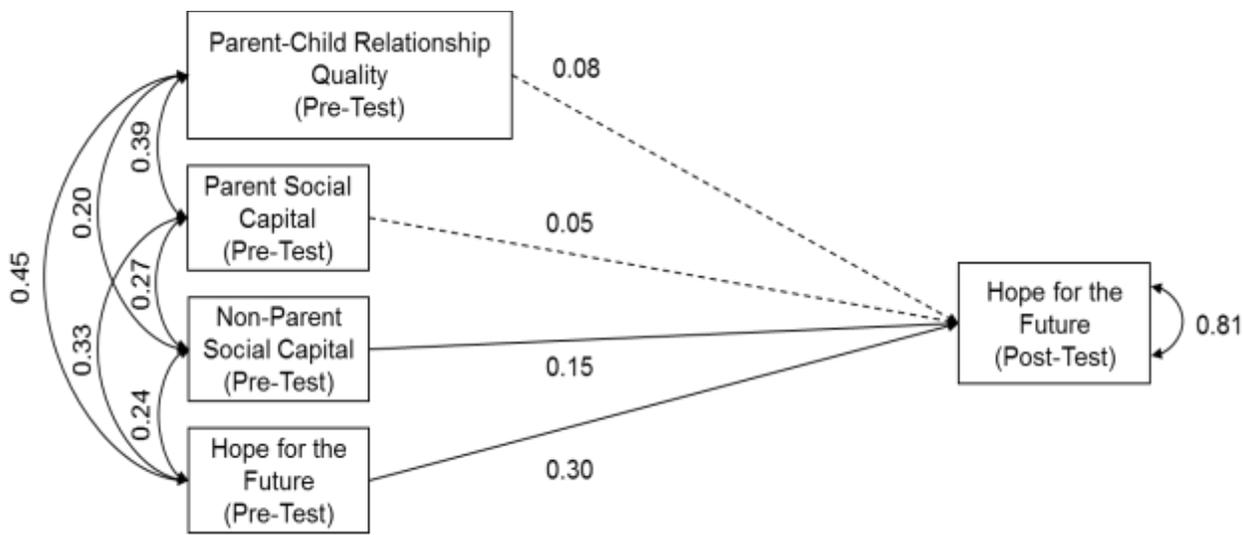


Figure 1. Path model of associations among parent-child relationship quality, parent social capital, non-parent social capital, and hope for the future. All exogenous variables are correlated in the model and the correlations are included in the figure for convenience. Estimates are only displayed for significant ($p < .05$) path coefficients and residual variances. All displayed estimates are standardized. Non-significant paths are represented as dotted lines.

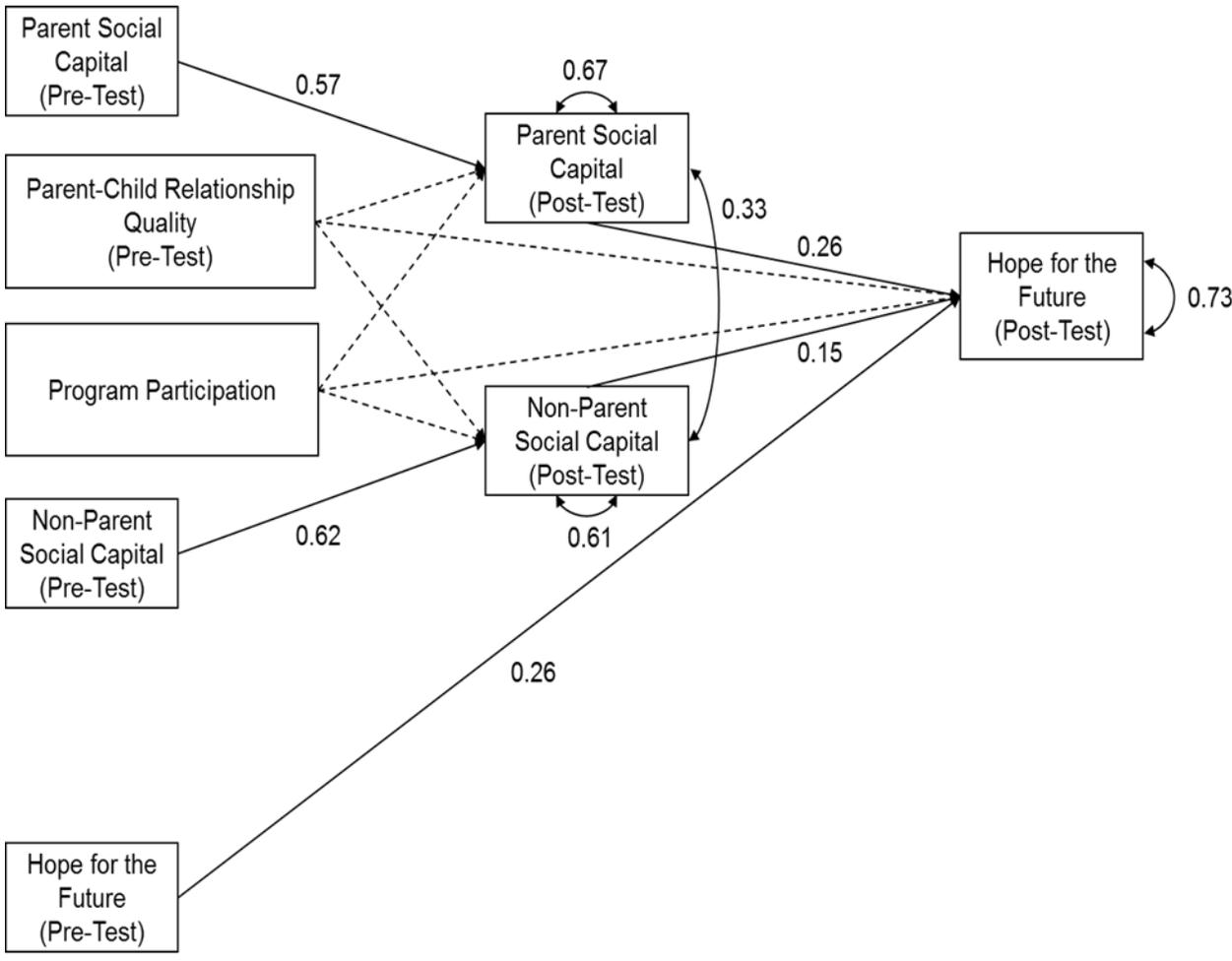


Figure 2. Path model of mediated associations of program participation and parent-child relationship quality with hope for the future. Note that the figure omits control variables that were included in the analysis (i.e., African American ethnicity and Latina ethnicity). All exogenous variables are correlated in the model. Estimates are only displayed for significant ($p < .05$) path coefficients and residual variances. All displayed estimates are standardized. Non-significant paths are represented as dotted lines.

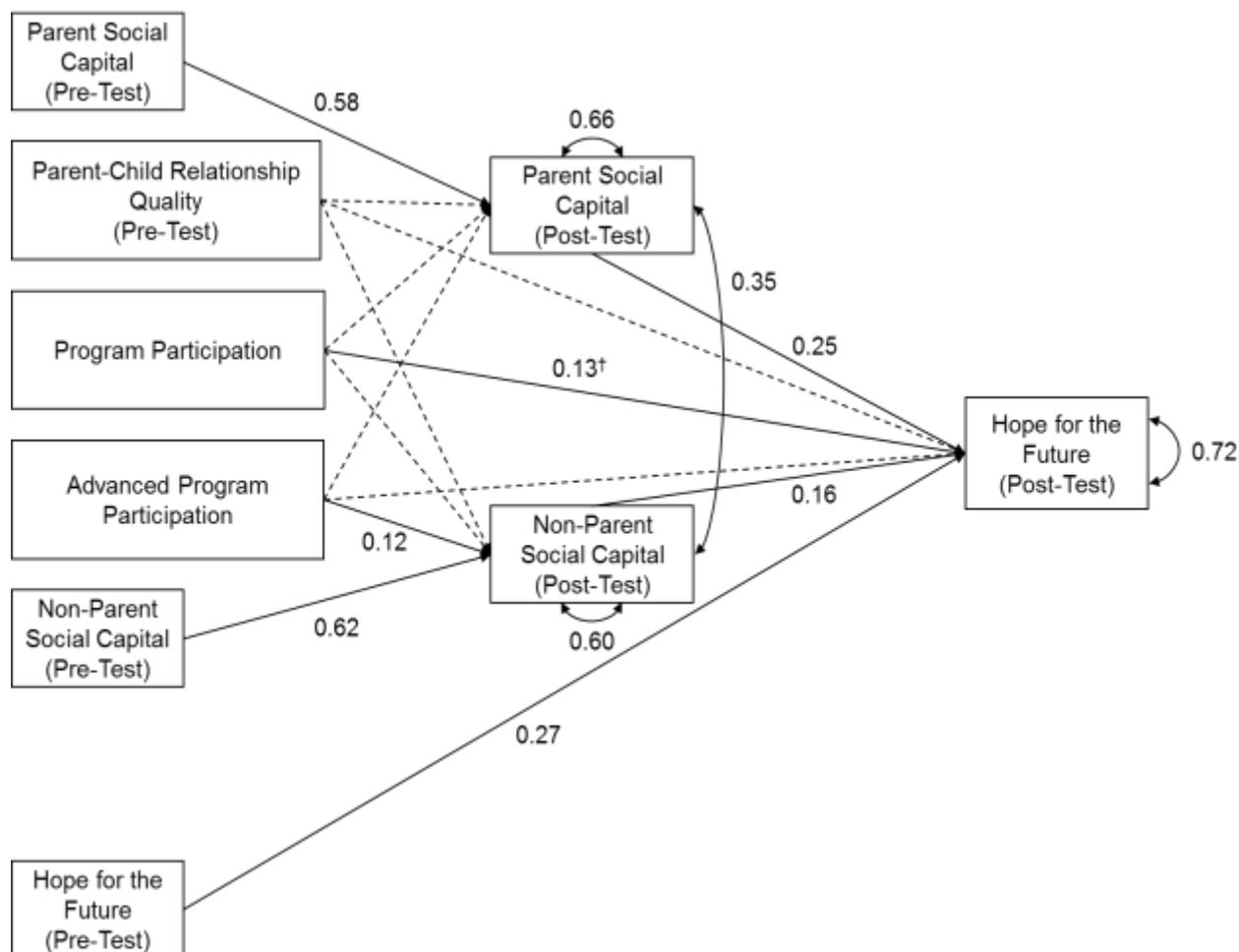


Figure 3. Path model of mediated associations of first-year program participation, advanced program participation, and parent-child relationship quality with hope for the future. Note that the figure omits control variables that were included in the analysis (i.e., African American ethnicity and Latina ethnicity). All exogenous variables are correlated in the model. Estimates are only displayed for significant ($p < .05$) path coefficients and residual variances, except for one path coefficient that was significant at the trend level ($p = .06$; indicated with †). All displayed estimates are standardized. Non-significant paths are represented as dotted lines.

3 RESULTS

3.1 Preliminary Analyses

Preliminary analyses examined sample bias due to differential attrition and imbalance in baseline characteristics between Cool Girls and comparisons, as well as between first-year Cool

Girls and advanced Cool Girls. The means and standard deviations for all study variables are displayed in Tables 1 and 2.

3.2 Attrition Analysis

The majority of participants completed both a pre-test and a post-test survey ($n = 179$). A subset of participants completed only a pre-test ($n = 81$) or a post-test survey ($n = 48$). There were few differences between participants who completed both surveys and those who only completed one survey. Compared to those who completed both surveys, those who only took one survey were older ($M = 11.98$, $SD = 1.11$ compared to $M = 11.55$, $SD = 1.16$), $t(306) = 3.32$, $p < .01$. Participants who took both surveys were also less likely to be African American (76.0%) than those who took one survey (86.0%), $\chi^2(1) = 4.79$, $p = .03$. Finally, proportionally, more comparisons only took one survey (56.5%) compared to Cool Girls (35.6%), $\chi^2(1) = 11.55$, $p < .01$.

Table 2. Possible Range of Scores, Means, and Standard Deviations for Primary Study Measures

Measure	RPS	Comparisons ($n = 92$)		Cool Girls ($n = 216$)					
		Pre-Test	Post-Test	All Cool Girls ($n = 216$)		1 st Year Cool Girls ($n = 105$)		Adv. Cool Girls ($n = 111$)	
				Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
PCRQ	1-4	3.91 (0.66)*	3.77 (0.75)	3.59 (0.67)*	3.77 (0.76)	3.56 (0.72)	3.80 (0.77)	3.62 (0.61)	3.74 (0.74)
Parent SC	0-60	14.96 (10.44)*	15.09 (9.89)	11.21 (9.07)* ^a	13.71 (9.12) ^a	10.27 (7.52) ^a	14.06 (8.50) ^a	12.10 (10.25)	13.38 (9.66)
Non-Parent SC	0-60	14.05 (11.07)	13.69 (11.58)	13.59 (12.15)	13.18 (11.89)	13.36 (12.22)	11.57 (11.20)	13.81 (12.07)	14.71 (12.31)
Hope for future	1-6	5.02 (0.98)*	4.95 (1.01)	4.70 (1.07)* ^a	4.96 (0.98) ^a	4.61 (1.13) ^a	5.02 (1.05) ^a	4.79 (1.00)	4.91 (0.90)

Note. RPS = Range of Possible Scores; PCRQ = Parent-child relationship quality; Standard deviations are included in parentheses.

*Significant difference between Cool Girls and comparisons at pre-test, $p < .05$.

^aSignificant change from pre- to post-test, $p < .05$.

3.3 Missing Data

The amount of data missing for study variables ranged from 6.2% to 29.5%. Most missing data resulted from participant attrition from pre- to post-test ($n = 81$). Little's Missing Completely at Random (MCAR) test was not significant, suggesting that the missing data were MCAR, $\chi^2(108) = 104.60, p = .58$. Because more than 5% of the data were missing for some variables and the missing data were MCAR, the multiple imputation procedure using Bayesian analysis in Mplus Version 7.4 was used to create 10 datasets with complete data for the full sample of 308 participants (Baraldi & Enders, 2010; Muthén & Muthén, 2015; Widaman, 2006). The imputation model included all demographic and study variables as dependent variables.

3.4 Baseline Differences between Cool Girls and Comparisons

Differences between Cool Girls and comparisons on baseline demographic characteristics and other study variables were examined using chi-square tests for dichotomous variables and t -tests for continuous variables. On average, Cool Girls were younger ($M = 11.57, SD = 1.15$) than comparisons ($M = 12.10, SD = 1.10$), $t(306) = 3.76, p < .01$. Cool Girls and Comparisons did not differ on any other demographic variables.

Cool Girls and comparisons differed at baseline on three additional study variables. Specifically, Cool Girls reported lower hope for the future at pre-test ($M = 4.70, SD = 1.07$) than comparisons ($M = 5.02, SD = 0.98$), $t(39) = 2.06, p = .05^1$. Reports of parent-child relationship quality at pre-test were also lower for Cool Girls ($M = 3.59, SD = 0.67$) than comparisons ($M = 3.91, SD = 0.66$), $t(96) = 3.50, p < .01$, and Cool Girls reported lower parent social capital at pre-test ($M = 11.21, SD = 9.07$) than comparisons ($M = 14.96, SD = 10.44$), $t(64) = 2.76, p = .01$.

¹The degrees of freedom for t -tests conducted in a multiple imputation dataset do not reflect the number of cases used in the analysis (Barnard & Rubin, 1999). The sample size for each analysis reported in this paragraph was 308.

There were no statistically significant differences between first-year Cool Girls and advanced Cool Girls.

3.5 Social Capital Nominations

For descriptive purposes, all social capital nominations were categorized into a “parent” category or one of the following “non-parent” categories: non-parent relatives (e.g., uncles, grandparents), adult non-relatives (e.g., teachers, mentors, Cool Girls staff members), peer relatives (e.g., siblings, cousins), and peer non-relatives (e.g., friends at school). At pre-test, a total of 1,941 nominations were made by all study participants (516 nominations by comparisons, 660 by first-year Cool Girls, and 765 by advanced Cool Girls). At post-test, a total of 1,777 nominations were made by all study participants (530 nominations by comparisons, 521 by first-year Cool Girls, and 726 by advanced Cool Girls). Non-parents composed 55% of the total nominations at pre-test and 51% of the total nominations at post-test. See Table 3 for the percentages of nominations within each non-parent relationship category. Of the non-parent nominations, non-parent adult relatives were nominated the most frequently, followed by peer relatives and then adult non-relatives. Peer non-relatives were the least likely to be nominated. The percentage of adult non-relative nominations was highest for advanced Cool Girls.

Table 3. Percentage of Social Capital Non-Parent Nominations in Each Relationship Category

	All Participants	Comparisons	All Cool Girls	1 st -Year CGs	Advanced CGs
Pre-Test					
Non-Parent Adult Relatives	39	42	37	42	33
Adult Non-Relatives	19	17	20	15	25
Peer Relatives	32	29	33	35	30
Peer Non-Relatives	10	13	10	8	11
Post-Test					
Non-Parent Adult Relatives	37	42	35	35	36
Adult Non-Relatives	19	15	21	19	22
Peer Relatives	32	29	33	32	35
Peer Non-Relatives	11	13	11	14	8

Note. CGs = Cool Girls; All numbers represent percentages of the total non-parent nominations.

3.6 Correlations and Examination of Potential Covariates

Correlations among all study variables can be found in Tables 4 and 5. For all variables measured at pre- and post-test, the pre-test measure was significantly correlated with its post-test measure. There were low to moderate correlations among most study variables. Program participation and advanced program participation were unrelated to parent social capital, non-parent social capital, or hope for the future at post-test. Parent-child relationship quality and parent social capital at pre-test were positively correlated with hope for the future (pre- and post-test). Non-parent social capital (pre- and post-test) was positively correlated with hope for the future at post-test.

All of the variables listed in Table 1 were considered as potential covariates. Jaccard, Guilamo-Ramos, Johansson, and Bouris (2006) recommend including covariates that are correlated with predictor and outcome variables since estimates for the relations among primary study variables could be biased if these covariates are not accounted for in the model. Several covariates were associated with the outcome variables at post-test. African American identity was positively correlated with all three post-test outcome variables, and Latina identity was negatively associated with post-test parent social capital. Two-parent household and living with extended family were correlated with non-parent social capital at post-test. Of these possible covariates, only African American identity was correlated with a predictor variable (i.e., parent-child relationship quality). Thus, the two ethnicity variables (African American and Latina identity) were used as covariates in all analyses.

Table 4. Correlations among All Study Variables, Part 1

	1	2	3	4	5	6	7	8	9	10
1. Exp. Group	1.00									
2. Advanced CG	.49*	1.00								
3. Cohort	-.09	-.13*	1.00							
4. Age	-.21*	-.15*	.13*	1.00						
5. Grade	-.23*	-.15*	.16*	.88*	1.00					
6. African American	.01	.00	.07	.16*	.15*	1.00				
7. Latina	.05	.03	-.05	-.06	-.03	-.62*	1.00			
8. Two Par. House	.07	.04	-.06	-.14*	-.12*	-.30*	.30*	1.00		
9. Free/Red. Lunch	.10	.08	.03	-.09	-.15*	-.08	.07	-.09	1.00	
10. Live w/ Ext Fam	-.05	.05	-.06	-.12*	-.09	-.04	-.06	-.16*	.02	1.00
11. Extra Cur. Act.1	-.02	.05	-.03	-.07	-.08	.08	-.04	.01	-.12	-.08
12. Extra Cur. Act.2	.12	.06	.04	-.04	-.06	-.01	.02	.12	.02	-.06
13. PCRQ.1	-.22*	-.08	-.20*	-.06	-.08	.17*	-.09	-.09	.03	-.08
14. PCRQ.2	.00	-.03	.16*	-.09	-.09	.13*	-.05	-.07	-.01	-.04
15. Hope.1	-.14*	.00	-.05	.01	.00	.15*	-.05	.11	-.09	.01
16. Hope.2	.00	-.04	.01	-.02	-.04	.17*	-.10	.06	.00	-.08
17. Parent SC.1	-.18*	-.02	-.14*	.05	.06	.21*	-.16*	-.02	-.08	-.17*
18. Parent SC.2	-.07	-.06	.04	-.01	.02	.22*	-.12*	-.02	-.08	-.08
19. Non-Parent SC.1	-.02	.00	.08	.11	.11	.19*	-.14*	-.28*	.11	.15*
20. Non-Parent SC.2	-.02	.09	.02	-.02	-.03	.14*	-.09	-.22*	.02	.14*

Note. $N = 308$; CG = Cool Girl.

* $p < .05$.

Table 5. Correlations among All Study Variables, Part 2

	11	12	13	14	15	16	17	18	19	20
11. Extra Cur. Act.1	1.00									
12. Extra Cur. Act.2	.41*	1.00								
13. PCRQ.1	.13	.08	1.00							
14. PCRQ.2	.00	.02	.30*	1.00						
15. Hope.1	.23*	.17*	.45*	.11	1.00					
16. Hope.2	.06	.16*	.26*	.50*	.39*	1.00				
17. Parent SC.1	.10	.16*	.39*	.11	.33*	.22*	1.00			
18. Parent SC.2	-.10	.06	.13	.36*	.24*	.37*	.52*	1.00		
29. Non-Parent SC.1	-.03	.08	.20*	.09	.24*	.25*	.27*	.21*	1.00	
20. Non-Parent SC.2	-.03	.03	.07	.07	.14	.26*	.03	.28*	.63*	1.00

Note. $N = 308$; PCRQ = Parent-Child Relationship Quality; SC = Social Capital.

* $p < .05$.

3.7 Predictors of Change in Hope for the Future

Prior to examining the main hypothesized path models, three variables at pre-test (parent-child relationship quality, parent social capital, and non-parent social capital) were examined as potential predictors of changes in hope in order to examine independent, prospective associations of parent child relationship quality and the two indices of social capital with hope. This model (presented in Figure 1) was tested using path analysis (see Table 6). The model was fully saturated so model fit statistics are not reported. Non-parent social capital (at pre-test) was positively associated with gains in hope for the future. Neither parent-child relationship quality nor parent social capital at pre-test significantly predicted changes in hope. It is noteworthy that similar results were found when every combination of the predictor variables was examined (e.g., testing only one or two predictor variables at a time).

3.8 Primary Analyses

Paired-samples *t*-tests were conducted to examine differences from pre- to post-test in each of the outcome variables (i.e., parent social capital, non-parent social capital, and hope for the future) for comparisons and Cool Girls (see Table 2). Cool Girls reported increased parent social capital from pre-test ($M = 11.21, SD = 9.07$) to post-test ($M = 13.71, SD = 9.12$), $t(22) = -2.95, p = .01$. Cool Girls also reported increased hope for the future from pre-test ($M = 4.70, SD = 1.07$) to post-test ($M = 4.96, SD = 0.98$), $t(35) = -2.62, p = .01$. To determine whether the increased parent social capital and hope for the future among Cool Girls occurred for first-year Cool Girls as well as advanced Cool Girls, additional paired-samples *t*-tests were conducted for these two Cool Girls subgroups. Parent social capital and hope for the future significantly increased for first-year Cool Girls only, $t(26) = -3.47, p < .01$ and $t(36) = -2.97, p = .01$, respectively. There were no significant increases in outcome variables for comparisons.

The model presented in Figure 2 was tested using path analysis (see Table 7). Based on the average of the model fit statistics across the ten multiple imputation datasets, the overall model fit was adequate [$\chi^2(6, N = 308) = 22.23$; RMSEA = .09; CFI = .96; SRMR = .03]. Increases in both parent and non-parent social capital were significant predictors of increased hope for the future. Neither program participation nor parent-child relationship quality significantly predicted changes in parent social capital, non-parent social capital, or hope for the future. Neither the indirect effect of program participation ($b = -0.004$, $SE = 0.05$, $\beta = -0.002$, $p = .92$) nor of parent-child relationship quality ($b = -0.06$, $SE = 0.04$, $\beta = -0.04$, $p = .16$) on hope for the future reached significance.

To examine potential benefits of participating in Cool Girls for over one year, a second model was tested using path analysis (see Figure 3 and Table 8). This second model included two dummy variables for program participation: program participation and advanced program participation. The overall model fit was adequate [$\chi^2(6, N = 308) = 23.75$; RMSEA = 0.10; CFI = .96; SRMR = .03]. In this model, advanced program participation predicted increased non-parent social capital. Similar to the first model, increases in parent and non-parent social capital predicted increased hope for the future. Program participation predicted increased hope for the future at the trend level ($p = .06$). Parent-child relationship quality was not a significant predictor of changes in parent social capital, non-parent social capital, or hope for the future. The indirect effects of program participation, advanced program participation, and parent-child relationship quality on hope for the future were not significant, $b = -0.002$, $SE = 0.05$, $\beta = -0.001$, $p = .97$, $b = -0.004$, $SE = 0.05$, $\beta = -0.002$, $p = .93$, and $b = -0.06$, $SE = 0.04$, $\beta = -0.04$, $p = .15$, respectively. The specific indirect effect of advanced program participation on hope for the future through non-parent social capital was also not significant, $b = 0.04$, $SE = 0.03$, $\beta = 0.02$, $p = .13$.

Table 6. Standardized estimates of the associations of parent-child relationship quality, parent social capital, and non-parent social capital with hope for the future

		Hope for Future.2
Dependent Var.1		0.30*
Predictors	Parent-Child Rel. Quality	0.08
	Parent SC.1	0.05
	Non-Parent SC.1	0.15*
Resid. Variance		0.81

Note. $N = 308$; All exogenous variables are correlated in the model; The model is fully saturated so model fit statistics are not included; SC = Social Capital.

* $p < .05$.

Table 7. Standardized estimates of the associations of program participation and parent-child relationship quality with parent social capital, non-parent social capital, and hope for the future

		Parent SC.2	Non-Parent SC.2	Hope for Future.2
Covariates	Ethnicity (African American)	0.15	0.04	0.02
	Ethnicity (Latina)	0.05	0.02	-0.02
Dependent Var.1		0.57*	0.62*	0.26*
Predictors	Program Participation	0.01	-0.02	0.09
	Parent-Child Rel. Quality	-0.11	-0.07	0.12
	Parent SC.2	-	-	0.26*
	Non-Parent SC.2	-	-	0.15*
Resid. Variance		0.67*	0.61*	0.73*
Correlations	Parent and Non-Parent SC.2	0.33*		
Model Fit				
Statistics	Chi-Square	22.23(6)		
	RMSEA	0.09		
	CFI	0.96		
	SRMR	0.03		

Note. $N = 308$; All exogenous variables are correlated in the model; Model fit statistics represent the average of the model fit statistics for each of the ten datasets created with multiple imputation; SC = Social Capital.

* $p < .05$.

Table 8. Standardized estimates of the associations of first-year program participation, advanced program participation, and parent-child relationship quality with parent social capital, non-parent social capital, and hope for the future

		Parent SC.2	Non-Parent SC.2	Hope for Future.2
Covariates	Ethnicity (African American)	0.14 [†]	0.05	0.02
	Ethnicity (Latina)	0.05	0.02	-0.02
Dependent Var.1		0.58*	0.62*	0.27*
Predictors	Program Participation	0.05	-0.08	0.13 [†]
	Advanced Program Partic.	-0.08	0.12*	-0.09
	Parent-Child Rel. Quality	-0.11	-0.07	0.12
	Parent SC.2	-	-	0.25*
	Non-Parent SC.2	-	-	0.16*
Resid. Variance		0.66*	0.60*	0.72*
Correlations	Parent and Non-Parent SC.2	0.35*		
Model Fit				
Statistics	Chi-Square	23.75(6)		
	RMSEA	0.10		
	CFI	0.96		
	SRMR	0.03		

Note. $N = 308$; All exogenous variables are correlated in the model; Model fit statistics represent the average of the model fit statistics for each of the ten datasets created with multiple imputation; SC = Social Capital.

* $p < .05$.

[†] $p = .06$.

4 DISCUSSION

The association between participation in YDPs and increased hope for the future has been well-documented (e.g., Hahn, 1994; Kuperminc, Thomason, DiMeo, & Broomfield-Massey, 2011; Ullrich-French & McDonough, 2013). However, there is limited empirical data on the specific mechanisms by which program participation may lead to increased hope for the future. The goal of this study was to examine one possible mechanism – increased access to social capital – for explaining the link between participation in an YDP (Cool Girls, Inc.) and gains in hope for the future. This study also examined whether parent-child relationship quality is associated with increased social capital and hope for the future.

It was hypothesized that 1) program participation and parent-child relationship quality would be associated with increased hope for the future; 2) program participation and parent-child relationship quality would predict increases in both parent and non-parent social capital; 3) increases in parent and non-parent social capital would be associated with increases in hope for the future; and 4) increases in parent and non-parent social capital would mediate the relation between program participation/parent-child relationship quality and gains in hope for the future. There was partial support for the hypotheses that program participation is associated with gains in hope for the future and social capital. Specifically, there was some evidence at the trend level for an association between first-year program participation and increased hope for the future. In addition, advanced program participation, but not first-year program participation, predicted gains in one type of social capital (i.e., non-parent social capital). The data supported the hypothesis that increases in parent and non-parent social capital predict gains in hope for the future. The other hypotheses were not supported.

One of the main findings was that advanced program participation was associated with gains in non-parent social capital. This finding is consistent with previous research that has documented a positive association between YDP participation and social capital (Hennessey et al., 2013; Jarrett et al., 2005; Kahne & Bailey, 1999; Kinsey, 2013; Sullivan & Larson, 2010; Thomason & Kuperminc, 2014). The data suggest that participation in Cool Girls, Inc. for over one year helps youth build relationships with people other than parents who can provide helpful resources (e.g., academic support, problem solving strategies, career guidance). It is important to note that only advanced program participation was associated with gains in non-parent social capital. Researchers have found that YDPs provide opportunities for program participants to build supportive peer networks over time (e.g., Hirsch et al., 2000). Researchers have also found

that youth often first perceive adults who they meet in YDPs with suspicion and distrust until they develop a more meaningful relationship through structured interactions over time (Jarrett et al., 2005). Thus, it may take over one year of program participation for Cool Girls to build the types of relationships with adults and peers in which they would feel comfortable enough seeking help.

Although first-year program participation was not found to predict increases in non-parent social capital, it is possible that the measure of social capital used in this study is not sensitive enough to capture the benefits related to social capital that Cool Girls, Inc. may provide during the first year of program participation. For example, previous research has indicated that youth become connected with adults in YDPs through brief interactions (e.g., guest lectures) and long-term activities (e.g., service learning projects) (Jarrett et al., 2005; Sullivan & Larson, 2010). Despite these connections, Cool Girls in their first year of participation may not feel comfortable reaching out to these adults (or even peers in the same program) for help in resolving everyday problems. Cool Girls likely benefit from connecting with adults and peers through the program in other ways (i.e., by learning about career options or healthy living), but this level of benefit would not be captured by our measure of social capital since our measure only asks about resources that youth perceive they could actively seek out through their relationships. Indeed, compared to other measures of social capital (Ferguson, 2006), our measure of social capital sets a high bar because it requires youth to not only have connections with other people but also to feel that they can reach out to these people for assistance. This level of social capital may be especially important for the sustained socioeconomic mobility of youth since youth who perceive that they can request help through their social networks may be better equipped to get their needs met throughout their development. At the same time, there are other

types of social capital that can facilitate well-being and that were not assessed in the current study, such as civic engagement and familiarity with people who have various professions (Baay et al., 2014; Ferguson, 2006). Although our results suggest that first-year program participation does not facilitate the development of helping networks for everyday problems as measured in this study, future research could examine whether first-year YDP participation facilitates gains in other types of social capital.

There are some strategies that Cool Girls, Inc. and other YDPs could utilize to further facilitate the development of helping networks for first-year and advanced program participants. Jarrett et al. (2005) noted that some youth programs coach participants on how to interact with and build relationships with non-familial adults. Cool Girls, Inc. could add this type of coaching to their curriculum, and expand it to provide youth with strategies for reaching out for help to a variety of different people (e.g., peers, extended family members). Research also indicates that programs can help facilitate relationship building by coaching adults on how to interact with program participants (Sullivan & Larson, 2010). Cool Girls, Inc. staff could encourage visitors from the community (e.g., guest speakers, parents) to clearly communicate how the program participants can contact them in the future, and the types of support that they can offer the program participants. Cool Girls, Inc. can also teach participants specific strategies for reaching out to their peer Cool Girls for help in various domains. Since the current study found an association between social capital and hope for the future, it would be useful for YDPs to consider how they can further increase youths' helping networks.

There was also limited evidence that first-year participation in Cool Girls, Inc. was associated with gains in parent social capital (i.e., only first-year Cool Girls experienced a statistically significant increase in parent social capital from pre- to post-test when assessed via

paired-samples *t*-tests). Although these gains were not significant in multivariate analysis, the findings suggest that Cool Girls, Inc. may promote parent social capital during the first year of program participation. Qualitative analyses would be useful for exploring how Cool Girls, Inc. may promote parent social capital. One possibility is that Cool Girls, Inc. encourages youth to seek help from their current support systems which often include parents.

Another main finding was that increases in both parent and non-parent social capital predicted increases in hope for the future. As noted in the introduction, researchers have just begun to document the association between social capital and hope for the future through both qualitative (Cattell, 2001) and quantitative research (Bennett et al., 2014). Snyder (1997) suggests that youths' role models (e.g., people in their helping networks) can encourage youth to work toward their goals. Thus, youth with more robust helping networks may experience increased hope because they are exposed to more potential pathways to achieve goals and they have more access to people who can encourage them to achieve their goals. Since hope for the future is associated with many positive youth outcomes such as academic achievement and positive affect (Sun & Shek, 2013), YDPs may be able to increase hope by facilitating the development of social capital.

It is also noteworthy that *pre-test* levels of non-parent social capital (and not parent social capital) were associated with gains in hope for the future. This finding suggests that non-parent social capital helps youth develop hope for the future over time. This is consistent with research indicating that youth who receive support from people beyond their parents are more likely to be socioeconomically mobile and achieve educational and academic success compared to youth who do not have these supportive connections (reviewed in Putnam, 2001, 2015). The finding that non-parent social capital is associated with gains in hope also validates the efforts of many

YDPs to help youth build relationships with supportive adults and peers (Lerner et al., 2013). It is possible that the continued development of hope may be impacted by the number of *different* people who can encourage youth to achieve their goals (Snyder et al., 1997). In this way, having a robust network of supportive non-parents may provide youth with continual gains in hope as they interact with a number of helpful non-parents over time. Since pre-test levels of non-parent social capital were associated with gains in hope, the finding that advanced program participation contributes to gains in non-parent social capital (described above) seems especially important.

Another important finding was a positive association between first-year program participation and hope for the future. When change in hope for the future was analyzed using paired-samples *t*-tests, there was a significant increase in hope for Cool Girls overall. This increase appears mostly to reflect increases observed in first-year Cool Girls but not advanced Cool Girls. In multivariate analyses, the positive association between first-year program participation and hope for the future was confirmed, though only at a trend level. The finding that only first-year program participation was associated with gains in hope was unexpected because previous research has often found a positive association between length of program participation and positive youth outcomes (Bohnert, Fredricks, & Randall, 2010; Lynch et al., 2016; J. Roth, Brooks-Gunn, Murray, & Foster, 1998). As one example, Meltzer, Fitzgibbon, Leahy, and Petsko (2006) found that youth who participated in a community-based YDP for longer periods of time were more likely to graduate from high school, be employed, and avoid involvement in the criminal justice system. However, since pathways and agency thinking are not traditional skills in which youth practice and receive regular feedback, increased program duration may not provide youth with more practice with and feedback on these types of thinking. Thus, the lack of association between advanced program participation and increased hope in the

current study does not preclude a link between length of participation and other positive youth outcomes.

Our results suggest that as youth first join Cool Girls, Inc. they may experience gains in hope that remain steady throughout the program. First-year program participation may increase hope because youth may view the program as providing pathways to accomplish goals (e.g., receiving homework help to facilitate academic goals). In addition, YDPs may provide supportive environments where youth can receive encouragement to work towards their goals (Roth & Brooks-Gunn, 2003). This supportive environment may help youth engage in agency thinking by promoting the idea that the participants can achieve their goals. If Cool Girls, Inc. aims to increase youths' hope for the future throughout youths' participation in the program, Cool Girls, Inc. may try to specifically teach and provide regular feedback on pathways and agency thinking (see Marques et al., 2011). It is also important to note that researchers have previously found a positive association between participation in Cool Girls, Inc. (for first-year and advanced Cool Girls) and hope, although they used a different measure of hope (i.e., a composite of a *life chances* measure and an *optimism/pessimism about the future* measure) (Kuperminc et al., 2011). Thus, participation in Cool Girls, Inc. may be associated with other conceptualizations of hope that were not assessed in this study.

Another possible explanation for the increase in hope only during the first year of program participation involves a ceiling effect. Specifically, at pre-test advanced Cool Girls and comparisons reported hope scores that were near the scale's maximum score of 6 ($M = 4.79$, $SD = 1.00$ for advanced Cool Girls and $M = 5.02$, $SD = 0.98$ for comparisons). First-year Cool Girls reported lower hope for the future at pre-test ($M = 4.61$, $SD = 1.13$), and the difference in hope scores between first-year Cool Girls and comparisons was significant. Given the lower level of

hope reported by first-year Cool Girls at pre-test, it is possible that first-year Cool Girls had more room for improvement on our measure of hope for the future than did other girls. Advanced Cool Girls maintained high levels of hope throughout the academic year (see Table 2), and it is possible that gains in hope during the first year of the program were maintained over time. For comparisons, there was a modest decline in hope that did not reach significance (see Table 2).

This study also found that parent-child relationship quality was not associated with gains in parent or non-parent social capital. This finding was unexpected since parent-child relationship quality is correlated with attachment styles (Allen et al., 2003), and children with secure attachments are more likely to have effective interpersonal skills that can facilitate the development of social capital (Laser & Leibowitz, 2009; Schneider et al., 2001). However, our measure of parent-child relationship quality may not consistently reflect attachment styles. For example, youth with anxious-preoccupied attachment styles may work hard to build close relationships with their parents because they experience high levels of anxiety when there are disruptions in relationships and because they are less independent than their peers with secure attachment styles (Sroufe, 2005). Although these youth may report high parent-child relationship quality, they may not have the secure attachments that would facilitate the development of social capital (Allen & Land, 1999; Laser & Leibowitz, 2009). Future longitudinal research could explore whether children's attachment styles are associated with increases in social capital throughout their childhood.

The finding that parent-child relationship quality was not associated with gains in social capital was also unexpected because according to the "spillover hypothesis," youth who experience high parent-child relationship quality are more likely to learn positive interpersonal behaviors and develop social competence (Clark & Ladd, 2000; Gallagher et al., 2015; Gerard et

al., 2006). However, although social competence can help facilitate the development of relationships, it may not reflect youths' ability or willingness to seek help. Thus, a young person may have many relationships with various people, but she may not feel comfortable reaching out for help. It may be useful for YDPs to teach specific skills related to asking for help and building helping networks.

Although the results of this study suggest that parent-child relationship quality does not predict changes in social capital or hope, it is important to note that parent-child relationship quality at pre-test was significantly and positively correlated with pre-test levels of parent social capital, non-parent social capital, and hope for the future. Parent-child relationship quality is associated with both types of social capital and hope for the future; however, after accounting for these pre-test correlations, having a positive relationship with parents does not contribute to *increases* in social capital or hope. These findings do not indicate that parent-child relationship quality is not important for the development of other youth outcomes. Indeed, a large body of research has documented the importance of parent-child relationships in youth development (reviewed in Laursen & Collins, 2009). It is also noteworthy that the measure of parent-child relationship quality utilized in this study is brief compared to some other measures (e.g., Murray, Dwyer, Rubin, Knighton-Wisor, & Booth-LaForce, 2014). A more robust measure of parent-child relationship quality may better reflect the various components of this construct.

This study provides a foundation for future research to further explore the relations among YDP participation, social capital, and hope for the future. In this study, the extent of participation in Cool Girls, Inc. was determined by the number of years of program participation (i.e., first-year Cool Girls versus advanced Cool Girls). However, there are other aspects of participation, including breadth (e.g., the number of different program activities experienced),

intensity (e.g., average hours per week), and engagement (e.g., behavioral, emotional, and cognitive aspects of engagement) (Bohnert et al., 2010). Researchers have found that engagement in youth programs (e.g., concentration during, interest in, and enjoyment of program activities) is associated with positive youth outcomes, such as social competence and enjoyment of solving difficult problems (Mahoney, Parente, & Lord, 2007; Shernoff, 2010). Future research could examine whether different aspects of youths' YDP participation are associated with gains in social capital or hope for the future.

There are a few limitations to consider when interpreting the current study's findings. First, as with most community-based studies, there was participant attrition and missing data that can lead to biased results. To reduce the potential for biased results, the missing data were imputed using the multiple imputation method, an empirically-supported technique that can produce unbiased parameter estimates (Baraldi & Enders, 2010). Second, the measure of social capital utilized in this study only allowed youth to nominate up to three people in each domain from whom they could seek help. If an adolescent nominated three parents (e.g., two biological parents and a step-parent), she could not nominate other non-parents (and vice versa). Thus, the measure of parent social capital was not independent of the measure of non-parent social capital. In the future, researchers could ask youth to first nominate parents/guardians from whom they could seek help for each domain, and then nominate non-parents from whom they could seek help from the same domains. Third, the measure of non-parent social capital does not allow for the differentiation of different types of non-parent relationships (e.g., peers, non-familial adults). Thus, it is unknown whether the gains in non-parent social capital associated with advanced program participation reflect increased access to resources through peers, siblings, non-parent adults, etc. Future research could examine gains in social capital through each type of non-parent

relationship. This research could involve qualitative exploration of how youth develop helpful relationships with a variety of different people through participation in YDPs over time.

Fourth, the results from this study should not be generalized to all youth since this study's sample is unique in several ways. The sample was all female, predominately African American (80.2%) and Latina (8.8%), and the majority of the youth received free or reduced-price lunch (94.8%). Researchers have found that the social networks of people living in low-income families are often smaller and less-resourced than those of more affluent families (Horvat, Weininger, & Lareau, 2003; Putnam, 2015). Thus, even if Cool Girls, Inc. facilitated the development of relationships with other people, the program participants may not be as familiar with utilizing these relationships to access resources compared to their more affluent peers. Different populations of youth may therefore benefit from YDP participation in different ways.

Overall, this study highlights the positive association between advanced YDP participation and non-parent social capital, and it contributes to a growing body of literature that demonstrates the benefits of long-term YDP participation. There was also some evidence that hope for the future increases during the first year of participation in Cool Girls, Inc. Qualitative research could investigate aspects of program participation that may lead to pathways and agency thinking during the first year of the program, as well as activities that may continue to increase hope for the future after the first year of program participation. This study also highlights the positive association between social capital and hope for the future, and it suggests that if YDPs seek to increase participants' hope for the future they should consider utilizing strategies to help program participants build helping networks. Finally, although this study found that parent-child relationship quality did not predict gains in social capital, future research could explore other individual characteristics (e.g., attachment styles, social skills) that may be

associated with the development of helping networks. The current study and future research endeavors may help us better understand the development of youths' social capital and ways in which YDPs can facilitate the creation of social capital networks.

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APPENDICES

Appendix A. Social Capital Measure Adapted from Thomason and Kuperminc, 2014

1. Everyone needs help with schoolwork sometimes. I have someone who can help me with schoolwork.

- A. Yes
- B. No

*If yes, please continue. If no or if you prefer not to answer, please go to question 13.

2. The next time I need help with schoolwork, the name of the 1st person I will ask is:

3. This person is my: (Relationship to you)

4. When you go to this person for help, how often do you get the help you need?

- A. Almost never
- B. Sometimes
- C. Often
- D. Almost always

5. Do you have a second person to go to for help with schoolwork?

- A. Yes
- B. No

*If yes, please continue. If no or if you prefer not to answer, please go to question 13.

6. The next time I need help with schoolwork, the name of the second person I will ask is:

7. This person is my: (Relationship to you)

8. When you go to this person for help, how often do you get the help you need?

- A. Almost never
- B. Sometimes
- C. Often
- D. Almost always

9. Do you have a third person to go to for help with your schoolwork?

- A. Yes
- B. No

*If yes, please continue. If no or if you prefer not to answer, please go to question 13.

10. The next time I need help with schoolwork, the name of the third person I will ask is:

11. This person is my: (Relationship to you)

12. When you go to this person for help, how often do you get the help you need?

- A. Almost never
- B. Sometimes
- C. Often
- D. Almost always

Note: These questions are repeated for the following domains: Setting and achieving goals, support and guidance, questions about sex, and solving problems.

Appendix B. Hope for the Future Scale (Snyder et al., 1997)

	None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time
1. I think I am doing pretty well.	1	2	3	4	5	6
2. I can think of many ways to get the things in life that are most important to me.	1	2	3	4	5	6
3. I am doing just as well as other kids my age.	1	2	3	4	5	6
4. When I have a problem, I can come up with lots of ways to solve it.	1	2	3	4	5	6
5. I think the things I have done in the past will help me in the future.	1	2	3	4	5	6
6. Even when others want to quit, I know that I can find ways to solve the problem.	1	2	3	4	5	6

Appendix C. Parent-Child Relationship Quality Scale Adapted from the Communities that Care Youth Survey (Arthur et al., 2002; Glaser et al., 2005)

	Not True	A Little True	Often True	Always True
1. I feel close to my parents/guardians.	1	2	3	4
2. I share my thoughts and feelings with my parents/guardians.	1	2	3	4
3. My parents/guardians notice when I am doing a good job and let me know.	1	2	3	4
4. My parents/guardians tell me they're proud of me for the things I've done.	1	2	3	4
5. I enjoy spending time with my parents/guardians.	1	2	3	4