



2018

The Experience of Mentors in a Cross-Age Peer Mentoring Program: Exploring the Helper Therapy Principle

Dakari Quimby

Follow this and additional works at: https://ecommons.luc.edu/luc_diss



Part of the [Clinical Psychology Commons](#)

Recommended Citation

Quimby, Dakari, "The Experience of Mentors in a Cross-Age Peer Mentoring Program: Exploring the Helper Therapy Principle" (2018). *Dissertations*. 2980.

https://ecommons.luc.edu/luc_diss/2980

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](#).
Copyright © 2017 Dakari Quimby

LOYOLA UNIVERSITY CHICAGO

THE EXPERIENCE OF MENTORS IN A CROSS-AGE PEER MENTORING PROGRAM:
EXPLORING THE HELPER THERAPY PRINCIPLE

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN CLINICAL PSYCHOLOGY

BY

DAKARI QUIMBY

CHICAGO, IL

AUGUST 2018

Copyright by Dakari Quimby, 2018
All rights reserved.

ACKNOWLEDGMENTS

At this time, I would like to thank Dr. Maryse Richards and Dr. Katherine Tyson McCrea for their academic support and leadership on the larger project from which this dissertation emerges. Their feedback and assistance has been invaluable in completing this project. Additionally, I would like to thank the other professors on my committee including Dr. Grayson Holmbeck, Dr. Christine Li-Grining, and Dr. Scott Leon for their assistance throughout this research endeavor. Finally, I would like to thank my village, specifically my friends and family, for their love and support of all my aspirations.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....iii

LIST OF TABLES.....v

LIST OF FIGURES.....vi

ABSTRACT.....viii

CHAPTER 1: INTRODUCTION.....1

 Context of Poverty/Trauma.....2

 Developmental and Theoretical Frame.....4

 Mediators.....17

 Outcomes.....24

 Social-Emotional Development.....25

 Identity Development.....28

 Aims and Hypotheses.....33

CHAPTER 2: METHOD.....36

 Participants.....36

 Procedure.....37

 Measures.....38

CHAPTER 3: RESULTS.....43

 Preliminary Analyses.....43

 Mediation Analyses.....46

CHAPTER 4: DISCUSSION.....60

 Model A.....60

 Model B.....63

 Sample Size/Effect Size64

 Strengths, Limitations and Future Directions.....70

 Conclusions.....73

APPENDIX A.....76

REFERENCES.....78

VITA.....90

LIST OF TABLES

Table 1. Reliability, normality, and range statistics of ETV subscales and cohesion measures.....	37
Table 2. Mean, standard deviations, and correlations for exposure to violence and cohesion variables.....	38
Table 3. Fit information for latent profile analysis models with 1-4 classes.....	41
Table 4. Average counts of ETV in each setting for overall sample and by class.....	42
Table 5. Demographic correlates of latent profiles.....	47
Table 6. Mean scores on measures of family, school, and community cohesion for overall sample and across groups.....	48

LIST OF FIGURES

Figure 1. The relationship between mentor perceived strength of relationship and the outcomes as mediated by the helper therapy principle tenets (Model A).....	34
Figure 2. The relationship between the helper therapy principle tenets and the outcomes as mediated by the mentor perceived strength of relationship (Model B).....	35
Figure 3. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and beliefs about aggression (N = 46).....	47
Figure 4. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and ethnic identity (N = 46).....	48
Figure 5. Path coefficients for for the mediating function of the helper therapy principles between mentoring strength of relationship and future expectations (N = 45).....	49
Figure 6. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and school connectedness (N = 42).....	50
Figure 7. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and beliefs about aggression (N = 48).....	52
Figure 8. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and beliefs about aggression (N = 48).....	52
Figure 9. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and beliefs about aggression (N = 48).....	53
Figure 10. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and beliefs about aggression (N = 48).....	53
Figure 11. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and ethnic identity (N = 48).....	54
Figure 12. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and ethnic identity (N = 48).....	54

Figure 13. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and ethnic identity (N = 48).....	55
Figure 14. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and ethnic identity (N = 48).....	55
Figure 15. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and school connectedness (N = 43).....	56
Figure 16. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and school connectedness (N = 44).....	56
Figure 17. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and school connectedness (N = 44).....	57
Figure 18. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and school connectedness (N = 44).....	57
Figure 19. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and future expectations (N = 46).....	58
Figure 20. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and future expectations (N = 47).....	58
Figure 21. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and future expectations (N = 47).....	59
Figure 22. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and future expectations (N = 47).....	59
Figure 23. Estimated sample sizes for the mediating function of the helper therapy principles between mentoring strength of relationship and school connectedness.....	65
Figure 24. Estimated sample sizes for the mediating function of mentoring strength of relationship between self-esteem and future expectations.....	66

ABSTRACT

Mentoring programs are increasingly popular interventions for promoting positive development in Black youth from high risk environments. Cross-age peer mentoring refers to an older youth serving as a mentor for a younger mentee. Although not as widely studied as adult mentoring, this relationship has been found to have a beneficial effect for both the mentor and mentee. The current study seeks to better illuminate this bidirectional benefit by focusing on one half of the relationship—the experience of cross age peer mentoring by Black American mentors from low income communities. This is an important untapped area of study as peer mentoring interventions have the potential to have an expansive impact affecting both older and younger youth. The current study examined how the helper therapy principle (a theory stating that individuals who take on a helping role experience positive development due to being in that role) related to mentors' experience of the mentor-mentee bond. The study also examined whether mentors' perceived bond with their mentee mediated the relation between the helper therapy principle and the outcomes of future expectations, ethnic identity, school connectedness, and beliefs about aggression.

A sample of 48 high school aged mentors ($M_{\text{age}}=16.49$; 62% female) were recruited from four low income Chicago neighborhoods and completed three waves of data. In collaboration with non-profit organizations and Chicago Public Schools (CPS), researchers recruited and trained high school students to serve as mentors for middle school students from the same neighborhoods and SES backgrounds. Baseline, six-month check-in, and end-of-intervention (9-

12 months) assessments were used to assess the effects of the mentoring. PROCESS bootstrapping mediation analyses revealed several significant findings including that higher feelings of contribution (a desire to positively impact one's community) led to increased school connectedness ($b=0.27, t(40)=2.09, p<.05$) and future expectations ($b=0.31, t(42)=2.31, p<.05$) at the end of intervention. However, the small sample size made it difficult to find significance for many of the proposed relations. Consequently, power analyses were conducted using the Power Analysis and Sample Size (PASS) software to provide a sense of what sample size would be needed to detect significance. Overall, the majority of relations had between small and medium effect sizes (Preacher & Kelley, 2011), suggesting that future studies will require a sample size of around 200 youth to potentially find significance.

Although exploratory, the current study has important implications. The cultural capital that exists in communities of color was acknowledged in the current study by harnessing the social capital of Black youth and empowering them to serve as the main agents of change within an intervention. However, continued exploration of the experience of Black youth mentors and how they may develop due to their role as helpers is needed to better facilitate the strengths of Black youth residing in high risk environments. This is necessary since the current intervention model can be a cost effective, community-based, and self-sustaining mechanism. Developing prosocial relationships with peers may be a way to achieve these dynamics and encourage healthy development among Black American youth from low income, urban communities.

CHAPTER 1

INTRODUCTION

Mentoring programs are becoming increasingly prevalent interventions for promoting positive development in youth. This success has led mentoring to become a popular option for fostering wellbeing among youth from high risk environments. Although effective when their relationships last, adult mentors have had difficulties maintaining their mentoring relationships because of other responsibilities and cultural disconnect. Due to their increased availability and the significant influence of peers among youth, older adolescents serving as cross age peer mentors have been recognized as a viable option to circumvent the issues of adult mentoring relationships. Cross age peer mentoring refers to an older youth serving as a mentor for a younger mentee. Although not as widely studied as adult mentoring, this relationship has been found to have a beneficial effect for both the mentor and mentee. The current study seeks to better illuminate this bidirectional benefit by focusing on one half of the relationship; the experience of cross age peer mentoring by Black American mentors residing in low income, urban communities. Despite the established reciprocal effects, mentors, particularly Black American mentors from low income, urban environments, have received little attention within the peer mentoring literature. This is an important untapped area of study as peer mentoring interventions have the potential to have an expansive impact by affecting both older and younger youth. More information is now needed regarding the process of mentoring as it relates to mentors. The current study will examine how the helper therapy principle, a theory explaining

the positive development experienced by individuals who take on a helping role, relates to mentors' perception of the mentor-mentee bond over time. The study will also examine whether both of the aforementioned concepts (helper therapy principle and mentor-mentee bond) lead to better outcomes among peer mentors. As the connection between mentor and mentee is considered the foundational component of a mentoring relationship that facilitates growth in key outcome areas, gaining a better understanding of the factors that contribute to or result from this bond can help interventions maximize the benefit for participating peer mentors.

Context of Poverty/Trauma

Although a high degree of economic and cultural diversity exists within the Black community, the current sample was chosen because the experience of poverty compounds the experience of oppression and discrimination that is shared with more well-resourced Black youth (Reeves, Rodrigue, & Kneebone, 2016; Williams & Mohammed, 2013). Within the Englewood neighborhood of Chicago, one of the four neighborhoods of the current sample, 42.2% of the households (compared to 18.7% of Chicago overall) were below the poverty level, and 21.3% of residents (compared to 11.1% of Chicago overall) were unemployed. The amount of households below the poverty level ranged from 28.1% to 42.2% amongst all four neighborhoods of the current sample.

A lower socioeconomic status is related to a variety of adverse outcomes in youth spanning social-emotional, cognitive, and physical domains (Reeves, Rodrigue, & Kneebone, 2016; Williams & Mohammed, 2013). Although other Black youth face marginalization due to their race, the negative outcomes associated with living in poverty emphasize the necessity of intervention and the importance of connecting positive external forces with Black youth in urban, low income environments. Positive peers may be a particularly necessary force to connect these

youth with as, in addition to numerous other stressors, gangs may be prevalent in their communities. When lacking other areas to achieve competence and support, Black American youth in impoverished communities may turn to peers for respect, protection and acceptance (Brittian, 2011). In as early as ages 10 -12, researchers have been able to predict gang involvement partially based on peer relations as youth usually join gangs willingly, attracted to its social benefits including acceptance, protection, and respect (Dishion, Nelson, & Yasui, 2005; Howell, 2011; National Crime Prevention Council, 2012).

The high degree of stressors present in impoverished environments (Cooley-Quille et al., 2001) makes them challenging environments for non-familial prosocial bonds to develop. For instance, in an urban, low income sample of 124 Black, Latino, and Asian American high school students, increased reported levels of general friendship over time was negatively related to perceived mother support (Way & Pahl, 2001). The authors hypothesize that this may be due to the tendency for low –income and ethnic minority families to be wary of placing trust in those outside of their family (Way & Pahl, 2001). Consequently, the closer adolescents, from these communities, felt towards their family, the more likely they may have been to share such familial beliefs and shy away from close connections with nonfamilial peers who the suspects may be a negative presence in their lives.

The community violence, neglect, marginalization and subsequent experience of trauma due to the strain of poverty make it difficult for youth to bond with caregivers and for care givers to provide for and bond with youth (Conger et al., 2002). The disorganized attachment that some of these youth experience can lead to negative developmental trajectories including externalizing and internalizing issues, poor peer relations, and difficulty engaging in school environments (Stronach et al., 2011). Without protective factors such as positive social connections, youth will

experience negative outcomes and can succumb to negative forces. Consequently, an examination of how positive youth development can be promoted is particularly important for this high need subset of the Black community due to potential intervention implications.

Developmental and Theoretical Frame

Cross-age peer mentoring. Mentoring programs targeting youth from marginalized communities have shown promise in both promoting and maintaining positive development and well-being across multiple domains of functioning (e.g. social, academic, etc.) (Dubois et al, 2011). These benefits have been demonstrated among different racial populations, including Black American and Latino American youth (Dubois et al, 2011). However, many mentoring programs have trouble with sustained success in their matches due to the cultural and age differences between mentors and mentees. Data have indicated that although these groups have been the typical mentoring volunteer pool, it has been difficult to recruit and maintain college aged students and other adults as mentors (Grossman, Chan, Schwartz, & Rhodes, 2012). Adults often possess many responsibilities in their lives that interfere with their ability to make a consistent, long-term commitment to their mentee, an essential component of successful mentoring relationships (Walker, 2005). Additionally, match difficulties are further exacerbated when connecting adult volunteers with mentees residing in communities facing social and economic inequalities. Mentors and mentees from vastly different communities and backgrounds may face challenges building relationships (Walker, 2005).

Given these issues and the fact that beneficial outcomes associated with mentoring are only demonstrated when the mentor and youth are able to form a connection based on trust and empathy (Rhodes and DuBois, 2006) in a consistent and long-lasting relationship (Dubois et al., 2011), cross-age peer mentoring programs that involve older youth mentors from the same

community may be a potential solution. Older adolescents tend to be more available than adults and college students due to fewer responsibilities, and may have special influence on younger children due to peer dynamics at this time (Karcher, 2005). As is well documented, peers become an important socialization force as children age (Kerr, Stattin, Biesecker, & Ferrer-Wreder, 2003). Although association with certain peers runs the risk of deviancy training, peers may additionally be an impactful positive force (Wentzel, 2014). As peers, lacking large generational differences, are capable of achieving easier rapport building success, they have been effectively utilized as intervention focal points in a variety of domains including chronic health care management and phone support hotlines (Lorig, Ritter, Villa, & Armas, 2009; Schondel, Boehm, Rose, & Marlowe, 1995).

Cross age peer mentoring follows such existing movements that have recently begun to recognize peers as a potential factor in fostering change (van Hoorn et al., 2014). Although receiving less attention than other mentoring structures, cross age peer mentoring programs have been found to improve a plethora of mentee areas of functioning including ratings of connectedness to school, teachers, or parents (Karcher, 2005; Karcher et al., 2002; Westerman, 2002), academic achievement (Karcher, Davis, & Powell, 2002; Westerman, 2002), graduation rates (Johnson, Simon, & Mun, 2014), social skills and social competence (Karcher, 2005; Herrera et al., 2008), behavioral problems (Bowman & Myrick, 1987), classroom behaviors, and attitudes towards violence (Sheehan et al., 1999). Research has shown that there is no significant difference of program impacts on mentees between adult and peer mentoring (Karcher, 2014). Cross age peer mentoring has additionally been demonstrated to have substantial benefits for participating adolescent mentors (Bulanda & McCrea, 2013; Bulanda, et al, 2013) with high school mentors reporting improvements in interpersonal skills, personal abilities (such as being

responsible, reliable, and organized), leadership abilities (Herrera et al., 2008), and increased school connectedness, and pro-social behavior (Karcher 2005a; Karcher 2007). Although there is mounting evidence for the success of peer mentoring, the majority of studies have focused on predominately White, middle class samples which limits the generalizability to Black and/or low-income communities.

Rhodes model. The prevailing model of mentoring relationships, developed by Rhodes (2005), stipulates a variety of processes and factors that must be present for effective mentoring to occur (See Appendix A). The benefits of mentoring are thought to only occur when the mentor and youth are able to form a bond fostered by mutuality, trust, and empathy. The foundational connection between mentor and mentee is the key starting point for any progress to be made. The model proposes that for mentoring relationships in which this bond is able to form, positive youth outcomes are obtained within the three functional domains of social-emotional, cognitive, and identity related development. Social emotional benefits include youth becoming better at understanding, expressing and regulating emotions as well as interacting with other adults and peers more effectively. Progress within the area of cognitive development may manifest in better academic and vocational functioning. Additionally, youth may experience cohesive identity development which can be exhibited through a better conception of current and future identities. The model also posits that the mentoring relationship and developmental pathways may be moderated by various individual, family, and environmental influences.

Of particular importance to this model is the emphasis on the formation of healthy relationships with adults promoting optimal development. The mentoring relationship serves as a model of a healthy relationship that may challenge youth's current negative views and expectations regarding themselves and others and generalize to better behavior and values within

pre-existing relationships. The model also suggests that a mentor may become a secondary attachment figure and serve as a secure base and “sounding board” from which mentees can explore and obtain healthy developmental competencies. Although acknowledging the therapeutic value of interpersonal relationships, this model does not comprehensively take into account the mentor’s experience within the mentoring relationship. This is understandable as the model was crafted with adult mentoring structures in mind. However, given the increased importance of reciprocal interactions within peer mentoring structures, the experience of the mentor should continue to be examined.

Relationship quality. As explained by the Rhodes (2002) model and corroborated by various other research (Sue, Craig, Dunn, & Luca-Hunger, 2014), the central building block of mentoring is the bond between mentor and mentee. This bond is commonly referred to as mentoring relationship quality (MRQ) and involves both global (emotional connection) and engagement (action-oriented) components (Ferro et al., 2014). Global components of MRQ refer to how individuals feel about the mentor-mentee bond and engagement components refer to the supportive interactions that may or may not occur in the mentoring relationship (Ferro et al., 2014). Despite the importance of this construct, the relationship between mentor and mentee rarely has been empirically studied (Zand et al., 2009). The majority of both theoretical and empirical research that exists has focused on the mentee’s perspective and how that affects mentee outcomes among adult-youth mentoring pairs. In a mixed ethnicity sample of 205 youth (ages 9-16) from various urban areas in the US who were matched with adult mentors, more positive mentees’ perceptions of the mentor-youth bond were associated with improvements in relationship based outcomes (such as friendship with adults) at both 8 months and 16 months after the mentoring start period (Thomson & Zand, 2010). Additionally, in a mixed ethnicity, but

predominately White, national sample of teenage youth with adult natural (informal) mentors, mentoring relationship quality was found to mediate the association between community attitudes toward youth and youth outcomes such as school engagement and prosocial values (Schwartz, Chan, Rhodes, & Scales, 2013). Various other studies have additionally demonstrated mentoring relationship quality as perceived by mentees to be related to both social functioning and behavioral outcomes (Keller & Pryce, 2012).

The limited research on mentors' perspective of relationship strength has demonstrated a relationship between mentor perceived closeness and the outcomes of mentees. Mentors' strength of relationship ratings have been significantly associated with relationship duration, an important predictor of mentee outcomes (Rhodes, Schwartz, Willis, & Wu, 2014). Additionally, in a predominately White sample composed of Canadian Big Brothers Big Sisters (BBBS) mentoring pairs, adult mentor and parent, but not youth mentee, reports of MRQ were found to predict later relationship status (Ferro et al., 2014). Similarly, other studies have demonstrated mentee improvements in school related outcomes (Larose, Chaloux, Monaghan, & Tarabulsky, 2010) as well as better academic performance by mentees (Goldner & Mayseless, 2009) when adult mentors endorsed more positive ratings of the mentoring relationship.

However, the extant literature's principal focus on the mentee's perspective of the mentoring bond (Thomson & Zand, 2010), neglects the unique contribution that a mentor's perspective can provide to furthering a comprehensive understanding of the mentoring relationship (Sue et al., 2014). One study that examined both mentor and mentee MRQ in a mixed ethnicity sample of mentees (mean age 11.5 years) and a mixed ethnicity, but predominately white, sample of mentors (mean age 32.2) found a significant correlation ($r = .20$ & $r = .23$) between both party's reported perceived MRQ, at both a 3-month and 12-month

assessment (Rhodes, Schwartz, Willis, & Wu, 2014). This small to moderate correlation, however, suggests that mentor and mentee's MRQ may predict different features of a mentoring relationship. Examining mentors' MRQ may lead to a better understanding of the outcomes mentors experience as a result of the mentoring relationship. This is particularly salient within peer mentoring relationships as both parties are expected to be substantially affected by the relationship. To date, no studies of MRQ have looked at how it impacts the development of mentors.

Helper therapy principle. A theory that does focus on the experience of those in a helping role is the helper therapy principle. This principle, developed by Riessman (1965), proposes that those who provide aid services experience indirect benefits through the role of helping. This is accomplished through the improving of the helper's self-image due to the recognition and status of being a helper, "self-persuasion through persuading others," having a stake in a system, and the implicit assumption that "I must be well if I help others" (Riessman, 1965). In a review of the literature, researchers found volunteering as an adolescent to be associated with reductions in school suspension, school dropout, course failure, and teen pregnancy as well as enhanced grades, enhanced self-concept, and improved attitudes towards society (Moore and Allen, 1996). Consistent with the helper therapy principle, these findings were found across demographic variables such as race and socioeconomic status and were demonstrated in both cross-sectional and longitudinal designs (Moore and Allen, 1996). Research has additionally demonstrated that fulfilling a role as a helper was related to better psychosocial adjustment and treatment outcomes over time in mixed-race samples of middle aged, adult drug users (Roberts et al., 1999; Zemore, Kaskutas, & Ammon, 2004). Similarly beneficial findings have emerged in a variety of populations including rehabilitating formerly

incarcerated persons (Lebel, 2008) and improving adolescents' cardiovascular health (Schreier, Schonert-Reichl, & Chen, 2013). Through a helping relationship, individuals are empowered to attain healthy developmental trajectories. It should be noted that the helper therapy principle is somewhat biased as improvements may in part be due to self-selection factors since those who choose to be helpers may be more prone to healthy functioning than the general population. The nature of volunteering requires that one makes a choice to help others and, therefore, is not usually mandatory. However, research on student service learning programs (mandatory community service programs implemented as a requirement of some public schools) has found such programs benefit the helpers in domains of social-emotional, academic, citizenship, and career development (Billig, 2002). Additionally, in a middle class, predominately White sample of high school aged youth, researchers found that for students who initially did not desire to do service, engaging in mandatory service was associated with increases on measures of civic engagement as youth progress from 11th to 12th grade (Metz, & Youniss, 2005). Youth who were originally inclined to participate in service maintained high civic engagement scores at each time point (Metz, & Youniss, 2005). These results suggest that participation in service, not just personal characteristics, can have a positive impact on youth. Despite the established benefits of being a helper, little is known about how these benefits arise.

Self-psychology. The potential for meaningful relationships to foster therapeutic change, demonstrated through findings in the service literature, is driven by several theories that suggest its benefit. From a self-psychological approach, an individual's mind is composed of a subjective experience of identity termed the "self" which organizes one's internal and external perceptions and interactions. This sense of self serves as the core for how one functions. According to this view, an individual's development occurs through interpersonal relationships. Consequently,

salient figures in one's life are very impactful as they become self-objects, or people who contribute to one's formation, and maintenance, of self. An individual develops a healthy and cohesive sense of self due to numerous empathic exchanges with one's self-objects that helps meet one's self object needs. Through this process, the positive aspects of the relationship become internalized and one becomes able to provide such self-object functions for herself (Banai, 2005). The process of establishing and maintaining a healthy, cohesive sense of self is considered to continue throughout one's life with interpersonal relationships remaining important at every point in one's development. Although intended to formulate a model for client growth in clinical therapy relationships, more recent conceptualizations of self-psychology have emphasized the bidirectionality of interpersonal relationships and have acknowledged the importance of examining effects on both parties in relationships (Shane, 2006). Bidirectional influences are not only essential to be aware of within client-therapist relationships, but also within other helper-helped roles and dyadic relationships in general (Teicholz, 2009; Harach & Kuczynski, 2005).

Self-psychology theorizes that any relationship is mutually created from the contributions of all members in the dyad (Preston & Shumsky, 2000). Partners influence each other such that the current presentation or subsequent development of one individual impacts the collective interaction structure, in turn creating the possibility of a new experience of the self for the other individual in the relationship (Preston & Shumsky, 2000). In parents and infant relationships, for instance, both parents and child come to recognize, remember, and expect patterns of interaction which in turn shapes their behaviors and what they attend to in their environment (Beebe & Lachmann, 1988). Consequently, although the goal of a mentoring relationship is for the mentee

to grow, by nature of being in the relationship, a mentor will have a new self-experience which may also result in beneficial outcomes.

African social thought. The ability of interpersonal relationships to shape individual's development is additionally consistent with some of the tenets of psychological perspectives that have emerged from Black communities. These Afrocentric perspectives acknowledge the risk factors associated with a shared history of oppression stemming from past and present injustices and view African and Black American cultural values as essential protective factors necessary to foster healthy wellbeing in people of African descent (Gilbert, Harvey, & Belgrave, 2009). Afrocentric theories are congruent with the resilience literature in their emphasis on the importance of social context in shaping people's outcomes and setting the foundation for resilience (Jones, Hopson, Gomes, 2012). A facilitation of "cultural orientation toward spirituality, interpersonal relationships, communalism, and expressive communication" are core elements of Afrocentric approaches (Jones, Hopson, Gomes, 2012). These values and belief systems are thought to be shared to some extent among the Black American community, despite the heterogeneity of the community which includes individuals originating from different points across the African diaspora. The growing recognition of the Afrocentric paradigm has come amidst the increased understanding by the mental health field that there is a lack of culturally responsive mental health interventions that are able to fulfill the distinct needs of Black Americans (Jones, Hopson, Gomes, 2012).

Afrocentric approaches reclaim African centered world views in response to dominant, mainstream psychological theories which are drawn from Eurocentric conceptualizations of human behavior and well-being that may neglect fundamental needs of other groups (Graham, 2005). Unlike other more common theoretical orientations which have typically been developed

by therapists trained from a Eurocentric model and while working with White middle-class individuals, Afrocentric perspectives provide a culturally consistent framework for understanding and intervening in the psychological functioning of Black Americans. For instance, one Afrocentric value system that has been proposed to help address behavioral and psychological problems experienced by members of the Black community is the Nguzo Saba (Gilbert, Harvey, & Belgrave, 2009). The Nguzo Saba refer to seven core principles (Umoja or unity, Kujichagulia or self-determination, Ujima or responsibility, Ujamaa or cooperative economics, Nia or purpose, Kuumba or creativity, and Imani or Faith) that can help Black Americans become empowered and live healthy functioning lives. Various interventions have been created that incorporate these principles in order to empower Black individuals and facilitating their wellbeing in a culturally consistent manner (Gilbert, Harvey, & Belgrave, 2009).

The current mentoring program was not created out of an Afrocentric perspective and falls short of using an Afrocentric framework. However, the model's emphasis on the usage of peer mentors from the mentees' community is consistent with part of the theory's values of interpersonal relationships and communalism. The Afrocentric paradigm proposes that resilience is fostered in the presence of a cohesive community that promotes traditional Black values (Jones, Hopson, Gomes, 2012). Similar to the helper therapy principal's recognition of the role of helping relationships in shaping the lives of all those involved in the relationship, Afrocentric social thought proposes that "connection with others provides the basis for healing, transformation and spiritual renewal" (Graham, 2005, p. 214). This for instance, is captured in the Umoja or unity principle of the Nguzo Saba which promotes the connection between the individual, family, and community. According to these theories, an individual is proposed to develop through her interaction with others. Supportive relationships help facilitate a social

context in which an individual can build upon her strengths and learn how to engage in healthy behavior (Jones, Hopson, Gomes, 2012). As with any meaningful relationship, the mentor-mentee bond is characterized by reciprocal dynamics. Consequently, mentors also have the opportunity to develop through their interactions with their mentees. Being matched with younger youth from their own communities whom the mentors are charged with taking a share of responsibility for, capitalizes on the power of interpersonal relationships and aims to facilitate a sense of communalism. The helper therapy principal tenets may be particularly salient in the current sample due to the therapeutic importance of interpersonal relationships to members of the Black community.

Adolescent behavior. An exploration of the dynamics of peer mentoring relationships is particularly necessary for the age range of the current sample. Adolescence is a period marked by many developmental changes. Youth start to gain more independence from their families while the importance of peer relations starts to grow (Brinthaupt, 2002). Despite their potential influence, peers may be less central to the development of Black American youth as they continue to spend a substantial amount of time with their family even in adolescence (Giordano, Cernkovich, & DeMaris, 1993). In a time budgeting study of urban Black American 5th to 8th grade students, youth did not experience the same drop in time spent with family as their White American counterparts (Larson, Richards, Sims, & Dworkin, 2001). Many Black American youth, spend time with families at rates similar to adolescents in collectivist societies (Elmore, & Gaylord-Harden, 2013; Larson, Richards, Sims, & Dworkin, 2001; Wolf, Aber, & Morris, 2015). Although the influence of the family may not have an inverse relationship with peers among some groups, adolescents across groups spend more time with their friends and become more dependent on their friends than at any other previous developmental stage (Larson & Richards,

1991; Barry & Wentzel 2006). The further development of brain areas related to social cognitive abilities causes adolescents to increasingly value and seek out peer relations (Brechwald & Prinstein, 2011). Consequently, a major part of adolescents' behavior and well-being is linked to their relationship with their peers (Erdley, Nangle, Newman, & Carpenter, 2001).

In addition to navigating peer relations, adolescents are experiencing a time of identity formation and rapid cognitive maturation (Marcia, 1994; Phinney & Chavira, 1992). Youth at this developmental stage seek to integrate and establish their own unique identities oftentimes amidst some degree of confusion. This vulnerability to peer pressure and identity formation in adolescence is of particular concern in urban, low-income communities. Adolescents are constructing the stable sense of self that shapes how one interacts with the world, which helps determine whether youth in marginalized communities either succumb to or demonstrate resiliency amidst environmental stressors. For adolescents of color, ethnic identity development is additionally vital to the outcomes they experience (Shin, Daly, & Vera, 2007). It is an established factor in shaping how Black American youth interact with contexts such as stressful neighborhood environments (Corneille & Belgrave, 2007).

Although urban low income communities are already faced with high degrees of environmental risk factors, the developmental period of adolescence is also characterized by increased risk taking behavior (He, Kramer, Houser, Chomitz, & Hacker, 2004). Their increased independence leads adolescents to be exposed to potentially risky situations in which they have little familiarity with problem solving and healthy decision making. Adolescents possess underdeveloped frontal lobe regions and synaptic connections which make them more prone to having poor executive functioning abilities (Sowell, Thompson, Tessner, & Toga, 2001). Youth engage in more reckless and impulsive behavior as the brain regions linked to capacities such as

impulse control and planning are still growing. Additionally, many youth have a sense of invulnerability which makes them more at risk for participating in dangerous acts (Feldman, 2007). Among Black youth growing up in low income urban environments, experiences of social and economic marginalization heighten this mindset and pave the way for apathy and self-destructive behavior (Ginwright, 2006). In a mixed ethnicity, national sample of 20,745 students in grades 7 to 12, nearly $\frac{1}{4}$ of those who identified as Native American, and $\frac{1}{5}$ of those who identify as Black or Hispanic believed they would die early compared to only $\frac{1}{10}$ of White youth (Borowsky, Ireland, & Resnick, 2009). For Black youth who received public assistance, these numbers rose to $\frac{1}{3}$ (Borowsky, Ireland, & Resnick, 2009). In this same sample, higher anticipated risk of early death was associated with worse health compromising behaviors over time (Borowsky, Ireland, & Resnick, 2009). Researchers theorize that this sense of fatalism develops due to the oppressive dynamics of the environments in which many Black youth live. These dynamics create a sense of helplessness and a belief that one's wellbeing is beyond their control (Hammack, 2003). Consequently, many Black youth do not engage in healthy coping methods or other healthy behaviors and, therefore, remain vulnerable to adverse outcomes.

However, factors such as identity formation and a still developing brain that make adolescents vulnerable to negative outcomes additionally make this developmental stage ideal for intervention. Since adolescents' beliefs, values, behaviors, and biology are not fully matured, they are also susceptible to positive, external forces. This is demonstrated in the literature on peers which suggests that similar to the abilities of its negative counterpart to promote anti-social behavior, positive peer pressure may be part of the explanation for how youth develop healthy and pro-social behaviors (Wentzel, 2014). For instance, positive peer pressure was found to be associated with higher social initiative, self-esteem, and empathy in a mixed ethnicity sample of

9th to 12th grade youth (Padilla-Walker & Bean, 2009). My past research (Quimby, unpublished manuscript) involving a sample of Black American middle school aged youth residing in low-income urban areas, found that more positive peer influence and more stable positive peer influence over time were related to better self-esteem, parental relationships, school connectedness, and beliefs about aggression over time. The findings from this past study offer evidence that positive peer influence can be a force in encouraging positive youth development among Black American youth from low income, urban communities. Unlike other interventions for youth that may rely on outside parties for manpower and funding, peers are a cost effective, community-based mechanism that can promote positive youth development. Such characteristics are important, as the ability to create self-sustaining interventions is essential to promoting long lasting change. The current research extends this past study's findings by examining an application of the previous study's conclusions. Engaging adolescents in the appropriate external strengths and fostering their healthy internal strengths, such as what occurs through mentoring, may help them retain or regain positive developmental trajectories. However, in order for interventions to maximize their effectiveness for peer mentors, a greater understanding of how mentors experience longitudinal benefits through their mentoring relationship is needed.

Mediators

As outlined by the helper therapy principle, healthy development as a consequence of engaging as a helper is expected to occur due to growth in 4 areas: 1) improved self-image, 2) "self-persuasion through persuading others", 3) feelings of being a part of a larger system, and 4) an assumption that one is well if they are able to help others. The current study will examine whether growth in these four areas, as measured by proxy variables of self-esteem, attitudes towards youth, feelings of contribution, and self-efficacy, will mediate the relationship between

mentor perception of relationship strength and mentor outcomes longitudinally (Model A, Figure 1). A temporally alternative model (Model B, Figure 2) exploring whether mentor perception of relationship strength will mediate the relationship between the four helper therapy principle tenets and mentor outcomes longitudinally will also be tested. All predictor variables will be based on data from the beginning of the intervention, all mediators will be based on data from the middle of the intervention, and outcome variables will be based on data from the end of the intervention. Due to the established theoretical and empirical basis that suggests a perceived strong relationship is a prerequisite to the development of positive outcomes, it is predicted that Model A and not B will be significant. However, as much of this research has come from studies focusing on mentees, Model B will be examined as it is conceivable that the tenets of the helper therapy principle may precede a stronger perceived mentoring relationship in leading to beneficial mentor outcomes.

Self-image. Self-image, one of the 4 tenets, will be measured with self-esteem in the current study. Self-esteem is considered a person's evaluation of one's self and is a concept that is integral to one's wellbeing. Researchers have linked it to a multitude of components of adaptive functioning such as buffering against anxiety, coping with stressors, having self-efficacy, developing effective behavioral functioning, and generally maintaining positive affect (Pyszczynski et al., 2004). Self-esteem development may be particularly important in Black American communities as it has the potential to serve as a protective factor amidst environmental stressors. Among Black American youth, the construct has been negatively correlated with such detrimental outcomes as cigarette smoking (Botvin et al., 1993) and internalizing symptoms (Youngstrom, Weist, & Albus, 2003).

As previously discussed, positive youth development programs such as community service and mentoring activities lead to beneficial outcomes in youth who are serving as helpers. One common domain in which youth experience benefits is their self-image (Karcher, 2005). For instance, in a study involving a rural, predominately White sample of 46 high school aged mentors and 45 comparison classmates, mentors were found to endorse higher school related self-esteem and school connectedness at the end of their one year match. Studies involving youth in other service activities have demonstrated a similar association between participation as a helper and improved self-image (Switzer et al., 1995). The experience of being a helper leads to youth developing more positive self-esteem. The current study will seek to examine whether this improved self-esteem leads to other improvements within a mentoring relationship as the helper therapy principle theorizes.

“Self-persuasion through persuading others.” The helper therapy principle additionally stipulates that a helper grows within a helping relationship due to the concept of “self-persuasion through persuading others.” Consistent with this idea, research from the field of social psychology has demonstrated that “we cannot expect to change other people without also causing changes in ourselves” (Rind & Kipnis, 1999, p. 154). For instance, one study involving 181, predominately White college students examined the interaction strategies that led to reduced discomfort following imaginary group members’ disagreement with a participant’s mock jury verdict. One of the study’s findings revealed that an interaction strategy involving the successful persuasion of others reduced cognitive dissonance and fostered more positive emotions in the persuader. Participants, who were led to believe that they had convinced their fellow jurors to adopt their proposed verdict, experienced an increase in positive feelings. The extant literature suggests that when one is put in a position to persuade another person or generate their own

messages that correspond to a certain view, one's attitudes change as they start to adopt and be convinced by the argument that they are presenting (Petty, Wheeler, & Tormala, 2003).

Additionally, such active self-persuasion facilitates attitudes consistent with a target argument and reduces inconsistent attitudes to a greater extent than passively listening to a viewpoint (Petty, Wheeler, & Tormala, 2003). It appears that persuasion is linked to attitudinal change in both the persuaded and persuader.

The current study will examine the self-persuasion mentors experience through the persuasion of mentees by measuring mentors' attitudes toward other youth in the community. As youth mentors are placed in positions to persuade their mentees (through indirect role modeling and more explicit conversations) to adopt positive behaviors, they will likely come to embrace the belief or attitude that other youth in the community are capable of positive behavior. Findings from social psychology research theorize that this attitudinal change is garnered by the persuasion of others. Consistent with the helper therapy principle, the current study seeks to understand whether attitudinal change towards youth in the community will also lead to better outcomes in the mentors as they embrace the behaviors and values they advocate for their mentees.

Although the effect on the outcomes of helpers have not been studied, the extant literature has demonstrated that helpers holding positive views of youth leads to better outcomes in the youth they are helping (Karcher, Davidson, Rhodes, & Herrera, 2010). A helper's attitude about the youth he is helping leads to the helper adopting attitude consistent behaviors that create a self-fulfilling prophecy (Karcher et al., 2010). This was demonstrated in one study that examined how teen mentors' attitudes about children interact with their mentees' characteristics to moderate outcomes among a mixed ethnicity, but predominately White sample of high school

mentors and 4th to 7th grade mentees (Karcher et al., 2010). This study found that mentors who had more positive attitudes towards youth had mentees who endorsed better outcomes 9 months later including a better relationship with teachers. More positive outcomes were only reported in mentees who were academically disconnected suggesting that the mentor's attitudes are especially important when working with higher risk populations. Despite the concrete study of how helpers' attitudes affect the outcomes of those they help, less is known regarding how helper's attitudes affect their own outcomes. The current study seeks to gain more insight into these dynamics by examining the attitudes mentors have towards youth their mentees age.

Having a stake in the system. The third factor that the helper therapy principle hypothesizes to lead to the helper experiencing benefits is the helper beginning to feel that she has a stake in the system. This mindset will be represented in the current study by the positive youth development (PYD) factor of contribution. Positive youth development is based on the idea that an individual develops through interactions between different people and environmental contexts. The theory states that youth are placed on healthy developmental trajectories when appropriate internal strengths are fostered, and they are surrounded by positive external strengths. According to PYD, children on healthy developmental trajectories grow in the 5 C's: competence, confidence, connection, character, and caring/compassion. The presence of these 5 C's is theorized to be accompanied by a 6th C, labeled contribution, comprised of both a behavioral and ideological component (Lerner, Dowling, & Anderson 2003). The current study will examine the ideological component of contribution or a youth's sense of commitment to positively impact both one's self and society which "requires understanding the self as, in part, responsible for the well-being of others" (Quinn, 2014, p. 780). Youth who begin to possess this characteristic develop a sense of responsibility to better themselves and their community.

Contribution is considered essential for shaping positive environmental contexts and facilitating healthy interactions between individual and context as individuals who possess this trait positively impact their environment (Jelicic, Bobek, Phelps, Lerner, & Lerner, 2007). Although contribution might be indicative of a youth who is on a positive developmental trajectory, it is important to note that youth can exhibit contribution while maintaining negative behaviors. In a study involving a mixed race but predominately White sample of 982 5th grade youth in 4-H programs, factors associated with PYD as well as risky behaviors were found in participants over time (Jelicic et al., 2007). It appears that PYD factors do not necessarily share an inverse relationship with maladaptive behaviors. Contribution is not a stage achieved after positive development, but is one of many continuums in which a youth can develop. Research has found that participation in youth programs is vital to achieving PYD and an advanced sense of contribution, thereby leading to a promotion of positive outcomes and a reduction of negative outcomes (Lerner et al., 2005). Consequently, the current study will examine the construct of contribution's role in the relationship between the mentoring bond and beneficial outcomes.

“I must be well if I help others.” The helper therapy principle finally claims that helpers will experience benefits from helping as they start to believe that “I must be well if I help others.” The current study will capture this concept using the construct of self-efficacy. Self-efficacy is defined as one's perception of one's ability to successfully carry out behaviors and manage situations (Bandura, 1977). It differs from the construct of self-esteem as it is related to beliefs about coping effectively in situations instead of self-worth (Tschannen-Moran, Hoy, & Hoy, 1998). Self-efficacy impacts how individuals persevere despite adversity, pursue goals, and engage in problem solving solutions (Bandura, 1977). Consequently, high self-efficacy has been associated with a variety of positive outcomes.

By being someone who is charged with helping and modeling appropriate behaviors for others, one may become more confident about one's own ability to competently navigate one's own environments. Consistent with this idea, peer mentoring programs have been found to lead to improvements in mentors' general perceptions of self-efficacy (Karcher, 2005). In addition to being a byproduct of the mentoring relationship, mentor's self-efficacy has been linked to moderating the impact of the mentoring relationship. For instance, one study involving a predominately White sample of 63 high school aged mentors and their 4th and 5th grade mentee matches examined how mentor characteristics such as self-efficacy accounted for mentors' perception of relationship quality and other positive outcomes (Karcher, Nakkula, & Harris, 2005). Only self-efficacy specific to mentoring (belief that one will successfully impact his or her mentee) was studied. Researchers found that mentors' reported self-efficacy mediated the relationship between mentee's risk status and mentor's perception of relationship quality at the beginning, but not end, of the year, and was positively related to mentee's feeling that they had a meaningful relationship with their mentor at the end of the year.

Despite its study in regard to mentee outcomes, less information is known about how a mentor's self-efficacy impacts the mentor's outcomes. However, the impact of the helper's self-efficacy on the helper has been examined to a certain extent in the field of education. Teacher efficacy, or the belief that one will effectively impact student performance, has not only been related to a variety of positive student outcomes but additionally to teacher outcomes including more openness, better planning and organization, resilience amidst setbacks, and more teaching enthusiasm (Tschannen-Moran, Hoy, & Hoy, 1998). In one study involving 2,184 Italian, middle school teachers, researchers found that teacher's sense of self-efficacy was significantly positively related to teacher's reported job satisfaction (Caprara, Barbaranelli, Steca, & Malone,

2006). Teacher self-efficacy has been definitively linked to school related outcomes for both students and teachers. Although not currently studied, similar bidirectional benefits may also be seen in regard to self-efficacy in mentors. Additionally, little is known concerning how someone's belief in her abilities may affect non-domain specific outcomes. Consequently, the current study will examine how mentors' changes in general self-efficacy, or their beliefs about their ability to manage a wide array of circumstances, is related to the outcomes they experience at the end of their mentoring relationship.

Outcomes

Outcome variables were chosen to examine mentor's social-emotional and identity development, corresponding to two of the three domains proposed in the Rhodes (2005) model as areas impacted by mentoring relationships (See Appendix A). Thus, to address the social emotional domain, normative beliefs about aggression and school connectedness will be examined. Ethnic identity and future expectations will be examined to address the identity domain. No measures representing the cognitive domain will be examined. Although peer mentoring programs that emphasize relationship building have been demonstrated to impact a variety of mentee outcomes, the extant literature has not indicated that peer mentors experience the same variety of benefits that directly impact academic and vocational areas (Karcher, 2014). Consequently, the current study will focus on psychosocial areas of functioning consistent with the developmentally focused structure of the program. However, in line with past research (Karcher, 2009), school connectedness may be viewed as a social emotional variable with cognitive relevance.

Social-Emotional Development

Although the domain of social-emotional development is a broad area, the target constructs were chosen due to the salience of aggression and school functioning in low income, communities of color. First, Black American youth from high-risk environments have rates of aggressive behavior higher than the national average (Guerra, Huesmann, Tolan, Van Acker & Eron, 1995). This trend tends to pervade the dynamics of many low income, urban communities due to aggression's ability to help people navigate highly violent communities (Henry, Tolan & Gorman-Smith, 2001; Robinson, Paxton & Jonen, 2011). In response to the high degree of violence around them, youth come to view aggression as an appropriate means to meet their goals in a situation and a way to exude a sense of power to separate and protect themselves from a victim role. As aggression is linked to the more detrimental public health issue of community violence which plagues low income neighborhoods of color, examining factors that reduce aggression is essential.

Similarly, the relationship with school is another important factor for youth of color in low income communities. Youth spend the majority of their waking hours in school (Brookmeyer, Fanti, and Henrich, 2006). Due to this and the social and economic constraints in low income communities, the school is the primary source of consistent intervention for physical, mental, and academic needs. For Black youth in particular, the school environment is a main factor in determining their trajectories (American Psychological Association, 2008).

Normative beliefs about aggression. Aggression is a serious behavior concern that is characterized by hostile interactions with others. Adolescence is an essential time to address this concern as researchers link aggressive acts in early life to negative long-term consequences, such as increased and sustained criminal activity and other antisocial behavior (Babinski, Hartsough,

& Lambert, 1999; Loeber & Farrington, 2001). For many Black American youth who reside in low-income communities, the normative belief or “an individual's own cognition about the acceptability or unacceptability of a behavior” (Huesmann & Guerra, 1997), is supportive towards aggression due to the necessity of this trait to navigate various environmental stressors. Aggressive thoughts and fantasies can become important coping mechanisms in environments with high levels of violence, and over time through the modeling of such behaviors, aggression is viewed as legitimate behavior especially in the face of a threat (Guerra, Huesmann, & Spindler, 2003). Social cognitions such as youth’s beliefs about aggression are thought to be precursors to youth adopting later aggressive behavior. Instead of directly measuring aggressive behavior, the current study will examine youth’s normative beliefs about aggression, a concept that is highly correlated with an individual’s aggressive acts (Huesmann & Guerra, 1997).

Many individuals develop more mainstream beliefs about aggression in the presence of supportive relationships. In one mixed race, longitudinal sample of 2,226 nine, twelve and fifteen year olds living in Chicago, neighborhood services such as after school programs and mentoring as well as the presence of prosocial peers, were found to protect against the development of aggressive behavior (Molnar, 2008). A meta-analysis of mentoring programs involving mentees labeled at risk for juvenile delinquency revealed that mentoring programs positively impacted aggressive behavior (Tolan et al., 2014). Furthermore, the effect size for aggression was found to be larger than the effect sizes of all the other variables studied including academic achievement, drug use, and delinquency (Tolan et al., 2014). As the extant literature only has demonstrated the effect of mentoring relationships on mentee’s endorsements of aggression, less is known about whether peer mentors experience benefits in this domain. Being in a position to model appropriate behavioral responses and values to their younger mentees may encourage peer

mentors to adopt similar beliefs for their own lives. Consequently, the current study will examine the impact of the mentoring relationship on peer mentors' beliefs about aggression.

School connectedness. School connectedness refers to youth's perception of support and sense of investment in school. It is a comprehensive concept that includes a student's sense of safety, support, belonging, and engagement within school (McNeely & Falci, 2004). School connectedness has been extensively linked to academic success and engagement in healthy behaviors (Battin-Pearson et al., 2000; National Research Council, 2003). Studies have shown school connectedness to be related to less drug use and delinquent behavior (Battistich & Hom, 1997) and better emotional health as well as less violence, substance use, and sexuality (Resnick et al., 1997) in mixed ethnicity samples of adolescents. Additionally, research has demonstrated that not all types of school connectedness protect against the development of negative health outcomes. One study found that only conventional school connectedness, which involves connections to peers (and teachers) who engage in prosocial behaviors, serves as a protective factor (McNeely, & Falci, 2004). Research has shown that an adolescent's level of connectedness to school depends on the ability of the school's environment to meet his or her developmental needs (McNeely, Nonnemaker, & Blum, 2002). As previously discussed, one of the main developmental needs of adolescents is having appropriate social supports.

Peer mentoring programs involving high school mentors have been well documented for their ability to increase mentors school connectedness (Karcher, 2014). For instance, in a study involving a predominately White, rural sample of 46 peer mentors in the 10th and 11th grades, mentors reported more gains in school-related connectedness from the fall to spring than a group of their peers who did not serve as mentors (Karcher, 2009). Despite evidence that mentors school connectedness can increase due to their participation in the mentoring relationship, more

research is needed to apply these findings to Black populations in urban areas as past research has been conducted primarily in White samples. Additionally, there is some data that suggests school connectedness among mentors can decrease over the course of a mentoring relationship when the population they are working with is high risk. One study involving a majority White sample of 33 peer mentors from the 8th to 12th grades found that mentors who worked with more high-risk mentees reported drops in school connectedness 6 months later (Karcher & Lindwall, 2003). This effect was particularly salient for those highest in social interest ratings (Karcher & Lindwall, 2003). It appeared that mentors who were more prosocially oriented were more affected by their mentees high risk presentation. As the mentees in the current study will be residing in high risk communities, similar to past research, mentors may not experience benefits in school connectedness because of the stress of working with their mentees. The current study aims to expand upon these mixed findings by examining a sample of Black youth mentors living in low income communities and their experience of school connectedness following their participation in a mentoring relationship.

Identity Development

Similar to social-emotional development, identity is another essential domain of development for youth growing up in low income, urban communities. Both ethnic identity and future expectations are examined in the current study given their relevance for youth of color. For minority adolescents, ethnic identity is of particular importance as they are faced with additional stressors that come from belonging to groups that lack power in society, face discrimination, and are underrepresented in mainstream culture (Charmaraman & Grossman, 2010; Shin, Daly, & Vera, 2007). More so than their White American counterparts, adolescents of color must make sense of their group's place in society and develop a sense of self in which

their connection (or lack of connection) to their ethnicity plays a central role. Additionally, encouraging healthy future expectations for Black youth residing in low income communities is essential. Due to the previously discussed apathy and self-destructive behavior that often accompanies their experience of marginalization, it is important to facilitate positive future orientations among adolescents of color (Ginwright, 2006).

Ethnic identity. Ethnic identity is considered the extent to which one identifies with an ethnic group and how much one's ethnic group influences one's behaviors, thoughts, and feelings (Swenson & Prelow, 2005). Black American adolescents tend to report high ethnic identity scores and salience of ethnicity (Roberts et al., 1999). A sense of ethnic identity is a factor that has been associated with Black-American youth's development of positive coping strategies, self-esteem, and a sense of belonging in the community as well as lower rates of youth's depression (Blash & Unger, 1995; Roberts et al., 1999; McMahon & Watts, 2002). However, previous longitudinal research in a sample of middle school aged Black American youth demonstrated that some aspects of ethnic identity (i.e. affirmation and belonging) is more salient to boys than to girls in outcomes such as reduced depression and improved self-esteem (Mandara et al., 2009). Although it may have relative importance depending on the individual, in general an adolescent's sense of ethnic identity is thought to promote their ability to cope with socioenvironmental stressors such as racism and economic inequality (Umaña-Taylor et al., 2008).

Youth develop a sense of ethnic identity through their interaction with others, particularly others who are role models. However, low income, Black, high school aged youth tend to lack consistent and meaningful role models compared to their college aged peers (Yancey, Siefel, & McDaniel, 2002). They instead commonly identify with celebrities and others portrayed in the

media (Yancey, Siefel, & McDaniel, 2002). In a study involving a mixed ethnicity sample of 749 12 to 17 year olds, youth who had a person who they could “admire or look up to” experienced higher grades, higher self-esteem, and stronger ethnic identity (Yancey, Siefel, & McDaniel, 2002). Furthermore, a stronger ethnic identity was associated with a more personal relationship with an adult mentor such that those who endorsed lower ethnic identity either had no role model or a role model only from the media, while those who endorsed higher ethnic identity could identify a role model whom they personally knew (Yancey, Siefel, & McDaniel, 2002).

Due to mentoring’s impact on the area of identity development (Rhodes, 2006) and the salience of ethnic identity to minority adolescents, ethnic identity may be particularly malleable to mentoring interventions (Sanchez & Colon, 2014). For instance, in a sample of 541 Black American adolescents, relationships with natural mentors, or informal mentors from youths’ pre-existing social networks, were found to be associated with increased private regard (positive opinions of one’s racial group and one’s membership in that group) (Hurd, Sánchez, Zimmerman, & Caldwell, 2012). The current study will examine how mentor’s ethnic identity is affected due to the mentoring relationship. Similar to how some mentees are theorized to experience positive ethnic identity development through identification with their same race mentors (Sanchez & Colon, 2014), mentors may be able to identify with their racially similar mentees. Engaging within a prosocial relationship with individuals who are ethnically similar may allow for culturally relevant interactions that serve to strengthen the ethnic identity of both parties. Despite experiencing a different dynamic than having a role model, mentors could also develop their ethnic identities through being a role model for another.

Future expectations. Future expectations are regarded as a person’s beliefs about the probability of certain events transpiring in the future (Wyman, Cowen, Work, & Kerley, 1993).

Part of the identity formation that marks adolescence involves a development of future expectations. During this developmental period, youth's cognitive abilities mature to a level that causes their thoughts to be less constrained to the present and allows them to begin to be more future focused (Kuhn, 2009). Furthermore, adolescent's increased independence facilitates decision making that can revolve around more long-term goals (Schmid, Phelps, & Lerner, 2011). Consequently, future expectations are pertinent to adolescents as they are preparing for their transition into adulthood (Seginer, 2008; Sipsma, Ickovics, & Kershaw, 2012).

The construct of future expectations has been described as a key characteristic in the make-up of a resilient youth and is thus highly relevant to youth from marginalized communities (Wyman et al., 1993). Research has demonstrated negative future expectations to be related to a multitude of poor outcomes while positive future expectations have been associated with a variety of good outcomes (Wyman et al., 1993; Schmid et al., 2011). Future expectations are thought to foster positive outcomes as they impact how youth interact with their environment including the type of people youth choose to interact with, how people respond to them, and what environments they choose to interact in (Wyman et al., 1993). In one study involving 67 nine to 11 year olds who resided in low income urban communities, positive future expectations were related to better socioemotional adjustment and a more internal locus of control 2 to 3 years later (Wyman et al., 1993). Additionally, for those children who experienced high levels of stress, positive future expectations predicted enhanced competence (Wyman et al., 1993). It appears that future expectations are essential to overcoming adversity particularly for individuals who are at high risk for worse outcomes. Additionally, in a longitudinal study involving a mixed ethnicity but predominately White sample (62%) of 1,311 youth in grades 7-9, future expectations were found to predict positive youth development (Schmid, Phelps, & Lerner,

2011). Furthermore, hopeful future expectations were found to predict later self-regulation abilities which were also associated with positive youth development. Future expectations influence how youth manage their environment and help determine whether they will be effective in integrating their internal assets with environmental resources to pursue optimal development (Schmid, Phelps, & Lerner, 2011).

Due to the dynamic nature of the development of the self which is characterized by reciprocal influences, future expectations are thought to develop through a child's interactions with their caregivers, family, friends, and other key attachment figures in their lives (Wyman et al., 1993). Consequently, mentors are theorized to impact youth's present and future identities (Rhodes & DuBois, 2008). A mentoring relationship exposes youth to different activities, resources, and interactions that youth may not have otherwise been able to experience. Youth use these opportunities to help shape their sense of future orientation (Rhodes & DuBois, 2008). This process has been well researched in the direction of mentor to mentee. For instance, an examination of a sample of 345, rural Black American emerging adults (M age=17) with or without natural mentors, the interpersonal processes of self-regulation and future orientation were found to mediate the beneficial relationship between having a natural adult mentor and reduced externalizing problems 18 months later (Kogan, Brody, & Chen, 2011). Of note, this benefit only was displayed for youth who were part of mentoring relationship of good relationship quality and high support (Kogan, Brody, & Chen, 2011). However, the influence of mentoring relationships on future identity has been less documented outside of the natural mentoring literature, and has not been studied in regard to the experience of the mentor. This is important as not all youth are fortunate to have natural mentors and it is difficult to monitor the quality and support of natural mentoring due to its unregulated structure. Since future identity is

particularly salient to adolescents, who represent the common age range of mentors in peer mentoring relationships, it is important to examine its development within mentors. Although mentoring relationships center around the mentee, peer mentors are also exposed to situations and roles that they have not previously experienced within the context of a structured and supportive atmosphere. Consequently, the current study will examine whether peer mentors develop more positive future identities through their experience of a mentoring relationship.

Aims & Hypotheses

Aims. The primary goal of this study is to examine the effects of cross age peer mentoring on mentors over three time points. The current study aimed explore the helper therapy principle by testing competing models regarding what contributes to mentors' experience of benefits from their mentoring relationships. Previous time points of each variable were controlled for in each analysis.

Model A (See Figure 1)

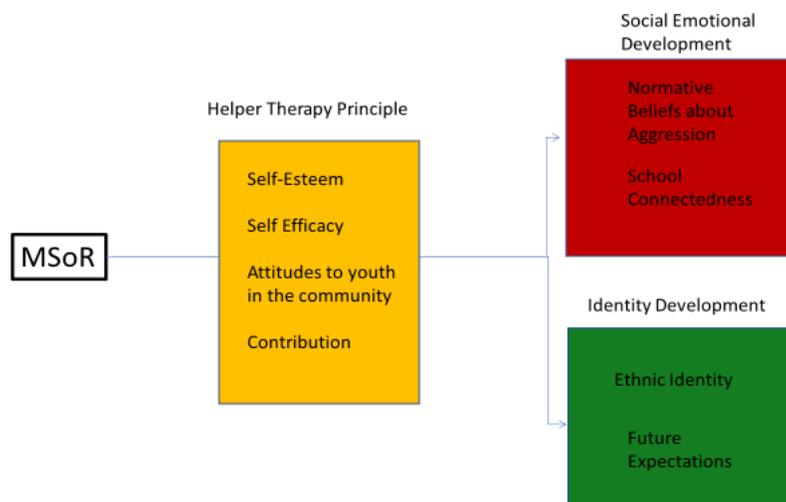
Research question one. Does a stronger mentoring relationship as perceived by mentors (MSoR) at time 1 lead to better social-emotional and identity outcomes in mentors at time 3?

Hypothesis one. Mentors who have a stronger MSoR, will demonstrate better social-emotional and identity outcomes over time.

Research question two: Do the four tenets of the helper therapy principle at time 2 mediate the relationship between MSoR at time 1 and mentor outcomes at time 3?

Hypothesis two. It is predicted that the tenets of the helper therapy principle as measured by 1) self-esteem, 2) self-efficacy, 3) attitudes towards youth in the community, and 4) contribution will mediate the relationship between MSoR and mentor outcomes over time.

Figure 1. The relationship between mentor perceived strength of relationship and the outcomes as mediated by the helper therapy principle tenets (Model A)



Model B (See Figure 2)

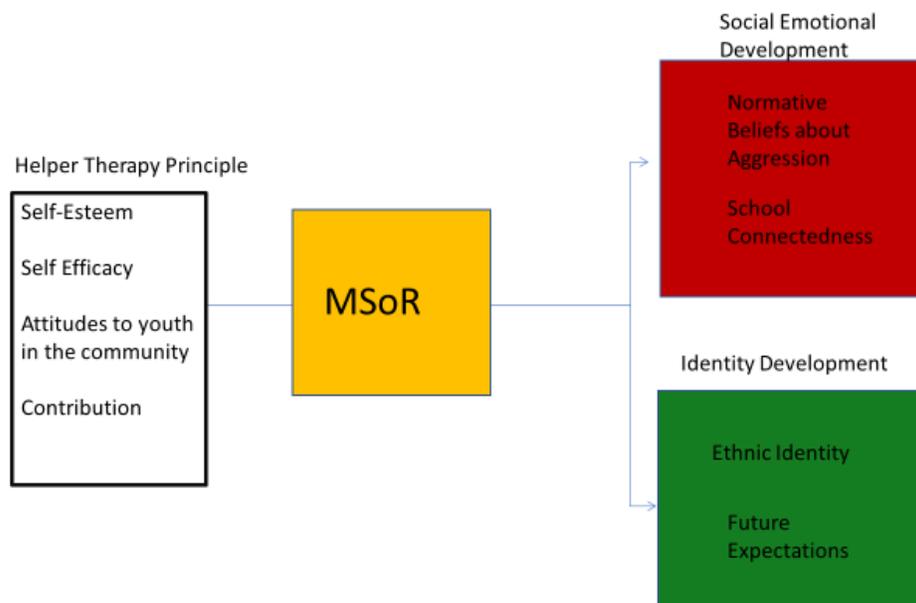
Research question three. Do the four tenets proposed by the helper therapy principle at time 1 lead to better social-emotional outcomes in mentors at time 3?

Hypothesis three. Mentors who have improved 1) self-esteem, 2) self-efficacy, 3) attitudes towards youth in the community, and 4) contribution will demonstrate better social-emotional and identity outcomes over time.

Research Question four. Does MSoR at time 2 mediate the relationship between the four tenets of the helper therapy principle at time 1 and mentor outcomes at time 3?

Hypothesis four. It is predicted that MSoR will not mediate the relationship between the tenets of the helper therapy principle including improved 1) self-esteem, 2) self-efficacy, 3) attitudes towards youth in the community, and 4) contribution, and mentor outcomes over time.

Figure 2. The relationship between the helper therapy principle tenets and the outcomes as mediated by the mentor perceived strength of relationship (Model B)



CHAPTER 2

METHOD

Participants

A sample of 48 high school aged mentors were recruited from 4 low income Chicago neighborhoods and completed 3 waves of data. The average age of the students was 16.49 years and 62% of the students were female. The neighborhoods selected for this study were located in high-crime neighborhoods as reported by Chicago Police Department crime statistics for the year preceding data collection. Data came from an ongoing larger evaluation of cross-age peer mentoring. Only the data from mentors was used in this analysis and only from youth with complete data from all 3 data collection time points. Data was analyzed at three time points (Time 1= Baseline, Time 2= 6 months of mentoring, Time 3= End of program). A sample of 194 youth were not included in the current study due to missing data from youth still enrolled in the program, youth who missed one of the three time points, and youth dropping out of the study. Both the retained and dropped samples were statistically similar in terms of grade, gender, and the majority of the independent variables, mediators, dependent variables, and control variables. However, a significant difference did emerge between the age of the retained sample ($M=16.49$, $SD=1.43$) and dropped sample ($M=17.03$, $SD=1.36$), ($t(241)=-2.42$, $p < .05$). Additionally, there was a significant difference on the scores for Time 3 future expectations in the retained sample ($M=4.00$, $SD=.79$) and dropped sample ($M=3.70$, $SD=.73$), ($t(111)=-2.07$, $p < .05$).

Procedure

In collaboration with nonprofits and Chicago Public Schools (CPS), researchers recruited and trained high school students to serve as mentors for middle school students from the same neighborhoods and SES backgrounds. Contact occurred through weekly mentor/mentee interactions within afterschool programs and supplemental activities over a period of a 9 to 12 months. Mentors were chosen from freshman, sophomores and juniors to ensure they were available for the full year of the intervention. Mentors were trained using instruction and role playing to build skills in peacemaking circles, communication, developing empathy, managing emotions, resolving conflict, understanding adolescent development, conducting community research, and maintaining high quality mentor relationships. Students who successfully completed the 6-hour training program and demonstrated an ability to be successful mentors (as verified through observation by project staff) were matched with mentees. Mentors were matched with mentees who were 1) the same gender, 2) at least 2 years younger, and 3) had similar interests in sports and other activities.

The mentoring relationship was facilitated through existing after school programs at each of the participating middle schools to provide a safe, consistent environment for mentoring interactions. Weekly interactions were based on the activities planned by Loyola University staff and the after school programs such as sports, gardening, and arts. The mentors were expected to develop a sense of trust and connection with their mentee, so that mentees could share with their mentors what was concerning them. Each week during the intervention, staff met with mentors to address mentor challenges or concerns. The mentor supervision reviewed themes and topics covered over the prior week and concerns/challenges that recently emerged. Training was ongoing in that lessons from the training were revisited as needed during the weekly debriefing.

Baseline, 6 months check in, and end-of-intervention assessment were used to assess the effects of the mentoring on mentor and mentee empowerment and mental health outcomes associated with risk for violence. All predictors in the model were analyzed using baseline data, all mediators were analyzed using 6-month data, and the outcome variables were analyzed using end-of-intervention data. Participants received gift cards to local stores of their choosing for completing the assessments. Mentors additionally received a monthly stipend and bus fare for their participation in the program.

Measures

Mentor perceived strength of relationship. Mentors rated their relationship strength on an adapted version of the Mentor Strength of Relationship Scale (MSoR) (Rhodes et al., 2014). The MSoR scale consists of 14 mentor-reported items. Youth were asked to respond on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) to such items as “My mentee and I are interested in the same things.” Wording was changed from the original scale to replace “Little” with “mentee” and “Big” with “Mentor.” Reliability and validity were established in prior research using a mixed race but predominately white (67%) national sample of mentors (Mean age= 32.2 years; 60.5% female; 39.8% had high school degrees or less) (Rhodes et al., 2014). In the current study, the scale yielded an alpha of .77, .79, and .80 at Time 1, 2, and 3.

Helper Therapy Principle

Self-esteem. The Rosenberg Self-Esteem Inventory (Rosenberg, 1965) assesses global self-esteem. Ten items are rated on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree) (e.g., “I have a positive attitude toward myself”). Higher scores on the RSE indicate better self-esteem ratings. Test–retest reliability and validity were established in prior

research using a rural sample of Black American students (M age = 13.9 years; 53.12% female; 59% lived in households with annual incomes below \$30,000) (Harris- Britt et al., 2007). In the current study, the scale yielded an alpha of .82, .86, and .92 at Time 1, 2, and 3.

Self-efficacy. Participants completed the brief version (10 items) of the Generalized Self-Efficacy (GSE) measure, which assesses the ability to handle challenging situations that require effort and perseverance (Tipton & Worthington, 1984). Items included “Once I set my mind to a task, almost nothing can stop me” and were rated on a seven-point scale ranging from 1 (strongly agree) to 7 (strongly disagree). Higher scores indicate higher self-efficacy. Reliability and validity have been established (Tipton & Worthington, 1984). In the current study, the scale yielded an alpha of .84, .84, and .87 at Time 1, 2, and 3.

Attitudes towards youth in the mentor’s community. In order to measure attitudes towards youth their mentees age, participants completed an adapted version of the Attitudes towards youth in the Mentor’s Community scale (Karcher et al., 2010). This scale asked mentors to rate how many “kids (who are in elementary school) in your community” could be characterized by five positive and two negative (reverse-scored) indicators of youth development such as “work hard at school.” Youth responded on a scale of 1 (none) to 5 (almost all). When all 7 items are averaged, scores above 3 suggest a more positive view of the youth in the mentor’s community. Reliability and validity were established in previous research using a predominately White (66%) sample of high school aged mentors in Big Brothers Big Sisters programs (76.01% female) (Karcher et al., 2010). In the current study, the scale yielded an alpha of .70, .70, and .70 at Time 1, 2, and 3.

Contribution. Participants responded to the seven item Contribution subscale of the Positive Youth Development Inventory (PYDI). The original PYDI is composed of 55 likert

scale items designed to measure changes in levels of positive youth development (PYD). It aligns with the 5 C's model of youth development and includes subscales on 1) Confidence; 2) Competence; 3) Character; 4) Caring; and 5) Connection in addition to the 6th C of Contribution. Participants responded to such items as "I am someone who gives to benefit others" on a four-point scale ranging from (1) Strongly disagree to (4) Strongly agree. Reliability and validity were established in previous research using multi-racial but predominately White (44% White) samples of youth (M age = 15 years; 71% female) (Arnold, Nott, & Meinhold, 2012). In the current study, the scale yielded an alpha of .88, .87, and .88 at Time 1, 2, and 3.

Outcomes

Beliefs about aggression and alternatives. In order to assess beliefs on aggression, participants completed a brief twelve-item survey entitled Beliefs about Aggression and Alternatives created by Simon and colleagues for The Multisite Violence Protection Project (Simon et al., 2008). These items (i.e. "If I'm mad at someone, I just ignore them." or "If I back down from a fight, everyone will think I'm a coward.") measure beliefs about the use of aggression and endorsement of non-violent response to hypothetical situations using a four-point scale ranging from 1 (strongly agree) to 4 (strongly disagree). Reliability and validity were established in previous research using a mixed raced but predominately Black American sample of sixth graders (48% female) from low income communities (Farrell, Meyer & White, 2001). In the current study, the scale yielded an alpha of .79, .79, and .77 at Time 1, 2, and 3. Only the beliefs about aggression subscale was included in this assessment:

1. Beliefs about Aggression (items 3, 4, 6, 10, 11, and 12 – a high score indicates more favorable beliefs supporting the use of aggression; and

School connectedness. In order to measure school connectedness, participants completed an adapted version of the Sense of School as a Community questionnaire which is a subscale from the School Sense of Community measure developed by Battistich & Hom (1997). Four items were omitted from the original subscale because they were viewed as redundant. The edited version consisted of 10 items (i.e. “When I’m having a problem, some other student will help me” or “My school is like a family”). Response options ranged from “disagrees a lot” (1) to “agrees a lot” (5). Higher scores indicate more favorable school connectedness. Reliability and validity were established in previous research using a mixed SES and mixed race but predominately white (49%) sample of 5th and 6th graders (Mean age= 11.69 years; 52.8% female; 39.8% had high school degrees or less) (Battistich & Hom, 1997). School connectedness was only included in the measure packets at Time 2 and Time 3. In the current study, the scale yielded an alpha of .76 and .81 at Time 2, and 3.

Ethnic identity. Ethnic Identity was measured using an adapted version of the Multigroup Ethnic Identity Scale (MEIM) (Phinney, 1992). This scale measures various dimensions of ethnic identity within diverse groups of adolescents. In keeping with previous studies (Mandara et al., 2009) only the affirmation and belonging subscale was used as it reflects a respondent’s positive attitudes and affiliation towards one’s race. Respondents answered on a 1 (strongly disagree) to 4 (strongly agree) scale such items as “I have a lot of pride in Black people” or “I am happy to be a member of the Black group.” Reliability and validity were established in previous research using a mixed SES and multi-racial sample of high school youth (M age= 16.5; 56.35% female) (Phinney, 1992). In the current study, the scale yielded an alpha of .89, .86, .and 85 at Time 1, 2, and 3.

Future expectations. In order to assess future expectations, participants completed a brief seven-item questionnaire entitled Future Expectations Scales created by Wyman and colleagues (1993). This measure begins with an open-ended question (i.e. “What do you think your life will be like when you grow up?”) and concludes with six objective items about specific future outcomes (i.e. “How sure are you that you’ll stay out of trouble?” or “How sure are you that you will have interesting things to do in your life?”) using a 5-point scale ranging from 1 (not at all) to 5 (very much). High scores on all items reflect more positive expectations. Reliability and validity were established in previous research using a mixed race but predominately Black American (45% Black) sample (44% female; 4th to 6th grades; median family monthly income was \$600-900). (Wyman et al., 1993). In the current study, the scale yielded an alpha of .80, .83, and .79 at Time 1, 2, and 3.

CHAPTER 3

RESULTS

Preliminary Analyses

The means and standard deviations for reports of the predictors at times 1 and 2 (mentoring strength of relationship (MSoR), self-esteem, self-efficacy, attitudes towards youth in the community, and feelings of contribution) and the outcomes at times 1, 2 and 3 (beliefs about aggression, school connectedness, ethnic identity, and future expectations) were assessed. Means and standard deviations for all variables examined in the current study are presented in Table 1. The correlations between the independent variables, mediators, dependent variables, and control variables are also displayed in Table 1.

Correlations revealed that mentoring strength of relationship at Time 1 was positively related to attitudes towards youth at Time 2 ($r = .51, p < .01$). It appears that a stronger mentoring strength of relationship is associated with more positive attitudes towards youth overtime. However, mentoring strength of relationship at Time 2 was not significantly related to any of the helper therapy principles at Time 1. Few significant associations emerged between the proposed independent variables and mediators for both Model A and B.

In regard to the outcome variables, mentoring strength of relationship at Time 1 ($r = .35, p < .05$) and Time 2 ($r = .31, p < .05$) were both positively related to school connectedness at Time 3. These associations indicate that mentoring strength of relationship may have particular relevance to school connectedness as the stronger the perceived bond between mentor and

mentee is, the closer youth felt to their school environment overtime. Both attitudes towards youth ($r = .38, p < .05$) and feelings of contribution ($r = .36, p < .05$) at Time 1 were positively related to school connectedness at Time 3. Similarly, attitudes towards youth ($r = .43, p < .01$) and feelings of contribution ($r = .44, p < .01$) at Time 2 were also positively related to school connectedness at Time 3. More positive attitudes towards youth and stronger feelings of contribution were consistently related to greater school connectedness overtime. Additionally, self-esteem ($r = .48, p < .01$), self-efficacy ($r = .61, p < .01$), and feelings of contribution ($r = .46, p < .01$) at Time 1 were all positively related to future expectations at Time 3. Similarly, self-esteem ($r = .54, p < .01$), self-efficacy ($r = .42, p < .01$), attitudes towards youth ($r = .40, p < .05$), and feelings of contribution ($r = .61, p < .01$) at Time 2 were all positively related to future expectations at Time 3. With the exception of attitudes towards youth at Time 1, higher scores on the helper therapy principles at Times 1 and 2 were associated with more positive future expectations overtime. Finally, self-efficacy at Time 2 emerged as the only independent variable significantly related to ethnic identity at Time 3 ($r = .33, p < .01$). Higher self-efficacy at Time 2 was associated with a stronger sense of ethnic identity overtime. No independent variables were found to be significantly related to beliefs about aggression at Time 3.

Table 1. Correlations among variables under study

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Future Expectations T1	1.00	.58**	-.36*	.36*	.22	.31*	-.01	.28	.18	.49**	.30*	-.37*	.34*	.25	.27	.29	.17	.07	.35*	-.11	.08
2. Self-Esteem T1	.58**	1.00	-.13	.48**	.21	.36*	.11	.20	.26	.57**	.54**	-.43**	.29	.09	.36*	.18	.11	.18	.50**	-.27	.19
3. Beliefs about Aggression T1	-.36*	-.13	1.00	-.20	-.31*	-.10	-.15	-.21	-.18	-.36*	-.13	.44**	-.27	-.09	-.06	-.38**	-.31*	-.22	-.29	.25	-.10
4. Self-Efficacy T1	.36*	.48**	-.20	1.00	.35*	.33*	-.01	.37*	.11	.61**	.48**	-.29*	.39**	.18	.31*	.21	.33*	.19	.62**	-.20	.24
5. Ethnic Identity T1	.22	.21	-.31*	.35*	1.00	.47**	.00	.34*	.08	.28	.12	-.35*	.32*	.29	.39**	.23	.13	.26	.23	-.28	.27
6. Contribution T1	.31*	.36*	-.10	.33*	.47**	1.00	.14	.35*	.10	.25	.29	-.17	.18	.24	.56**	.36*	.16	.26	.42**	-.05	.11
7. Attitudes towards Youth T1	-.01	.11	-.15	-.01	.00	.14	1.00	.23	.57**	-.08	-.20	.00	.10	-.15	-.12	.54**	.09	.37*	-.02	-.22	-.24
8. Mentoring Strength of Relationship T1	.28	.20	-.21	.37*	.34*	.35*	.23	1.00	.20	.31*	-.12	-.14	.15	.12	.20	.41**	.28	.28	.30*	.00	-.04
9. School Sense of Community T2	.18	.26	-.18	.11	.08	.10	.57**	.20	1.00	.23	-.02	-.21	.20	.18	.14	.41**	.21	.49**	.10	-.38*	-.02
10. Future Expectations T2	.49**	.57**	-.36*	.61**	.28	.25	-.08	.31*	.23	1.00	.59**	-.48**	.36*	.30*	.33*	.23	.53**	.25	.74**	-.18	.31*
11. Self-Esteem T2	.30*	.54**	-.13	.48**	.12	.29	-.20	-.12	-.02	.59**	1.00	-.22	.22	.11	.36*	.13	.25	.17	.54**	-.16	.16
12. Beliefs about Aggression T2	-.37*	-.43**	.44**	-.29*	-.35*	-.17	.00	-.14	-.21	-.48**	-.22	1.00	-.46**	-.07	-.21	-.20	-.21	-.35*	-.43**	.42**	-.10
13. Self-Efficacy T2	.34*	.29	-.27	.39**	.32*	.18	.10	.15	.20	.36*	.22	-.46**	1.00	.37*	.39**	.28	.03	.25	.34*	-.06	.27
14. Ethnic Identity T2	.25	.09	-.09	.18	.29	.24	-.15	.12	.18	.30*	.11	-.07	.37*	1.00	.61**	.09	.05	.31*	.32*	.07	.32*
15. Contribution T2	.27	.36*	-.06	.31*	.39**	.56**	-.12	.20	.14	.33*	.36*	-.21	.39**	.61**	1.00	.26	-.07	.36*	.58**	.00	.13
16. Attitudes towards Youth T2	.29	.18	-.38**	.21	.23	.36*	.54**	.41**	.41**	.23	.13	-.20	.28	.09	.26	1.00	.23	.43**	.35*	-.12	.00
17. Mentoring Strength of Relationship T2	.17	.11	-.31*	.33*	.13	.16	.09	.28	.21	.53**	.25	-.21	.03	.05	-.07	.23	1.00	.25	.28	-.09	.08
18. School Sense of Community T3	.07	.18	-.22	.19	.26	.26	.37*	.28	.49**	.25	.17	-.35*	.25	.31*	.36*	.43**	.25	1.00	.32*	-.12	.02
19. Future Expectations T3	.35*	.50**	-.29	.62**	.23	.42**	-.02	.30*	.10	.74**	.54**	-.43**	.34*	.32*	.58**	.35*	.28	.32*	1.00	-.10	.28
20. Beliefs about Aggression T3	-.11	-.27	.25	-.20	-.28	-.05	-.22	.00	-.38*	-.18	-.16	.42**	-.06	.07	.00	-.12	-.09	-.12	-.10	1.00	.05
21. Ethnic Identity T3	.08	.19	-.10	.24	.27	.11	-.24	-.04	-.02	.31*	.16	-.10	.27	.32*	.13	.00	.08	.02	.28	.05	1.00
Mean	3.86	3.06	1.80	5.32	2.98	3.00	3.46	3.83	3.27	3.99	3.17	1.81	5.42	3.07	3.11	3.59	3.85	3.46	4.00	1.82	3.11
Std. Deviation	.84	.61	.71	1.03	.50	.57	.73	.59	.79	.79	.61	.62	1.06	.52	.63	.76	.58	.65	.79	.76	.55

Note: * significant at .05 level, ** significant at .01 level

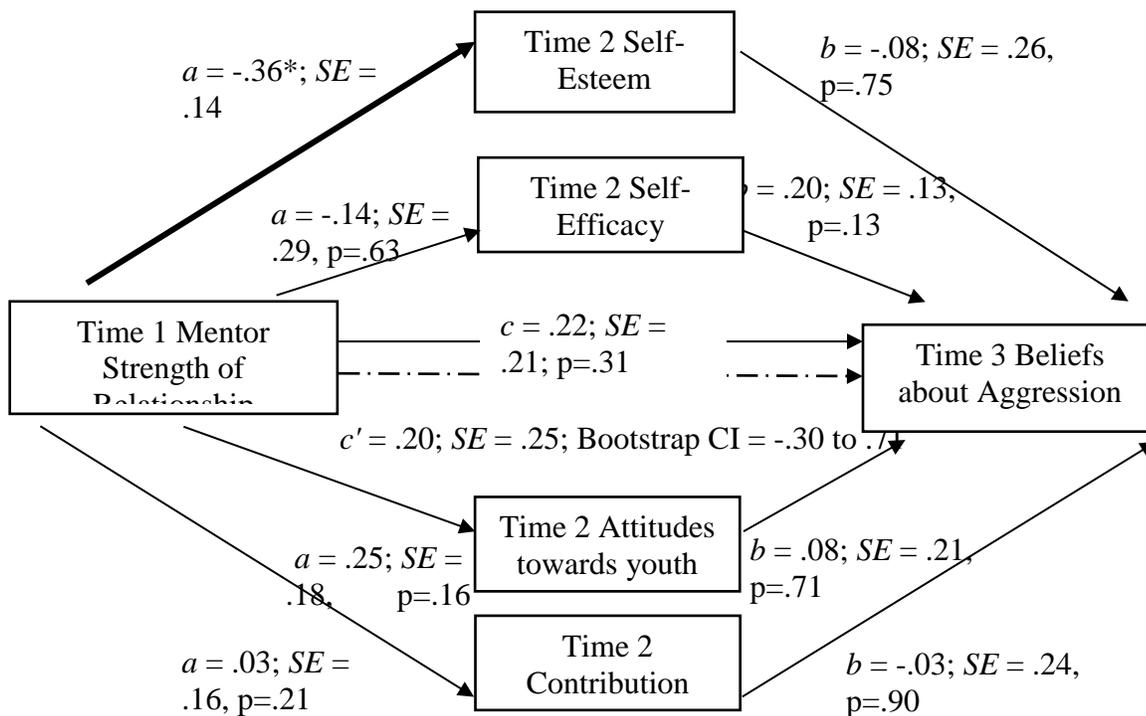
Mediation Analyses

The primary aims of the current study were to determine the indirect (pathway from X to Y through M) and mediating function of 1) the helper therapy principles between mentoring strength of relationship and subsequent social emotional and identity development outcomes (Model A, Figure 1), and 2) mentoring strength of relationship between the helper therapy principles and subsequent social emotional and identity development outcomes (Model B, Figure 2). Using the computational PROCESS bootstrapping procedure for SPSS (Hayes, 2012), models were estimated to determine the total, direct, and indirect effects of the variables in each of these aims. The X variables were all measured at Time 1, the M variables were all measured at Time 2, and the Y variables were all measured at Time 3. Previous time points of each variable were controlled for in each analysis and they were included in the model simultaneously with the other predictors.

Model A. Using bootstrapping, both the total effect and direct effect of the mentoring strength of relationship on subsequent social emotional and identity development outcomes through the four helper therapy principles was not significant for any of the outcomes (see Figures 3-6). The majority of a and b pathways were also not found to be significant across the different outcomes (see Figures 3-6). However, results revealed a negative relationship between Time 1 mentoring strength of relationship and Time 2 self-esteem for the a path across all outcomes ($b=-0.36$, $t(38)=-2.11$, $p<.05$; $b=-0.36$, $t(38)=-2.47$, $p<.05$; $b=-0.41$, $t(38)=-3.12$, $p<.05$; $b=-0.39$, $t(38)=-2.38$, $p<.05$) (see Figures 3-6 respectively). This suggest that mentors who perceived a weaker bond with their mentee at the start of the program experienced higher self-esteem overtime. Additionally, a positive relationship was found for the b path between Time 2 feelings of contribution and both Time 3 school connectedness ($b=0.43$, $t(31)=2.44$,

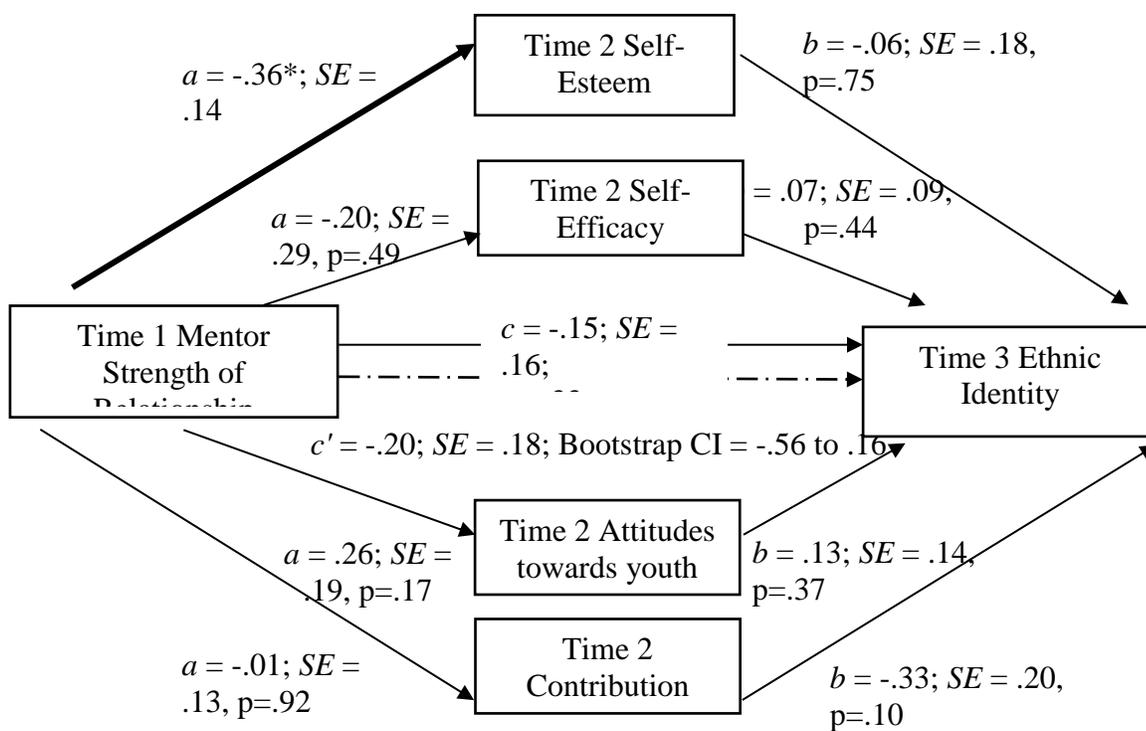
$p < .05$) and Time 3 future expectations ($b = 0.44$, $t(33) = 2.77$, $p < .05$) respectively (see Figures 5 and 6). These results demonstrate that youth who had higher feelings of contribution in the middle of the program experienced both a stronger sense of school connectedness and more positive future expectations by the end of the program.

Figure 3. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and beliefs about aggression ($N = 46$)



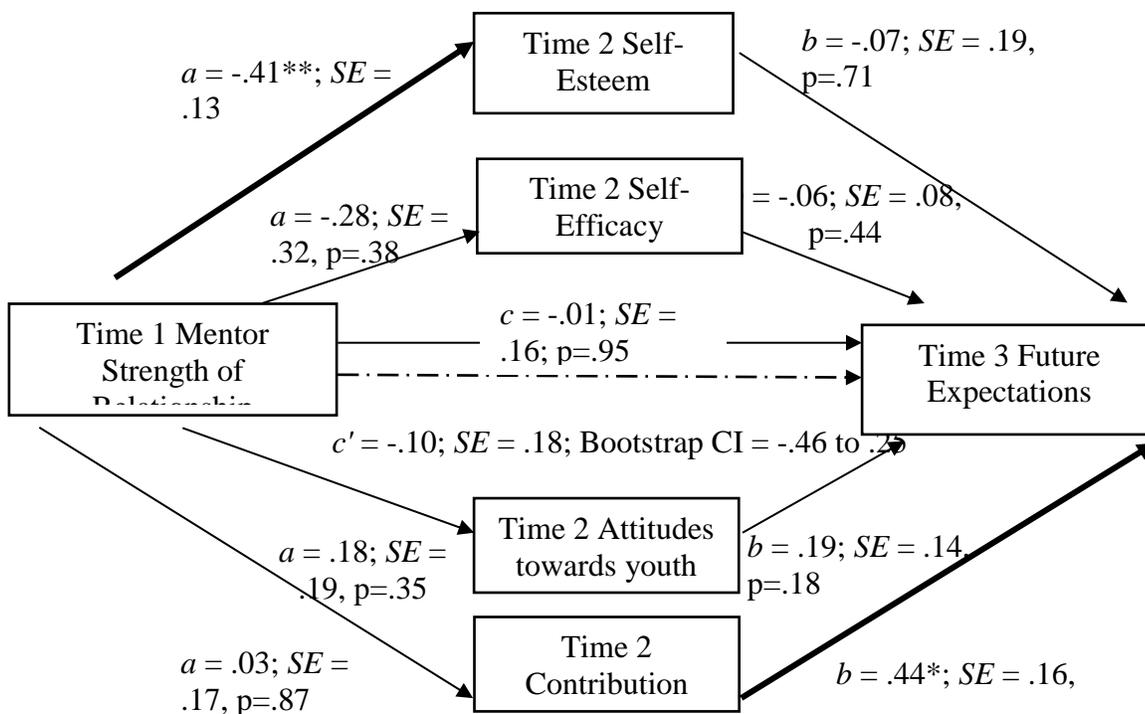
Note. Dotted line represents the indirect effect of mentoring strength of relationship when helper therapy principles are included as mediators; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 4. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and ethnic identity (N = 46)



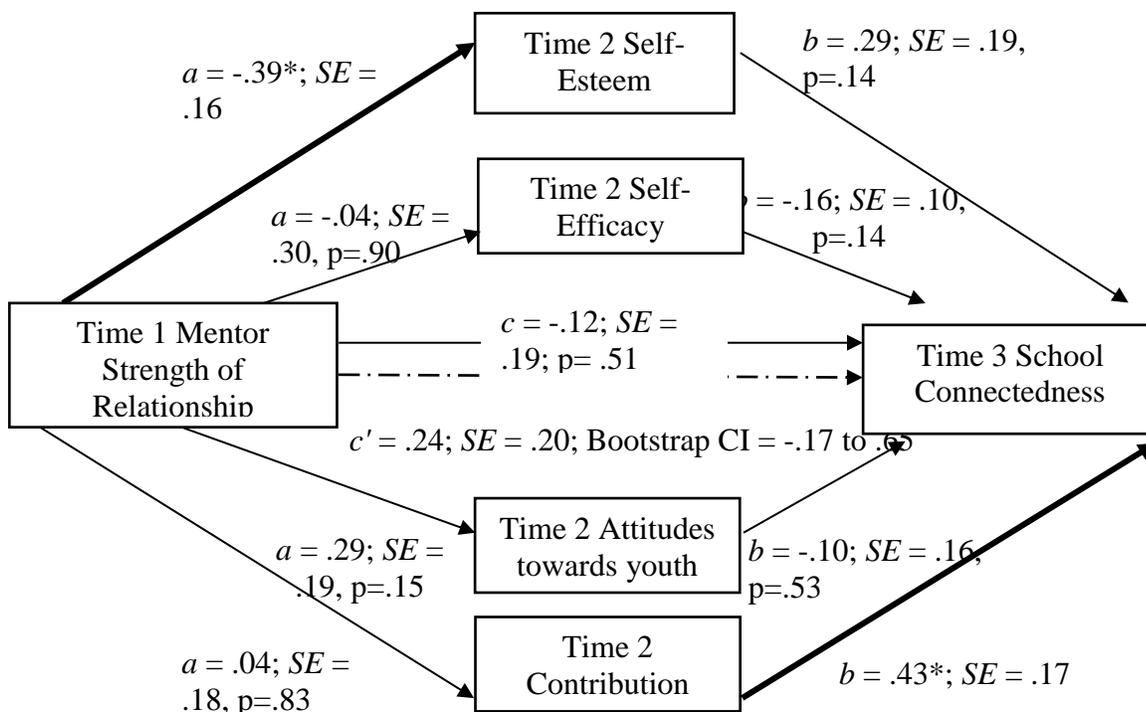
Note. Dotted line represents the indirect effect of mentoring strength of relationship when helper therapy principles are included as mediators; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 5. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and future expectations (N = 45)



Note. Dotted line represents the indirect effect of mentoring strength of relationship when helper therapy principles are included as mediators; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

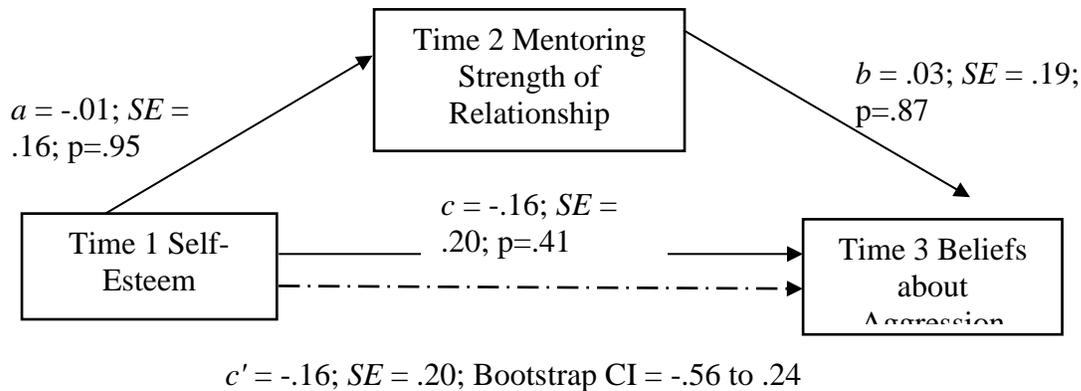
Figure 6. Path coefficients for the mediating function of the helper therapy principles between mentoring strength of relationship and school connectedness (N = 42)



Note. Dotted line represents the indirect effect of mentoring strength of relationship when helper therapy principles are included as mediators; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

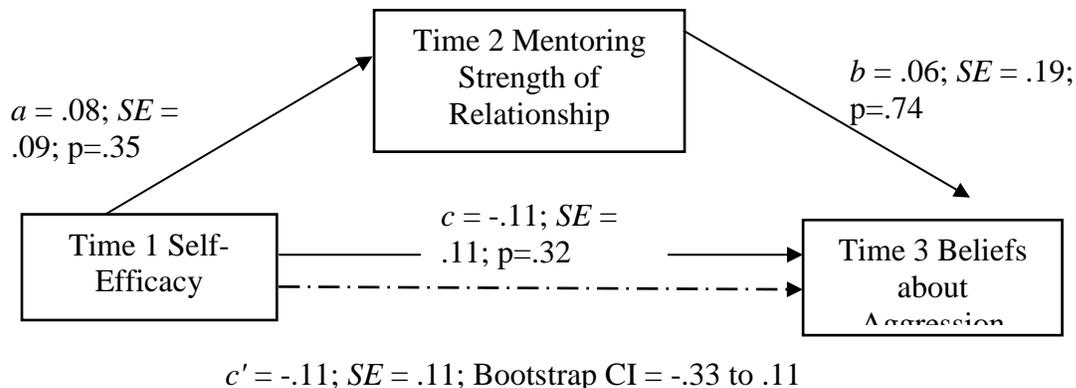
Model B. Similar to Model A, the *a* pathways, *b* pathways, total effects, and direct effects of the helper therapy principals on subsequent social emotional and identity development outcomes through the mentoring strength of relationship were not significant for the majority of the outcomes (see Figures 7 to 22). However, a significant positive total effect was found between Time 1 self-efficacy and Time 3 future expectations ($b=0.19$, $t(42)= 2.05$, $p<.05$) as well as Time 1 feelings of contribution and Time 3 future expectations ($b=0.31$, $t(42)= 2.31$, $p<.05$) (see Figures 20 and 22). A significant positive total effect was also found between Time 1 feelings of contribution and Time 3 school connectedness ($b=0.27$, $t(40)= 2.09$, $p<.05$) (see Figure 18). Similar to Model A, these results indicate that increased feelings of contribution at the beginning of the program lead to more positive future expectations and a stronger sense of school connectedness overtime. Additionally, higher self-efficacy at the start of mentoring contributed to more positive future expectations at the end of the program.

Figure 7. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and beliefs about aggression (N = 48)



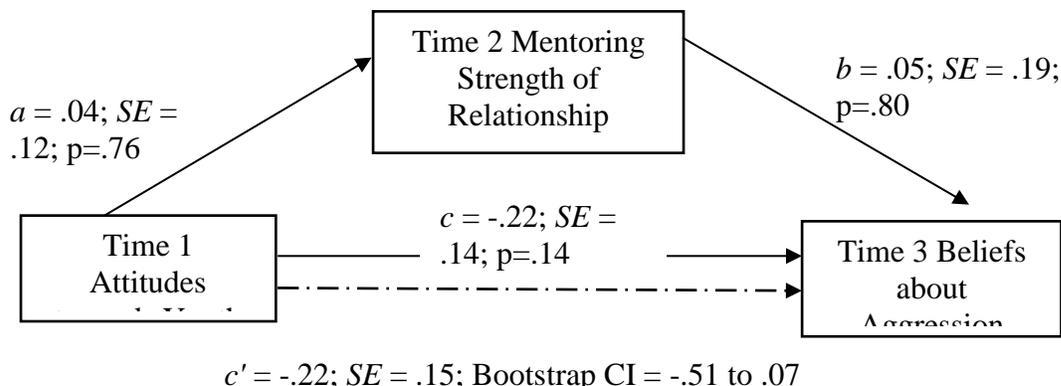
Note. Dotted line represents the indirect effect of self-esteem when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 8. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and beliefs about aggression (N = 48)



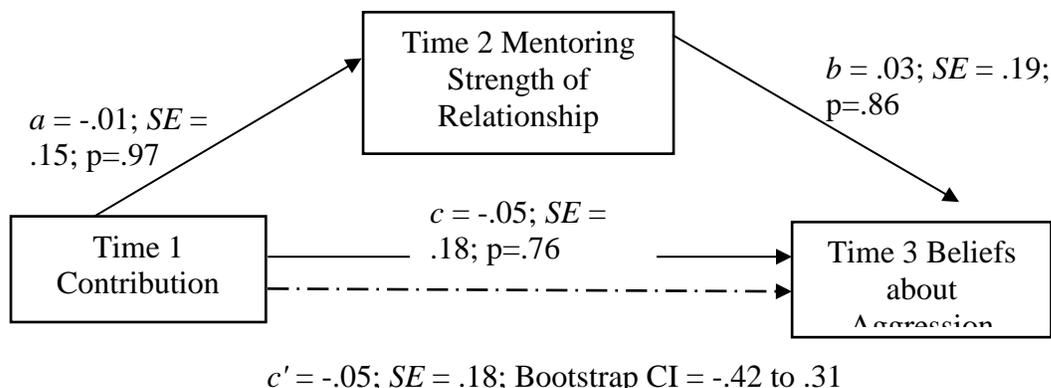
Note. Dotted line represents the indirect effect of self-efficacy when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 9. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and beliefs about aggression (N = 48)



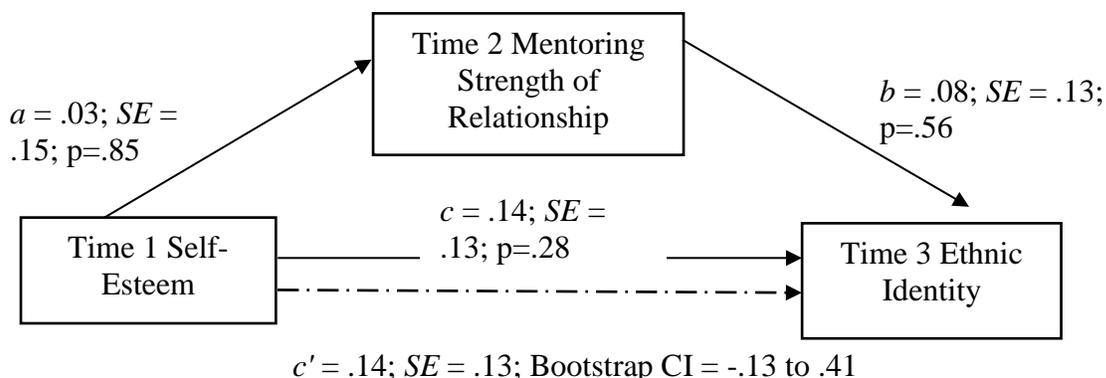
Note. Dotted line represents the indirect effect of attitudes toward youth when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 10. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and beliefs about aggression (N = 48)



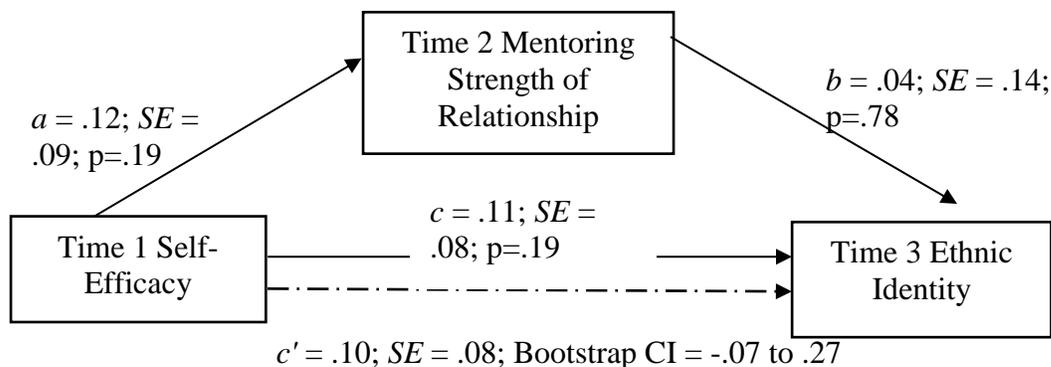
Note. Dotted line represents the indirect effect of feelings of contribution when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 11. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and ethnic identity (N = 48)



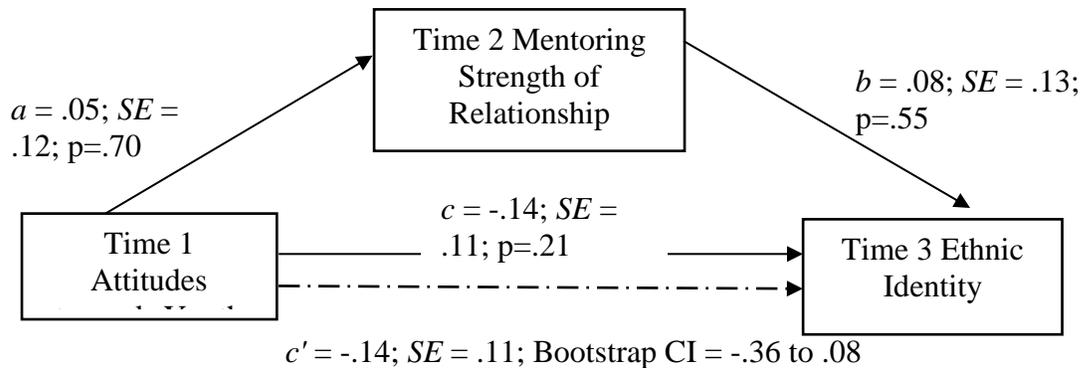
Note. Dotted line represents the indirect effect of self-esteem when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 12. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and ethnic identity (N = 48)



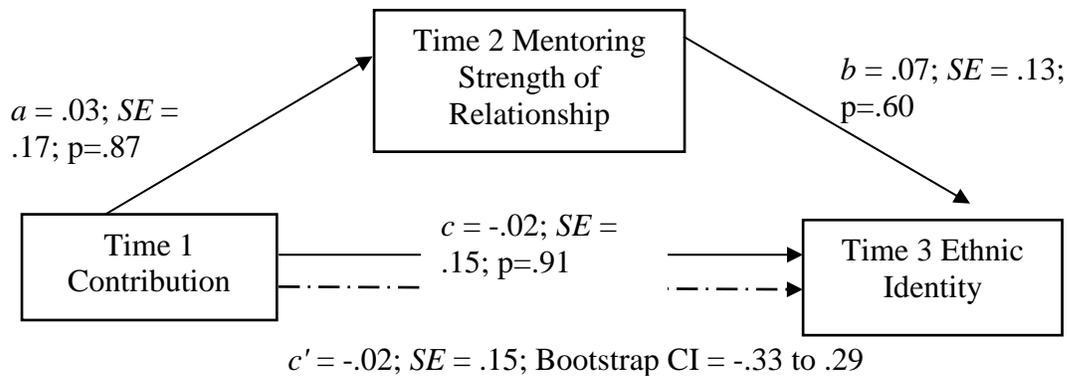
Note. Dotted line represents the indirect effect of self-efficacy when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 13. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and ethnic identity (N = 48)



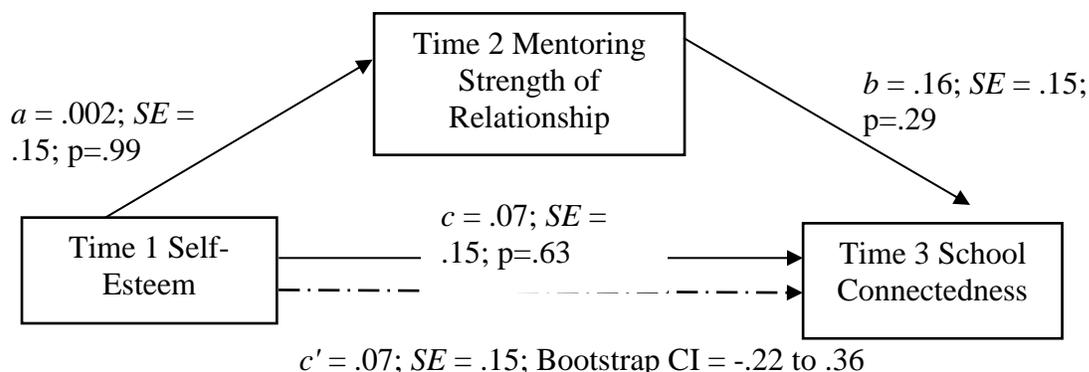
Note. Dotted line represents the indirect effect of attitudes toward youth when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$

Figure 14. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and ethnic identity (N = 48)



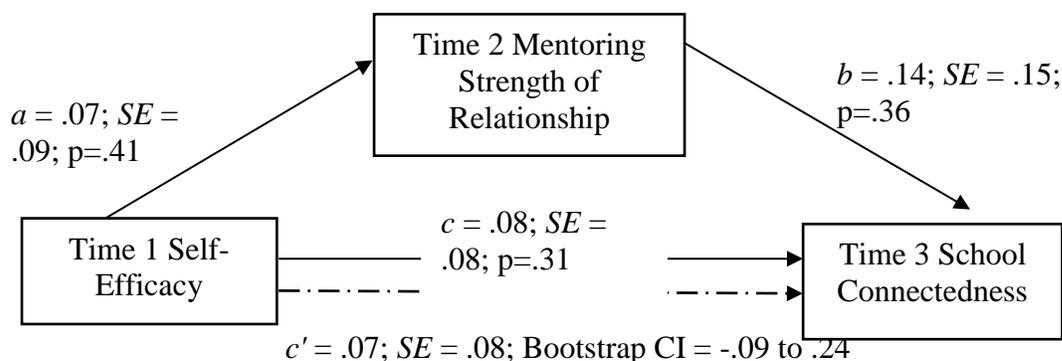
Note. Dotted line represents the indirect effect of feelings of contribution when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 15. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and school connectedness (N = 43)



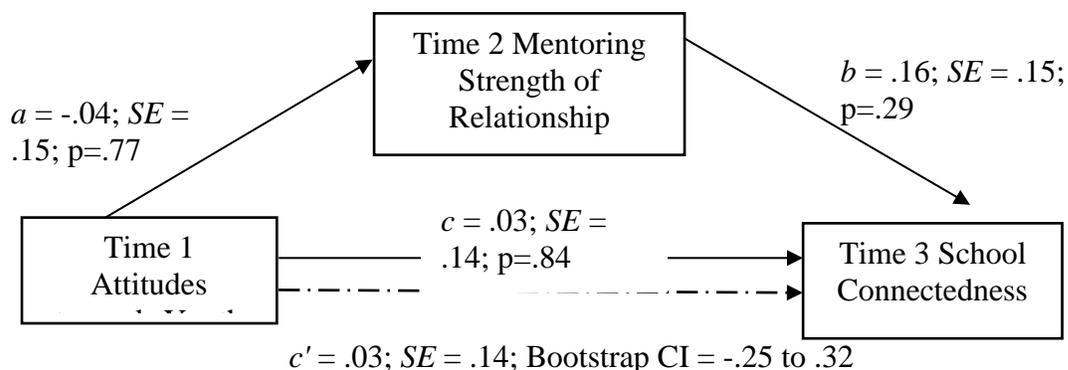
Note. Dotted line represents the indirect effect of self-esteem when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 16. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and school connectedness (N = 44)



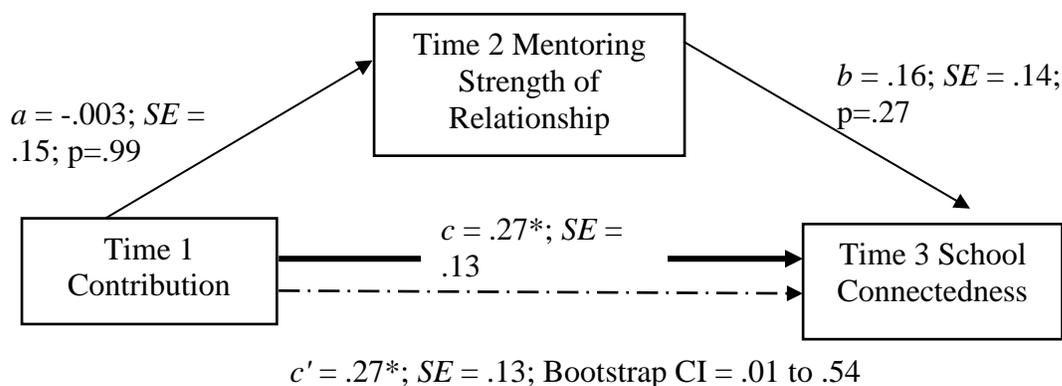
Note. Dotted line represents the indirect effect of self-efficacy when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 17. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and school connectedness (N = 44)



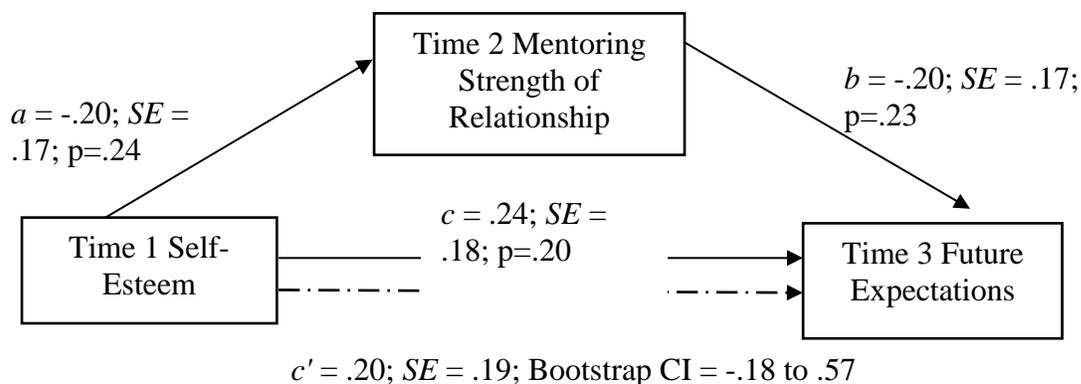
Note. Dotted line represents the indirect effect of attitudes toward youth when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 18. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and school connectedness (N = 44)



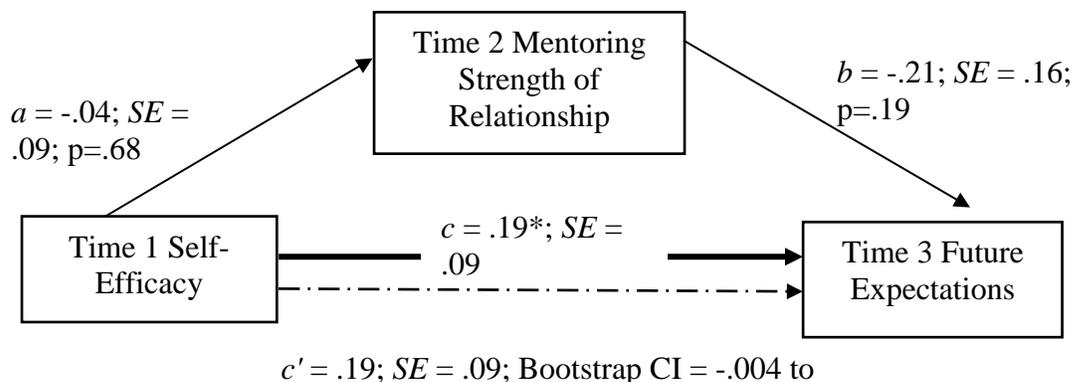
Note. Dotted line represents the indirect effect of feelings of contribution when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 19. Path coefficients for the mediating function of mentoring strength of relationship between self-esteem and future expectations (N = 46)



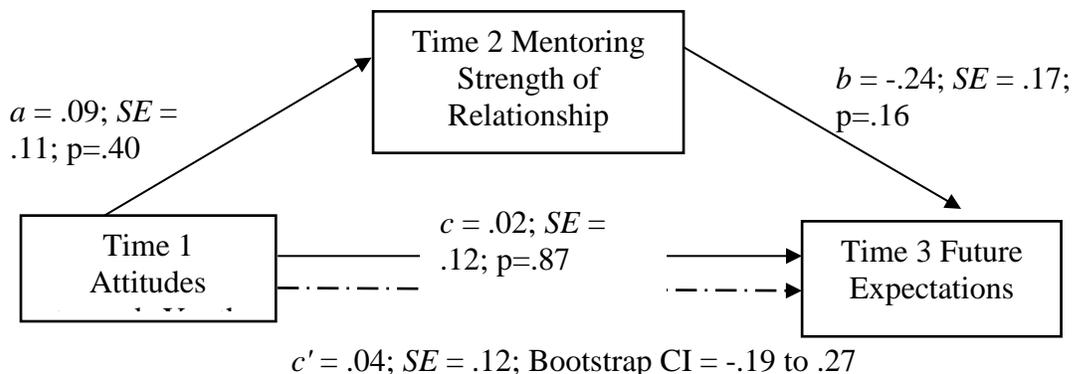
Note. Dotted line represents the indirect effect of self-esteem when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 20. Path coefficients for the mediating function of mentoring strength of relationship between self-efficacy and future expectations (N = 47)



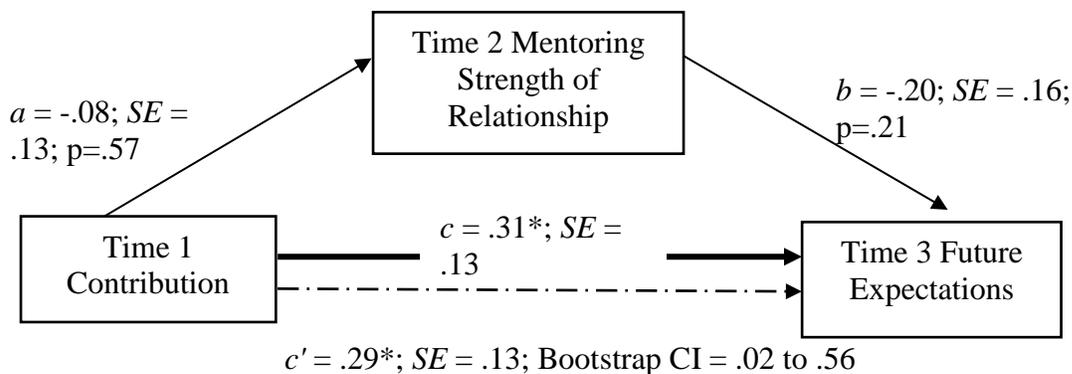
Note. Dotted line represents the indirect effect of self-efficacy when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 21. Path coefficients for the mediating function of mentoring strength of relationship between attitudes towards youth and future expectations (N = 47)



Note. Dotted line represents the indirect effect of attitudes toward youth when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

Figure 22. Path coefficients for the mediating function of mentoring strength of relationship between feelings of contribution and future expectations (N = 47)



Note. Dotted line represents the indirect effect of feelings of contribution when mentoring strength of relationship is included as the mediator; 95% Bias-corrected bootstrap confidence interval is included. a , b , c , and c' are unstandardized logistic regression coefficients. Previous time points of each variable were included as covariates but not visually represented here. $*p < .05$, $**p < .01$, $***p < .001$.

CHAPTER 4

DISCUSSION

The current study sought to obtain a deeper understanding of the experience of high school aged mentors residing in urban, low income communities and whether these youths benefited from being placed in a helping role. There were two major goals of the analysis. The first was to examine whether the mentor perceived strength of relationship (MSoR) and/or the four tenets of the helper therapy principle predicted better outcomes over time. The second goal was to examine different models of mediation to determine whether 1) MSoR mediated the relationship between the four tenets of the helper therapy principle and the target outcomes (Model A; see Figure 1) or 2) the four tenets of the helper therapy principle mediated the relationship between MSoR and the target outcomes (Model B; see Figure 2). The findings will be discussed with respect to each of these Models.

Model A

Within Model A, a negative relationship repeatedly emerged between mentoring strength of relationship at Time 1 and self-esteem at Time 2. Within the current sample of mentors, those youth who began with a weaker relationship at the beginning of the program, experienced increased self-esteem by the middle of the program. It may be that as the program progressed, those youth who were not initially able to bond with their mentee were more impacted by their experience as a mentor. There was more room for improvement for these youths and consequently, more opportunity for them to experience a better self-image if they were to

develop as a mentor. Alternatively, the mentors who perceived a weaker mentoring relationship at the beginning of the intervention may have received more attention from staff as staff tried to support them to develop a stronger bond with the mentee. The greater scaffolding given to these mentors through positive encouragement, feedback, and validation may have also served to improve their self-esteem overtime.

Those youth who initially perceived stronger relationships may have experienced lower levels of self-esteem by the middle of the program because they did not receive the same level of attention from staff as youth who perceived more issues in their mentoring relationships. Furthermore, mentors who perceived stronger relationships at the beginning of the program may have been more negatively impacted overtime if their relationship with their mentee did not go as planned. As will be discussed in the limitation section, youth in the program faced a high degree of environmental challenges that interfered with retention. For instance, some mentees had difficulty regularly attending program due to issues such as community violence, being responsible for babysitting their siblings, or difficulty for parents to organize transportation for youth. Mentors who perceived a strong relationship with their mentee at the start of programming may have taken the lack of regular attendance from some mentees personally and blamed themselves for why the mentees did not come. Consequently, their self-esteem was lower by the middle of the program as they may have perceived the mentees poor attendance as a rejection.

Despite these significant findings, the Time 1 mentoring strength of relationship may not be the most accurate characterization of bond between mentor and mentee. Time 1 mentoring strength of relationship was not significantly correlated with Time 2 mentoring strength of

relationship ($r = .28$; see Table 1.) suggesting that these two time points may tap into different constructs. Mentors completed the Time 1 surveys when they had very few meetings with their mentees. Consequently, the Time 1 mentoring strength of relationship measure was probably based primarily on initial expectations rather than actual experience within the mentoring relationship.

A significant positive main effect also emerged between changes in Time 2 feelings of contribution and changes in both Time 3 school connectedness and future expectations respectively. More specifically, increased sense of contribution at about 6 months into the program appeared to contribute to an enhanced sense of school connectedness and more positive future expectations. As mentioned in the procedure, the mentoring program was conducted within schools during after school hours. Due to their role, mentors were positioned as leaders in the program and school. The contribution measure asked youth to respond to items such as “I take an active role in the community” or “I have things I can offer to others”. Mentors who were able to feel like they were contributing to their community by benefitting others within the program environment may have generalized their feelings of connection and responsibility to the larger school environment overtime. Additionally, mentors who felt like they had something of value to offer others through their practical experience may have experienced more positive future expectations overtime as they began to internalize a sense of worth. As previously discussed, the social and economic marginalization that many Black youth growing up in low income urban environments endure, leads to a higher anticipated risk of early death and sense of fatalism (Borowsky, Ireland, & Resnick, 2009). The oppressive dynamics in which youth live become internalized by youth and can create a negative outlook for their future (Ginwright,

2006). In contrast, mentors' feeling of being part of a larger system that positively impacted others may have combated the marginalization they experienced and led to a sense that their future could be positive. The mentoring position provided youth an opportunity to change the dominant, negative narrative about themselves and internalize a more positive perspective.

Model B

Within Model B, a significant positive main effect was found between Time 1 self-efficacy and improved Time 3 future expectations. Higher feelings of self-efficacy may have a similar impact to what was just discussed regarding the potential for higher feelings of contribution to provide a counter narrative to the marginalization youth experience. Self-efficacy was assessed using such questions as "once I set my mind to a task, almost nothing can stop me". Youth in impoverished environments can experience a sense of helplessness and a belief that one's wellbeing is beyond their control (Hammack, 2003) which in turn can lead to feelings of apathy and self-destructive behavior (Ginwright, 2006). However, as demonstrated within the current sample, it appears that youth who are able to possess a greater sense that their actions are within their control, experience a more positive outlook about their future overtime.

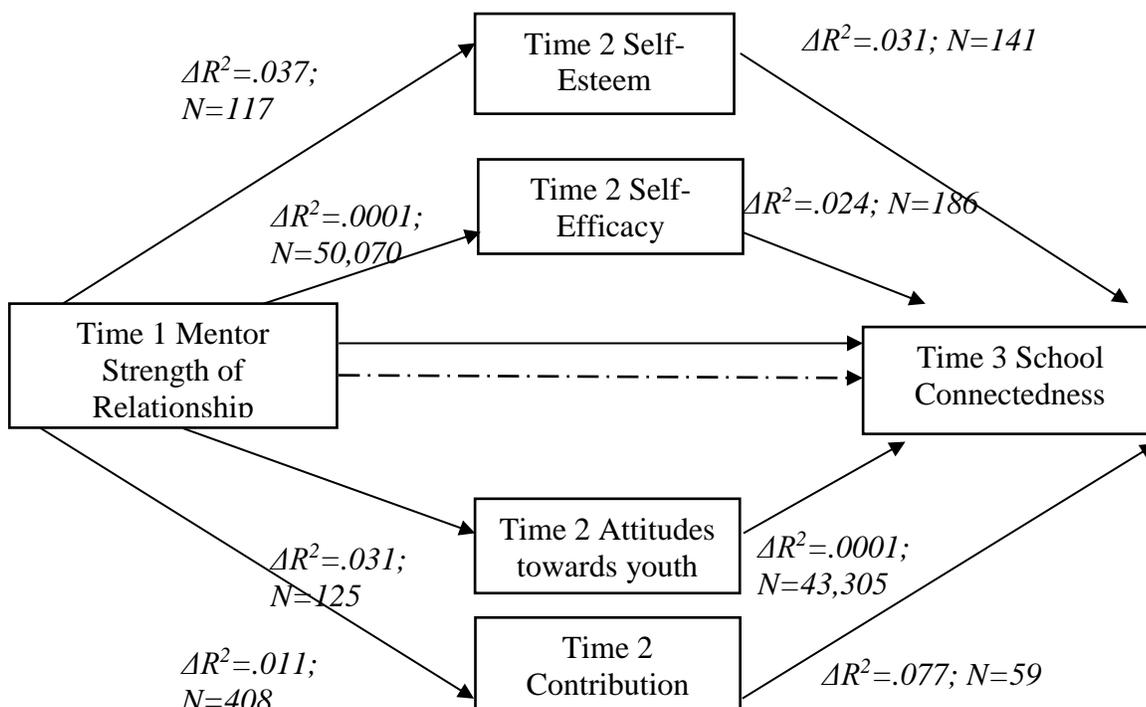
Additionally, similar to Model A, a significant positive main effect emerged between Time 1 feelings of contribution and both Time 3 school connectedness and future expectations respectively. The fact that these findings were also found for Time 1 predictors speaks to the pre-existing strengths that mentors possess. Although this may be indicative of some self-selection bias, it is also apparent that despite what is suggested by environmental challenges, many youths in low income communities want to positively impact their community and personally benefit from their prosocial actions when empowered to do so.

Sample Size/Effect Size

The small sample size of the current analyses made it difficult to find significance for both Model A and B. Consequently, power analyses were conducted for an outcome in Model A and Model B to provide a sense of what sample size would be needed to detect significance amongst the mediators. As an example, power analyses were performed for the *a* and *b* pathways of 1) the helper therapy principles mediating the relation between mentoring strength of relationship and school sense of community for Model A (See Figure 23), and 2) the mentoring strength of relationship mediating the relation between self-esteem and future expectations for Model B (See Figure 24). The majority of relations for both Models had between small and medium effect sizes. This is based on the commonly accepted effect size guidelines for mediation analyses of small=0.01, medium=0.09, large=0.25 (Preacher & Kelley, 2011). Overall, it appears that in order to detect significance in the majority of target relations examined in the current study, future studies will require a sample size of around 200 youth. For instance, the relationship between contribution and school connectedness had the highest effect size ($\Delta R^2=.077$) and, therefore, lowest estimated sample size (N=59) needed to find significance (See Figure 23). Consistent with this estimate, this pathway was one of the only paths to be found significant in current analyses. The notable exceptions to this were found in the *a* pathway between mentoring strength of relationship and self-efficacy, and the *b* pathway between attitudes towards youth and school connectedness which would require excessive sample sizes to detect significance given the inconsequential effect sizes found for these relations (See Figure 23). Additionally, the relationship between mentoring strength of relationship and feelings of contribution in the *a* pathway would require a sample size of around 408 youth to find

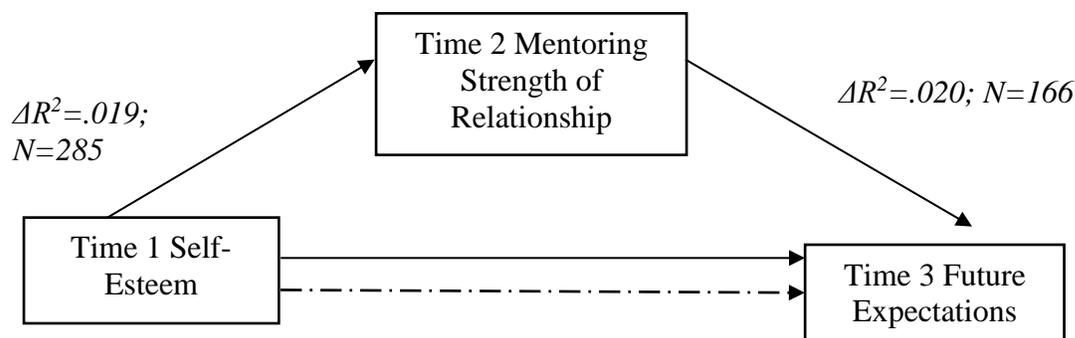
significance. Although obtainable, this is higher than the next highest estimated sample size (N=186) needed to find significance which emerged in the b pathway of self-efficacy to school connectedness.

Figure 23. Estimated sample sizes for the mediating function of the helper therapy principles between mentoring strength of relationship and school connectedness



Note. *N* refers to the estimated sample size needed for 80% power given the ΔR^2 found in the current analyses for the key variables of interest. The *a* pathway power analyses are based on the inclusion of 6 predictors (including 5 controls and the IV) and the *b* pathway power analyses are based on the inclusion of 9 predictors (including 5 controls, the IV, and 3 mediators).

Figure 24. Estimated sample sizes for the mediating function of mentoring strength of relationship between self-esteem and future expectations



Note. N refers to the estimated sample size needed for 80% power given the ΔR^2 found in the current analyses for the key variables of interest. Both the a and b pathway power analyses are based on the inclusion of 4 predictors (including 3 controls and the IV).

To further explore the potential impact of the mentoring relationship on outcomes, effect sizes were additionally calculated for the relationship between each of the mediators and outcomes. This was done with the assumption that variables from the middle of the program would be a more accurate reflection of youths' experience in the program than those collected at the start of the program. Based on the effect sizes and corresponding sample sizes established in the example power analyses discussed above, it appears that several other relationships may emerge as significant with larger sample sizes. For the following paths of Time 2 self-efficacy to Time 3 beliefs about aggression ($\Delta R^2 = 0.043$), Time 2 contribution to Time 3 ethnic identity ($\Delta R^2 = 0.058$), and Time 2 contribution to Time 3 future expectations ($\Delta R^2 = 0.057$), a sample size of around 117 or less would potentially produce significant relations. These effect sizes suggest that with a reasonable sample, self-efficacy might have predicted beliefs about aggression, and sense of contributions might have predicted ethnic identity and future expectations. This contrasts with other pathways where much larger samples would be needed to

detect significant effects. For the paths of Time 2 Self-efficacy to Time 3 ethnic identity ($\Delta R^2 = 0.016$), Time 2 self-esteem to Time 3 beliefs about aggression ($\Delta R^2 = 0.017$), and Time 2 attitudes towards youth to Time 3 future expectations ($\Delta R^2 = 0.015$), a sample size of around 408 or less would potentially produce significant relations. For Model B, for the path of mentoring strength of relationship to school connectedness ($\Delta R^2 = 0.025$), a sample size of around 166 or less would potentially produce significant relations, suggesting that mentoring strength of relationship may have predicted school connectedness overtime with the appropriate sample size. Other relations, (Time 2 mentoring strength of relationship to Time 3 ethnic identity; Time 2 mentoring strength of relationship to Time 3 beliefs about aggression; Time 2 attitudes towards youth to Time 3 beliefs about aggression; Time 2 contribution to Time 3 beliefs about aggression; Time 2 attitudes towards youth to Time 3 ethnic identity; Time 2 self-esteem to Time 3 ethnic identity; Time 2 self-esteem to Time 3 future expectations; and Time 2 self-efficacy to Time 3 ethnic identity) had effect sizes lower than .01 and would therefore require excessively large sample sizes to find significance.

Based on the power analyses conducted and generalizations to other effect sizes, it seems that even with an adequate sample size, the relations between mentoring strength of relationship, helper therapy principles, and the social-emotional and identity development outcomes may not emerge as predicted. Instead of all the principles proposed by the helper therapy theory being necessary for each of the outcomes, it appears that only certain helper therapy principles are related to each outcome. For instance, based on their effect sizes, just Time 2 self-esteem and self-efficacy may be related to Time 3 beliefs about aggression whereas Time 2 attitudes towards youth and contribution may be related to Time 3 future expectations. Similarly, it appears that

the mentoring strength of relationship may be particularly salient for future expectations and school connectedness but not ethnic identity and beliefs about aggression.

The helper therapy principle, developed by Riessman (1965), proposes that those in a helping role experience benefits through the improvement of the helper's self-image due to the recognition and status of being a helper, "self-persuasion through persuading others," having a stake in a system, and the implicit assumption that "I must be well if I help others" (Riessman, 1965). Although this concept has received attention in literature due to the positive development seen among volunteers (Moore and Allen, 1996), to date, there has been no direct test of the particular tenets of the theory to examine how the positive development of helpers occurs. Based on the exploratory findings from the current study, the pathways of positive growth among those in a helping role may be more nuanced than predicted. Instead of all the tenets being necessary for development, particular tenets of the helper therapy principle may tap into particular social-emotional and identity development outcomes. Similarly, contrary to extant literature on mentoring strength of relationship which states that it is related to all outcomes among mentors (Rhodes, 2005), the bond between mentor and mentee may have a different impact on those in the helping position. As suggested by the effect sizes, the mentoring strength of relationship is more related to particular outcomes.

However, this may be because the current study examined the mentoring strength of relationship as perceived by mentors. As the relationship is reciprocal, some social-emotional outcomes of mentors may be more tied to the perception of relationship of mentees who, although are younger, are their peers. As previously discussed, adolescence is a developmental stage that has been well documented as a time when peers start to have a dominant role in one's

life (Monahan, & Booth-LaForce, 2015). For instance, Steinberg (2008) describes adolescence as a period that reveals an elevated awareness of others' opinions. Consistent with this literature, my past research involving a sample of Black American middle school aged youth residing in low-income urban areas, found higher positive peer pressure to be related to better social emotional outcomes overtime (Quimby, unpublished manuscript). This and other studies demonstrate that a major part of adolescents' behavior and well-being is linked to their relationship with their peers (Rubin, Bukowski, & Bowker, 2015). Furthermore, as articulated in Afrocentric theories (Jones, Hopson, Gomes, 2012), the cultural values of Black American adolescents suggest that their wellbeing may be tied to their peer relationships. Research has demonstrated the importance of interpersonal relationships for Black American youth, as samples of Black youth have been found to use social support as a coping strategy more than their European American and Latino peers (Tolan, Gorman-Smith, Henry, Chung, & Hunt 2002). Due to their cultural values, many Black American youth develop amidst a framework of interdependence in which engaging with others is a central feature of their wellbeing. Consequently, the wellbeing of the Black, adolescent mentors in the current study may have been impacted by the perception of the mentoring relationship from their peers' (mentees') perspective in different ways than was captured by the self-report of mentors' own perception of the relationship used in the current study.

Most of the extant literature for both the helper therapy principle and MSR is based on adult populations. The uniqueness of the developmental stage of adolescence may create different pathways of mentor development than were previously suggested in the literature.

Although limited, findings from the current study demonstrate the importance of continuing to explore the distinct qualities of adolescents who are peer mentors.

Strengths, Limitations and Future Directions

The present study had several strengths. First, it contributes to the dearth of literature on prosocial forces among Black American youth from low income, urban communities. In attempting to shift the focus to factors that contribute to positive youth development, the current study sought to avoid the deficits based approach which has traditionally been the framework of research with Black American and other marginalized populations. Although this approach is sometimes necessary as many issues face these communities that need to be identified and described, this orientation can fail to portray community members as possessing preexisting resources, resources that can be enhanced with the right interventions and contexts (Bulanda, Tellis, & Tyson McCrea, 2015). Second, the study involves an examination of variables longitudinally. This methodology created a better potential to analyze developmental patterns and directions of relations between the current study's target variables. A final strength of the study is the examination of mentors within the mentoring relationship. Previous literature has primarily focused on the mentee's perspective of the mentoring bond (Thomson & Zand, 2010) which neglects the unique contribution that a mentor's perspective can provide to furthering a comprehensive understanding of the mentoring relationship. The current study's placement of the helper as the central focus of study emphasizes the reciprocal nature of relationships and the potential of helpers to also positively grow by taking on a helping role.

Despite its many strengths, several limitations should be discussed in regard to the current study. First, due to breadth of variables examined in the study, numerous analyses were

conducted. This increases the risk for Type 1 error as the more comparisons one makes, the higher the probability that an analysis will yield significance due to chance. Follow up studies could benefit from narrowing the scope of questioning and focusing on particular pathways of development instead of examining the same extent of outcomes or all the helper therapy principles. A second limitation of the study is the homogenous sample in regard to racial, socioeconomic, and geographical demographics. The lack of diversity in the sample reduces external validity of the current study's findings. Although it was the intent of the study to explore the experience of Black American youth from low-income, urban families, the low heterogeneity prevents conclusions from generalizing to other populations. Third, the study relied on youth self-report for the target variables and did not include collateral informants. Consequently, the measures are susceptible to mistakes associated with retrospective memory.

A final limitation involves challenges due to the high degree of environmental stressors that pervade that communities in which the research was conducted. This impacted both the retention of sample and the ability of the Mentoring Strength of Relationship (MSoR) scale to be administered. The profound violence, poverty and other issues that impact the communities in which the mentors from the current study reside make it difficult for sustained intervention programming to be implemented. Often the research and original intervention goals of the mentoring program had to be navigated in the midst of the ethical necessity to address some of youths' basic needs for food, clothing, shelter, emotional wellbeing, and education. Consequently, some mentors who started in the program were not able to remain until the program ended due to other commitments such as new jobs or the necessity of dealing with personal and familial issues. Other youth could not be located for long periods of time resulting

in them missing the time sensitive Wave 2 data collection time point. Furthermore, some mentors were unable to complete the MSoR scale at Wave 1 as they were not yet matched with mentees due to inconsistent attendance from both mentors and mentees. Some mentees had difficulty regularly attending program due to issues such as community violence that caused youth to go immediately home afterschool because of safety concerns and difficulty for parents to organize after school transportation for youth because of their own commitments. Individual matching only occurred after a consistent roster of mentors and mentees was established and youth often worked in mentor families (groups of mentors and mentees) when one member of established mentor/mentee pairs were absent. These environmental issues impacted data collection and resulted in a low sample size after listwise deletion in PROCESS. Due to the low sample size, researchers were restricted on the amount of moderator variables that could be included in the analyses.

To combat limitations and expand upon these strengths, future studies should continue to examine the experience of Black American youth mentors residing in low income, urban communities. In order to circumvent some of the issues with retention in interventions implemented in these communities, researchers should conduct data collection over shorter time spans. Administering surveys 12 months after an intervention is initiated might not be best to collect comprehensive information from participants given the high degree of mobility in marginalized communities. Additionally, future studies would benefit from including moderators in the analysis. More findings may emerge through the inclusion of variables such as attendance in the mentoring program, the mentee's perception of the mentoring relationship, or staffs' relationship with mentors. Due to issues with program attendance and the need for mentors and

mentees to occasionally work in mentor families, more variance in the outcomes of mentors may have emerged when accounting for these factors. Furthermore, the relationship between staff and mentors for youth may be predictive of other outcomes. Unlike in adult mentoring relationships, staff are more salient factors in youth's experience in programming as they become like secondary mentors to the youth as they support them in their growth as mentors.

Finally, future studies should consider including qualitative data to better capture the experiences of and potential growth of peer mentors due to their position in a helping relationship. For instance, the helper therapy principal proposes that healthy development as a consequence of engaging as a helper is expected to occur due to growth in 4 areas which in the current study was measured by proxy variables of self-esteem, attitudes towards youth, feelings of contribution, and self-efficacy. However, the studied variables can only be considered an approximation for the areas proposed by the helper therapy theory. An inclusion of qualitative data might allow researchers to better represent a theory that is difficult to operationalize through survey data and provide a more nuanced exploration of the process by which a mentor grows through their relationship with a mentee.

Conclusions

The current study supports the necessity for research to continue to shift the focus of inquiry in marginalized communities. Unlike previous research which adopts a deficit based model when working in marginalized communities, the current study positions Black adolescents and their role as leaders in the community as the focal point of study. This is in line with a growing recognition that traditional methods of intervening in communities have been insufficient to support communities' uplift. Researchers have begun to emphasize the importance

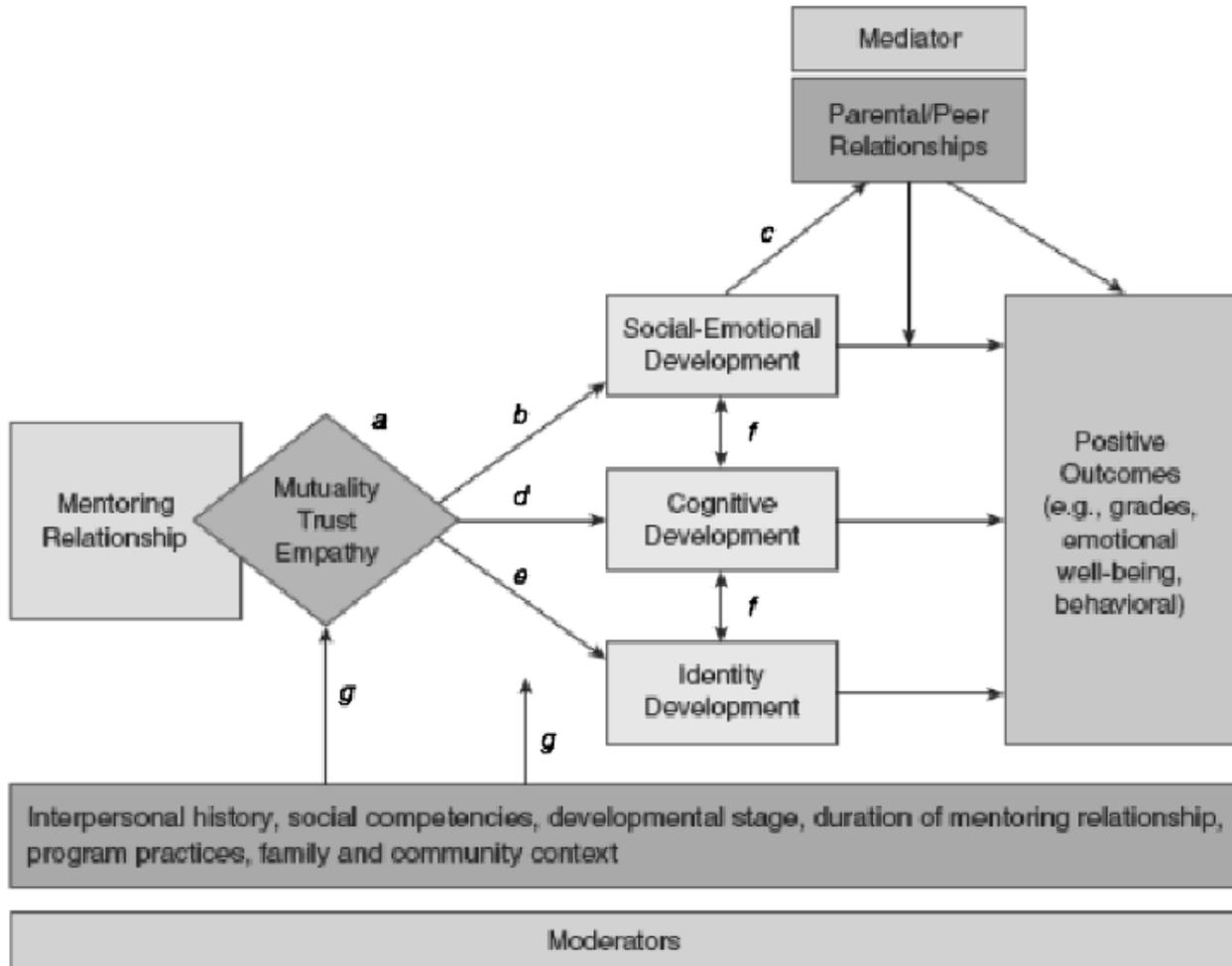
of viewing marginalized communities through a resource rich lens that values their cultural capital. Cultural capital has often narrowly referred to the skills, knowledge, and abilities acquired by privileged groups in society that supports their social mobility (Yosso, 2005). However, this focus minimizes and ignores skills and attributes that communities of color possess that allows people to navigate and remain resilient amidst different societal dynamics. For instance, social capital is a type of cultural capital that refers to “networks of people and community resources” (Yosso, 2005, p. 79) that people of color rely on for emotional and instrumental support in maneuvering through daily stressors and societal institutions. With the awareness that communities of color possess unique cultural capital has come innovative responses that support marginalized communities’ reclamation of power amidst systemic oppression (Bulanda & McCrea, 2013; Yosso, 2005). From community-based approaches to research and practice (Nelson, Kloos, & Ornelas, 2014) to positive youth development theories, methods that identify and build upon assets in people, as opposed to attempting to correct flaws, are starting to be viewed as the most effective ways to prevent negative outcomes (Bulanda, et al, 2013; Seigleman, 2002).

The cultural capital that exists in communities of color was acknowledged in the current study by harnessing the social capital of Black youth and empowering them to serve as the main agents of change within an intervention. Continued exploration of how they experience and develop due to their role as helpers is needed to better capitalize on the cultural capital of Black youth. This is necessary as the current intervention model comes within a larger movement in which the potential of peer influence to impact positive change has been labeled a “social cure” for many pressing public health concerns due to its successful implementation in a variety of

community settings (Rosenberg, 2011, p. xxi). Different than many other externally funded interventions, peers can be a cost effective, community-based and self-sustaining mechanism that can facilitate positive youth development. Developing prosocial relationships with peers may be the “social cure” that encourages healthy development among Black American youth from low income, urban communities. Although more research is still needed, cross age peer mentoring may be one way in which these dynamics can be achieved.

APPENDIX A

RHODES (2005) MODEL OF MENTORING



REFERENCES

- American Psychological Association, Task Force on Resilience and Strength in Black Children and Adolescents. (2008). *Resilience in African American children and adolescents: A vision for optimal development*. Washington, DC: Author. Retrieved from <http://www.apa.org/pi/cyf/resilience.html>
- Arnold, M.E., Nott, B. D., & Meinhold, J. L. (2012). *The Positive Youth Development Inventory*.
- Babinski, L. M., Hartsough, C. S., & Lambert, N. M. (1999). Childhood conduct problems, hyperactivity-impulsivity, and inattention as predictors of adult criminal activity. *Journal of Child Psychology and Psychiatry, 40*, 347-355.
- Banai, E., Mikulincer, M., & Shaver, P. R. (2005). "Selfobject" Needs in Kohut's Self Psychology: Links With Attachment, Self-Cohesion, Affect Regulation, and Adjustment. *Psychoanalytic Psychology, 22*(2), 224.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Barry, C.M. & Wentzel, K. R. Friend influence on prosocial behavior: the role of motivational factors and friendship characteristics. *Developmental Psychology, 42*, 153–163.
- Battin-Pearson, S, Newcomb, M. D., Abbot, R. D., Hill, K.G., Catalano R.F., & Hawkins, J.D. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology, 92*, 568-.582.
- Battistich V, & Hom A. (1997). The relationship between students' sense of their school as a community and their involvement in problem behavior. *American Journal of Public Health, 87*, 1997-2001.
- Beebe, B., & Lachmann, F. M. (1988). The contribution of mother-infant mutual influence to the origins of self-and object representations. *Psychoanalytic psychology, 5*(4), 305.
- Blash, R. & Unger, D. G. (1995). Self-esteem of Black-American male adolescents: Self-esteem and ethnic identity. *Journal of Child and Family Studies, 4*, 359-374.

- Billig, S. H. (2002). Support for K–12 service-learning practice: A brief review of the research. *Educational Horizons*, 184-189.
- Bogat, G. A., & Liang, B. (2005). Gender in mentoring relationships. *Handbook of youth mentoring*, 205-217.
- Borowsky, I. W., Ireland, M., & Resnick, M. D. (2009). Health status and behavioral outcomes for youth who anticipate a high likelihood of early death. *Pediatrics*, 124(1), e81-e88.
- Botvin, G. J., Baker, E., Botvin, E. M., Dusenbury, L., Cardwell, J., & Diaz, T. (1993). Factors promoting cigarette smoking among Black youth: A causal modeling approach. *Addictive Behaviors*, 18, 397–405.
- Bowman, R. P., & Myrick, R. D. (1987). Effects of an elementary school peer facilitator program on children with behavior problems. *School Counselor*, 34, 369-378.
- Brechwald, W. A., & Prinstein, M. J. (2011). Beyond homophily: A decade of advances in understanding peer influence processes. *Journal of Research on Adolescence*, 21, 166–179.
- Brinthaupt, T.M. and R.P. Lipka. (2002). *Understanding Early Adolescent Self and Identity: Applications and Interventions*. Albany: State University of New York Press.
- Bulanda, J. J., & McCrea, K. T. (2013). The promise of an accumulation of care: Disadvantaged African-American youths' perspectives about what makes an after school program meaningful. *Child and Adolescent Social Work Journal*, 30(2), 95-118.
- Bulanda, J. J., Szarzynski, K., Silar, D., & McCrea, K. Tyson. (2013b). "Keeping It Real:" An evaluation audit of five years of youth-led program evaluation. *Smith College Studies in Social Work*, 83, 279-302.
- Bulanda, J. J., Tellis, D., & Tyson McCrea, K. (2015). Cocreating a Social Work Apprenticeship with Disadvantaged African American Youth: A Best-Practices After-School Curriculum. *Smith College Studies in Social Work*, 85(3), 285-310.
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of school psychology*, 44(6), 473-490.
- Charmaraman, L., & Grossman, J. M. (2010). Importance of race and ethnicity: an exploration of Asian, Black, Latino, and multiracial adolescent identity. *Cultural Diversity and Ethnic Minority Psychology*, 16(2), 144. doi:10.1037/a0018668
- Conger, R. D., McLoyd, V. C., Wallace, L. E., Sun, Y., Simons, R. L., & Brody, G. H. (2002).

- Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology*, 38, 179-193.
- Cooley-Quille, M., Boyd, R. C., Frantz, E., & Walsh, J. (2001). Emotional and behavioral impact of exposure to community violence in inner-city adolescents. *Journal of Clinical Child Psychology*, 30(2), 199-206.
- Corneille, M. A., & Belgrave, F. Z. (2007). Ethnic identity, neighborhood risk, and adolescent drug and sex attitudes and refusal efficacy: The urban African American girls' experience. *Journal of Drug Education*, 37(2), 177-190.
- DuBois, D. L., & Hirsch, B. J. (1990). School and neighborhood friendship patterns of Blacks and Whites in early adolescence. *Child development*, 61(2), 524-536.
- DuBois, D.L., Portillo, N., Rhodes, J.E., Silverthorn, N., and Valentine, J.C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest*, 12(2), 57–91.
- Elmore, C. A., & Gaylord-Harden, N. K. (2013). The influence of supportive parenting and racial socialization messages on African American youth behavioral outcomes. *Journal of Child and Family Studies*, 22(1), 63-75. doi: 10.1007/s10826-012-9653-6
- Erdley, C. A., Nangle, D. W., Newman, J. E., & Carpenter, E. M. (2001). Children's friendship experiences and psychological adjustment: Theory and research. *New Directions for Child and Adolescent Development*, 91, 5-24.
- Farrell, A. D., Meyer, A. L., & White, K. S. (2001). Evaluation of Responding in Peaceful and Positive Ways (RIPP): A school-based prevention program for reducing violence among urban adolescents. *Journal of clinical child psychology*, 30(4), 451-463.
- Ferro, A., Wells, S., Speechley, K. N., Lipman, E., & DeWit, D. (2014). The Measurement Properties of Mentoring Relationship Quality Scales for Mentoring Programs. *Prevention Science*, 15(5), 663-673.
- Feldman, R. S. (2007). *Child development, 4th Ed.* Upper Saddle River, NJ: Prentice Hall.
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological science*, 18(3), 233-239.
- Gilbert, D. J., Harvey, A. R., & Belgrave, F. Z. (2009). Advancing the Africentric paradigm shift discourse: Building toward evidence-based Africentric interventions in social work practice with African Americans. *Social work*, 54(3), 243-252.
- Ginwright, S. (2006). Racial justice through resistance: Important dimensions of youth

- development for African Americans. *National Civic Review*, 95(1), 41-46.
- Giordano, P. C., Cernkovich, S. A., & DeMaris, A. (1993). The family and peer relations of Black adolescents. *Journal of Marriage and the Family*, 55, 277–287.
- Goldner, L., & Maysseless, O. (2009). The quality of mentoring relationships and mentoring success. *Journal of Youth and Adolescence*, 38, 1339-1350. doi:10.1007/s10964-008-9345-0
- Graham, M. (2005). An African-centered paradigm for psychological and spiritual healing. In R. Moodley & W. West (Eds.), *Integrating traditional healing practices into counseling and psychotherapy*, 210-233.
- Grossman, J. B., Chan, C. S., Schwartz, S. E., & Rhodes, J. E. (2012). The test of time in school-based mentoring: The role of relationship duration and re-matching on academic outcomes. *American Journal of Community Psychology*, 49(1-2), 43-54.
- Guerra, N. G., Huesmann, L. R., Tolan, P. H., Van Acker, R., & Eron, L. D. (1995). Stressful events and individual beliefs as correlates of economic disadvantage and aggression among urban children. *Journal of Consulting and Clinical Psychology*, 63, 518-528.
- Hammack, P. L. (2003). Toward a unified theory of depression among urban African American youth: Integrating socioecologic, cognitive, family stress, and biopsychosocial perspectives. *Journal of Black Psychology*, 29(2), 187-209.
- Harach, L. D., & Kuczynski, L. J. (2005). Construction and maintenance of parent–child relationships: Bidirectional contributions from the perspective of parents. *Infant and Child Development*, 14(4), 327-343.
- Harris-Britt, A., Valrie, C. R., Kurtz-Costes, B., & Rowley, S. J. (2007). Perceived Racial Discrimination and Self-Esteem in African American Youth: Racial Socialization as a Protective Factor. *Journal of Research on Adolescence*, 17(4), 669-682.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408–420.
- Hayes, A. F. (2012). An introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York: Guilford Press.
- He, K., Kramer, E., Houser, R. F., Chomitz, V. R., & Hacker, K. A. (2004). Defining and understanding healthy lifestyles choices for adolescents. *Journal of Adolescent Health*, 35(1), 26-33.
- Henry, D. B., Tolan, P. H., & Gorman-Smith, D. (2001). Longitudinal family and peer group

- effects on violence and nonviolent delinquency. *Journal of Clinical Child Psychology*, 30, 172-186.
- Herrera, C., Kauh, T. J., Cooney, S. M., Grossman, J. B., & McMaken, J. (2008). High School Students as Mentors: Findings from the Big Brothers Big Sisters School-Based Mentoring Impact Study. *Public/Private Ventures*.
- Huesmann, L. R., & Guerra, N. G. (1997). Children's normative beliefs about aggression and aggressive behavior. *Journal of personality and social psychology*, 72(2), 408.
- Hurd, N. M., Sánchez, B., Zimmerman, M. A., & Caldwell, C. H. (2012). Natural mentors, racial identity, and educational attainment among African American adolescents: Exploring pathways to success. *Child development*, 83(4), 1196-1212.
- Jelicic, H., Bobek, D. L., Phelps, E., Lerner, R. M., & Lerner, J. V. (2007). Using positive youth development to predict contribution and risk behaviors in early adolescence: Findings from the first two waves of the 4-H Study of Positive Youth Development. *International Journal of Behavioral Development*, 31(3), 263-273.
- Johnson, V.L., Simon, P., & Mun, E.Y. (2014). A peer-led high school transition program increases graduation rates among Latino males. *The Journal of Educational Research*, 107, 186-196.
- Jones, L. V., Hopson, L. M., & Gomes, A. M. (2012). Intervening with African-Americans: Culturally specific practice considerations. *Journal of Ethnic And Cultural Diversity in Social Work*, 21(1), 37-54.
- Karcher, M. (2005). The effects of developmental mentoring and high school mentors' attendance on their younger mentees' self-esteem, social skills, and connectedness. *Psychology in the Schools*, 42, 65-77.
- Karcher, M. (2009). Increases in academic connectedness and self-esteem among high school students who serve as cross-age peer mentors. *Professional School Counseling*, 12(4), 292-299.
- Karcher, M. (2014). Cross Age Peer Mentoring. In D. DuBois & M. Karcher (Eds.), *Handbook of youth mentoring, 2nd Edition*, 223-259. Thousand Oaks, California.
- Karcher, M.J., Davis, C., & Powell, B. (2002). The effects of developmental mentoring on connectedness and academic achievement. *The School Community Journal*, 12, 35-50.
- Karcher, M. J., Davidson, A. J., Rhodes, J. E., & Herrera, C. (2010). Pygmalion in the program: The role of teenage peer mentors' attitudes in shaping their mentees' outcomes. *Applied Developmental Science*, 14(4), 212-227.

- Karcher, M. J., Kuperminc, G. P., Portwood, S. G., Sipe, C. L., & Taylor, A. S. (2006). Mentoring programs: A framework to inform program development, research, and evaluation. *Journal of Community Psychology, 34*(6), 709-725.
- Karcher, M. J., & Lindwall, J. (2003). Social interest, connectedness, and challenging experiences. What makes high school mentors persist? *Journal of Individual Psychology, 59*, 293–315.
- Karcher, M. J., Nakkula, M. J., & Harris, J. (2005). Developmental mentoring match characteristics: Correspondence between mentors' and mentees' assessments of relationship quality. *Journal of Primary Prevention, 26*(2), 93-110.
- Keller, T. E., & Pryce, J. M. (2012). Different roles and different results: How activity orientations correspond to relationship quality and student outcomes in school-based mentoring. *The Journal Of Primary Prevention, 33*(1), 47-64.
- Kerr, M., Stattin, H., Biesecker, G., & Ferrer-Wreder, L. (2003). Relationships with parents and peers in adolescence. *Handbook of psychology*.
- Kogan, S. M., Brody, G. H., & Chen, Y. F. (2011). Natural mentoring processes deter externalizing problems among rural African American emerging adults: A prospective analysis. *American Journal Of Community Psychology, 48*(3-4), 272-283.
- Kuhn, D. (2009). Adolescent thinking. *Handbook of adolescent psychology*.
- Larose, S., Chaloux, N., Monaghan, D., & Tarabulsy, G. M. (2010). Working alliance as a moderator of the impact of mentoring relationships among academically at-risk students. *Journal of Applied Social Psychology, 40*, 2656-2686. doi:10.1111/j.1559-1816.2010.00675.
- Larson, R. W., Richards, M. H., Sims, B., Dworkin, J. (2001). How urban Black American young adolescents spend their time: Time budgets for locations, activities, and companionship. *American Journal of Community Psychology, 29*, 565-597.
- Larson, R., & Richards, M. H. (1991). Daily companionship in late childhood and early adolescence: Changing developmental contexts. *Child Development, 62*, 284–300.
- LeBel, T. P. (2007). An examination of the impact of formerly incarcerated persons helping others. *Journal of Offender Rehabilitation, 46*(1-2), 1-24.
- Lerner, R. M., Dowling, E. M., & Anderson, P. M. (2003). Positive youth development: Thriving as the basis of personhood and civil society. *Applied Developmental Science, 7*(3), 172-180.

- Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., ... & von Eye, A. (2005). Positive Youth Development, Participation in community youth development programs, and community contributions of fifth-grade adolescents findings from the first wave Of the 4-H study of Positive Youth Development. *The Journal of Early Adolescence, 25*(1), 17-71.
- Liang, B., Bogat, G. A., & Duffy, N. (2014). Gender in mentoring relationships. In D. DuBois & M. Karcher (Eds.), *Handbook of Youth Mentoring, 2nd edition*, 159-175. Thousand Oaks, California.
- Loeber, R., & Farrington, D. P. (2001). *Child delinquents*. Thousand Oaks, California: Sage Publications.
- Lorig, K., Ritter, P. L., Villa, F. J., & Armas, J. (2009). Community-Based Peer-Led Diabetes Self-management A Randomized Trial. *The Diabetes Educator, 35*(4), 641-651.
- Mandara, J., Gaylord-Harden, N. K., Richards, M. H., Ragsdale, B. L. (2009). The effects of changes in racial identity and self-esteem on changes in Black American adolescents' mental health. *Child Development, 80*, 1660–1675.
- Mallinckrodt, B., Abraham, W. T., Wei, M., & Russell, D. W. (2006). Advances in testing the statistical significance of mediation effects. *Journal of Counseling Psychology, 53*, 372-378.
- Marcia, J.E., Archer, S.L. (Ed). (1994). *Interventions for adolescent identity development*. Thousand Oaks, CA, US: Sage Publications, Inc.
- McMahon, S. D., & Watts, R. J. (2002). Ethnic identity in urban Black American youth: exploring links with self-worth, aggression, and other psychosocial variables. *Journal of Community Psychology, 30*, 411–431.
- McNeely, C., & Falci, C. (2004). School connectedness and the transition into and out of health-risk behavior among adolescents: A comparison of social belonging and teacher support. *Journal of School Health, 74*, 284-292.
- McNeely, C.A, Nonnemaker, J.M., & Blum, R.W. (2002). Promoting school connectedness: evidence from the National Longitudinal Study of Adolescent Health. *Journal of School Health, 72*, 138-146.
- Metz, E. C., & Youniss, J. (2005). Longitudinal gains in civic development through school-based required service. *Political Psychology, 26*(3), 413-437.
- Molnar, B. E., Cerda, M., Roberts, A. L., & Buka, S. L. (2008). Effects of neighborhood

- resources on aggressive and delinquent behaviors among urban youths. *American Journal of Public Health*, 98(6), 1086.
- Monahan, K. C., & Booth-LaForce, C. (2015). Deflected pathways: Becoming aggressive, Socially withdrawn, or prosocial with peers during the transition to adolescence. *Journal of Research on Adolescence*, 26, 270-285. doi: 10.1111/jora.12190
- Moore, C. W., & Allen, J. P. (1996). The effects of volunteering on the young volunteer. *Journal of Primary Prevention*, 17(2), 231-258.
- National Research Council. (2003). *Engaging schools: Fostering high school students' motivation to learn*. Washington, DC: National Academies of Science.
- Padilla-Walker, L.M., & Bean, R.A. (2009). Negative and positive peer influence: Relations to positive and negative behaviors for Black American, European American, and Hispanic adolescents. *Journal of Adolescence*, 32, 323-337.
- Petty, R. E., Wheeler, S. C., & Tormala, Z. L. (2003). Persuasion and attitude change. *Handbook of Psychology*, 3(15), 353-382.
- Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with adolescents and young adults from diverse groups. *Journal of Adolescent Research*, 7, 156-176.
- Phinney, J. S., & Chavira, V. (1992). Ethnic identity and self-esteem: An exploratory longitudinal study. *Journal of Adolescence*, 15, 271-281.
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: quantitative strategies for communicating indirect effects. *Psychological methods*, 16(2), 93.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42, 185-227.
- Preston, L., & Shumsky, E. (2000). The development of the dyad: A bidirectional revisioning of some self-psychological concepts. *How Responsive Should We Be? Progress in Self Psychology*, 16, 67-84.
- Pyszczynski, T., Greenberg, J. Solomon, S., Arndt, J., Schimel, J. (2004). Why do people need self-esteem? A theoretical and empirical review *Psychological Bulletin*, 130, 435-468
- Quimby, D. (unpublished manuscript). Positive peer pressure among black american youth and the roles of ethnic identity and gender.

- Quinn, B. (2014). Other-oriented purpose the potential roles of beliefs about the world and other people. *Youth & Society*, 46(6), 779-800.
- Resnick, M.D., Bearman, P.S., Blum, R.W., Bauman, K.E., Harris, K.M., Jones, J., ...Udry, J.R. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, 278, 823-32.
- Rhodes, J. E. (2005). A model of youth mentoring. In D. DuBois & M. Karcher (Eds.), *Handbook of Youth Mentoring*, 30-43. Thousand Oaks, California.
- Rhodes, J. E., Bogat, G. A., Roffman, J., Edelman, P., & Galasso, L. (2002). Youth mentoring in perspective: Introduction to the special issue. *American Journal of Community Psychology*, 30(2), 149-155.
- Rhodes, J. E., & DuBois, D. L. (2008). Mentoring relationships and programs for youth. *Current Directions in Psychological Science*, 17(4), 254-258.
- Rhodes, J. E., Schwartz, S. E., Willis, M. M., & Wu, M. B. (2014). Validating a Mentoring Relationship Quality Scale: Does Match Strength Predict Match Length? *Youth & Society*. doi: 0044118X14531604.
- Riessman, F. (1965). The " helper" therapy principle. *Social Work*.
- Rind, B., & Kipnis, D. (1999). Changes in self-perceptions as a result of successfully persuading others. *Journal of Social Issues*, 55(1), 141-156.
- Roberts, L. J., Salem, D., Rappaport, J., Toro, P. A., Luke, D. A., & Seidman, E. (1999). Giving and receiving help: Interpersonal transactions in mutual-help meetings and psychosocial adjustment of members. *American Journal of Community Psychology*, 27(6), 841-868.
- Robinson, W. L., Paxton, K. C., & Jonen, L. P. (2011). Pathways to aggression and violence among African American adolescent males: The influence of normative beliefs, neighborhood, and depressive symptomatology. *Journal of Prevention & Intervention in the Community*, 39(2), 132-148. doi:10.1080/10852352.2011.556572
- Sánchez, B., & Colón, Y. (2014). Race, ethnicity, and culture in mentoring relationships. In D. DuBois & M. Karcher (Eds.), *Handbook of youth mentoring*, 191-204.
- Schreier, H. M., Schonert-Reichl, K. A., & Chen, E. (2013). Effect of volunteering on risk factors for cardiovascular disease in adolescents: A randomized controlled trial. *JAMA pediatrics*, 167(4), 327-332.
- Schmid, K. L., Phelps, E., & Lerner, R. M. (2011). Constructing positive futures: Modeling the

- relationship between adolescents' hopeful future expectations and intentional self regulation in predicting positive youth development. *Journal Of Adolescence*, 34(6), 1127-1135.
- Schmid, K. L., Phelps, E., Kiely, M. K., Napolitano, C. M., Boyd, M. J., & Lerner, R. M. (2011). The role of adolescents' hopeful futures in predicting positive and negative developmental trajectories: Findings from the 4-H Study of Positive Youth Development. *The Journal Of Positive Psychology*, 6(1), 45-56.
- Schondel, C., Boehm, K., Rose, J., & Marlowe, A. (1995). Adolescent Volunteers An Untapped Resource in the Delivery of Adolescent Preventive Health Care. *Youth & Society*, 27(2), 123-135.
- Schwartz, S. E., Chan, C. S., Rhodes, J. E., & Scales, P. C. (2013). Community developmental assets and positive youth development: The role of natural mentors. *Research in Human Development*, 10(2), 141-162.
- Seginer, R. (2008). Future orientation in times of threat and challenge: How resilient adolescents construct their future. *International Journal of Behavioral Development*, 32(4), 272-282.
- Shane, E. (2006). Developmental systems self-psychology. *International Journal of Psychoanalytic Self Psychology*, 1(1), 23-45.
- Sheehan, K., DiCara, J. A., LeBailly, S., & Christoffel, K. K. (1999). Adapting the gang model: Peer mentoring for violence prevention. *Pediatrics*, 104, 50-54.
- Shin, R, Daly, B., Vera, E. (2007). The relationships of peer norms, ethnic identity, and peer support to school engagement in urban youth. *Professional School Counseling*, 10, 379-388.
- Simon, T. R., Ikeda, R. M., Smith, E. P., Reese, L. R. E., Rabiner, D. L., Miller-Johnson, S., ... & Allison, K. W. (2008). The multisite violence prevention project: Impact of a universal school-based violence prevention program on social-cognitive outcomes. *Prevention science: the official journal of the Society for Prevention Research*, 9(4), 231.
- Sipsma, H. L., Ickovics, J. R., Lin, H., & Kershaw, T. S. (2012). Future expectations among adolescents: A latent class analysis. *American journal of community psychology*, 50(1-2), 169-181.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290-312.
- Sowell, E. R., Thompson, P. M., Tessner, K. D., & Toga, A. W. (2001). Mapping continued

- brain growth and gray matter density reduction in dorsal frontal cortex: inverse relationships during postadolescent brain maturation. *The Journal of Neuroscience*, 21(22), 8819-8829.
- Stronach, E. P., Toth, S. L., Rogosch, F., Oshri, A., Manly, J. T., & Cicchetti, D. (2011). Child maltreatment, attachment security, and internal representations of mother and mother-child relationships. *Child Maltreatment*, 16, 137-145. doi: 10.1177/1077559511398294
- Sue, J. L., Craig, W. M., Dunn, V., & Luca-Huger, T. (2014). The Active Ingredient: An Examination of the Mentoring Relationship. Do relationships matter? An examination of a school-based intergenerational mentoring program, *unpublished thesis*.
- Swenson, R. R., Prelow, H. M. (2005). Ethnic identity, self-esteem, and perceived efficacy as mediators of the relation of supportive parenting to psychosocial outcomes among urban adolescents. *Journal of Adolescence*, 28, 465-477.
- Switzer, G. E., Simmons, R. G., Dew, M. A., Regalski, J. M., & Wang, C. H. (1995). The effect of a school-based helper program on adolescent self-image, attitudes, and behavior. *The Journal of Early Adolescence*, 15(4), 429-455.
- Teicholz, J. G. (2009). My relational self-psychology. *Annals of the New York Academy of Sciences*, 1159(1), 122-138.
- Thomson, N., & Zand, D. H. (2010). Mentees' perceptions of their interpersonal relationships: The role of the mentor—Youth bond. *Youth & Society*, 41, 434-445. doi:10.1177/0044118X09334806
- Tipton, R. M., & Worthington, E. L. (1984). The measurement of generalized self-efficacy: A study of construct validity. *Journal of Personality Assessment*, 48(5), 545-548.
- Tolan, P. H., Henry, D. B., Schoeny, M. S., Lovegrove, P., & Nichols, E. (2014). Mentoring programs to affect delinquency and associated outcomes of youth at risk: A comprehensive meta-analytic review. *Journal of experimental criminology*, 10(2), 179-206.
- Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of educational research*, 68(2), 202-248.
- Umaña-Taylor AJ, Vargas-Chanes D, Garcia CD, & Gonzales-Backen M. (2008). A longitudinal examination of Latino adolescents' ethnic identity, coping with discrimination, and self-esteem. *The Journal of Early Adolescence*, 28, 16-50.
- Van Hoorn, J., Dijk, E., Meuwese, R., Rieffe, C., & Crone, E. A. (2014). Peer Influence on

Prosocial Behavior in Adolescence. *Journal of Research on Adolescence*.

- Walker, G. (2005). Youth mentoring and public policy. In D. L. DuBois & M. L. Karcher (Eds.), *Handbook of youth mentoring* (pp. 510–524). Thousand Oaks, CA: SAGE.
- Wentzel, K. R. (2014). Prosocial behavior and peer relations in adolescence. *Prosocial development: A multidimensional approach*, 178-200.
- Westerman, J. J. (2002). Mentoring and cross-age mentoring: Improving academic achievement through a unique partnership. Unpublished dissertation, University of Kentucky, Kentucky.
- Wolf, S., Aber, J. L., & Morris, P. A. (2015). Patterns of time use among low-income urban minority adolescents and associations with academic outcomes and problem behaviors. *Journal of youth and adolescence*, 44(6), 1208-1225. doi:10.1007/s10964-015-0294-0
- Wyman, P. A., Cowen, E. L., Work, W. C., & Kerley, J. H. (1993). The role of children's future expectations in self-system functioning and adjustment to life stress: A prospective study of urban at-risk children. *Development and Psychopathology*, 5(04), 649-661.
- Yancey, A. K., Siegel, J. M., & McDaniel, K. L. (2002). Role models, ethnic identity, and health-risk behaviors in urban adolescents. *Archives of Pediatrics & Adolescent Medicine*, 156(1), 55-61.
- Youngstrom, E., Weist, M. D., & Albus, K. E. (2003). Exploring violence exposure, stress, protective factors and behavioral problems among inner-city youth. *American Journal of Community Psychology*, 32, 115–129.
- Zand, D. H., Thomson, N., Cervantes, R., Espiritu, R., Klagholz, D., LaBlanc, L., & Taylor, A. (2009). The mentor-youth alliance: The role of mentoring relationships in promoting youth competence. *Journal of Adolescence*, 32, 1-17. doi:10.1016/j.adolescence. 2007. 12.006
- Zemore, S. E., Kaskutas, L. A., & Ammon, L. N. (2004). In 12-step groups, helping helps the helper. *Addiction*, 99(8), 1015-1023.

VITA

In 2012, Dakari Quimby graduated from Washington University in St. Louis, double majoring in Psychology and Philosophy-Neuroscience-Psychology. During his undergraduate studies, Dakari served as a research assistant in Washington University's Developmental Neuropsychology Laboratory. He additionally gained valuable clinical exposure including working as an intern on a multisystemic team or serving as a practicum student at the St. Louis Crisis Nursery. Such opportunities helped maintain his motivation to empower marginalized communities.

After graduation, Dakari pursued graduate school in Clinical Psychology in order gain the skills needed to increase access to and provide mental health services for people of color. At Loyola, Dakari has worked as a teaching and research assistant for Dr. Maryse Richards on the Risk and Resilience research team. Upon completion of his doctorate, Dakari will dedicate his career to providing therapy for youth of color exposed to community violence and related environmental stressors and promoting task shifting of mental health services in communities facing social and economic inequalities.