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# Community Developmental Assets and Positive Youth Development: The Role of Natural Mentors

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# Community Developmental Assets and Positive Youth Development: The Role of Natural Mentors

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This study investigates the role of mentoring relationships in explaining associations between youth experiences of community developmental assets (i.e., involvement in structured activities and community attitudes towards youth) and youth outcomes within a national sample of 15-year-olds (n = 1,860). Results indicated that community assets were associated with having a mentor, and that youth perceptions of community attitudes towards youth were associated with higher quality mentoring relationships. Having a mentor significantly mediated the association between community assets and prosocial values. Likewise, mentoring relationship quality mediated the association between community attitudes towards youth and school engagement, mastery, prosocial values, and purpose.

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Over the course of the past two decades, research on adolescent development has shifted from a deficit perspective focused primarily on preventing negative outcomes to a strength-based perspective focused on identifying individual and ecological assets that contribute to positive youth development (PYD) (e.g., Benson & Scales, 2009; Theokas & Lerner, 2006). Within this PYD perspective, researchers have sought to explore how certain contextual factors or "external" developmental assets (Benson, Scales, & Syvertsen, 2011) may promote more adaptive outcomes among adolescents, including lowered risk and increased positive or thriving outcomes. Although most of this work has emphasized family, peer, and school influences, there is a growing recognition of the importance of supportive neighborhoods and community contexts (Youngblade & Theokas, 2010). In fact, recent research suggests that adolescent social connectedness, including involvement in organized activities, predicts subsequent adult well-being from at least 6 years later to more than a decade later in young adulthood (Mahoney & Vest, 2012; Olsson, McGee, Nada-Raja, & Williams, 2012). A key "active ingredient" in this process may be the high-quality relationships that youth forge with the caring adults who populate youth settings. Such adults often become instrumental to youths' engagement, encouraging attendance and tipping the balance toward deeper involvement, skill development, and better outcomes. In this study, we explore the extent to which youth-valuing communities and youths' involvement in organized activities give rise to natural mentoring relationships and investigate the extent to which such relationships, in turn, help to explain associations between community developmental assets and youth outcomes.

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## BACKGROUND

A growing body of research suggests that natural mentors, that is, caring nonparental adults, such as extended family members, neighbors, teachers, and afterschool staff, who provide young people with ongoing support and guidance, play an important role in healthy development, particularly during adolescence (DuBois & Silverthorn, 2005b; Hirsch, Deutsch, & DuBois, 2011; Rhodes, Spencer, Keller, Liang, & Noam, 2006; Theokas & Lerner, 2006). During a developmental stage when identity development becomes central (Erikson, 1968), mentors can serve as role models and influence adolescents' perceptions of their "possible selves," that is, their ideas about who they might become in the future (Markus & Nurius, 1986). In addition, by acting as a social mirror or "looking-glass self" (Cooley, 1902), mentors' opinions and perceptions of an adolescent may be incorporated into the adolescent's self-perception. Mentors may also serve as alternative or secondary attachment figures, helping to shift adolescents' working models of relationships (Bowlby, 1988). Although revisions in

working models can occur throughout the life span, adolescence may be especially conducive to such changes due to increased perspective taking and growing autonomy from earlier forms of parental influence (e.g., Allen & Land, 1999). More generally, adolescents may be more receptive to advice and guidance provided by mentors than that provided by their parents (Allen & Land, 1999; Keller & Pryce, 2010). Theory and research suggest that, through these mechanisms, adolescents with mentors can demonstrate more adaptive outcomes (Rhodes, 2005; Rhodes et al., 2006).

A large-scale study of adolescents and young adults across the United States revealed that individuals who reported having a mentor in their lives were, indeed, more likely to report positive outcomes in education and work domains (e.g., completing high school, college attendance, and hours per week working), psychological well-being (e.g., self-esteem and life satisfaction), and health behaviors (e.g., gang membership, physical fights, risk-taking behavior, birth control use, and physical activity), after controlling for baseline levels of functioning (DuBois & Silverthorn, 2005b). Moreover, a follow up study showed that greater youth-reported closeness in the mentor relationship predicted better outcomes (Dubois & Silverthorn, 2005a). Other research has shown that adolescents with natural mentors have lower levels of marijuana use and nonviolent delinquency, as well as higher levels of school attachment, school efficacy, and belief in the importance of doing well in school, when compared to those without natural mentors (Erickson, McDonald, & Elder, 2009; Zimmerman, Bingenheimer, & Notaro, 2002). More recently, a study of natural mentors among academically at-risk African American adolescents indicated that such relationships promoted improved long-term educational attainment (Hurd, Sánchez, Zimmerman, & Caldwell, 2012). Finally, a recent study on mentoring relationship quality showed that, compared to lower quality mentoring, higher quality mentoring was associated with youth having greater self-esteem, and fewer alcohol problems and depressive symptoms (Whitney, Hendricker, & Offutt, 2011). In sum, literature indicates that natural mentoring relationships are predictive of more positive youth outcomes across a range of developmental domains, with higher quality relationships associated with better outcomes.

Although such research is important in calling attention to natural mentors as a source of support in the lives of youth, there are notable limitations to the existing literature. In particular, there tends to be little attention to the contexts in which natural mentoring relationships occur, and how such contexts influence the likelihood of youth forming such relationships and the benefits they may derive from those relationship. The few studies that have explored antecedents to natural mentoring relationships have tended to focus on family contexts (S. F. Hamilton & Darling, 2006; Rhodes, Contreras, & Mangelsdorf, 1994; Zimmerman, Bingenheimer, & Behrendt, 2005) as opposed to the role of youth-focused organizations and communities. For example, Zimmerman et al.

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(2005) found that parental support and shared family decision making were all positively associated with having a natural mentor. Likewise, researchers have found that attachment security is associated with increased likelihood of having a mentor (Rhodes et al., 1994) and establishing stronger bonds within the mentoring relationships (Georgiou, Demetriou, & Stavrinides, 2008).

It is likely, however, that broader contextual factors also influence whether a young person develops a natural mentoring relationship. Extracurricular and community settings, for example, which allow youth to spend extended periods of time with adults, are fertile ground for the formation of natural mentoring relationships (Hirsch et al., 2011). In addition, the availability of natural mentors is likely to be affected by the willingness of adults in a community to become involved in the lives of children who are not their own. In fact, a national survey indicated that a mere 17% of adults reported feeling a strong social expectation to get involved with children who are not their own (Scales et al., 2003), and qualitative research suggests that concern over how other adults may perceive such relationships is a significant barrier to adults becoming involved with other people's children (Mannes & Foster, 2004). In response, recent initiatives to increase youth developmental assets emphasize the importance of community infrastructure development and widespread change in community views and attitudes toward youth (Benson, Scales, & Mannes, 2003; Nakkula, Foster, Mannes, & Bolstrom, 2010; Scales et al., 2003).

As the literature suggests, a challenge to studying natural mentoring relationships is that, by definition, natural mentoring relationships cannot be randomly assigned and may be more likely to occur in the context of other assets. The presence of one ecological resource may be associated with the development of behaviors that contribute to the development of additional resources (Lewin-Bizan, Bowers, & Lerner, 2010). For example, in the study of the developmental assets framework of PYD, a small number of the 40 individual and ecological assets are usually found to be the most predictive of different youth outcomes, but many more of those assets are found to contribute smaller amounts to variance, and to be moderately correlated with each other (Benson et al., 2011). It is therefore unclear whether the positive associations between natural mentoring relationships and youth outcomes are due to the mentoring relationships themselves, or to the more supportive environments that gave rise to them. As such, it may be difficult to untangle the relationship between various community developmental assets, including more supportive neighborhoods, participation in afterschool and community-based activities, and natural mentoring relationships, all of which are associated with more positive youth outcomes (e.g., Durlak, Weissberg, & Pachan, 2010; Leventhal & Brooks-Gunn, 2000; Scales et al., 2003; Urban, Lewin-Bizan, & Lerner, 2009).

Researchers are beginning to unpack some of these issues and to shed light onto associations among resources and outcomes (Ramey & Rose-Krasnor, 2012). Recent studies indicated that youth with more social resources were more likely

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to have mentors (Erickson et al., 2009; Sánchez, Esparza, Berardi, & Pryce, 2011) but that those with fewer social resources, that is, more vulnerable youth, were more likely to benefit from having a mentor (Erickson et al., 2009). Another study specifically examined associations among involvement in youth activities, relationships with nonfamily adults (which was measured in terms of having supportive adult relationships, perceptions of being valued in their communities, and adult monitoring and role modeling), and risk and thriving outcomes, in middle school and high school students (Scales, Benson, & Mannes, 2006). Involvement in youth activities such as youth organizations, religious organizations, and community service predicted more relationships with nonfamily adults, which, in turn, predicted a range of positive developmental outcomes. In fact, after taking into account baseline levels, relationships with nonfamily adults predicted thriving and lower risk, whereas activity involvement only predicted thriving. These results suggest that greater presence of nonfamily adults may mediate the association between activity involvement and youth outcomes.

Research in mentoring points to the importance of an intensive, individual one-to-one relationship with a caring adult (Hirsch et al., 2011; Rhodes, 2004; Spencer, 2006), suggesting the possibility that the active ingredient in the associations described above may stem more from individual mentoring relationships than from the general sense of adult presence, valuing, and monitoring. Moreover, a growing body of research has highlighted the key role of quality in the mentoring process (e.g., Chan, Rhodes, Howard, Lowe, Schwartz, & Herrera, 2013; DuBois & Silverthorn, 2005a; Rhodes & DuBois, 2006; Whitney et al., 2011), indicating the importance of accounting for this dimension when assessing adult–youth relationships. Finally, research shows how mentoring relationship quality, duration, and function can dramatically differ across different developmental stages (Grossman & Rhodes, 2002; Liang, Spencer, Brogan, & Corral, 2008; Zand et al., 2009), suggesting the benefits of holding age constant when seeking to understand mentoring processes and outcomes.

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## THIS STUDY

We extend previous research by exploring contextual factors, including activity involvement and general community attitudes toward youth, which may be associated with natural mentoring relationships in middle adolescence, and investigating the mediating role that such relationships may play in explaining associations between the contextual factors and youth outcomes. To do so, we draw on data from a large-scale survey of 15-year-olds across the United States (Scales, Benson, & Roehlkepartain, 2011). In particular, we hypothesized (1) that contextual factors (specifically, greater involvement in youth activities and more positive perception of community attitudes toward youth) would be associated with an increased likelihood of reporting the presence of a mentor and higher quality relationships;

(2) that mentoring relationships, and particularly, higher quality mentoring relationships, would be associated with more positive youth outcomes, even after accounting for the contribution of contextual factors; and (3) that the presence of a mentoring relationship and the quality of that relationship would partially mediate the relationship between contextual factors and youth outcomes. It is important to note, however, that this study employs cross sectional data to model a hypothesized longitudinal mediation process.

In addition to the academic and behavioral outcomes that are commonly assessed in PYD and mentoring studies, we are interested in two psychological assets: purpose and ethnic identity. Past studies have shown that having a sense of purpose is associated with well-being (Ryan & Deci, 2001; Zika & Chamberlain, 1992) and hope (Feldman & Snyder, 2005) and provides a structure for identity formation among youth (Burrow, O'Dell, & Hill, 2010). Mentors can help facilitate the process of identity development by serving as a role model and encouraging youth to pursue their interests (Rhodes, 2005). Mentors can also play a role in the development of racial and ethnic identity (Hurd et al., 2012; Kaplan, Turner, Piotrowski, & Silbert, 2009; Yancey, Siegel, & McDaniel, 2002). Given the importance of these psychological assets, we examined the influence of mentoring relationships on youth's ethnic identity and sense of purpose.

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## METHOD

### Participants

Participants included 1,860 adolescents from across the United States, all of whom were age 15 at the time of the survey. Fifty-one percent identified as male, and 1,035 (55.6%) identified as White, 339 (18.2%) as Hispanic, 278 (14.9%) as Black/African American, 82 (4.4%) as mixed race, 77 (4.2%) as Asian or Pacific Islander, 10 (0.5%) as some other race or ethnicity, and 30 (1.6%) did not identify a racial or ethnic group. The youth represented a range of socioeconomic statuses, as measured by parents' highest education level, with 172 (9.3%) not having completed high school, 992 (53.4%) having completed high school but not college, 406 (21.8%) having completed college, and 239 (12.8%) having completed graduate school.

### Procedure

Participants were recruited through the Harris Poll Online, which includes millions of people who have agreed to participate in Harris Interactive surveys. Criteria for participation in the study included being age 15 and being a U.S. resident. Password protected e-mail invitations were sent to thousands of individuals who were identified either as U.S. residents and age 15, or U.S. residents with a

15-year-old child in the household. Reminder invitations were sent 2 days after the initial e-mail to those who had not yet completed the survey. Participants received points in a rewards program and were offered entry in a sweepstakes drawing for completing surveys. This recruitment process resulted in 1,860 participants completing surveys between October 12 and November 9, 2009. Because there was no way to distinguish who actually read the e-mail invitation, it was not possible to calculate a traditional response rate, but Harris Interactive estimates that approximately 10% of invitees typically participate in such online surveys (conversation with Dana Markow, June 25, 2009, cited in Scales et al., 2011). Surveys were self-administered and took participants an average of 20 minutes to complete.

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## Measures

### *Participant Characteristics*

*Demographics.* Participants reported demographic characteristics including gender, race, and parents' highest level of education.

### *Environmental Characteristics*

*Youth Activity Involvement.* Participants were asked whether they had participated in any organized programs, clubs, or activities after school. If they answered *yes*, they were asked to rate how much time (none, up to 2 hours, 2–5 hours, or more than 5 hours) they spent in various types of programs, including (1) "sports-related clubs, teams, or organizations"; (2) "art, music, or drama lessons, clubs, or performance"; (3) "services or programs at a church, synagogue, mosque, or any place of worship"; and (4) "volunteer work to help other people or to help make your community a better place."

*Perceived Community Attitudes Toward Youth* was a four-item youth-reported scale from Search Institute's Profiles of Student Life: Attitudes and Behavior survey (Benson, Leffert, Scales, & Blyth, 1998) assessing how much adults in participants' communities valued youth, including items such as "Adults in my town or city listen to what I have to say." The items were scored on a 4-point Likert-type scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating higher greater value of youth (Cronbach's $\alpha = .71$).

### *Mentoring Relationship Characteristics*

*Mentor.* Participants were asked a question that has been used in several related studies of youth mentoring (e.g., Klaw, Rhodes, & Fitzgerald, 2003; Zimmerman et al., 2002), "Other than your parent/s or whoever is raising you, do you have a role model or mentor who you go to for support and guidance?" The question included the following definition of a *mentor*: "Not everyone has

a mentor—this is someone who: is older and has more experience than you; you could count on to be there for you; believes in and cares deeply about you; inspires you to do your best." They were then asked if they had spent time with this kind of mentor "in the last 12 months." If participants answered *yes*, they were asked what their relationship was to this person (e.g., teacher, neighbor, grandparent, etc.).

*Mentoring Relationship Quality* was measured using a slightly shortened version of the Mentor-Youth Alliance Scale (Zand et al., 2009). The six-item scale included items such as, "I trust my mentor," rated on a 4-point Likert-type scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating higher relationship quality (Cronbach's $\alpha = .84$).

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### Outcome Variables

*Grade Point Average (GPA)* was calculated based on participants' responses to a series of questions asking in how many classes they had received a grade of A, B, C, D, or below D. *GPA* was calculated as the mean grade (where A = 4 points; B = 3 points, etc.), after controlling for the number of classes taken (so a small number of classes did not inflate a student's GPA).

*Absence* was a single item from Search Institute's Attitudes and Behavior survey (Benson et al., 1998) asking participants how many days of school they had skipped classes in the last 4 weeks.

*School Engagement* was measured through a single item from the National Promises Study (Scales et al., 2008) asking participants how often they work up to their ability at school, using a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*very often*).

*Mastery Goal Orientation* was measured by a three-item scale adapted from Anderman, Urdan, and Roeser's (2005) scale measuring personal mastery goal orientation. Participants rated statements such as, "One of my goals in school is to learn as much as I can" using a 4-point Likert-type scale ranging from 1 (*does not describe me at all*) to 4 (*describes me a lot*), with higher scores indicating a greater *Mastery Goal Orientation* (Cronbach's $\alpha = .80$).

*Prosocial Values* was measured by a seven-item scale drawing items from the Monitoring the Future survey (Johnston, Bachman, & O'Malley, 2006). Items asked participants to rate the importance of various prosocial values such as making a contribution, helping the poor, and serving the community. Items were rated on a 4-point Likert-type scale ranging from 1 (*not important*) to 4 (*extremely important*). A mean score was calculated, with higher scores indicating more prosocial values. (Cronbach's $\alpha = .86$).

*Ethnic Identity* was measured by a three-item scale adapted from Phinney's Multi-Group Ethnic Identity Measure (Phinney, 1992). Participants rated statements such as, "I have spent time trying to find out more about

my ethnic group, such as its history, traditions, and customs" using a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating greater sense of ethnic identity (Cronbach's $\alpha = .69$).

*Purpose* was measured by a five-item scale from Search Institute's Thriving Orientation Survey (Benson & Scales, 2009). Participants rated statements such as, "I feel a sense of purpose of meaning in life" using a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating a greater sense of hope and purpose ($\alpha = .76$).

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## Analysis Plan

First, confirmatory factor analysis (CFA) was employed to confirm the factor structures of the scales described above. Second, CFA was used to examine the measurement model for the latent variables. Third, a structural regression model (SRM), which incorporates a predictive model with a measurement model and allows for concurrent analysis of relationships among multiple independent and dependent variables, was examined to evaluate the fit of the two hypothesized models. Finally, mediation analysis with bootstrapping was employed to test whether the presence of a mentor and mentor relationship quality significantly mediated the association between the environmental/contextual factors (or external developmental assets) and youth outcomes in the SRM model. Bootstrapping is recommended for mediation analysis to account for asymmetric confidence limits and because it has relatively higher statistical power while maintaining control over the Type I error rate (MacKinnon, Fairchild, & Fritz, 2007; MacKinnon, Lockwood, & Williams, 2004). Bootstrapping generates a reference distribution, which can be used for significance testing and confidence interval (CI) estimation (Mooney & Duval, 1993). Following Shrout and Bolger's (2002) guidelines, 1,000 bootstrap samples were created with the existing data by random sampling with replacement. Then, the mediation model was tested 1,000 times with these bootstrap samples, which resulted in 1,000 estimates of each path coefficient. Finally, output from the 1,000 estimates of each path coefficient provided estimates of the indirect effects of environmental factors on youth outcomes, mediated by mentor relationship quality. If the 95% confidence interval for estimates of indirect effects does not contain zero, it can be concluded that the indirect effect is statistically significant at the .05 level. All analyses were conducted with Mplus 6.1 (Muthén & Muthén, 2008). In the model including mentor presence as a categorical mediator, weighted least squares estimator (WLSM) was employed. Otherwise, full information maximum likelihood (FIML) was used as the default estimator.

## RESULTS

In our analyses, we aimed to test two models using structural regression modeling. The first model hypothesized that greater involvement in youth activities and more positive perception of community attitudes toward youth would be associated with increased likelihood of having a mentor, and that having a mentor would be associated with more positive youth outcomes. The second model hypothesized that greater involvement in youth activities and more positive perception of community attitudes toward youth would be associated with higher mentor relationship quality, and that relationship quality would be associated with more positive youth outcomes. In addition, bootstrapping was used to test whether an indirect effect was present in either of the two models.

Within the data set, the overall level of missing data was 8.2%. Missingness was handled with WLSM and FIML. Results indicated that 895 (47.0%) of youth in the study reported having a mentor. The most common descriptions of their relationship with their mentor were friend (25.3%), teacher (13.1%), aunt or uncle (12.9%), religious leader (9.6%), and coach (6.5%). The remainder of the mentors was distributed across 20 different categories, including various relatives, family friends, counselors, and others. Among participants who had mentors, one half (50.4%) spent time with their mentor at least once a week, one fourth (25.9%) spent time with their mentor a couple times per month, 14.1% spent time with their mentors about once per month, and 9.5% spent time with their mentor less than once per month. Overall, participants rated the quality of their mentoring relationships relatively highly ($M = 3.56$, $SD = .54$). There were no significant differences detected in mentor relationship quality among the most common categories of mentor (friend, teacher, aunt/uncle, religious leader, and coach).

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### CFA and Measurement Model

Results of CFA indicated that the one-factor model had a good fit across each of the six scales (i.e., *Perceived Community Attitudes Toward Youth, Mentoring Relationship Quality, Mastery Goal Orientation, Prosocial Values, Ethnic Identity,* and *Purpose*). Factor loadings of the indicator variables on each of the latent variables are presented in Table 1. Furthermore, the results of the measurement model, in which all six latent factors were freely correlated, indicated a good fit with the data, $\chi^2$ (260, $N = 1860$) = 1132.788, $p < .001$, Comparative Fit Index (CFI) = .955, root mean square error of approximation (RMSEA) = .042 (90% CI: .040, .045). This measurement model was of a better fit than the baseline model, $\chi^2(300, N = 1860) = 19488.281$, $p < .001$, $\Delta\chi^2$ ($df = 40$) = 458.887, $p < .001$. Table 2 presents the correlation matrix of the latent variables.

TABLE 1
Factor Loading of Indicating Variables on Latent Constructs

| | *Factor Loading* | *SE* | *p Value* |
|---|---|---|---|
| *Mentoring relationship quality* | | | |
| I would feel sad if something bad happened to my mentor | .772 | .015 | >.001 |
| My mentor cares about me | .882 | .009 | >.001 |
| I look forward to the time I spend with my mentor | .860 | .010 | >.001 |
| My relationship with my mentor is important to me | .874 | .010 | >.001 |
| I trust my mentor | .857 | .010 | >.001 |
| *Perceived community attitudes toward youth* | | | |
| Adults in my town or city make me feel important | .784 | .015 | >.001 |
| Adults in my town or city listen to what I have to say | .765 | .015 | >.001 |
| Adults in my town or city don't care about people my age | .734 | .015 | >.001 |
| *Mastery goal orientation* | | | |
| One of my goals in school is to learn as much as I can | .842 | .014 | >.001 |
| One of my goals is to master a lot of new skills this year | .651 | .016 | >.001 |
| It's important to me that I improve my academic skills this year, such as reading, writing, and math | .792 | .015 | >.001 |
| *Prosocial values* | | | |
| Making a contribution to society | .799 | .014 | >.001 |
| Being a leader in my community | .682 | .016 | >.001 |
| Working to correct social and economic inequalities | .740 | .015 | >.001 |
| Finding purpose and meaning in my life | .609 | .018 | >.001 |
| *Purpose* | | | |
| I feel a sense of purpose or meaning in life | .688 | .016 | >.001 |
| I feel hopeful when I think about my future | .756 | .014 | >.001 |
| I have a lot to look forward to in my life | .780 | .013 | >.001 |
| How certain are you that you will have a good life when you are an adult | .636 | .017 | >.001 |
| I plan to do something that matters in other people's lives | .408 | .022 | >.001 |
| *Ethnic identity* | | | |
| I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs | .657 | .022 | >.001 |
| I am active in organizations or social groups that include mostly members of my own ethnic group | .555 | .022 | >.001 |
| I participate in cultural practices of my own group, such as special food, music, or customs | .772 | .023 | >.001 |

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## Structural Regression Model

### *Model 1 (Mentor)*

Results of testing the hypothesized SRM revealed that this model was an acceptable fit to the data, $\chi^2(287, N = 1860) = 2445.036$, $p < .001$, CFI =

TABLE 2
Correlation Matrix of Latent Variables

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1. | Community attitudes | — | | | | |
| 2. | Mentor relationship quality | .286 | — | | | |
| 3. | Mastery goal orientation | .392 | .233 | — | | |
| 4. | Prosocial values | .521 | .281 | .604 | — | |
| 5. | Ethnic identity | .700 | .217 | .437 | .647 | — |
| 6. | Purpose | .575 | .456 | .534 | .575 | .488 |

*Note*. All *p*s < .001.

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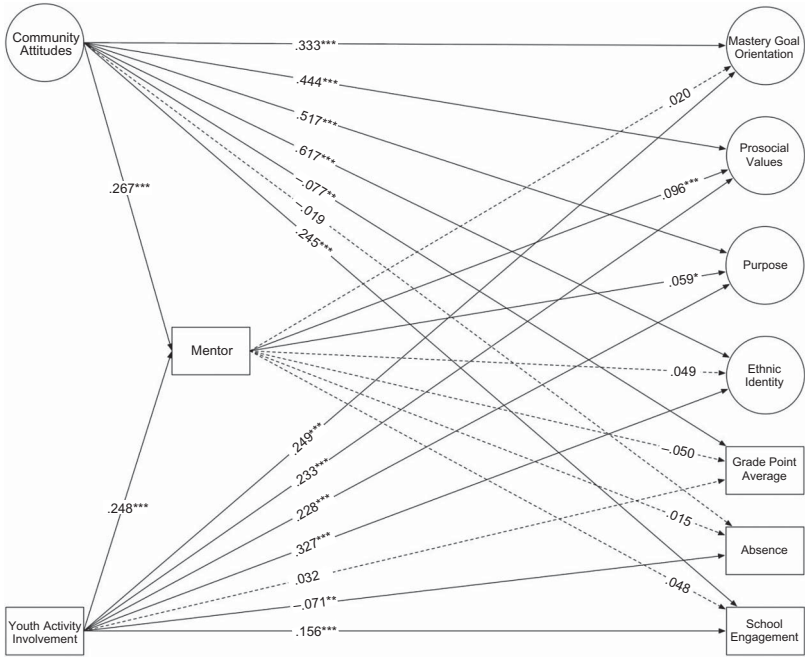


FIGURE 1 Structural regression model effects of perceived community attitudes toward youth and youth activity involvement on youth outcomes, mediated by the presence of a mentor (Model 1). Coefficients are standardized. Covariances between outcome variables are presented in Table 3. Minority status, gender, and parental education were controlled for but not shown in figure. The dotted lines represent statistically non-significant relationships. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

.935, RMSEA = .064 (90% CI: .061, .066). Results of path coefficients are presented in Figure 1. Controlling for gender, race, and parents' level of education,

perceived community attitudes toward youth and activity involvement were associated with increased likelihood of having a mentor ($\beta = .267$, $p < .001$ and $\beta = .248$, $p < .001$, respectively), and having a mentor was associated with higher prosocial values ($\beta = .096$, $p < .001$) and purpose ($\beta = .059$, $p < .05$).

### *Model 2 (Mentoring Relationship Quality)*

Results of testing the hypothesized SRM revealed that this model also was a good fit to the data, $\chi^2(400, N = 1860) = 1743.985$, $p < .001$, CFI = .935, RMSEA = .042 (90% CI: .040, .045). Results of path coefficients are presented in Figure 2. Controlling for gender, race, and parents' level of education, perceived community attitudes toward youth was significantly associated with mentoring relationship quality ($\beta = .283$, $p < .001$), but activity involvement was not. Mentoring relationship quality was associated with mastery goal orientation ($\beta =$

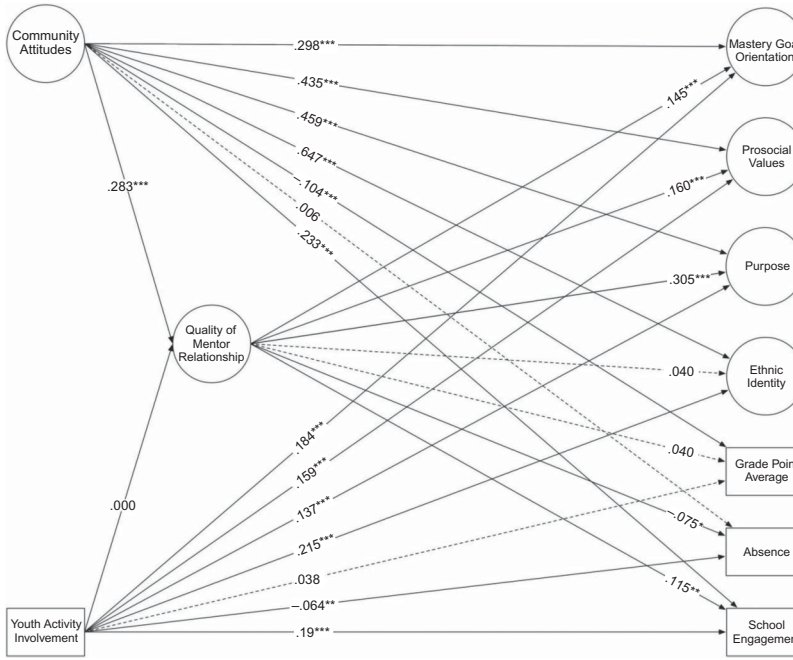


FIGURE 2 Structural regression model effects of perceived community attitudes toward youth and youth activity involvement on youth outcomes, mediated by mentoring relationship quality (Model 2). Coefficients are standardized. Covariances between outcome variables are presented in Table 3. Minority status, gender, and parental education were controlled for but not shown in figure. The dotted lines represent statistically non-significant relationships. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

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.145, $p < .001$), prosocial values ($\beta = .160$, $p < .001$), purpose ($\beta = .305$, $p < .001$), absence ($\beta = -.075$, $p < .05$), and school engagement ($\beta = .115$, $p < .001$).

Correlations between the outcome variables in the two models are presented in Table 3.

### *Mediation Analysis*

Bootstrapping analyses supported the presence of significant indirect effects of both perceived community attitudes toward youth and activity involvement on prosocial values, mediated by mentor presence (see Table 4). Analyses also supported the presence of indirect effects of perceived community attitudes toward youth on school engagement, mastery goal orientation, prosocial values, and purpose, mediated by mentoring relationship quality; in contrast, indirect effects of activity involvement were not detected.

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## DISCUSSION

The results of our analyses indicate that youth participation in structured activities and increased perception that a community values youth are associated with greater likelihood of having a mentor. Surprisingly, however, although increased perception that a community values youth was associated with higher quality mentoring relationships, activity involvement was not. The presence of a mentor significantly mediated the association between activity involvement and perceptions of community attitudes toward youth and youth outcomes for just one outcome variable (prosocial values). By contrast, mentoring relationship quality mediated the association between community attitudes toward youth and youth outcomes for the majority of youth outcomes, including school engagement, mastery, prosocial values, and purpose. These results indicate that facilitating mentoring relationships at all is likely to benefit youth, but that facilitating high-quality, close mentoring relationships may be an even more important way in which communities can benefit youth.

The significant relationship between youth activity involvement and having a mentor, but lack of significance between activity involvement and mentoring relationship quality, merits further research. It is possible that, although youth who are more involved in activities are more likely to have a mentor, that those mentors are not necessarily drawn from the activities, and therefore frequency of activity involvement is not associated with higher quality relationships. More involved youth may simply be exposed to more adults in all their ecological contexts, in part because of their personal characteristics such as social competencies. It is also possible, however, that youth programs may be successfully

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TABLE 3
Correlation Matrix of Outcome Variables

| | | *1* | *2* | *3* | *4* | *5* | *6* | *7* |
|---|---|---|---|---|---|---|---|---|
| 1. | Mastery goal orientation | — | .446*** | .365*** | .142** | .042 | −.057 | .343*** |
| 2. | Prosocial values | .492*** | — | .347*** | .398*** | .000 | −.052 | .145*** |
| 3. | Purpose | .416*** | .403*** | — | .061 | .056 | −.069 | .248*** |
| 4. | Ethnic identity | .170*** | .402*** | .069 | — | .012 | .063 | .011 |
| 5. | Grade point average | .053 | .020 | .071* | .023 | — | −.047 | .032 |
| 6. | Absence | −.071** | −.072* | −.099** | .060 | −.052 | — | −.089** |
| 7. | School engagement | .340*** | .161*** | .274*** | .011 | .054* | −.098** | — |

*Note*. Model 1 (Mentor) in the lower triangle and Model 2 (Quality) in the upper triangle.
*$p < .05$. **$p < .01$. ***$p < .001$.

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TABLE 4
Indirect Effects of Perceived Community Attitudes Toward Youth and Youth Activity Involvement on Youth Outcomes, Mediated by the Presence of a Mentor and Mentor Relationship Quality

| *Independent Variables* | *Dependent Variables* | *b* | *SE* | *95% Confidence Interval* | | *β* |
|---|---|---|---|---|---|---|
| Model 1 (Mediator: Mentor) | | | | | | |
| Community attitudes | Mastery | .006 | .009 | −.012 | .024 | .005 |
| | Prosocial values | .032 | .009 | .014 | .050 | .026 |
| | Ethnic identity | .020 | .012 | −.003 | .044 | .013 |
| | Purpose | .020 | .010 | .000 | .040 | .016 |
| | Grade point average | −.009 | .005 | −.020 | .002 | −.013 |
| | Absence | .008 | .017 | −.025 | .040 | .004 |
| | School engagement | .011 | .006 | −.002 | .023 | .013 |
| Youth activity involvement | Mastery | .001 | .002 | −.002 | .004 | .005 |
| | Prosocial values | .006 | .002 | .002 | .009 | .024 |
| | Ethnic identity | .004 | .002 | −.001 | .008 | .012 |
| | Purpose | .004 | .002 | .000 | .007 | .015 |
| | Grade point average | −.002 | .001 | −.004 | .000 | −.012 |
| | Absence | .001 | .003 | −.005 | .007 | .004 |
| | School engagement | .002 | .001 | .000 | .004 | .012 |
| Model 2 (Mediator: Quality of relationship) | | | | | | |
| Community attitudes | Mastery | .047 | .015 | .017 | .077 | .041 |
| | Prosocial values | .055 | .015 | .025 | .085 | .045 |
| | Ethnic identity | .017 | .015 | −.014 | .047 | .011 |
| | Purpose | .114 | .025 | .064 | .163 | .086 |
| | Grade point average | .008 | .009 | −.001 | .001 | .011 |
| | Absence | −.040 | .036 | −.110 | .030 | −.021 |
| | School engagement | .027 | .010 | .008 | .045 | .032 |
| Youth activity involvement | Mastery | .000 | .001 | −.002 | .002 | .000 |
| | Prosocial values | .000 | .001 | −.003 | .003 | .000 |
| | Ethnic identity | .000 | .001 | −.001 | .001 | .000 |
| | Purpose | .000 | .003 | −.005 | .005 | .000 |
| | Grade point average | .000 | .000 | −.001 | .001 | .000 |
| | Absence | .000 | .001 | −.003 | .003 | .000 |
| | School engagement | .000 | .001 | −.001 | .001 | .000 |

connecting youth to adults but may not be devoting sufficient attention to developing and strengthening those relationships. Within this sample, for example, the majority of youth—68%—reported being involved in youth program activities, but, when standards of quality were applied, only 35% could be described as being in high-quality programs, that, among other things, focus on promotion of warm and trusting relationships among adults and youth (Scales et al., 2011). Research indicates that shared engagement in structured activities can facilitate the natural formation of bonds between youth and adults (e.g., M. A. Hamilton & Hamilton, 2005; Jarrett, Sullivan, & Watkins, 2005). Strategies such as improving adult–youth ratios, training adults to be more intentional in their mentoring role, and assigning staff to supporting particular youth may be beneficial to forming stronger relationships between staff and youth. Larson and Angus (2011) have described the characteristics that distinguish effective staff in youth settings, including striking the right balance between providing support and facilitating autonomy. Another potential strategy for supporting the development of mentoring relationships within programs is youth-initiated mentoring, in which youth are asked to nominate an adult from within their existing social network to be their mentor, allowing youth to formalize and deepen existing relationships (Schwartz, 2012). Nevertheless, results also indicate that simple frequency of youth activity involvement is directly associated with some positive youth outcomes and therefore may be beneficial to youth through other mechanisms beyond facilitating the development of high-quality mentoring relationships.

More generally, this study adds to the growing body of research on positive youth development and thriving, which indicates that community developmental assets, including participation in structured youth activities, supportive communities, and positive nonfamily adult relationships, are associated with positive outcomes in youth (e.g., Benson et al., 2003; Benson et al., 2011). It also advances our understanding of how such contexts may influence youth by exploring one potential pathway toward positive youth development outcomes, and suggesting that high-quality mentoring relationships may be an important "active ingredient" within supportive community environments.

This study also contributes to research on natural mentoring relationships by exploring the contexts that give rise to such relationships. Little research on natural mentoring has considered community factors that might influence the likelihood of forming mentoring relationships. Our results suggest that community infrastructure and attitudes may facilitate the development of mentoring relationships. Results also raise the issue of how to structure settings that give rise to high-quality adult–youth ties. Much research on mentoring relationships has focused on formal mentoring relationships in which volunteer mentors are matched with youth. Formal mentoring relationships are often limited, however, by shortages of volunteer mentors and difficulties establishing close and sustained relationships

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(Rhodes & DuBois, 2006). Building communities that are conducive to natural mentoring relationships may result in more enduring relationships and greater numbers of youth connected with mentors. Research suggests that efforts to create community norms supporting the expectation of involvement with "other people's kids" may be especially important in growing the pool of "natural" mentors in a neighborhood or community (e.g., Scales et al., 2003). This study also serves to expands our purview of natural mentoring relationships, allowing us to see them not only as a stand-alone asset, but as part of a larger picture of a whole child in dynamic relationship with her or his contexts, who brings with him or her a specific history and set of experiences that may contribute to or deter the development of close relationships with nonparental adults. Finally, our results are consistent with previous research on natural mentoring, which have indicated that higher quality relationships are associated with improved outcomes (e.g., DuBois & Silverthorn, 2005a; Whitney et al., 2011), although unlike previous studies we did not find any significant relationship between the two mentor-related mediators and youth's ethnic identity. This may be due to the fact that more than one half of participants in the current study identified as White, whereas previous studies of mentoring and racial and ethnic identity development have only included adolescents from racial and ethnic minority groups (e.g., Hurd et al., 2012; Kaplan et al., 2009).

Although this study has several strengths, including a large and diverse sample of youth that allows for more sophisticated analysis of processes, a number of limitations should be noted. First, cross-sectional data limits the causal inferences that can be drawn. In addition, a number of measures employed single-item indices and all measures were based on youth self-report. Future research should employ longitudinal data and more continuous outcomes measures, as well as data collected from multiple reporters, especially for measures of community attitudes toward youth. It would also be helpful to have more information about the contexts from which mentors were drawn. In addition, although the narrow age range allows for the exploration of the role of mentors at a particular time in adolescent development, it limits the generalizability of the results to youth of other ages. Finally, although this study represents an important step in exploring the ways in which various community contexts may support youth development, it does not include other important contexts such as family or school. Future studies are recommended to investigate how family, school, and community contexts may interact with each other to support the development of natural mentoring relationships. Despite these limitations, this study broadens our perspective on how youth settings may contribute to positive youth development and suggests the critical role that high quality mentoring relationships may play in promoting young people's academic, psychological, and civic well-being.

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