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Positive Youth Development Among Diverse Racial-Ethnic Children: Quality Afterschool Contexts as Developmental Assets

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Abstract

Positive youth development (PYD) deserves more empirical attention, particularly among children of diverse racial-ethnic backgrounds. Given the need among families for monitoring and supervision during out-of-school time, community-based afterschool is a potentially promotive ecological setting. This study explores the quality of afterschool experiences upon PYD. This multi-method study includes over 500 elementary-school children in grades 2–5 (Mean age = 8.80, SD = 1.12). The sample was comprised of 49% White, 27% African-American, 7% Latino and 17% mixed-race/others with 45% free/reduced lunch eligible children. In multi-level models, independently observed quality across time positively impacted competence, connection, caring, for all youth, and cultural values for racial-ethnic minority youth. Afterschool fosters PYD, including socio-cultural dimensions, when comprised of appropriately structured, supportive, and engaging interactions.

Increasingly, research has begun to explore the ways in which various eco-developmental settings can foster positive development of youth (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Larson, 2000; Pittman, 1991). Such an approach moves beyond a focus on risks and deficits, seeking instead to understand how successful youth, particularly those who are from ethnic-minority, immigrant, and/or less-advantaged groups, come to view themselves as caring, connected, and agentic members of their families, schools, and communities (Cabrera and the SRCD Ethnic-Racial Issues Committee, 2013; García-Coll et al., 1996; McLoyd, 1990; 2006a; Spencer, Fegley, & Harpalani, 2003).

Much of the existing research on positive youth development (PYD) has been conducted with adolescents. The purpose of the current study is to expand understanding of this concept among young, elementary school-aged children who are diverse in their racial-ethnic backgrounds. In doing so, we begin by: 1) considering the conceptualization of positive youth development (PYD); 2) exploring the role of quality community-based afterschool contexts in fostering PYD for diverse youth; and 3) we examine another potential dimension of PYD, the role of cultural values, among children of diverse racial-ethnic backgrounds.

A Background and Conceptualization of Positive Youth Development (PYD)

Over the past two decades, there has been considerable growth in research seeking to define and measure PYD. The Search Institute has contributed to the conceptualization of PYD by identifying 40 *developmental assets*, 20 individual ones and 20 in the home, school, and community environments. They posit that these developmental assets are related not only to reduced risky behavior, but also to important outcomes such as academic achievement, resilience, and valuing diversity (Leffert, Benson, Scales, Sharma, Blake, & Blyth, 1998; Scales, Benson, Roelkepartain, Hintz, Sullivan, & Mannes, 2001). In a pivotal study of positive youth development in 4-H, one of the largest youth organizations in the United States, Lerner and colleagues (2005) began to consolidate the *developmental assets* identified by the Search Institute into what they conceptualized as the “5 C’s of PYD,” competence, confidence, caring, connection, and character, and a possible 6th “C,” contribution. This longitudinal study, conducted across 13 states and 40 municipalities around the U.S., contributes to the field by identifying several existing measures that assess PYD with reliability and validity. This and other research in the U.S. and abroad is providing evidence that youth higher in PYD are less likely to be depressed, involved in delinquent or premature sexual behavior, and are more future oriented (Jelicic, Bobek, Phels, Lerner, & Lerner, 2007; Murry, Berkel, Simons, Simons, & Gibbons, 2014; Sun & Shek, 2013).

Thus far, the research on PYD has focused on the developmental period of adolescence. For example, the work of the Search Institute includes a sample of nearly 100,000 youth in grades 6–12 (Scales et al., 2001). The 4-H study, incorporates multiple waves of data, beginning with an assessment of pre-adolescents in 5th grade (mean age =11 years old) (Lerner et al., 2005). Though valuable research, PYD might be an important concept to explore more among younger elementary school children as well. From an Eriksonian perspective, children between the ages of 5 and 13 are tasked with achieving industry versus inferiority, a period in which praise and encouragement from others help children to develop confidence in their abilities (Erikson, 1980). According to moral development theory (Kohlberg, 1984), children during this time are theorized to move from a focus on their own instrumental needs to a consideration of not only the needs of others, but also prevailing social mores. Research exploring pathways of positive youth development could counter-balance the preponderance of empirical data focused on trajectories of delinquent and problem behavior, particularly for ethnic minority youth. Understanding how young people come to be successful personally, relationally, and occupationally, vibrantly engaged in their families and communities is an under-researched area of developmental science. Furthermore, identifying characteristics of promotive environmental contexts that foster PYD for diverse racial-ethnic youth is a critical aspect of eco-developmental research.

The Role of Community Contexts in Fostering PYD

Conceptually, an integrative, eco-developmental framework posits that the family, school, and/or neighborhood, and their larger socio-cultural contexts, serve as promoting or inhibiting factors for PYD (García-Coll et al., 1996). Effective parenting, supportive school environments, caring relationships with adults and peers in the community are posited as important developmental assets (Leffert et al., 1998). Though substantial research shows that

living in poor, impoverished neighborhoods and communities may result in more risky, problem behavior (Leventhal & Brooks-Gunn, 2000; Witherspoon & Hughes, 2014), other research reveals that youth benefit from social assets in their community resulting in less depression, and a more positive sense of identity and academic achievement (Byrd & Chavous, 2009; Gaylord-Harden, Ragsdale, Mandara, Richards, & Petersen, 2007; Smith, Atkins, & Connell, 2003).

To that point, we explore a potentially supportive asset in youth communities, namely, afterschool programs which are a growing part of life for many families. While in some cases afterschool care may be provided by families or schools, increasingly youth development organizations like the YM/YWCA, the Boys and Girls Club and local organizations are in the business of providing safe and supervised care for young people. Afterschool programming is thought to function in two ways for children and youth, as a potential prevention strategy for risky behavior *and* as a method of promoting positive development and academic achievement. Mahoney, Lord, and Caryl (2005) posit that organized activities help young people build competencies and successfully negotiate the salient developmental tasks of childhood and adolescence. Participation in positive out-of-school activities in elementary school is key to continuing involvement in these developmental opportunities during adolescence (Simpkins, Vest, & Becnel, 2010). Several studies have shown that afterschool programs that are culturally grounded, with a focus on social skills and character development enhance identity, socio-emotional skills, *and* reduce delinquency and aggression, particularly when they utilize evidence-based practices (Belgrave et al., 2004; Gottfredson, Gerstenblith, Soule, Womer, & Lu., 2004; Tebes et al., 2007).

However, there are mixed data on afterschool with some research finding no benefit of afterschool programming upon the academic achievement of elementary or middle school youth (Dynarski et al., 2004). Yet, the quality of afterschool programs is a key factor. Eccles and Gootman (2002) describe quality features posited to promote development: namely 1) appropriate structure, 2) supportive relationships, and 3) opportunities for belonging and engagement. Programs with appropriate monitoring and structure are related to less delinquency (Osgood & Anderson, 2004; Rorie, Gottfredson, Cross, Wilson, & Connell, 2011). Adult support is another important dimension; Pierce, Hamm and Vandell (1999) find that positive and encouraging interactions with afterschool staff are related to higher reading and math grades and to fewer internalizing and externalizing problems, particularly for boys. On the other hand, staff negativity (i.e. harsh remarks, a negative tone of voice, abruptness, anger, frustration, impatience, or general dislike), is related to lower achievement in 2nd and 3rd grade (Pierce, Bolt, & Vandell, 2010). Thus, similar to family contexts, appropriate structure *and* support are salient aspects of afterschool quality.

Although adults are important, youth are not passive recipients of adult socialization. Youth evidence more optimal development in contexts that allow increasing amounts of engagement and responsibility (Eccles et al., 1993). Larson (2000) reports that the activities in which youth show the most attention, focus, and enjoyment are those in which they are actively engaged with their peers in creative and productive activities. Thus, in assessing the quality of experiences in afterschool programs, we should not only attend to adult-oriented

social processes, (e.g. appropriate structure and adult support), but also to the ways in which these settings might foster developmentally appropriate outlets for youth engagement and belonging, concepts that have received far less attention in the empirical research. Expressiveness, which is a sense among young people that they are making a contribution, has been found to be key in approaches designed to promote PYD among racial-ethnic minority youth (Eichas et al., 2010).

PYD and Racial-Ethnic Minority Youth

Studying PYD among racial-ethnic minority youth is pivotal in that the United States is an increasingly diverse society. The U.S. Census Bureau (2012) reports that between 2011 and 2012, 50% of children born in the U.S. were Latino, African American, Asian American, or from other ethnic minority groups. Though there is considerable within-group variability among minority and immigrant youth, (Cabrera et al., 2013; Suárez-Orozco, Yoshikawa, Takanishi & Suárez-Orozco, 2011), these groups are still disproportionately affected by poverty, incarceration, discrimination and disparities in health, wealth, and education (Darity, 2003; Sampson & Lauritsen, 1997; Skiba, et al., 2011). Exploring pathways to PYD for these youth is paramount given the relative costs associated with under-achievement, delinquency, and unemployment (Aos, Phipps, Barnoski, & Lieb, 2001).

The idea of giving more attention to positive versus problematic developmental outcomes, particularly among racial-ethnic and immigrant groups is not a new one (Cabrera et al., 2013; García-Coll et al., 1996; McLoyd, 1990, 2006a). McLoyd in her seminal 1990 review of developmental science noted a disproportionate emphasis on the risks and negative behavioral trajectories of poor and minority youth with very few studies examining more positive pathways, a call resounded more recently (McLoyd, 2006a). As we apply notions of PYD to immigrant and minority youth, research should also explore notions of race, ethnicity, and acculturation. When considering these important social position factors, it is important to explore the role of culture in shaping youth's developmental competencies (García-Coll et al., 1996; Ogbu, 1981).

Research exploring the role of PYD among rural African American males has found that parenting and racial-ethnic socialization (i.e. preparation for discrimination and cultural education) help youth develop a more positive sense of themselves and the future, leading to less risky behavior (Murry et al., 2014). The research on cultural values among immigrant and Latino youth includes concepts such as respect for adults and family along with more individualistic values like competition and desire for material success. This research is increasingly pointing to the benefits of a multicultural model endorsing cultural values such as valuing family, respect for adults, along with valuing competition and material success (Knight et al., 2010; Schwartz, et al., 2010). Whereas the research has demonstrated the importance of cultural values for immigrant youth, the work thus far has excluded youth of other racial-ethnic backgrounds presumably because cultural values might be less important. However, empirical work finds cultural values to be beneficial for both majority and minority adolescents (Boykin & Toms, 1985; Guo, Nguyen, Weiss, Ngo, & Lau, 2015; Kiang, Yip, & Fuligni, 2008). This paper begins to explore the role of cultural values in PYD among diverse samples, including youth of European, African, and Latino heritage,

advancing our understanding of the types of youth values which may be present and adaptive in a multicultural society. Further, this study helps to identify what aspects of youth's contexts might play an important role in their development.

Summary and Research Aims

In summary, developmental science gives far less attention to the positive development of diverse racial-ethnic children than it does to developmental psychopathology and problem behavior. Several settings may be promotive contexts and this study examines community-based afterschool and the degree to which it might foster PYD. The current study examines the contexts of PYD in a sample of diverse racial-ethnic elementary school children, an important developmental period that has received less attention. In an increasingly diverse society, attending to new culturally-sensitive aspects of PYD, may be particularly salient for minority youth (Knight et al., 2010). As such, our research goals are three-fold: 1) identify salient dimensions of quality in community-based afterschool settings related to PYD; 2) explore the role of culture as part of PYD for both majority and minority youth; 3) examine the relation between the experience of quality afterschool and PYD, specifically, competence, connection, caring and culture, over time among a multi-ethnic sample of elementary-school-age children, extending our conceptualizations of PYD both in terms of age and race-ethnicity.

Methodology

Sample and Procedures

Data were collected from 73 afterschool program sites in a northeastern state from urban, suburban, and rural locales as part of the LEGACY Together Project (Smith et al., 2014). Afterschool sites were recruited using multiple methods: 1) contacting and searching local school districts' websites for their afterschool care providers, including private childcare companies; and 2) systematically searching for local community-based agencies such as the YM/YWCA, Boys and Girls Club (BGC) and local Parks and Recreation Commissions (PR). Agencies that offered programs for K-5 grades most days of week throughout the academic school year were included. Programs typically served youth from the end of the school day until 5:30 pm or 6:00 pm. From 2009–2012 (i.e., 3 cohorts), we approached 14 providers in the spring to begin participation the following fall. We successfully recruited 12 program providers (86% recruitment rate). Many program providers had multiple afterschool program sites (Range: 2 – 12). We recruited 92% (N = 73) of the program sites. Two programs refused participation due to changes in leadership. For the current analyses, only data from 71 program sites are used due to child-reported missing data across time for 2 program sites. Therefore, listwise deletion was used to handle the program-level missing data.

The number of children served by each program site ranged from 15–63 with an average of 40 children. Data were collected for each afterschool program site on the proportion of children eligible for free/reduced lunch as an indicator of the socio-economic status of the participating children. The programs varied in the proportion of free/reduced lunch eligible children, ranging from 17–98% with a mean of 45 percent. To engage the sample, multiple

letters were sent to parents of youth requesting their child's participation; parents could sign to indicate their refusal. Data was not collected from youth whose parents returned the consent form refusing to be involved in the study. (Parents could refuse involvement at any point in the study and children's data would be deleted.) Subsequent to the parental consenting process, children provided verbal assent prior to administration and were advised they could refuse or discontinue at any time. Electronic surveys were administered in a group-format using small personal digital devices (PDA); these devices included amusing cartoons and jokes at the end of 15-minute segments. Survey items were either read aloud or the child elected to read the questions independently. On average, it took approximately one hour for children to complete the survey. At times, children were picked up from the program prior to completing the survey; in these instances make-up visits were helpful in gathering additional data. Children received incentives, such as string bags and water bottles, for their participation. Data were collected from children (50% females) in grades 2–5 (Mean age = 8.80, SD = 1.12) participating in afterschool programs at Wave 1 (fall, N = 663) and Wave 2 (spring, N = 603). At Wave 1, 24% of children self-identified as African American; 8% as Latino, 48% as White, and 20% as other (primarily multiracial and a small proportion of Asian American youth) (Table 1).

Observational methods were used to characterize the quality of afterschool settings (Pianta & Hamre, 2009; Tseng & Seidman, 2007). The measures chosen for the study have been found to demonstrate both reliability and validity in previous research and to measure various aspects of program quality identified in the field, namely, supportive climates, youth belonging, and engagement (Yohalem & Wilson-Ahlstrom, 2010). Observers were deployed on varying days and to varying programs. Fifty percent of the data were collected with 2 simultaneous and independent raters observing the same activities on the same day using mini-laptop computers to record each observational measure in real time subsequently transmitting the data to the project offices.

To promote and sustain high levels of inter-rater reliability among observers, we utilized a “gold standard video” (GSV) process, similar to techniques used by other observational research (Pianta & Hamre, 2009). Oh, Osgood, and Smith (2015) provide a complete discussion of our observational procedures. Descriptions of the measures are provided as well as their psychometric properties, internal consistency, and inter-rater reliability. Cronbach's alphas were used to assess internal consistency reliability whereas the Interclass Correlation Coefficient (ICC), which accounts for the amount of variance within the observations accounted for by observers of the varying settings, (Raudenbush, Martinez, Bloom, Zhu, & Lin, 2008), was used to establish inter-rater reliability.

Measures

Assessing Program Quality—We used four observational tools to assess afterschool program quality, as multiple measures are suggested to capture quality interactions in educational settings (Pianta & Hamre, 2009). The collections of tools focused upon assessing: 1) appropriate structure (clear instructions, monitoring, and contingencies), 2) support from adults and peers (sensitive and caring interactions), and 3) engagement and belonging (being actively involved with and connected to afterschool staff and participants).

To correspond with the survey data, observational data were collected in fall (Waves 1) and Spring (Waves 2) with 2 rounds of observational data at each wave to assess equivalence and stability (Oh et al., 2015; Raudenbush et al., 2008). (A third round of data was collected in winter but is not included in the current study). Table 2 presents the descriptive statistics for these measures. Each of these measures captured aspects of the six empirically-valid components of quality youth programs (Yohalem & Wilson-Ahlstrom, 2010).

Further, given the importance of evidence-based practices in the efficacy of afterschool programming (Gottfredson et al., 2004), the *Afterschool Climate Assessment (ACA)* was developed for the current study and assessed the extent to which providers engaged in the implementation of evidence-based practices such as the provision of clear directions coupled with effective behavioral strategies (Eccles & Gootman, 2002; Pierce et al., 2010). Independent observers completed the ACA, a binary checklist of 10 dichotomous yes/no items ($\alpha = .62$), which was developed for this project. Sample items included “standard discipline programs used” and “clear rules/expectations posted.” A larger internal consistency reliability index was not expected in that programs might be implementing some aspects of evidence-based practices but not others. Inter-rater reliability for the ACA subscale was high ($ICC = .77$), according to criteria proposed by Fleiss (1981, where < 0.40 , poor; $0.40\sim 0.59$, fair; $0.60\sim 0.74$, good; > 0.74 , excellent).

The 26-item *Caregiver Interaction Scale (CIS)* (CIS, Arnett, 1989) examined the caregiving style of the adults in afterschool programs by focusing on support (caring and sensitive interactions) and appropriate structure (clear rules, guidance, and contingencies) akin to the research on families (Baumrind, 1991). The CIS was adapted for this project by making the items unambiguous and more amenable to observation, resulting in 23 of the original 26 items (Oh et al., 2015). The **Sensitivity/Detachment** subscale (11 items, $\alpha = .92$) measured afterschool staff’s caregiving styles. Sample items included “speaks warmly to children.” Inter-rater reliability for this subscale was good ($ICC = .77$). The **Harshness** subscale (6 items, $\alpha = .75$) focused on less-supportive and/or overly critical caregiving styles. Sample items included “speaks with irritation or hostility to children.” Inter-rater reliability for the harshness subscale was adequate ($ICC = .56$). The **Permissiveness** subscale (3 items, $\alpha = .84$) assessed appropriate structure, or the lack thereof, namely, the degree to which staff failed to appropriately provide behavioral guidance and redirection when necessary (e.g., “exercises little control over children”). Inter-rater reliability for the permissiveness subscale was adequate ($ICC = .58$). Observers rated the frequency of these afterschool staff behaviors on a 4-point scale ranging from 1 (never, 0%) to 4 (consistently, $> 61\%$). All items were scored so that greater values on the scale represented higher afterschool program quality. Overall, internal consistency reliability for the CIS scales was moderate to high (.75 to .92).

The *Promising Practices Rating Scale (PPRS)* (PPRS, Vandell et al., 2004), an observational measure designed to capture afterschool program quality, was used to rate the degree to which program activities and practices demonstrated appropriate structure, support, and engagement. The PPRS contributed a program-level perspective to the observation of individual staff in the CIS. In the current project, we focused on three activities (i.e., homework assistance, recreation and games, and snack time) and assessed four of the seven original dimensions of program quality relevant to our study goals (i.e., appropriate

structure, supportive relationships with adults, supportive relationships with peers, and level of engagement). The original PPRS used a *single-item* score for each dimension of program quality; we adapted the measure and created a *multi-item scale score* that was based on the descriptive exemplars provided for each dimension. Each PPRS dimension was rated on a 4-point scale indicating the extent to which a given construct was characteristic of the program, where 1=*highly uncharacteristic*, 2=*somewhat uncharacteristic*, 3=*somewhat characteristic*, and 4=*highly characteristic*. The **Appropriate structure** (AS) scale assessed the degree to which staff utilized proper and suitable levels of structure to guide activities; it was comprised of 4 items and evidenced an α of .67. Sample items included “evidence of clear and appropriate activity instructions,” “activities are orderly and efficient.” Inter-rater reliability for the AS subscale was adequate (ICC = .67). **Supportive relationships with adults** (SRA) assessed the relationship between afterschool staff and students with 5 items (α = .88, e.g., “staff have frequent and reciprocal personal interactions with students,” “staff use positive affect with students”). Inter-rater reliability for the SRA subscale was adequate (ICC = .59). **Supportive relationships with peers** (SRP) examined the relationship among afterschool students with 3 items (α = .89, e.g., “peer interactions are positive,” “students interact well together”). Inter-rater reliability for the SRP subscale was adequate (ICC = .50). **Level of engagement** (LOE) explored afterschool students’ positive participation in activities with 3 items (α = .84, e.g., “students are enthusiastically engaged,” “Students are actively participating in on-task discussions”). Inter-rater reliability was adequate (ICC = .56). Internal consistency for the PPRS was moderate to high (.67 to .88).

The *Youth Program Quality Assessment* (YPQA, Smith & Hohmann, 2005) is an observation protocol that was used to measure youth belonging and engagement – critical dimensions of PYD. The YPQA can be used to rate individual program offerings (i.e., activities in the program) or the entire program. In the current project, observers used the YPQA to rate the overall program in terms of these developmental opportunities. The YPQA was rated on a 3-point scale using discrete scores of 1, 3, and 5 where 1 indicated that no children had access to this experience, 3, indicating some children have access to this experience, and 5, most children have access to this experience. **Staff engagement** was assessed with 4 items (α = .80), e.g., “consistently interact with children in positive ways.” Inter-rater reliability for the staff engagement subscale was adequate (ICC = .61). **Active engagement** was assessed with 3 items (α = .75, e.g., “staff provide AMPLE opportunities for children to make connections between current activities and prior experiences or knowledge”) to examine the degree to which afterschool staff offered times for youth to engage with materials and think critically about what they were doing. Inter-rater reliability for the active engagement subscale was low for this program aspect that has received less empirical attention (ICC = .45). For this study, **belonging**, another lesser-studied aspect of engagement, was assessed with 4 items (α = .55) to capture youth connection to the afterschool program. Sample items included “youth strongly identify with the program (i.e. through shared language, traditions, and guidelines).” Inter-rater reliability for the belonging subscale was low (ICC = .34). Internal consistency reliability for the YPQA was fair to high (.55 to .80).

Positive Youth Development Outcomes—Children in the afterschool programs reported on several positive youth development outcomes assessing competency, connection, caring, and cultural values. Descriptive statistics for these measures, as well as demographic variables, appear in Table 1. Internal consistency reliabilities by grade and racial-ethnic group are presented and show that the measures demonstrated similar levels of internally consistency across the two racial-ethnic groups (i.e. African American and White) that had adequate sample sizes for the analyses.

Competence was assessed using a 12-item measure of **Collective Efficacy** (Smith, Osgood, Caldwell, Hynes, & Perkins, 2013) to determine the degree to which children felt they or their peers would intervene to encourage positive behavior and discourage negative behavior ($\alpha = .90$, e.g., “if children in this program are misbehaving, other children remind them to act their best”). Children responded on a 3-point Likert scale ranging from 1 (not true) to 3 (very true). Higher scores indicated greater collective efficacy.

Caring was measured using the prosocial behavior subscale from an adapted version of the Strengths and Difficulties Questionnaire (SDQ), a measure reliable and valid for children as young as 7 years old (Goodman, Meltzer, & Bailey, 2003; Mellor, 2004). Response options ranged from 1 (not true) to 3 (certainly true). Sample items for **prosocial behavior** (6 items, $\alpha = .74$) included “I am helpful if someone is hurt, upset, or feeling ill.” Higher scores indicated more caring.

Connection was assessed using the 8-item **Afterschool Connectedness** scale adapted from measures of school connectedness (Resnick et al., 1997) to assess the degree to which children felt they were a part of afterschool program group ($\alpha = .83$; e.g., “I feel that my afterschool program staff cares about me”). Children responded on a 3-point Likert scale ranging from 1 (not true) to 3 (very true). Higher scores indicated a greater attachment to the afterschool program.

Three cultural values were measured using an adapted version of the Mexican American Cultural Values Scale (Knight et al., 2010) to tap both individualistic (i.e., competition and value for material success) and collectivistic values (i.e., respect for adults). Response options ranged from 1 (not at all) to 5 (completely). **Materialism** was assessed with 5 items ($\alpha = .83$; “the more money one has, the more respect they should get from others”) to tap the degree to which children believed in achieving material success and prioritizing monetary gain. **Competition** was assessed with 4 items ($\alpha = .67$; “personal achievements are the most important things in life”) to examine the value children ascribed to gaining independence and self-sufficiency. **Respect** was assessed with 8 items ($\alpha = .81$; “children should respect adults like they are parents”) to assess the degree to which children believed it important to comply and yield to adult decisions and authority. Higher scores for all of the cultural values scales indicated greater endorsement of that belief.

Covariates—Several covariates were included to provide robust estimates and demonstrate that the substantive findings were not due to these individual attributes. In that the data were collected in the context of a randomized trial, one of the co-variates accounted for variance that may have been due to being a part of the experimental group participating in a

cooperative game versus the treatment-as-usual control (Embry, 2002). The covariates included were: intervention status (1 = treatment, 0 = control), gender (1 = girl, 0 = boy), cohort (dummy variables for each cohort, 2009–2010 as reference group), race-ethnicity (dummy variables for each racial-ethnic group, African American as reference group), and grade (dummy variables for 3rd - 5th grades, 2nd grade as reference group) were included in the subsequent analyses. Gender, race/ethnicity, and grade were reported by the children.

Results

Concurrent Associations between Quality and PYD

To address our first research question, we examined the association between the quality of afterschool programs and positive youth development in terms of their concurrent relationships. We were interested in determining if setting-level afterschool quality was associated with positive youth development (i.e., competence, connection, caring and cultural values) among a diverse student population. To address the nesting of the children within programs, this analysis took the form of a multi-level regression analysis with programs as level 2 and children as level 1. The model included random intercepts at level 2. As previously stated, the data presented were collected in the context of a randomized study in afterschool, though the current study is focused upon the role of quality and PYD. To insure that the associations were not attributable to demographic differences among the programs or to the intervention, the analyses control for the random assignment of programs to treatment versus treatment-as-usual control, gender, cohort, race/ethnicity, and grade. We estimated these models with restricted generalized least squares, using the MLwiN software (Rasbash, Steele, Browne, & Goldstein, 2015). In interpreting the results, we placed the greatest emphasis on the ACA, which was designed to examine the use of evidence-based practices, a key variable in afterschool efficacy (Gottfredson et al., 2004) and a composite measure of all the observed quality measures. To obtain a composite that optimally reflected the shared variance across the entire set of program quality measures, we used the factor scores for the first unrotated factor from a principal components factor analysis. Table 2 shows the factors loadings, most of which were quite high (.7 or above). Factor loadings were only moderately large (.28 – .6) for the ACA, Arnett Harshness and Arnett Permissiveness, indicating that these measures are less correlated with the others and contributed less to the composite. On the other hand, across the multiple tools, the measures of appropriate structure, support, and engagement all contributed substantially to our overall quality factor.

Our research questions concerned the overall relationship of program quality to positive youth development. We did not have more detailed hypotheses about which aspects of quality would be most relevant, and our sample of 71 programs was not large enough to provide a useful level of precision in distinguishing among them via statistical control for one another, or tests of difference in association. Therefore, we estimated separate models for each program quality measure, and we gave greatest attention to results for the composite measure, which reflected their shared variance with maximum reliability, and for the ACA measure, which targeted the evidence-based practices promoted by the intervention.

These results appear in Table 3, and they provide strong support in concurrent analyses that higher (i.e., better) program quality is associated with all aspects of positive youth development. The composite measure of program quality was significantly associated with higher scores on the scales of collective efficacy (i.e., competence), prosocial behavior (i.e. caring), afterschool connectedness (i.e., connection), and respect for adults (i.e., culture). The evidence-based practices assessed by the ACA in the context of a randomized trial of a cooperative game were significantly associated with more collective efficacy, prosocial behavior, afterschool connectedness, and competitive cultural values. A large portion of the various program quality subscales also had significant associations in expected directions with collective efficacy, prosocial behavior, afterschool connectedness, and respect for adults (i.e. competence, caring, connection, and culture). The exceptions were that the cultural values of materialism and competition, each had only one nominally significant association (one at $p < .1$ and one at $p < .05$) with the program quality measures. This exception is understandable in that these two outcomes were not clearly positive or prosocial, and unlike the other four PYD outcomes, we did not believe that many of the programs sought to encourage concepts such as materialism.

Associations between Quality and PYD Across Time

Next, we addressed whether the association between program quality and PYD held up after controlling for the Wave 1 measure of PYD. This analysis addressed an especially relevant alternative explanation of the association, which would be that the observed program quality was shaped by the children's behavior, rather than the other way around. In this second analysis, we also measure program quality through the mean of the Wave 1 and 2 quality measures. Doing so better reflects the entire year of program operation to which children were exposed, rather than only operation concurrent with the outcome assessment. We omit materialism and competition from these analyses because they are less relevant to the programs, and Table 3 showed they had negligible concurrent associations with program quality.

These results controlling for Wave 1 PYD appear in Table 4. The composite quality measure and several of the specific measures remained significantly associated with both prosocial behavior and afterschool connectedness, suggesting that program quality made a meaningful contribution to youth caring and connection, aspects of PYD. The changes in the analysis were more consequential for the results for collective efficacy and respect for adults, with a larger share of the significant associations in Table 3 no longer remaining significant in Table 4. Yet, even by the stricter criteria of this analysis, caregiver style (lower scores on the Arnett Harshness subscale), greater peer support (PPRS Supportive Relationships with Peers), and greater engagement (PPRS Level of Engagement) were associated with higher levels of collective efficacy (competence). Similarly, less supportive care-giver styles (Arnett Harshness) was significantly associated with reduced levels of the cultural value of respect for adults.

Racial–Ethnic Differences in the Relationship of Program Quality to Cultural Values

As discussed above, respect for adults may be a stronger cultural value among more collectivistic rather than individualistic societies; therefore, there may be differences in the

relation between program quality and this cultural value (i.e., respect) among racial-ethnic minority versus majority youth (Triandis, McCusker, & Hui, 1990). We addressed this by elaborating on the concurrent analysis to estimate separate relations by racial-ethnic group (comparable to “special effects” or “specific effects”). Our sample included too few Latino children (5%) to provide meaningful tests, and we had no expectations for the small conglomeration of “other” identified respondents (including mixed-race and Asian American youth). However, the sample sizes for African-American and White children were sufficient for a meaningful analysis. Thus, the results are a better test of the degree to which these cultural values matter for racial-ethnic majority youth versus the racial-ethnic minority sample of adequate size.

Table 5 indicated that composite program quality and many of the separate aspects of quality were associated with respect for adults among African American children ($p < .05$ for seven of twelve), but not among White children. The relations were weaker for the White children, with no standardized coefficients greater than .07, whereas six associations for African American children had absolute values of .11 or larger. Tests of differences in the strength of the relation were weak with these sample sizes for White and African American children, but for six of the program quality measures $p < .1$ for the difference and for one $p < .05$. Several of the standardized coefficients for Latino children would correspond to strong relations of program quality to respect for adults, but their standard errors are large and none are statistically significant. Yet, the findings for the African American youth suggest that more supportive and engaging contexts fostered respect for adults, a cultural value posited to be important for this racial-ethnic group.

Summary and Discussion

The goal of the current study was to examine the role of quality community-based afterschool experiences upon PYD both within and across time, by focusing on competence, connection, caring, and a new potential dimension of PYD, culture. Most PYD work to-date has focused on older youth, and we extended this scholarship to determine whether emerging positive characteristics are evident in our sample of elementary-school-aged children. The children in our sample were drawn from urban, suburban, and rural regions of a northeast state and varied in terms of their racial-ethnic and socio-economic backgrounds, supporting the external validity of our findings across a fairly broad group of children. Though our sample included a smaller proportion of Latino children, we examined the role of culture among racial-ethnic groups that previously have been less-examined.

There were a number of strengths to our multi-level, multi-method study. We took into account the dependence due to the nesting of children within programs and across time. To avoid potential same-source bias, quality measures were taken from independent observers, while PYD was child-reported. Thus, finding these associations among data collected from different sources is more persuasive.

Though we were able to examine PYD across the period of an academic year, a limitation to our study was time. The opportunity to observe these children growing in a more robust longitudinal framework, as they traversed through the elementary school years, would have

allowed us to better assess the impact of afterschool quality on the trajectory of PYD. Further work could also utilize person-oriented strategies allowing analyses of the various types of programs and youth best served by them in terms of PYD outcomes.

With a conceptualization of PYD rooted in Lerner and colleagues (2005) but extended to include culture, we found that appropriate structure, support, and belonging and engagement within afterschool settings were positively associated with PYD outcomes. These results were found even with some observational measures of lower reliability that theoretically should have attenuated the ability to find significant effects. Nonetheless, using multiple measures of PYD, the current study demonstrated both concurrent and residualized change associations between afterschool program quality and school-aged children's competence (i.e., collective efficacy), caring, (i.e., prosocial behavior), connection (i.e., afterschool connectedness), and culture (i.e., respect). We further extended our understanding of how quality contexts impacted an additional culturally informed component of PYD – cultural values, as measured by respect. Last, we demonstrated that the association between afterschool program quality and respect was stronger or more salient among African American youth compared to their White counterparts. Together these findings highlighted the importance of the quality of an ecological context (i.e., afterschool program) on racially-ethnically diverse elementary school-aged children's competence, caring, connection, and culture. Below we situate these findings into the broader literature and offer suggestions for future research and practice.

This set of findings extends our knowledge of the antecedents of collective efficacy among youth. A great deal of work has examined collective efficacy among adults and adolescents in the neighborhood context (Leventhal & Brooks-Gunn, 2000; Witherspoon & Hughes, 2014), but this study extends collective efficacy to an important, proximal ecological context for elementary school-aged children (Smith, Osgood, Caldwell, Hynes, & Perkins, 2013). Settings with less critical adults, who actively engage youth, coupled with supportive peers helps youth to report higher collective efficacy, that is feeling more able and willing to positively influence the behavior of one's peers. Future research should continue to explore how young children's collective efficacy is shaped by their broader ecological contexts. Understanding how to foster collective efficacy in the midst of contexts that may be violent, dangerous, or risky seems paramount to averting or reversing negative developmental cycles.

In terms of operationalizing PYD, we moved beyond the absence of risk to include PYD indicators suggested by Lerner and colleagues (2005) – competence, caring, and connection – and included another important developmental asset, culture. Given the changing demographic of the U.S. and the increasing global society we live in, it is important to consider how socio-cultural dimensions may be essential elements of youth's PYD. Operationalizing culture as respect for adults, as a collectivistic value, we found that youth endorsed higher levels of respect in afterschool programs that promoted a supportive and engaging environment. Although the cultural value of respect has generally been investigated among immigrant youth (Perez-Brena, Updegraff, & Umaña-Taylor, 2015), we examined this cultural value among racial-ethnically diverse elementary school youth. More importantly, the relation between afterschool program quality and respect was strongest for African American youth suggesting the relevance of this important developmental

competency and cultural value for non-immigrant youth. This finding is not surprising given the importance of respect for elders and authority historically for African Americans (Boykin & Toms, 1985). Previous research has demonstrated adult relationships characterized by clear boundaries coupled with warmth are optimal for African American youth (McLoyd & Smith, 200b). This study demonstrates that allowing ethnic-minority youth *more* engagement and freedom is related to *increased* respect for adults; a notion that points to the value of empowering youth to be active participants in their developmental settings. The idea of youth agency need not be seen as conflictual with cultural values that stress respect, this could be considered in collectivistic terms in which individuals have some responsibility for the group.

Conversely, it was not surprising to find that afterschool quality was unrelated to more individualistic values not likely actively promoted in our afterschool programs given the great focus on cooperation, support and collective gain. Future studies should continue to expand the conceptualization of PYD to include multiple socio-cultural dimensions that may be relevant for our diverse and global society. Yet, it is important to acknowledge that in other more individualistic societies and ecological contexts, these cultural values of competition and materialism may be favored and offer a different impact on youth behavior and even individuals within a context may vary in the degree to which they espouse the larger values of a group or society, particularly in a dynamic, and changing multicultural society (Triandis, McCusker, & Hui, 1990).

This study demonstrates that quality afterschool programs can prevent risky behavior and promote PYD. The current study demonstrates that afterschool programs using best practices grounded in appropriate structure, provided support, and an environment facilitating engagement and belonging fosters multiple indicators of PYD (Eccles & Gootman, 2002; Larson, 2000). Consistent with other studies (Rorie et al., 2011), we showed that afterschool quality was positively associated with competence, connection, caring, and culture. There is empirical support in this study for the afterschool context being a potential developmental asset (Scales et al., 2001). It further helps to clarify the types of programs that may be effective given some research that has not been successful in finding benefits of afterschool programming (e.g. Dynarski et al., 2004). We extend the current literature base to show that afterschool quality is not only linked with greater academic achievement and reduced risky behavior, we showed that afterschool programs can *promote* important development assets and competencies within the socio-emotional domain of development (Pierce, Bolt, & Vandell, 2010).

The effects of quality and evidence-based practices were distinguishable in this study using both concurrent and more stringent statistical analyses (i.e., residualized change with quality averaged across waves). The composite measure of quality was associated with PYD, i.e., caring and connection, suggesting that these aspects of PYD may be more shaped by afterschool program quality. Also, consistently, youth engagement and supportive peers were positively associated with youth competence (i.e., collective efficacy) and afterschool staff harshness was negatively associated with collective efficacy.

This set of findings suggests that there is specificity in how afterschool quality and the use of evidence-based practices influence youth's developmental competencies. In this regard, program quality was key to growth in desirable characteristics for youth. This seems to speak to the duality of emotional versus behavioral approaches to supporting youth. Evidence-based practices are found to have a positive impact in the concurrent analyses, however, it is the socio-emotional climate of the setting that has a more enduring impact on more aspects of PYD. These effects seem to resonate with a popular quote by poet, writer, and activist, Maya Angelou (1978) "people will forget what you said, people will forget what you did, but people will never forget how you made them feel..." Clearly, how you make children feel, is a critical, more enduring component of their positive development.

Conclusion

In summary, the current study extends the growing scholarship on PYD. We demonstrate setting-level influences on PYD, within and across time, suggesting that quality contexts promote positive youth development among diverse school-aged children. These findings extend our understanding of how high quality contexts contribute to the developmental competencies of youth. Further, it expands knowledge of the developmental course and progression of PYD attributes prior to adolescence, suggesting that under the right conditions – appropriate structure, supportive environment, and engagement – and at a critical period and impressionable time, children's beliefs and behavior are enhanced. Children in quality afterschool programs are thriving, engaged, agentic, and connected to others; characteristics that are associated with other important youth outcomes with implications for future life chances.

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Table 1

Demographic and descriptive statistics.

	Wave 1		Wave 2	
	Percent	Percent	Mean	S.D.
Gender				
Boy	49.8%	50.6%		
Girl	50.2%	49.4%		
Cohort				
2009–2010	33.5%	38.0%		
2010–2011	29.7%	25.9%		
2011–2012	36.8%	36.2%		
Race/Ethnicity				
African American	24.3%	30.2%		
White	48.0%	50.1%		
Latino	8.0%	5.3%		
Other	19.8%	14.4%		
Grade				
Second	28.1%	31.2%		
Third	29.1%	29.0%		
Fourth	25.8%	23.9%		
Fifth	17.0%	15.9%		
α	Mean	S.D.	Mean	S.D.
Collective Efficacy	2.38	0.46	2.33	0.50
African American	.89			
White	.90			
Prosocial Behavior	2.55	0.43	2.53	0.43
African American	.72			
White	.75			
Afterschool Connectedness	2.50	0.46	2.44	0.50
African American	.81			
White	.85			
Materialism	2.05	0.91	1.93	0.89

	Wave 1	Wave 2
African American	.83	
White	.81	
Competitiveness	2.34	2.21
African American	.62	0.82
White	.64	0.83
Respect	3.05	3.11
African American	.83	0.76
White	.79	0.82

Ns: Wave 1: 604 - 663; Wave 2: 533-603

Table 2

Descriptive statistics for program quality measures.

QUALITY MEASURE	WAVE 1			WAVE 2		
	Mean	S.D.	Factor Loading	Mean	S.D.	Factor Loading
Composite (first unrotated factor)	.00	1.00		.00	1.00	
ACA	.50	.16	.60	.60	.16	.34
Amett Sensitivity-Detachment	2.97	.43	.83	2.73	.48	.77
Amett Harshness	1.28	.25	-.45	1.31	.30	-.39
Amett Permissiveness	1.89	.49	-.28	2.19	.48	-.38
PPRS Supportive Relations with Adults	3.08	.39	.91	2.85	.47	.94
PPRS Supportive Relations with Peers	3.22	.31	.70	3.08	.41	.77
PPRS Appropriate Structure	3.25	.34	.76	3.16	.37	.81
PPRS Level of Engagement	3.21	.29	.77	3.00	.42	.82
YPQA Active Engagement	2.82	.67	.72	2.48	.85	.60
YPQA Belonging	3.40	.43	.75	3.33	.47	.70
YPQA Adult Engagement	3.79	.71	.86	3.54	.69	.83

N = 71 PROGRAMS

Table 3
Relationships of program quality indices to positive youth development, Wave 2 data only, standardized coefficients.

Program Quality Index	Collective Efficacy		Prosocial Behavior		Afterschool Connectedness		Materialism		Competition		Respect for Adults	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Composite (Unrotated first factor)	0.16 **	0.05	0.15 ***	0.04	0.16 **	0.05	-0.02	0.05	0.02	0.04	0.07 *	0.03
ACA	0.23 ***	0.07	0.13 *	0.05	0.21 ***	0.06	0.06	0.06	0.15 **	0.05	0.06	0.04
Arnett Sensitivity-Detachment	0.12 *	0.06	0.11 **	0.04	0.10 +	0.05	-0.03	0.05	-0.02	0.04	0.05	0.03
Arnett Harshness	-0.12 *	0.06	-0.11 *	0.04	-0.06	0.05	0.07	0.05	0.01	0.04	-0.06 +	0.03
Arnett Permissiveness	-0.07	0.06	-0.08 +	0.05	-0.04	0.06	0.07	0.06	0.04	0.05	-0.02	0.03
PPRS Supportive Relations with Adults	0.13 *	0.06	0.12 **	0.04	0.13 *	0.05	-0.02	0.05	0.02	0.04	0.05 +	0.03
PPRS Supportive Relations with Peers	0.08	0.06	0.10 *	0.05	0.06	0.06	-0.02	0.06	-0.02	0.05	0.02	0.03
PPRS Appropriate Structure	0.03	0.06	0.08 +	0.04	0.05	0.05	0.00	0.05	0.01	0.04	0.03	0.03
PPRS Level of Engagement	0.12 *	0.06	0.12 **	0.04	0.15 **	0.05	0.00	0.05	0.04	0.04	0.05	0.03
YPQA Active Engagement	0.14 *	0.06	0.07	0.04	0.14 **	0.05	0.03	0.05	0.02	0.04	0.07 *	0.03
YPQA Belonging	0.16 **	0.05	0.19 **	0.06	0.19 ***	0.05	-0.02	0.05	-0.01	0.04	0.08 **	0.03
YPQA Adult Engagement	0.14 *	0.06	0.13 **	0.04	0.08	0.05	-0.02	0.05	-0.02	0.04	0.06 *	0.03
N programs	71		71		71		71		71		71	
N children	533		577		569		560		562		566	

+ p < .1;

* p < .05,

** p < .01,

*** p < .001

Each result is from a separate multilevel model with random intercepts and controls for intervention versus control, gender, cohort, race/ethnicity, and grade.

Table 4

Relationships of program quality indices, averaged over Waves 1 and 2, to positive youth development at Wave 2, controlling positive youth development at Wave 1, standardized coefficients.

Program Quality Index	Collective Efficacy		Prosocial Behavior		Afterschool Connectedness		Respect for Adults	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Composite (Unrotated first factor)	0.09	0.06	0.10 *	0.04	0.12 *	0.05	0.02	0.03
ACA	0.11	0.07	0.13 *	0.05	0.08	0.06	0.06	0.04
Arnett Sensitivity-Detachment	0.06	0.06	0.07	0.04	0.09 †	0.05	0.03	0.03
Arnett Harshness	-0.12 *	0.06	-0.11 *	0.04	-0.05	0.05	-0.07 *	0.03
Arnett Permissiveness	-0.01	0.06	-0.01	0.05	0.00	0.05	0.02	0.04
PPRS Supportive Relations with Adults	0.08	0.06	0.09 *	0.04	0.09 †	0.05	0.02	0.03
PPRS Supportive Relations with Peers	0.12 *	0.06	0.08 †	0.04	0.10 *	0.05	0.00	0.04
PPRS Appropriate Structure	-0.04	0.06	0.03	0.05	0.04	0.05	-0.02	0.04
PPRS Level of Engagement	0.13 *	0.06	0.10 *	0.04	0.11 *	0.05	0.02	0.03
YPQA Active Engagement	0.04	0.06	0.03	0.04	0.09 †	0.05	-0.01	0.03
YPQA Belonging	0.08	0.06	0.10 *	0.04	0.13 **	0.05	0.04	0.03
YPQA Adult Engagement	0.08	0.06	0.08 *	0.04	0.10	0.05	0.05	0.03
N programs	71		71		71		71	
N children	390		435		429		403	

† p < .1;

* p < .05,

** p < .01,

*** p < .001

Each result is from a separate multilevel model with random intercepts and controls for the wave 1 outcome measure, intervention versus control, gender, cohort, race/ethnicity, and grade.

Table 5

Race/ethnicity specific relationships of program quality indices to positive youth development (the cultural value of respect for adults), Wave 2 data only, standardized coefficients.

Program Quality Index	White		African American		Hispanic		Other	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Composite (Unrotated first factor)	0.03	0.04	0.17**	0.06	0.08	0.14	0.04	0.09
ACA	0.06	0.05	0.07	0.06	0.13	0.15	-0.01	0.09
Arnett Sensitivity-Detachment	0.04	0.04	0.12*	0.06	0.06	0.13	-0.08	0.09
Arnett Harshness	-0.07 ⁺	0.04	-0.05	0.06	0.27	0.17	-0.12	0.08
Arnett Permissiveness	-0.02	0.04	-0.04	0.06	-0.15	0.12	0.08	0.08
PPRS Supportive Relations with Adults	0.02	0.04	0.14*	0.06	0.07	0.14	0.01	0.09
PPRS Supportive Relations with Peers	-0.01	0.05	0.05	0.06	-0.08	0.13	0.06	0.09
PPRS Appropriate Structure	-0.03	0.05	0.11 ⁺	0.06	0.10	0.14	0.04	0.09
PPRS Level of Engagement	0.01	0.05	0.08	0.06	0.05	0.13	0.06	0.09
YPQA Active Engagement	0.01	0.04	0.16**	0.06	0.18	0.14	0.07	0.10
YPQA Belonging	0.05	0.04	0.17**	0.06	0.21	0.16	0.05	0.09
YPQA Adult Engagement	0.02	0.04	0.15**	0.06	-0.01	0.14	0.09	0.09

N programs = 71, N children = 554

⁺ p < .1;

* p < .05,

** p < .01,

*** p < .001

Vs. Wh. column indicates significance of difference of the strength of the relationship for this race/ethnicity group versus White students.

Each row reports results from a separate multilevel model with random intercepts and controls for intervention versus control, gender, cohort, race/ethnicity, and grade.