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School, Community, and Church Activities: Relationship to Academic Achievement of Low-Income African American Early Adolescents in the Rural Deep South

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The relationship of participation in school, community, and church activities to the academic achievement (i.e., end-of-year school grades) of African American youth in rural low-income communities was examined. Participants included 280 students (177 girls and 103 boys) in the 7th and 8th grades of two public middle schools. Participation in school, community, and church activities was measured by participants' involvement in extracurricular activities in these contexts. Results indicated that after accounting for school activities and other control variables, church activities were related to academic achievement. Findings suggested that it is important to consider participation in the activities of contexts outside of school that may support the achievement of African American youth in the rural Deep South.

According to the self-system processes view, when an individual's interactions with a particular setting meets his or her basic needs (i.e., need for competence, autonomy, and relatedness) the individual will participate in the activities of that context (Connell, 1990; Connell & Wellborn, 1991). In turn, sustained and increased participation in the activities of that setting leads to the attainment of available outcomes and increased adjustment. Students participate in school in several respects. More passive forms of participation that are the minimum necessary for learning include, for example, attendance and completing assignments (Finn, 1989). As students age they become more active and independent. As a result, involvement in school activities (e.g., sports, band, math club) becomes an increasingly important form of school participation across late childhood and adolescence (Finn, 1989). Likewise, participation in similar activities in the community (e.g., sports) or at church (e.g., youth group) can be considered more active forms of participation in those contexts as well. The current study examines school, community, and church activities as these are more age-appropriate, voluntary, and active forms of participation that may supplement traditional classroom learning for rural adolescents.

Research has begun to accrue that demonstrates a positive relationship between participation in school, community, and church activities and student achievement (e.g., Gutman & McLoyd, 2000; Mahoney, Larson, Eccles, & Lord, 2005; National Research Council and Institute of Medicine, 2002; Regnerus & Elder, 2003). Benefits from such activities have been purported to increase achievement through numerous mechanisms. For example, these include enhancing other forms of participation (e.g., attendance), interpersonal competence, educational and occupational

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aspirations, and academic efficacy and motivation via the provision of various factors (e.g., safety, structure, supportive relationships, sense of belonging, positive social norms, skill building) (Mahoney et al., 2005; National Research Council and Institute of Medicine, 2002). However, studies have rarely examined youth's participation in multiple contexts or activities (Bartko & Eccles, 2003; Feldman & Matjasko, 2005; Fredricks & Eccles, 2006; McNeal, 1998; Posner & Vandell, 1994; Roche, Ensminger, Chilcoat, & Storr, 2003). That is, research typically investigates a single activity or participation in one setting which is most often school. Yet, youth participate in multiple activities across several contexts.

In addition, little research on students' activities has involved rural youth, especially rural youth experiencing high levels of poverty. Several findings indicate that the poverty encountered by rural African American youth substantially increases their chances for educational problems including low achievement (Farmer, Irvin, Thompson, Hutchins, & Leung, 2006; Johnson & Strange, 2007; Khattri, Riley, & Kane, 1997). For example, African American youth attending schools identified as *Rural Low Income* by the Rural Education Achievement Program are four times less likely to meet Adequate Yearly Progress than most other rural youth (Farmer, Leung, et al., 2006). By participating in activities, youth from low-income communities and homes may be more likely to overcome the resource limitations that impact educational achievement and attainment (Gutman & McLoyd, 2000; National Research Council and Institute of Medicine, 2002). Therefore, there is a strong need to examine whether participation in the activities of several contexts is linked to achievement in impoverished rural adolescents. The current study takes a step toward addressing this need by investigating the relationship of participation in school, community, and church activities to the academic achievement of African American adolescents in the rural Deep South.

In this investigation, academic achievement is examined in terms of end-of-year school grades. Though some consider grades a less precise measure of achievement, grades provide frequent and concrete information to students regarding their academic performance (Fehrman, Keith, & Reimers, 1987; Hoffman & Lowitzki, 2005). Grades may also be more responsive to students' effort and activities (Fehrmann et al., 1987; Kao & Thompson, 2003). The long-term predictive validity of grades for post-secondary educational outcomes is better than standardized achievement tests (Flemming, 2002; Hoffman & Lowitzki, 2005). Moreover, standardized tests are, in general, even less predictive for African American students than White students.

School Activities

Participation in school activities has been linked to positive educational outcomes during adolescence (Feldman & Matjasko, 2005; Fredricks & Eccles, 2006; Gilman, Meyers, & Perez, 2004; Holland & Andre, 1987; Mahoney et al., 2005; Vandell, Pierce, & Dadisman, 2005). Recent studies have also shown that participation in school activities is associated with both higher standardized test scores and grades (Cooper, Valentine, Nye, & Lindsay, 1999; Jordan & Nettles, 2000; Regnerus & Elder, 2003) and that it may protect against school dropout for some youth (Mahoney & Cairns, 1997; McNeal, 1995). For example, Mahoney, Cairns, and Farmer (2003) found that early adolescents who experienced a high degree of interpersonal risks (i.e., academic, behavioral, and social difficulties) were more likely to complete high school and seek postsecondary education when they were persistently involved in school activities. In addition to protecting against the deleterious impact of interpersonal risks, school activities may provide a source of support for youth from impoverished backgrounds.

Participation in school activities is typically not an academic requirement or necessary for graduation. Rather, students usually participate in particular school activities because of their personal interest in and enjoyment from the activity (Mahoney et al., 2003). When undertaking activities that are interesting, youth are more persistent and goal-oriented even when the activity is challenging. Thus, participation in school activities may also, in addition to the previously discussed mechanisms, enhance skills in formulating and using strategies to meet those goals (Mahoney et al., 2003). These skills could then transfer to and benefit students during more traditional learning activities. Participation in school activities may also be especially important for youth with academic difficulties as other means to maintain their interest in and connection to school are limited (Finn, 1989).

Community Activities

Research investigating the relationship between participation in activities and academic outcomes has largely focused on school activities (Eccles & Barber, 1999; Gilman et al., 2004; Jordan & Nettles, 2000). However, some findings suggest that examining the relationship of activities in different contexts for individuals living in poverty is warranted. For example, Roche, Ensminger, and colleagues found that different activities and roles were uniquely related to aggression among impoverished urban youth during adolescence and early adulthood (Roche et al., 2003; Roche, Ensminger, Ialongo, Poduska, & Kellam, 2006).

Research on the benefits of participation in community

activities has begun to expand. Reviews of evaluation studies incorporating experimental or quasi-experimental designs provide strong evidence of potential benefits. Specifically, these concluded that community activities can have positive effects on various outcomes (National Research Council and Institute of Medicine, 2002; Roth, Brooks-Gunn, Murray, & Foster, 1998) including the academic achievement of low income or otherwise educationally at-risk youth (Nettles, 1991). Furthermore, researchers are increasingly acknowledging that youth's participation in community activities could provide some additional structure and safety that may further enhance outcomes (Mahoney et al., 2005; National Research Council and Institute of Medicine, 2002).

Church Activities

Participation in church activities has also garnered the attention of some researchers, particularly those focused on youth living in poverty. As compared to their lower achieving counterparts, high achieving African American adolescents living at or below the poverty line have been shown to participate in more religious activities (Gutman & McLoyd, 2000). Some work additionally suggests that church participation may be protective for low income youth. For example, a recent study with African American young adults living in a low income inner-city area found that participants who were depressed had fewer alcohol problems when they attended church more frequently (Bowie, Ensminger, & Robertson, 2006). Others have demonstrated that church participation was related to achievement and that attendance predicted improvements in educational progress significantly better for adolescents in high poverty areas (Regnerus, 2000; Regnerus & Elder, 2003).

Participation in church activities is important for many and may be particularly so for impoverished rural African Americans. Similar to school participation, church attendance can be considered a more passive form of church participation. In the United States, church attendance has been stable from the early 1970s to 1990s (Miller & Nakamura, 1996) and this pattern has continued from 1990 to 2006 (Presser & Chaves, 2007). African Americans more consistently participate in church (Ellison & Sherkat, 1995; Taylor, Chatters, Jayakody, & Levin, 1996), but variance among African Americans is also apparent across region and rurality. Specifically, research generally indicates that African Americans in the rural South have higher attendance and participation in church activities than African Americans in the urban South and other regions (Chatters, Taylor, & Lincoln, 1999; Ellison & Sherkat, 1995; Taylor, 1988; Taylor & Chatters, 1991). These patterns have historical roots as the church has been central in dealing with the racism and segregation encountered by African Americans in the rural Deep South (Barbarin, 1993; Barbarin, McCandies, Coleman, & Atkinson, 2004; Brody, Stoneman, Flor, & McCrary, 1994; Christian & Barbarin, 2001; Taylor & Chatters, 1991).

In addition to previously discussed mechanisms by which school and community activities may increase achievement, other processes may be distinct to participation in church among rural African Americans. Participation in church may reduce anxiety and facilitate coping with adverse experiences (e.g., poverty, racism) (Taylor, Mattis, & Chatters, 1999). Alleviating adversity may in turn allow one to focus more on other important tasks such as learning. Participation in activities also socializes values (Youniss, McLellan, & Yates, 1997). The importance of education may be reinforced by participation in church activities. Specifically, educated African Americans have higher participation in church (Chatters et al., 1999; Gutman & McLoyd, 2000) and this is greatest among southern rural African Americans (Ellison & Sherkat, 1995). The benefits of church participation on other outcomes (e.g., substance abuse) have also been attributed to access to positive peer influences (Hodge, Cardens, & Montoya, 2001).

Taken together, participation in church activities may reduce anxiety, provide rural African American youth access to more educated peers and adults who support learning, and reinforce the importance of education. Coupled with the historically high levels of reliance upon and participation in church among rural African Americans in the Deep South, church activities may be a potential source of support readily accessible to and frequently utilized by youth in the current study. Accordingly, adult members from participating students' communities viewed the church as a key resource for and central to cultivating youth programs (e.g., mentoring) that can help students be successful (Farmer, Dadisman, et al., 2006).

Importance of Impoverished Rural African American Sample

While the extant research suggests that participation in school activities may be beneficial for at-risk youth from low-income areas, relatively little work has focused on rural schools that have high concentrations of poor youth. This is an important oversight. Over 30% of public schools and 20% of students in the United States are educated in rural districts (Johnson & Strange, 2007; National Center for Education Statistics, 2000). Contrary to popular opinion, child poverty is greater in rural America than in urban areas as 195 of the 200 persistently poorest counties in the United States are in rural areas with child poverty rates that often exceed 35% (Save the Children, 2002). Child poverty is most concentrated in four rural regions of the United States (i.e., Appalachia, the Mississippi Delta, the Southern "Black Belt," and the lower Rio Grande Valley) where the poverty rate is double that of the national average (Friedman & Lichter, 1998; Johnson & Strange, 2007) and is particularly high for African American youth in the rural Deep South (Brody, Dorsey, Forehand, & Armistead, 2002;

Brody, Murry, Kim, & Brown, 2002; Kim, Brody, & Murry, 2003). Further, many youth from rural areas are at-risk for problematic adolescent outcomes including low educational achievement, school failure, and school dropout (Farmer et al., 2004; Roscigno & Crowley, 2001).

In addition, participation in school and community activities may not function similarly for and be as accessible to impoverished rural youth. Overall, students in smaller schools participate in more school activities (Coladarci & Cobb, 1996; Lindsay, 1982; Stevens & Peltier, 1994). Rural schools are also often the community social and activity center (Lyson, 2002; Schafft, Alter, & Bridger, 2006). Thus, school activities may be more salient for most rural youth. However, some rural schools have limited programs and school activities related to fewer staff and other resource constraints (Hardré, Crowson, Debacker, & White, 2007). Youth in the current study encounter severe and chronic poverty which could constrain school activities further (Farmer, Dadisman, et al., 2006; Mahoney et al., 2005). Nonetheless, participating students did have several school activities available to them.

In the rural Deep South, the persistent racial and economic segregation also hinders access to and quality of community activities for minority youth (Chenoweth & Galliher, 2004; Duncan, 2001; Stack, 1996; Tickamyer & Duncan, 1990). Extended travel distances and a lack of public transportation evident in impoverished rural areas can further reduce the use of available activities in the community (Mahoney et al., 2005). Accordingly, adult members from participating students' communities have indicated that opportunities to participate in school and community activities were limited (Farmer, Dadisman, et al., 2006). Moreover, this was considered a barrier to youth's success. When rural youth's access to such factors that may promote development is constrained, other sources (e.g., school activities) can become more influential (Elder & Conger, 2000).

Specific Types of Activities

Researchers have advocated for examining involvement in distinct types of activities (Bartko & Eccles, 2003; Schreiber & Chambers, 2002). Schreiber and Chambers (2002) argued that the use of total sum scores to capture participation in school and out-of-school activities were too broad. Schreiber and Chambers (2002) categorized participation in activities as in- or out-of- school, academic or nonacademic, and organized or nonorganized. These researchers found that in- and out-of-school organized academic activities were the most consistent predictors of higher achievement. Using a comparable classification for out-of-school activities, Mahoney and Stattin (2000) showed that participation in unstructured out-of-school activities predicted higher problematic behavior (e.g., stealing, fighting, skipping school), whereas involvement in structured out-of-school activities predicted lower rates of these behaviors.

Alternatively, Bartko and Eccles (2003) used cluster analytic procedures to identify patterns of activity participation. These researchers found that adolescents who were highly involved in a variety of organized activities had the highest GPAs. Though research generally indicates that sports activities are related to higher achievement, students with high rates of participation in athletics had more problematic behavior (e.g., alcohol use). Differentiating specific types of activities has also shown some utility. Specifically, Mahoney and Cairns (1997) demonstrated that participation in several types of school activities such as athletic, vocational, and academic clubs predicted lower rates of school dropout. However, involvement in fine arts activities was not related to dropout.

Collectively, these results illustrate the importance of and several approaches for categorizing and examining participation in more specific types of activities. This work has only recently begun and has shown promise for clarifying more nuanced relationships (Mahoney et al., 2005). The current study also seeks to explicate such patterns among impoverished rural youth and add to this burgeoning line of research. Specifically, we will examine participation in school, community, and church activities as measured by a total sum score which captures the number of activities students are involved in across each of these contexts. In addition, we will draw on and build upon the work of Mahoney and Cairns (1997) by also examining the relationship between participation in specific types of activities (e.g., sports, academic, vocational) across several contexts (i.e., school, community, and church) and achievement.

Gender Differences and Moderation

Several findings suggest that there may be gender differences in two respects. First, being female is related to higher religiosity (i.e., subjective feelings of religiousness) among African Americans (Chatters et al., 1999; Taylor et al., 1999). Females, in general, also have higher participation in church activities, and this gender difference is apparent between African American females and males (Taylor et al., 1999). Such gender differences may arise from socialization differences that stress female behaviors which are more congruent with focal church issues (e.g., foregiveness, alleviating suffering). Moreover, the church has been especially important for coping with the additional burden of gender discrimination in conjunction with the racism experienced by African American women (Chenoweth & Galliher, 2004; Levin & Taylor, 1993; Taylor et al., 1999). Consequently, African American girls may have higher levels of participation in church activities in the current study. In addition, girls participate more in non-athletic school activities than boys, whereas boys are

more interested and involved in athletics than girls (Bartko & Eccles, 2003; Eccles & Barber, 1999).

Second, there may be gender differences in the relationship between participation in specific contexts or activities and achievement. That is, gender may interact with and moderate the relationship between participation and achievement. Though important, few studies have examined whether gender moderates such relationships (Feldman & Matjasko, 2005). African American girls are likely to have higher participation in church activities, and, as mentioned, the church has been particularly central to coping with gender and racial discrimination among African American women. Thus, girls could benefit more academically from participation in church activities. Specifically, girls may receive even more anxiety reduction from participation in church activities or more support and reinforcement for learning from fellow church members as they tend to be more educated. Likewise, boys are more interested and involved in sports. As a result, boys may obtain more benefits from and higher achievement related to participation in sports than girls. In sum, this investigation will test for gender differences on measures of participation in church and other activities as well as whether gender moderates the relationship between participation in church activities and achievement.

Research Aims and Expectations

The study was guided by three more specific aims. The first aim was to examine the relationship of participation in activities across several contexts (i.e., school, community, and church activities) to the academic achievement of African American early adolescents from impoverished communities in the rural Deep South. It was expected that participation in church activities would be related to and predict higher achievement beyond participation in school activities, but that participation in community activities may not be related to or predict achievement. The second aim was to clarify relationships between participation in specific types of activities and participants' achievement. Differences in the relationship between participation in specific types of activities and achievement were anticipated.

The third aim was to test for gender differences in participation in activities as well as whether gender moderated relationships between participation in activities and achievement. Rural African American girls were expected to evidence higher levels of participation in church activities and non-sports school activities (e.g., academic and vocational activities). Boys were expected to participate more in sports activities. Furthermore, gender was expected to moderate the relationship between church activities and achievement. Specifically, higher levels of participation in church activities were expected to predict higher achievement for girls than boys. In addition, sports were expected to be more strongly related to higher achievement for boys.

The current study focused on the middle school years because during early adolescence opportunities for positive adaptation and students' participation in various activities are greatly expanded (Finn, 1989; Gutman, Sameroff, & Eccles, 2002; Roeser & Peck, 2003). In addition, research with diverse samples has demonstrated that long-term declines in several key indices of academic functioning (e.g., motivation and achievement) often begin during early adolescence (e.g., Alspaugh, 1998; Anderman & Anderman, 1999; Anderson, Jacobs, Schramm, & Splittgerber, 2000; Eccles & Midgley, 1989; Gutman & Midgley, 2000; Zanobini & Usai, 2002). Consequently, identifying variables that may contribute students' academic achievement during this critical developmental period is vital.

Method

As part of an investigation of the developmental pathways of rural African American youth, this study involved a multi-method survey design. Teacher-reports were used to assess participants' overall interpersonal competence or social adjustment while student-reports were used to gather information regarding participants' school, community, and church activities. School record data were used to assess grades. Parent interview data provided information about their economic situation and youth's involvement in their family.

Participants

This investigation took place in two rural counties routinely identified in annual reports as among the poorest in a southern state. Each community is over 60 miles from a major population center, has a population under 3,000 and a population density of less than 17 persons per square mile, and is a locale code 7 according to the U.S. Census. The main industries in these communities include manufacturing, educational and social services, and retail/service trades. Less than 60% of adults have a high school degree. More than 50% of public school students live below the national poverty level and 95% receive free/reduced-lunch.

Although 30% of the population in these counties is European American, the public school population is over 99% African American. European American students almost exclusively attend private schools. Local school and government officials are primarily African American. European Americans are not involved in the public schools and most other activities of the African American community. Nonetheless, European Americans have historically controlled most of the economic and employment opportunities.

In another study from this research program, we conducted focus groups and semi-structured interviews with students' parents and other concerned community adults. We found that parents and community adults had a strong desire for youth to pursue post-secondary education and

work that could make them successful (Farmer, Dadisman, et al., 2006). Once successful, adults wanted youth to return and improve their communities by, for example, providing mentoring within programs that were being established. Toward these ends, parents and community adults emphasized the importance of education. Parents also wanted youth to pursue professional careers or vocational trades. Parents frequently named teaching, healthcare, engineering and science, and the military as successful career paths. Both communities purportedly had several successful adults who could be mentors and role models. However, steps were needed and were being undertaken (e.g., establishing mentoring programs) to increase youth's access to and awareness of such examples.

Participants were recruited from all 7th and 8th grade classrooms of two public middle schools. All 7th and 8th graders in these schools were eligible to participate in the study and parental consent and participant assent were obtained from 80% of the students. Data on relevant measures were available for 280 students (177 girls and 103 boys) and 100% were African American. In terms of ethnicity, this sample reflected the public school attendance of the two counties and the general population in each of the participating schools. The sample included fewer boys than girls because of lower participation rates among boys at one school.

Procedures

The data in the current study were collected in the spring when teachers had ample time to become familiar with the characteristics of participants. Students completed self-report measures during a group administration of the student survey. Before the group administration, participants were assured their answers would be kept confidential and were asked to cover their responses. In addition, students were told they could stop participating at any time. During the survey, an administrator read the instructions and questions aloud while scanning the room for potential problems. Additional administrators provided mobile monitoring and assisted students as needed. During this time, teachers completed rating forms on participants. Students were given a school supply item for their participation and teachers were paid for completing the rating forms. Phone interviews were used to collect parent data by trained administrators. Before the administration of the interviews, parents were told about the purpose of the study and about the procedures used to ensure the confidentiality of their responses. Parents were also paid for participating and phone interviews were completed late in the spring semester and into the early summer. Finally, data on grades were collected from school records at the end of the school year.

Measures

Academic achievement. Students' grades were obtained from school records. End-of-year grades from English, math, science, social studies, and reading classes were used for the current study. Grades were in the form of a percentage and student's average in the five classes was obtained and used in subsequent analyses as a measure of *academic achievement*. Some students were missing a grade in one of the classes and for these participants the scores of the remaining four classes were used to obtain an average (n = 40, 14.3%).

School, community, and church activities. To gather information regarding participants' participation in activities across several contexts, students completed a form that asked them to circle all the types of activities they were involved in from the following: "religious," "music," "hobby," "sports," "academic," "vocational," and "student government." These types of activities and terms were selected by researchers and were listed on the form. The selection of these types of activities and terms was based on researchers' knowledge of and discussions with school personnel about the activities available in participating students' schools and communities. When completing the measure, participants were asked to write the names of the specific activities, for example "choir" as a specific type of music activity in which they participated. Finally, participants were asked to indicate where they participated in each of these activities from the following: "school," "church," and "community." Participants' responses were reviewed by research assistants to ensure that responses reflected an accurate understanding of how to complete the measure and that answers were consistent with activities available in the school and community.

The final list of specific types of activities that were determined to represent valid activities in each setting and that were reported frequently enough to warrant inclusion in this study are summarized in Table 1. For each type of activity in a particular setting, responses were dummy coded such that each participant received a value of 1 if they indicated they participated in the particular valid activity of that setting. All participants who did not participate in the specific activity of that setting received a value of 0. The final set of dummy variables representing whether or not a student participated in a specific type of school activity included the following (examples of activities frequently named by participants in parentheses): *school music activity* (e.g., band, choir), *school sports* (e.g., baseball, basketball), *school academic activity* (e.g., math club, Spanish club), *school vocational activity* (e.g., 4-H, Future Business Leaders of America, Future Farmers of America), and *school*

Table 1

Proportion Participating in Specific Activities in Each Context Overall and by Gender

	Context								
	School			Community			Church		
Activity	Total	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys
Religious	__	__	__	__	__	__	39.3	44.1*	31.1*
Music	19.3	21.5	15.5	6.8	7.9	4.9	30	37.9*	16.5*
Hobby	__	__	__	10.4	11.3	8.7	__	__	__
Sports	37.9	32.2**	47.6**	26.8	19.8***	38.8***	__	__	__
Academic	6.4	7.3	4.9	__	__	__	__	__	__
Vocational	57.9	62.7*	49.5*	__	__	__	__	__	__
Student government	7.1	10.7**	1.0**	__	__	__	__	__	__

Note . Empty cells are activities that were not available in that setting or not reported frequently enough to be included in analyses.
*$p < .05$. **$p < .01$. *** $p < .001$.

student government. The variables capturing whether or not a student participated in a specific type of community activity included the following: *community music activity* (e.g., piano lessons), *community hobby activity*, and *community sports*. The variables measuring whether or not a student participated in a specific type of church activity included *church religious activity* (e.g., bible study, youth group) and *church music activity* (e.g., choir).

The total number of specific types of activities each participant was involved in at school, the community, and church was then obtained as an index of participation in that setting. School activities included the total number of activities that participants' were involved in from the following: school music activity, school sports, school academic activity, school vocational activity, and school student government. The range of values on school activities was from 0 to 4 but less than 1% of participants were involved in four school activities. Therefore, these few cases were recoded to the next nearest value such that the range on the final school activities variable was 0 to 3 with a mean of 1.28 and a standard deviation of 0.86 (see Table 2). Community activities included the total number of activities participants' were involved in from the following: community music activity, community hobby activity, and community sports. The range of values on community activities was 0 to 3 but again less than 1% of participants' were involved in three activities. These cases were recoded to the next nearest value (i.e., 2) such that the range on the final community activities variable was 0 to 2 with a mean of 0.44 and standard deviation 0.60. Finally, church activities were the total number of church religious activity and church music activity. The range on church activities was 0 to 2 with a mean of 0.69 and the standard deviation was 0.75.

Gender. Gender was a dichotomous variable. Specifically, girls were coded a 1 and boys were represented by a 0 on this variable.

Interpersonal Competence Scale-Teacher (ICS-T). Teachers completed the ICS-T for each participant in their class. The ICS-T is an 18-item questionnaire consisting of seven-point Likert scales (Cairns, Leung, Gest, & Cairns, 1995). The ICS-T yields composite scores on six subscales: aggressive (composed of "always argues," "gets in trouble," and "always fights," $\alpha = .82$), popularity (composed of "popular with boys," "popular with girls," "and "lots of friends," $\alpha = .81$), academics (composed of "good at math"

Table 2

Gender Differences in School, Community, and Church Activities

Variable	Total	Girls	Boys	*F*	Partial η2
School activities	1.28 (0.86)	1.34 (0.89)	1.17 (0.79)	2.41	__
Community activities	0.44 (0.60)	0.39 (0.56)	0.51 (0.64)	2.88	__
Church activities	0.69 (0.75)	0.82 (0.78)	0.48 (0.64)	14.25***	0.05

Note . Values are means and represent the average total number of activities students participated in across each context (i.e., school, community, and church). Standard deviation in parentheses. Empty cells are non-significant.
*$p < .05$. **$p < .01$. *** $p < .001$.

and "good at spelling," α = .71), affiliative (composed of "always smiles" and "always friendly," α = .71), olympian (composed of "good at sports," "good-looking," and "wins a lot," α = .67) and internalizing (composed of "always sad," "always worry," and "shy"). Three-week test-retest reliability coefficients are moderately high (i.e., .80-.92), and median test-retest reliabilities across the factors are .81 for girls and .87 for boys (Cairns et al., 1995). One-year coefficients are moderately strong (i.e., .40-.50). The ICS-T has convergent validity with direct observation, student records (i.e., grades, discipline reports), and peer nomination measures (Cairns & Cairns, 1994; Rodkin, Farmer, Pearl, & Van Acker, 2000).

The ICS-T yields an overall measure of students' interpersonal competence. Specifically, this broad measure of school adjustment is the average of five of the six primary subscales that have consistently emerged in factor analyses across several developmental periods (i.e., aggressive, affiliative, popularity, olympian, and academic subscales) (Cairns et al., 1995). Prior to obtaining the primary subscale average, aggression is recoded so that a higher score reflects less aggression. Consequently, a higher overall score reflects greater levels of interpersonal competence. This measure was employed as an index of behavioral and social adjustment in the current investigation as previous research has demonstrated it is predictive of extracurricular involvement and several indices of academic adjustment (e.g., Mahoney & Cairns, 1997; Mahoney et al., 2003).

Family involvement. A parent or primary caregiver of participating students completed the Behavioral and Emotional Rating Scale (BERS) (Epstein & Sharma, 1998) during a phone interview. The BERS consists of 52 items where respondents rated the degree to which each item characterized their child on a four-point Likert-type scale (0 = "not at all like my child" to 3 = "very much like my child"). The BERS is strength-based measure and forms composite scores on the following five subscales: Interpersonal Strength, Family Involvement, Intrapersonal Strength, School Functioning, and Affective Strength. The BERS has adequate short- (i.e., .85 to .99) and long-term test-retest reliability (i.e., .53 to .79) as well as inter-rater reliability (i.e., .83 to .98) (Epstein, 1999; Epstein, Hertzog, & Reid, 2001). Validity has been established between the BERS and other measures of emotional and behavioral adjustment (Epstein, 1999; Epstein, Nordness, Nelson, & Hertzog, 2002). For the current study, the Family Involvement subscale (e.g., "participates in family activities," "communicates with parents about behavior," and "maintains positive family relationships") was used in analyses (α = .83).

Family economic hardship. Participating students' parent or primary caregiver also completed 5-items on a 4-point scale (1 = "almost never" to 4 = "almost always") assessing family economic hardship. Items asked "How often have you or your family experienced the following in the past 2 years: (a) had difficulty paying bills (b) had extra money left at the end of the month (c) did not have enough money for food, clothes, and medical care (d) could not afford furniture or household items that needed replacement (e) could buy the type of car the family needed?" These items are similar to measures of financial hardship in anti-poverty intervention research (Huston et al., 2001) and studies of rural families (e.g., Conger, Conger, Matthews, & Elder, 1999). Items were coded such that a higher score indicated more hardship. The average across the five-items was obtained and used in analyses (α = .70).

Analysis Plans

Initial analyses included testing for gender differences

Table 3

Correlation Matrix and Descriptive Statistics

Variable	1.	2.	3.	4.	5.	6.	7.	8.
1. Academic achievement	__							
2. Gender (girl)	.33	__						
3. Interpersonal competence	.52	.20	__					
4. Familiy involvement	.26	**.00**	.13	__				
5. Family economic hardship	-.17	**.03**	**-.10**	**-.09**	__			
6. School activities	.30	**.09**	.29	.21	**-.06**	__		
7. Community activities	**-.05**	**-.10**	-.12	.12	**.01**	**-.01**	__	
8. Church activities	.29	.22	.13	.25	**.01**	**.06**	**-.00**	__
M	75.66	.63	4.96	2.59	2.47	1.28	.44	.69
SD	9.64	.48	.98	.41	.61	.86	.60	.75

Note . All correlations were statistically significant at $p < .05$ unless bolded.

onparticipation in specific types of activities and participation in school, community, and church activities. Hierarchical multiple regression analysis was then used to determine if participation in school, community, and church activities and participation in specific types of activities were predictive of achievement. Hierarchical multiple regression analysis is a form of multiple regression analysis that involves the entry of predictors in a pre-specified order (Cohen & Cohen, 1983; Cohen, Cohen, West, & Aiken, 2003). The order of entry is determined by researchers and reflects some hierarchy. For example, this hierarchy can involve the initial entry of variables that are hypothesized to have less of a causal relation to the outcome and then progressing towards variables that are considered more causally related. Another frequent order of variables is the entry of control or more static variables, followed by more focal or dynamic variables, and then any interaction terms that are needed. Variables may be entered one at a time or as a set of variables in a series of steps or blocks. The main advantage of hierarchical multiple regression analysis is the partitioning and identification of unique variance in the dependent variable accounted for by the addition of variable(s) at each step or block (i.e., $\Delta R2$) (for more details see Cohen & Cohen, 1983; Cohen et al., 2003). If model statistics indicate that adding a step to the model accounts for some additional unique variance in the outcome (i.e., a significant $F\Delta$), then results suggest that including that step and corresponding variables in the model provides more explanatory power.

Hierarchical multiple regression analysis is different hierarchical linear modeling. Hierarchical linear modeling was developed for dealing with and estimating nesting effects that arise from clustered data (Raudenbush & Bryk, 2002). For example, hierarchical linear modeling is frequently used to account for differences between schools in student achievement. Hierarchical linear modeling is necessary when a study involves enough higher level units (e.g., schools) and there is substantial variance between those units (i.e., intraclass correlation). In such circumstances, modeling and accounting for the variance between schools

Table 4

Hierarchical Regression Analysis Predicting Achievement from School and Church Activities

	β	β	β	β
1. Gender (girl)	.25***	.25***	.22***	.29**
Interpersonal competence	.43***	.40***	.39***	.39***
Family involvement	.19***	.17***	.14**	.13**
Family economic hardship	-.12*	-.12*	-.12*	-.12**
2. School activities		.11*	.12*	.17*
3. Church activities			.15**	.20*
4. Gender * school actitives				-.08
Gender * church activities				-0.07
ΔR^2		.01*	.02**	.002
Total R^2	.38	.39	.41	.41
$F\Delta$	41.33***	5.15*	9.06**	.50

*$p < .05$. **$p < .01$. *** $p < .001$.

is needed because nesting effects violate the independence assumption of single-level multiple regression analysis. This violation adversely affects the precision of estimates. The term hierarchical in hierarchical linear modeling reflects that, for example, individual students represent a lower level that is clustered or nested in a higher level unit (i.e., schools). In contrast, hierarchical in hierarchical multiple regression analysis refers to the order of variable entry following a predetermined hierarchy.

In the current study, the hierarchy in the hierarchical multiple regression analyses was from static and control variables, followed by more malleable and focal variables, and finally relevant interaction terms were added. Specifically, gender and interpersonal competence were entered into the equation in Step 1. Gender was entered in Step 1 as this variable is static. Interpersonal competence was also included in Step 1 as a control variable because this broad measure of school adjustment strongly predicts various educational outcomes and extracurricular engagement (e.g., Mahoney & Cairns, 1997; Mahoney et al., 2003). The measures of family involvement and economic hardship were also entered in Step 1 as additional controls.

The measures of participation in school activities were entered in Step 2. Step 3 added measures of participation in church and community activities to the models. Church and community activities were entered in Step 3 to determine if participation in these out-of-school contexts uniquely predicted achievement after having accounted for the more frequently studied involvement in school activities. Step 4 contained the interaction of gender and participation in the activities of each setting. These interaction terms provided the tests of gender moderation. If, for example, the variable representing the interaction between gender and school activities was significant this would have indicated that the relationship between school activities and achievement was different for girls and boys. A dummy variable representing cohort was also created. This variable was included in the analyses discussed below and it was not related to achievement. Thus, this variable was not included in final analyses and the two cohorts were analyzed together in order to maximize sample size and power.

Results

The results are presented in three sections below. The first section examines gender differences in specific types of activities and participation in activities across each context (i.e., total number of school, community, and church activities). The second section examines the relationship of participation in school, community, and church activities to

Table 5

Correlation Matrix and Descriptive Statistics

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Academic achievement	—													
2. Gender (girl)	.33	—												
3. Interpersonal competence	.52	.20	—											
4. Family involvement	.26	**.00**	.13	—										
5. Family economic hardship	-.17	**.03**	**-.10**	**-.10**	—									
6. School academic activity	.17	**.05**	.15	**.05**	**-.09**	—								
7. School vocational activity	.31	.13	.28	.13	**-.06**	**.11**	—							
8. School music activity	**.01**	**.07**	**.01**	**.03**	**.07**	**.10**	**-.02**	—						
9. School sports activity	**.01**	-.15	**.06**	.13	**-.01**	**-.02**	**.06**	-.23	—					
10. School student government	.21	.18	.15	**.10**	**-.06**	.15	**.10**	**.04**	**-.07**	—				
11. Church religious activity	.26	.13	.14	.18	**-.04**	**.00**	**.09**	**.03**	**-.01**	**.00**	—			
12. Church music activity	.19	.23	**.07**	.21	**.05**	**-.04**	.13	-.14	**.07**	**-.06**	.26	—		
13. Community sports activity	**-.07**	-.02	-.12	.17	**.08**	**-.03**	**-.01**	**.05**	**-.02**	**-.07**	**.01**	**.04**	—	
14. Community hobby activity	**.11**	.04	**.02**	**.04**	**-.11**	.20	**-.02**	**-.02**	**.00**	**.04**	**.04**	**.03**	**-.07**	—
15. Community music activity	-.14	**.06**	-.12	**-.09**	**.03**	**-.01**	**-.03**	**-.02**	**.02**	**-.08**	**-.04**	-.15	**.06**	.14
M	75.66	.63	4.96	2.59	2.47	.06	.58	.19	.38	.07	.39	.30	.27	.10
SD	9.64	.48	.98	.41	.61	.25	.50	.40	.49	.26	.49	.46	.44	.31

Note . All correlations were statistically significant at $p < .05$ unless bolded.

Table 6

Hierarchical Regression Analysis Predicting Achievement from Specific Types of Activities

	Step 1 β	Step 2 β	Step 3 β	Step 4 β
1. Gender (girl)	.25***	.23***	.22***	.27**
Interpersonal competence	.43***	.38***	.39***	.37***
Family involvement	.19***	-18***	.13**	.13*
Family economic hardship	-.12*	-.11*	-.10*	-.10*
2. School academic activity		.06	.06	.01
School vocational activity		.13*	.12*	.14
School music activity		-.01	-.01	.05
School sports activity		-.01	<.001	.08
School student government		.06	.07	.001
3. Church religious activity			.14**	.10
Church music activity			.03	.14
Community sports activity			.03	-.01
Community hobby activity			.07	.06
Community music activity			-.09	-.16
4. Gender * school academic activity				.04
Gender * school vocational activity				-.02
Gender * school music activity				-.08
Gender * school sports activity				-.10
Gender * school student government				.06
Gender * church religious activity				.05
Gender * church music activity				-.14
Gender * community sports activity				.06
Gender * community hobby activity				.02
Gender * community music activity				.09
ΔR^2		.02	.03*	.01
Total R^2	.38	.40	.43	.44
$F\Delta$	41.33***	2.20	3.01*	.55

*$p < .05$. **$p < .01$. ***$p < .001$.

achievement. The third section examines the relationship of participation in specific types of activities to achievement. The corresponding tests of gender moderation via appropriate interaction terms in the hierarchical multiple regression analyses are included within the second and third sections.

Gender Differences

Participation in specific types of activities. The proportion of students indicating that they participated in each specific type of activity is presented in Table 1. At school, students most often reported that they participated in a vocational activity (57.9%). In addition, girls (62.7%) participated in a school vocational activity at a higher rate than boys (49.5%), $\chi^2(1, N = 280) = 4.65$, $p < .05$. The next most frequently reported school activity was sports (37.9%). Boys (47.6%) participated in a school sport at a higher rate than girls (32.2%), $\chi^2(1, N = 280) = 6.54$, $p < .05$. A substantial number of students participated in a music activity at school (19.3%). Overall, few students participated in student government (7.1%) and this is not unexpected given the more limited chances to be involved in this activity. However, girls (10.7%) participated in student government at a higher rate than boys (1.0%), $\chi^2(1, N = 280) = 9.36$, $p < .01$.

In the community, the most frequently reported activity was sports (26.8%). Similar to school, boys (38.8%) participated in a community sport at a higher rate than girls (19.8%), $\chi^2(1, N = 280) = 12.06$, $p < .01$. At church, a substantial number of students participated in a religious activity (39.3%), with girls (44.1%) participating at a higher rate than boys (31.1%), $\chi^2(1, N = 280) = 4.61$, $p < .05$. A considerable proportion also participated in a music activity at church (30.0%). Again, girls (37.9%) more often participated than boys (16.5%), $\chi^2(1, N = 280) = 14.13$, $p < .001$.

Participation in School, Community, and Church Activities

The total number of school, community, and church activities students participated in is summarized in Table 2. Though results in the preceding section demonstrated that girls and boys participated in specific types of school activities (i.e., sports, vocational, student government) at different rates, the results in Table 2 showed that the total number of school activities girls and boys participated in were not significantly different, $F(1, 278) = 2.41$, $p > .05$. There was also not a significant gender difference in the total number of community activities, $F(1, 278) = 2.88$, $p > .05$. However, girls did participate in significantly more church activities than boys, $F(1, 278) = 14.25$, $p < .001$.

Relationship of Participation in School, Community, and Church Activities to Achievement

Descriptives and bivariate results. The descriptive statistics for and correlations between the variables capturing participation in school, community, and church activities (i.e., total number of activities participated in across each setting) are in Table 3. Gender and interpersonal competence had a positive relationship with achievement. Participation in school and church activities also had a positive association with achievement and interpersonal competence. Thus, bivariate results suggested that participants who were more involved in school and church activities had higher achievement and interpersonal competence. In addition, gender was related to participation in church activities but not school activities. This indicated that girls were more apt to be involved in church activities but girls and boys had comparable involvement in school activities. Participation in community activities was not related to achievement, and, therefore, it was dropped from further analyses.

Regression results. Results from the first hierarchical multiple regression analysis are summarized in Table 4. Collectively, the variables included in Step 1 were significant predictors of and accounted for approximately 38% ($R^2 = .375$ and adjusted $R^2 = .366$) of the variance in academic achievement, $F\Delta(2, 275) = 41.33$, $p < .001$. Both control variables, gender and interpersonal competence, were significant predictors of achievement. Specifically, results indicated that girls had higher grades than boys. In addition, participants' with more interpersonal competence had higher achievement. Family involvement and economic hardship both predicted achievement as well. Step 2 contained the measure of participation in school activities. The addition of this variable to the model accounted for 1% ($R^2 = .387$ and adjusted $R^2 = .376$) of the variance in academic achievement, $F\Delta(1, 374) = 5.15$, $p < .05$. Results indicated that involvement in more school activities predicted higher achievement.

Participation in church activities was entered in Step 3 and accounted for approximately 2% ($R^2 = .407$ and adjusted $R^2 = .394$) of additional variance in academic achievement, $F\Delta(1, 273) = 9.06$, $p < .01$. Participation in church activities was predictive of achievement beyond school activities. Step 4 included the interaction terms and did not account for any additional variance in academic achievement, $F\Delta(2, 271) = 0.50$, $p > .05$. The regression coefficients for each interaction term were also not significant. Therefore, results indicated that gender did not moderate the relation between involvement in church activities and achievement as was expected. Gender also did not moderate the relation between school activities and achievement.

Relationship of Participation in Specific Types of Activities to Achievement

Descriptives and bivariate results. The descriptive statistics for and correlations between participation in specific types of school, community, and church activities and other variables in the study are summarized in Table 5. Some replicate previous results (i.e., correlations between

achievement, gender, interpersonal competence, and family involvement and economic hardship) and are not discussed further. Involvement in several types of school activities (i.e., school academic activity, vocational activity, and student government) was related to higher achievement. Involvement in both church activities (i.e., church religious activity and church music activity) was associated with higher achievement. Involvement in each type of church activity also had a positive association with family involvement but no relation with family economic hardship.

Participation in a community music activity was related to lower achievement. It is also interesting to note that participation in community music and sports activity related to lower interpersonal competence. In contrast, participation in a church religious activity and several school activities (i.e., school academic activity, vocational activity, and student government) was associated with higher interpersonal competence. These results indicate that rural African American youth involved in church and school activities have higher achievement as well as interpersonal competence and family involvement. The correlations between gender and each type of activity reflect previously discussed results. Namely, girls are more apt to be involved in a school vocational activity, student government, and both church activities. Boys are more likely to be involved in school and community sports activities.

Regression results. Results from the second hierarchical multiple regression analysis are summarized in Table 6. As Step 1 in these analyses replicated that above, the variables included in the first step were again significant predictors of and accounted for approximately 38% (R^2 = .375 and adjusted R^2 = .366) of the variance in academic adjustment, $F\Delta(2, 275) = 41.33$, $p < .001$. All variables entered in the first step were significant predictors of achievement. Step 2 contained the dummy variables measuring whether or not participants were involved in each specific type of activity at school. The addition of these variables to the model accounted for 2% (R^2 = .400 and adjusted R^2 = .380) of the variance in achievement, $F\Delta(5, 270) = 2.20$, $p < .10$. The amount of unique variance explained by Step 2 was marginally significant (p = .06). Involvement in school vocational activities was the only variable that predicted achievement.

Involvement in specific types of community and church activities was entered in Step 3. These variables accounted for approximately 3% (R^2 = .432 and adjusted R^2 = .402) of additional variance in academic adjustment, $F\Delta(5, 265) = 3.01$, $p < .05$. Only involvement in church music activities predicted higher achievement. The final block of interaction terms did not account for any additional variance in achievement, $F\Delta(10, 255) = 0.55$, $p > .05$. Results indicated that the regression coefficients for each interaction term were also not significant. These results again demonstrated that gender did not moderate the relation between involvement in specific church activities and achievement. Gender also did not moderate the relation between involvement in specific types of school or community activities and achievement.

Discussion

Previous research has primarily focused on and supported that youth's participation in school activities is related to academic achievement (Connell, Spencer, & Aber, 1994; Finn, 1989; Finn, Pannozzo, & Voelkl, 1995; Finn & Rock, 1997; Fredricks, Blumenfeld, & Paris, 2004). However, youth's participation in several other contexts or activities has not received much attention (Bartko & Eccles, 2003; Feldman & Matjasko, 2005; Fredricks & Eccles, 2006; McNeal, 1998; Posner & Vandell, 1994; Roche et al., 2003). In addition, research along these lines has rarely involved youth from impoverished or rural communities (Farmer, Irvin, et al., 2006; Fredricks & Eccles, 2006; Jordan & Nettles, 2000; Mahoney & Cairns, 1997; Pedersen & Seidman, 2005; Posner & Vandell, 1994; Roche et al., 2003). Thus, the results of this investigation extend previous research in two respects. First, the current study demonstrated that participation in different contexts was related to the academic achievement of early adolescents. Second, these relationships were apparent for youth living in highly impoverished rural communities.

Results were commensurate with previous work demonstrating that participation in school activities is related to better adjustment for low income youth (Connell, et al., 1997; Fredricks et al., 2004). Specifically, this study suggests that participation in church activities may be pertinent to identifying sources of support for African American youth in impoverished rural areas. These results are also consistent with work on risk and resilience indicating that there may be sources of support outside of the family, school, and peers (Cairns & Cairns, 1994; Garmezy, 1985). As school and community activities are malleable and less contrived factors demonstrate the most robust buffering effects (Werner & Smith, 2001), the results of this investigation may be useful for prevention and intervention efforts. Other considerations additionally buttress the need to further examine participation in church activities.

Results from some recent studies have suggested that church activities may be protective for African American youth and adults living in poverty (Bowie et al., 2006; Gutman & McLoyd, 2000; Johnson, Jang, De Li, & Larson, 2000; Regnerus, 2000; Regnerus & Elder, 2003). Furthermore, the church is a key resource for African Americans in the rural South and it has been essential in dealing with the discrimination encountered in these areas (Barbarin, 1993; Barbarin et al., 2004; Brody et al., 1994; Christian & Barbarin, 2001; Taylor & Chatters, 1991). Accordingly, rural African American and Southern youth

tend to be more religious and involved in church activities (Ellison & Sherkat, 1995; Taylor, 1988; Taylor et al., 1996; Wallace, Forman, Caldwell, & Willis, 2003). In addition, parental religious activities are related to lower substance use and aggression among rural African American adolescents (Brody, Stoneman, & Flor, 1996; Wills, Gibbons, Gerrard, Murry, & Brody, 2003). Thus, the high level of participation in and historical reliance upon the church as well as results from the current study and previous research suggest that church activities may be particularly significant to the development of African American adolescents in impoverished rural settings.

The results largely did not support researchers' contention that the community may provide activities and programs that can additionally support adolescents, particularly for youth living in poverty (Gutman & McLoyd, 2000; Mahoney et al., 2005; National Research Council and Institute of Medicine, 2002; Nettles, 1991; Roth et al., 1998). This may be due to the fact that prior research on community activities has involved non-rural youth. As mentioned, rural youth have less access to community activities and this is further limited by the severe poverty participating students encountered. Thus, community activities may not provide the features thought to increase achievement. This constraint can lead other factors to become more important (Elder & Conger, 2000). Coupled with the central role of school in the lives of rural youth and communities, school activities may be more important for rural youth than non-rural youth. However, future research is needed to explicitly test this proposition. In sum, our expectations that church activities would predict achievement and that community activities may not predict achievement were supported.

Examining the relationship of specific types of activities to impoverished rural African American youth provided some informative results. Broadly, these findings suggested that sole reliance upon sum total scores may obscure some important nuances and this supported our expectations. For example, the total number of school activities was related to achievement. However, bivariate analyses examining the relationship between specific types of school activities and achievement indicated that only participation in a school academic activity, school vocational activity, and student government were related. Furthermore, regression analyses demonstrated that only participation in a school vocational activity predicted achievement after accounting for other variables. These results suggest that not all school activities may be uniquely related to achievement among impoverished rural African American youth. In contrast, both specific types of church activities were correlated with achievement, but only participation in a church religious activity was predictive in regression analyses.

Examining specific types of activities by gender also clarified some differences. Specifically, results supported our expectations and indicated that girls participated more in non-sports school activities (i.e., school vocational activity and student government) and church activities (i.e., church music and religious activities). In addition, girls participated in more church activities overall (i.e., total number of activities). Boys participated in more sports both at school and in the community. These results were commensurate with our expectations.

Results did not confirm our expectations that gender would moderate the relationship between participation in church activities and achievement. Nonetheless, these results could be considered positive in other respects. That is, the lack of an interaction indicates that church activities are related to achievement similarly for girls and boys. Even though rural African American boys consistently participated in fewer church activities, when they do participate in church activities it is related to higher achievement. Participation in a school sports activity was not related to achievement, and gender also did not moderate this relationship.

There are limitations that temper the conclusions that can be drawn from the current investigation. For one, these findings are from a single point in time and are correlational in nature. Therefore, causal effects and mechanisms cannot be determined from this study. However, the use of control variables in research on students' participation in activities has been limited (Coladarci & Cobb, 1996; Cooper et al., 1999). The inclusion of control variables in the current study indicates that the relationship of participation in school and church activities with achievement is less likely due to an artifact of differences in or selection effects stemming from gender, interpersonal competence, family economic hardship, and family involvement. Nonetheless, to provide more definitive tests of causal effects studies that, for example, utilize longitudinal designs or involve applied research with experimental or quasi-experimental control group designs are needed.

Another limitation is the absence of other contextual variables that may be important to the academic achievement of African American youth in impoverished rural settings. For example, Brody and colleagues have demonstrated the impact of various family and parental factors, such as maternal psychological functioning and childrearing efficacy beliefs, on the development of African American youth in rural southern communities (e.g., Brody et al., 2002; Brody & Flor, 1997; Brody, Flor, & Gibson, 1999; Brody, Kim, Murry, & Brown, 2004). In addition, discrimination and ethnic identity were not examined and leading researchers have argued and provided evidence for their importance to the development of African American youth (e.g., Clark, Anderson, Clark, & Williams, 1999; Garcia Coll et al., 1996; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; McLoyd, 1998; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). Similar to previous

studies of participation in activities, the generalizability of these results is also limited as the sample is small and not representative of all nor the tremendous diversity among rural youth (Coladarci, 2007; Coladarci & Cobb, 1996; Kannapel & DeYoung, 1999; Singh & Dika, 2003).

There is a growing need for research that examines potential sources of support for African American youth from impoverished rural areas (Cadwallader et al., 2002; Murry & Brody, 1999; Wilkinson & Fagan, 2001). The current investigation helps to address this need by extending research on youth's participation in activities across several contexts that may be related to the academic achievement of impoverished rural African American early adolescents. While the current findings suggest that participation in school and church activities may be linked to achievement for such youth, they are limited. There is a need to further examine the relationship between participation in school, community, and church activities and achievement with longitudinal studies that examine the impact of participation on patterns of various academic indicators and other outcomes as well. Likewise, there is a need for investigations that incorporate the participation in activities and different contexts into intervention programs aimed at promoting the school adjustment of at-risk students from rural, low-income communities. Such work can build from the current findings, would provide a more definitive test of causality, and should help in developing more effective programs for supporting the achievement of youth in impoverished rural areas that may experience difficulties during early adolescence.

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