Published in final edited form as:
J Res Adolesc. 2010 June ; 20(2): 307–333. doi:10.1111/j.1532-7795.2009.00627.x.

Breadth of Extracurricular Participation and Adolescent Adjustment Among African-American and European-American Youth

Jennifer A. Fredricks and
Connecticut College

Jacquelynne S. Eccles
University of Michigan

Abstract

We examined the linear and nonlinear relations between breadth of extracurricular participation in 11th grade and developmental outcomes at 11th grade and 1 year after high school in an economically diverse sample of African-American and European-American youth. In general, controlling for demographic factors, children's motivation, and the dependent variable measured 3 years earlier, breadth was positively associated with indicators of academic adjustment at 11th grade and at 1 year after high school. In addition, for the three academic outcomes (i.e., grades, educational expectations, and educational status) the nonlinear function was significant; at high levels of involvement the well-being of youth leveled off or declined slightly. In addition, breadth of participation at 11th grade predicted lower internalizing behavior, externalizing behavior, alcohol use, and marijuana use at 11th grade. Finally, the total number of extracurricular activities at 11th grade was associated with civic engagement 2 years later.

Introduction

Youth spend almost half of their waking hours in discretionary activities outside of school (Larson & Verma, 1999). There is a growing interest in both the positive and negative effects of how this time is spent on adolescent adjustment. One way many youth spend this discretionary time is by participating in school- and community-based extracurricular activities, like organized sports and school clubs. Although there is large variation in the level and nature of this involvement, in general, research suggests that organized activity participation is a beneficial use of out of school time (see Feldman & Matjasko, 2005; Holland & Andre, 1987, for reviews). Converging evidence from a variety of disciplines shows a positive association between participation in a range of organized contexts and indicators of academic performance and motivation (Darling, 2005; Eccles & Barber, 1999; Fredricks & Eccles, 2006a; Marsh & Kleitman, 2002) and psychological functioning (Boone & Leadbeater, 2006; Eccles & Barber, 1999; Fredricks & Eccles, 2006b; Mahoney, Schweder, & Stattin, 2002). Other studies have linked organized activity involvement to a reduction in problem behavior, including lower dropout rates, delinquency, and substance use (Mahoney & Cairns, 1997; McNeal, 1995; Youniss, Yates, & Su, 1997). Furthermore, extracurricular involvement is predictive of outcomes in young adulthood, including educational attainment, mental health, and civic engagement (Barber, Eccles, & Stone, 2001; Fredricks & Eccles, 2006a; Mahoney, Cairns, & Farmer, 2003). Our paper contributes

Requests for reprints should be sent to Jennifer A. Fredricks, Connecticut College, Box 5223, New London, CT 06320. jfred@conncoll.edu.

to the literature on organized activity participation in the following four ways: (1) by assessing linear and nonlinear effects of breadth of participation, (2) by using longitudinal data to account for self-selection into organized activities, (3) by testing associations between participation and development among an economically diverse sample of African-American and European-American youth, and (4) by testing whether gender, race, and socioeconomic status moderate the relation between breadth of participation and development.

Linear and Nonlinear Relations Between Breadth and Development

Much of the prior literature has compared participants in one or more activity contexts to nonparticipants. However, the reality is that youth are often involved in multiple activities, and nonparticipants in one context (i.e., sports) likely participate in another organized context (i.e., music). Studies that fail to measure breadth of participation, or the range of activities youth are involved in, may lead to misleading conclusions about the effects of organized activity participation. There are several reasons why participating in a range of activities may be beneficial for youth development. First, it gives youth the chance to explore a wide assortment of interests and competencies, which may be particularly important during adolescence when they are engaging in identity exploration. Participating in multiple activity contexts also gives adolescents the opportunity to experience a fuller range of activity-related growth experiences (Hansen, Larson, & Dworkin, 2003; Iso-Ahola, 1980). Previous research has shown differences in developmental experiences by type of activity, including variations in the opportunities for teamwork, identity exploration, and emotional development (Hansen et al., 2003). In addition, participating in a range of activities can widen the social convoy, or network of peers and adults to which the adolescent is exposed (McGee, Williams, Howden-Chapman, Martin, & Kawachi, 2006). Finally, involvement in a number of different activity contexts can help protect individuals against failure or loss in one specific domain (Linville, 1985).

On the other hand, participating in fewer activities may be beneficial for skill development, because investing time and energy in one context is necessary to develop expertise in a domain (Csikszentmihalyi, Rathunde, & Whalen, 1993; Ericsson, 1996). In addition, participating in a range of activities may deplete youths' time and energy, making it more difficult to develop the skills and form the relationships that are associated with more favorable outcomes. In fact, some have argued that participation in organized activities has become excessive for some youth, and that there may be a threshold, or point at which involvement in additional activities begins to be associated with negative outcomes (Cooper, Valentine, Nye, & Lindsay, 1999; Marsh & Kleitman, 2002). A similar concern has been echoed in popular media reports about overscheduled adolescents and the negative consequences for family functioning and youth well-being (Luthar & Sexton, 2004; Rosenfeld & Wise, 2000).

A few studies have examined linear relations between breadth of participation and development using traditional variable-centered analyses. For example, in a middle class sample, Fredricks and Eccles (2006b) found that after controlling for grades, breadth of participation, as assessed by the number of different activity contexts, predicted school belonging, psychological resilience, a positive peer context, and lower distress 1 year later. In a large sample of Canadian high school students, breadth of participation, as measured by total number of activities, was associated with well-being, a more positive academic orientation, interpersonal relations, and lower risk behaviors in cross-sectional analyses (Rose-Krasnor, Busseri, Willoughby, & Chalmers, 2006). Busseri, Rose-Krasnor, Willoughby, and Chalmers (2006) extended this research to explore the longitudinal associations between breadth of activity involvement and adjustment. Breadth predicted

interpersonal functioning, a composite measure of successful development, and lower risk behavior 20 months later.

Although these studies indicate a positive linear relation between breadth of participation and development, they do not answer the question of whether there is a point of diminishing returns from involvement in additional organized contexts. A few studies have addressed this question by including a quadratic term for total number of activities in regression models. Evidence from this work indicates a nonlinear association between number of activities and adjustment, though the shape of this function differs across the studies. For example, using the High School and Beyond Study and the National Educational Longitudinal Study, Marsh and colleagues (Marsh, 1992; Marsh & Kleitman, 2002) found that the associations between total number of extracurricular activities and academic performance, educational and occupational aspirations, self-concept, educational attainment, and risk behavior were initially positive for low to moderate levels of extracurricular involvement, leveled off, and then became slightly negative at higher levels of involvement. For the majority of outcomes, the inflection point was very high, indicating that diminishing returns only occurred at very high levels of participation. In another study, Rose-Krasnor et al. (2006) documented nonlinear relations between total number of activities and academic orientation and total number of activities and risk behavior in a large sample of Canadian high school students. They found that scores on these two outcome variables increased as the total number of activities increased and then leveled off at six activities. However, these nonlinear effects did not persist in longitudinal analyses of these youth (Busseri et al., 2006). Finally, Fredricks and Eccles (2006b) documented a nonlinear relation between the total number of activities and risk behavior in a middle class sample of youth, with more problem behavior at both very low and very high amounts of participation.

Accounting for Self-Selection Into Activities

One of the challenges in assessing the outcomes of organized activity participation is that involvement is generally voluntary and determined through self-selection. Over 30 years ago, researchers first raised the question about whether participation in extracurricular activities provides important socialization experiences or whether the relations between involvement and adjustment are the result of third unmeasured variables or common antecedents (see Otto, 1976; Spady, 1971, for more discussion of debate). Until recently, the research in this area has tended to use cross-sectional and correlational designs with limited adjustment for self-selection into activities. As a result, it has been difficult to separate the effects of organized activity involvement from preexisting differences between participants and nonparticipants. For example, adolescents who choose to participate in extracurricular activities tend to be of higher socioeconomic status, are more likely to be European American, have higher grades, have less depressed parents, and have greater parental support than their peers (Bohnert, Martin, & Garber, 2007; Brown & Evans, 2002; Feldman & Matjasko, 2005; Huebner & Mancini, 2003; McNeal, 1998). These selection factors also predict positive adjustment, leading some to argue that the benefits of organized activity participation have likely been overstated in much of the prior literature (Fredricks & Eccles, 2006a; Holland & Andre, 1987; Larson, 2000).

Stronger conclusions about the associations between organized activity participation and development can be drawn from studies that adjust for preexisting differences between participants and nonparticipants and include measures of the dependent variable on multiple occasions (Larson, 2000; Marsh & Kleitman, 2002). For example, Eccles and colleagues used longitudinal data to explore the effects of participation in organized activities in both a sample of working class white youth and a sample of African-American and European-American youth (e.g., Barber et al., 2001; Eccles & Barber, 1999; Fredricks & Eccles, 2006a). In general, they found that after adjusting for some self-selection factors measured

before activity involvement, organized participation predicted academic adjustment, psychological functioning, lower risk behavior, and civic engagement in both cross-sectional and longitudinal analyses. Similarly, Marsh and colleagues (Marsh, 1992; Marsh & Kleitman, 2002) used longitudinal data from the High School and Beyond Study and National Educational Study to test the relation between high school extracurricular participation and a range of outcomes over time, after controlling for background variables and parallel outcomes variables measured 2 years earlier. Across these two datasets, they found that participation in extracurricular activities was associated with a range of academic and psychological outcomes, though the effect sizes were small and under 1%.

Demographic Variations in Effects

Much of our understanding of the potential benefits of organized activity participation has been based on research with samples of working and middle class white youth. Except for a few examples (e.g., Brown & Evans, 2002; Fauth, Roth, & Brooks-Gunn, 2007; Fredricks & Eccles, 2006a; Marsh & Kleitman, 2002), there is limited research examining the effects of involvement among minority and low-income adolescents. This is an important gap, because some have suggested that participation in structured out-of-school activities may be especially important for low-income and minority youth who are at risk for poorer developmental outcomes and are likely to have access to fewer of the developmental affordances these activities provide in other aspects of their lives (Mahoney, Larson, Eccles, & Lord, 2005; Pedersen, 2005).

Only a handful of studies have tested for interactive effects of activity participation on development, assuming instead that involvement has similar associations for all youth (Mahoney et al., 2005). Examining variations in outcomes by gender, race, and socioeconomic status is essential for designing appropriate organized activities for a diverse group of adolescents (Eccles, 2005). Using data from two large nationally representative datasets, Marsh and colleagues (Marsh, 1992; Marsh & Kleitman, 2002) tested for interactions of extracurricular participation and a variety of student characteristics (i.e., ethnicity, socioeconomic status, gender, school size, expectations, and academic achievement). In general, they found that the effects of extracurricular participation were consistent across the majority of student characteristics. One exception was socioeconomic status, with the benefits of extracurricular participation being greatest for youth from lower socioeconomic status backgrounds. Similarly, Fredricks and Eccles (2006a) examined how gender, race, and income moderated the relations between participation in 11th-grade sports, school clubs, and prosocial activities and development. Except for a few examples they found that the relations between participation in each activity context and development were generalizable across these subgroups. One exception was that activity participation was related to lower drug and alcohol use for males only.

Purpose of Study

In this study we examined the linear and nonlinear relations between two measures of the breadth of extracurricular participation at 11th grade (i.e., total number of activities and total number of activity domains) and development at the same time point and 2 years later in a community-based sample of African-American and European-American youth. One unique feature of this sample is that there is a broad range of socioeconomic status levels in both the African-American and European-American families, making it possible to largely control for racial differences that may be accounted for by differences in income and education levels. Another unique feature of this community-based sample is that respondents were drawn from a county with a variety of different ecological settings including low-income communities, high-risk urban neighborhoods, and rural farm-based neighborhoods. To adjust for self-selection, we included measures of the dependent variable 3 years before

involvement in the activity context and adjusted for some demographic and individual predictors of extracurricular participation (see also Fredricks & Eccles, 2006a). Using this design, we expected to document positive linear relations between breadth of participation and development, and we expected these associations would be a function of both self-selection and involvement in organized contexts. In addition, we expected to find some nonlinear effects for academic and risk outcomes. We expected to document a threshold level, with positive linear effects for participation at low to moderate numbers of activities that leveled off or declined slightly at higher levels. Finally, we examined variations in the relations between breadth of participation and developmental outcomes by race, gender, and socioeconomic status. Based on the few studies that have tested for interactive effects (i.e., Fredricks & Eccles, 2006a; Marsh, 1992; Marsh & Kleitman, 2002), we expected to document that the effects would largely be generalizable across demographic groups. One exception was that we expected the benefits on academic outcomes to be strongest for youth from lower socioeconomic status homes.

Method

Participants

This study uses data from the Maryland Adolescent Development in Context Study (MADICS), a comprehensive community-based longitudinal study of normative development among African-American adolescents (the principal investigators are Jacquelynne Eccles and Arnold Sameroff). Participants were originally part of the Adolescents in Multiple Contexts Study (SAMC), which surveyed all youth attending 23 middle schools in a large county in Maryland (see Cook, Herman, Phillips, & Setterson, 2002, for more description of SAMC).

The sample was 51% females and 49% males; it was 67% African American and 33% European American. Family income at the beginning of the study was between US$45,000 and US$49,999 and ranged from <US$5,000 to >US$100,000. European-American families reported higher pretax incomes (mean = US$50,000–US$54,999) than African-American families (mean = US$40,000–US$44,999), though there was a wide range of income distribution among both groups. For example, 17% of the sample reported incomes lower than US$25,000, 44% of the sample reported incomes between US$25,000 and US$50,000, 24% of the sample reported incomes between US$50,000 and US$70,000, and 15% of the sample reported incomes over US$70,000. In addition, 6% of the sample lived at or below the U.S. poverty threshold. The average occupation of the head of household was a semiprofessional or skilled worker, but ranged from professionals with advanced degrees to unskilled workers. At the start of the study, 53% of the families were characterized as intact families, 14% were stepfamilies, 6% were living with a partner, 20% were divorced, and 7% were never married.

Procedure

The first wave of data was collected in 1991 when the participants were in the 7th grade (n = 1,480). These adolescents were followed for five waves of data collection into their early 20s. In this study, we used data from the third, fourth, and fifth waves of data collection. Wave 3 was collected in 1993 during the adolescents' 8th-grade school year (n = 1,060). The fourth wave was collected in 1997 during the 11th-grade school year (n = 1,075), and the fifth wave was collected in 1999, 1 year after participants completed high school (n = 912). Sample sizes varied on analyses due to missing data on youth and parent indicators within and across waves. In previous analyses, we examined whether youth with missing data were systematically different than youth from the original sample on a range of constructs (see Eccles & Sameroff, 2000; Fredricks & Eccles, 2006a, for more details). In general, these

analyses revealed that the data were missing at random within waves, but that African American and high-risk youth dropped out of the study at higher rates than European American and low-risk youth.

At Wave 3 (8th grade) and Wave 4 (11th grade), the primary caregiver and the adolescent completed two questionnaires in the home, a face-to-face structured interview (approximately 1 hour) and a self-administered questionnaire (approximately 30 minutes). The adolescent and the primary care-giver were each given US$20.00 for their participation. Same-race interviewers were used in approximately 85% of the families. At Wave 5 (1 year after high school), all youth filled out a mailed survey. Information was not collected from the primary caregiver at this time point.

Measures

Organized activity participation—In 11th grade, participants were asked a series of yes/no questions about their involvement in seven different school- and community-based extracurricular activities over the past 12 months including: (1) school athletic teams, (2) school activities such as clubs or student government, (3) activities in the community such as scouts, service, hobby, and clubs, (4) organized summer after-school or sport recreational programs, (5) volunteer service activities, (6) civil rights activities, and (7) other hobbies or activities. Table 1 presents the percentage of youth participating in each organized context.

Academic adjustment—Academic adjustment was assessed with three indicators: grades, educational expectations, and educational status. At 8th and 11th grade, adolescents were asked to report on how many As, Bs, Cs, Ds, and Fs they had received on their first semester report card. Grade point average was calculated from these self-reports. In addition, at both 8th and 11th grades, participants were asked about how far they thought they would go in school. This item was recoded into four categories (1 = *graduate from high school or less*, 2 = 2 *year college or less*, 3 = 4 *year college*, 4 = *professional degree*). Finally, at 1 year after high school, youth reported on the number of years of schooling they had completed. Educational status was recoded into four categories (1 = *did not graduate from high school*, 2 = *high school graduate*, 3 = *GED and vocational training*, 4 = *some college*).

Family involvement—At 8th and 11th grades, youth were asked about how often they did activities with their immediate family (1 = *almost never*, 2 = *less than once a month*, 3 = *1–3 times a month*, 4 = *about 1 time a week*, 5 = *few times a week*, and 6 = *almost every day*) (α = .70, 2 items). A sample item is “How often do you do something active together like playing sports or going for a walk?”

Alcohol and drug use—At 8th grade, 11th grade, and 1 year after high school, participants were asked about the frequency of drinking, getting drunk, and smoking marijuana. At 11th grade and 1 year after high school, adolescents were asked about the frequency of each behavior in the past 6 months: 1 = *never*, 2 = *once or twice*, 3 = *3 to 4 times*, 4 = *5 to 9 times*, 5 = *10 to 19 times*, and 6 = *more than 20 times.* At 8th grade, participants were asked how many drinks they had consumed in the past month and how many times they had smoked marijuana in the past 30 days. A low number of adolescents reported consuming more than one drink or smoking marijuana at 8th grade. Therefore, these variables were recoded into two yes/no questions (i.e., alcohol/no alcohol use and marijuana/no marijuana use).

Psychological adjustment—We included both child and parents' reports of psychological adjustment. Self-esteem was assessed at all three time points with a scale

adapted from Harter's Global Self-Worth Scale (Harter, 1985). A sample item is "How often are you pretty sure of yourself?" (1 = *almost never*, 5 = *almost always*). This scale has strong internal consistency (as range: .73–.77, 3 items). Depressive symptoms were assessed with a reduced version of Children's Depressive Inventory (Kovac, 1992). This scale also has strong psychometric properties (α = .87,14 items [8th grade and 11th grade]; α = .82, 6 items [1 year after high school]). All items were on a 3-point scale with 1 = *no symptoms* and 3 = *high depressive symptoms.* A sample item is "I am worthless (reverse coded)" (1 = *all of the time*, 3 = *only once in a while*). Finally, at the 8th and 11th grades, parents filled out the Child Behavior Checklist, a widely used measure of overall psychological health (Achenbach, 1991). Parents rated their adolescents' functioning over the last 6 months using a 3-point scale from "1 = *not true*" to "3 = *very true.*" Higher scores signified higher levels of internalizing and externalizing behavior. Sample internalizing items are "is fearful and anxious" and "feels worthless/inferior," and sample externalizing items are "is mean to others" and "destroys his/her things."

Civic engagement—Two indicators of civic engagement were included in analyses: political activity participation and involvement in charitable and social issues. At 1 year after high school, participants were asked about their involvement in 10 different political activities and six social services and charitable causes over the past 2 years (0 = *never*, 1 = *once*, 2 = 2–3 *times*, 3 = *4–5 times*, 4 = 6 *to 10 times*, and 5 = *10 or more times*). "Going to a protest march or demonstration" is a sample item in the political activity participation scale. A count of the number of political activities was used in our analyses because the scale version of these items was highly skewed. The social and charitable involvement scale includes items about participation in a range of civic causes, such as "serving as a member of an organizing committee or a board for a school club or organization." This scale has adequate internal consistency (α = .67, 6 items).

Covariates: demographic factors and motivation—We included gender, race, socioeconomic status, parents' perceptions of children's motivation, and the prior measure of the outcome variable as covariates in our analyses. All covariates were assessed at 8th grade before participation in the activity settings to account for some factors that are associated with selection into activities. Socioeconomic status was estimated by taking the mean of three continuous standardized variables: total income, occupational status, and educational attainment (see Nam & Powers, 1983, for more description). Income was measured by asking parents, "From all sources of income mentioned, tell me your total family income before taxes" (1 = *less than $5,000*, 17 = *more than $100,000*). Nam and Powers (1983) occupational scoring system was used to code occupational status. In dual earners households, the highest occupational status and educational attainment were used.

In addition, we adjust for children's motivation because highly motivated youth are more likely to both decide to engage in organized activities and be doing well in school. The Children's Motivation Scale included items about a parent's perceptions of how frequently his or her child exerted effort, demonstrated initiative, and sought out challenges. Sample items in this scale are "keeps trying to figure out his or her schoolwork even when it is hard" and "loves an intellectual challenge." These items typify high general motivation, which is likely to influence participation in organized activities, academic achievement, and college attendance. Thus, they provide a control for motivational processes likely to underlie these outcomes. All items Were on a 5-point scale (1 = *almost never*, 5 = *almost always*). This scale has strong psychometric property (α = .90, 5 items).

Results

Analysis Strategy

We created two measures of the breadth of organized activity participation. First, we summed the total number of school- and community-based extracurricular activities (see Table 1) that were checked off by participants at 11th grade. Descriptive statistics for total number of activities are presented in Table 2. On average, adolescents in this sample reported participating in between two and three activities ($M = 2.62$, $SD = 1.64$). For subsequent analyses, adolescents in six or more activities were combined into a single group because of the small number of participants at this level of involvement ($n = 50$). Second, we grouped the seven activities into four different activity contexts: (1) sports (i.e., school sports and/or community sports), (2) school clubs, (3) prosocial activities (i.e., volunteer service and civil rights), and (4) activities outside of school (i.e., community activities and hobbies). On average, adolescents were involved in two of out four activity contexts ($M = 2.20$, $SD = 1.23$). These two measures differ in how they account for participation in multiple activities within one domain. For example, an individual in two sports would be counted as participating in two activities in the total number of activities breadth measure. In contrast, an individual in two sports would get counted as participating in one activity in the second breadth measure (i.e., total number of activity domains).

Regression Analyses

We ran a series of multivariate regression models to examine the relations between the two measures of breadth (i.e., total number of activities and total number of activity domains) at 11th grade and outcomes at 11th grade and 1 year after high school. In the majority of models, gender, race, socioeconomic status, parents' ratings of children's motivation, and the prior level of the dependent variable were included as covariates. Educational expectations at 8th grade were included as a covariate in the model predicting educational status at 1 year after high school. The 8th-grade level of the dependent variable was not included in the models predicting political activity participation and social and charitable involvement because these items were not included at surveys at 8th grade. In all models, we included a linear and quadratic term for total number of activities or total number of activity domains to test for nonlinear relations between our two indicators of breadth and development. In order to avoid problems associated with multicollinearity, the quadratic term was created after standardizing the total number of activities variable ($M = 0$, $SD = 1$) (Marsh, 1992; Marsh & Kleitman, 2002). In general, the findings for our two indicators of breadth of were similar.[1] Therefore, we present the findings by total number of activities in the table and text; the results for total number of activity domains are available by contacting the first author.

In order to test whether the relation between total number of activities and adjustment varied by demographic group, we ran several analyses. First, in each model we included two interaction terms: SES × Breadth and SES × Quadratic of Breadth. Because the interaction terms were insignificant in all but one model, we reran all models without these interaction terms.[2] Second, because of the intersectionality of race and gender, we examined the means for African-American females, African-American males, European-American females, and European-American males for all dependent variables by total number of activities. Evidence of differences in the pattern of relations was found on indicators of psychological adjustment and risk behavior at 11th grade. Therefore, we reran all regression models for

[1]The two exceptions were that the quadratic term was not significant in the model for grades and only marginally significant in the model for educational expectations by total number of activity domains.

[2]In all but one model, the interaction term was insignificant. SES × Breadth was significant in the model predicting internalizing behavior at 11th grade. These findings are available by contacting the first author.

psychological adjustment and drug and alcohol use at 11th grade separately by race and included an interaction term for Gender × Breadth and an interaction term for Gender × Quadratic of Breadth. We report these results when a significant Gender × Total Number of Activities interaction emerged for either racial group.

Descriptive statistics—Bivariate correlations for all items in the regression analyses are presented in Table 3. Total number of activities was positively associated with grades, educational expectations, educational status, family involvement, political activity participation, and social and charitable involvement. In addition, breadth was negatively correlated with internalizing behavior, externalizing behavior, alcohol use at 11th grade, and marijuana use at 11th grade. Finally, in general, the self-selection factors were related to total number of activities in the expected direction.

Concurrent relations—The standardized regression coefficients for the linear term, quadratic term, and self-selection factors for total number of activities are presented in Table 4. After controlling for our self-selection factors, breadth of participation at 11th grade was positively associated with academic adjustment. The total number of extracurricular activities predicted higher grades (β =.13, p <.01) and higher educational expectations (β = .22, p <.001). In addition, the quadratic term was significant in the model for grades (β = −.08, p < .05) and educational expectations (β = − .07, p <.05) at the 11th grade. These nonlinear relations are presented in Figures 1 and 2.[3] As shown in these figures, grades and educational expectations increased from zero to five activities and leveled off or declined slightly at higher number of activities (six or more).

The findings for psychological adjustment were mixed. After adjusting for the prior level of the dependent variable, children's motivation, and demographic factors, breadth of participation was negatively related to parents' reports of their children's internalizing (β = −.11, p < .01) and externalizing (β = − .16, p < .001) behavior at 11th grade. In contrast, there was no relation between the total number of activities and youths' reports of depression and self-esteem. The Gender × Breadth interaction term was not significant in any of the psychological adjustment models for either African-American or European-American youth.

Breadth of participation at the 11th grade was associated with concurrent indicators of risk behavior; the total number of activities was a negative predictor of alcohol use (β = − .12, p < .05) and marijuana use (β = − .09, p < .05). For European-American youth, the interaction of Gender × Total Number of Activities was significant in the model predicting alcohol use (β = − .21, p < .05); this interaction term was not significant in the regression analyses for African-American youth. For European-American males, the number of activities was related to lower alcohol use. There was no relation between the total number of activities and alcohol use for European-American females, African-American males, and African-American females. Moreover, the interaction terms for Gender × Breadth (β = − .29, p < .05) and Gender × Quadratic of Breadth (β = − .22, p <.05) were significant in the model predicting marijuana use for European-American youth. For European-American males, the total number of activities was associated with a decrease in marijuana use that accelerated over time. There was no relation between number of activities and marijuana use for the three other demographic groups. Finally, after adjusting for some self-selection factors, the link between total number of extracurricular activities and time on family activities was not significant.

[3]Figure 1 presents the means by total number of activities for youth who had average grade point average at 8th grade, average motivation at 8th grade, and average family socioeconomic status. Figure 2 presents the means by total number of activities for youth who had average educational expectations at 8th grade, average motivation at 8th grade, and average family socioeconomic status.

Longitudinal relations—The standardized regression coefficients for the linear term, quadratic term, and self-selection factors for the longitudinal models are presented in Table 5. After adjusting for some self-selection into activities, breadth of participation at the 11th grade was associated with some of our indicators of young adult adjustment. For example, the total number of extracurricular activities at 11th grade was positively associated with educational status (β = .26, p <.001) 2 years later. Both the linear and quadratic terms (β = −.12, p <.01) were significant in this model. This relationship is depicted in Figure 3.[4] Educational status increased from zero to five activities and leveled off at very high levels of involvement (six or more activities). This result suggests that there is a point at high levels of involvement at which participation in more organized activity contexts has diminishing positive effects.

After adjusting for the 8th-grade level of the dependent variable, children's motivation, and demographic factors, there was no relation between breadth of participation at 11th grade and indicators of psychological adjustment or risk behavior 2 years later. Finally, breadth predicted higher civic engagement at 1 year after high school; the total number of activities at 11th grade was associated with involvement in political activities (β = .24, p <.001) and involvement in social and charitable causes (β = .20, p<.001) 2 years later.

Discussion

The purpose of this investigation was to examine the linear and nonlinear relations between breadth of organized activity participation at 11th grade and developmental outcomes at 11th grade and 1 year after high school. This study contributes to the literature in several ways. First, to account for self-selection into activities, we controlled for parallel measures of the dependent variable measured 3 years earlier and adjusted for children's motivation and demographic factors. Although we cannot fully rule out selection biases, adjusting for covariates measured before involvement in the activity context decreases the magnitude of the differences between those who participate in organized activities and those who do not. Our findings indicate that participation in a greater number of organized activities is generally predictive of positive development, and these associations cannot be attributed solely to selection factors. Instead, a more likely explanation is that organized activity participation provides important socialization experiences and opportunities and supports for development.

Second, we examined both the linear and nonlinear relations between breadth of participation and development. Most youth choose to participate in a range of school- and community-based extracurricular contexts, though few studies have examined associations between the breadth of participation and development (Bohnert & Fredricks, in press; Simpkins, Little, & Weiss, 2004). For the most part, our finding show that participating in a greater number of extracurricular activities is associated with a linear increase in adjustment, up to a point. One possible explanation for this finding is that each organized activity can be seen as a distinct learning environment with unique opportunities for growth and development (Hansen et al., 2003; Larson, Hanson, & Moneta, 2006). Another possibility is that youth who participate in more extracurricular contexts spend more time in organized activities and less time in risky or unproductive activities, both of which have been associated with less favorable adjustment during adolescence (Mahoney & Stattin, 2000; Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996).

[4]Figure 3 presents the means by total number of activities for youth who had average educational expectations at 8th grade, average motivation at 8th grade, and average family socioeconomic status.

Third, we examined associations between organized activity participation and adjustment in an economically diverse sample with a major proportion of African-American youth. A few studies have examined the effects of organized activity involvement on adjustment using data from nationally representative datasets or in samples of low-income youth (e.g., Brown & Evans, 2002; Fauth et al., 2007; Marsh, 1992; Marsh & Kleitman, 2002). One feature that differentiates our sample from these studies is the full range of socioeconomic status among both the African-American and European-American families, making it possible to disentangle the effects of race and economic disadvantage more so than prior work. A final contribution of our study is that we examine the generalizability of the effects of organized activity participation on adjustment by race, gender, and socioeconomic status. Only a handful of studies have examined differences in associations across these subgroups.

Breadth of Participation and Development

The total number of extracurricular activities was predictive of a variety of indicators of academic adjustment in both the cross-sectional and longitudinal analyses. Participation in organized activities may have academic benefits because it increases youths' connections to school, links them to supportive peers and adults, enhances their identity as a valued member of the school community, and increases social capital (Broh, 2002; Eccles & Barber, 1999; Finn, 1989). Participation in high school extracurricular activities also may be associated with positive academic adjustment over time because through participation youth have the opportunity to develop interpersonal competence and set goals, skills that are assumed to be critical to adult educational attainment (Eccles & Templeton, 2002; Mahoney et al., 2003).

Consistent with prior research (e.g., Marsh, 1992; Marsh & Kleitman, 2002), for the three academic outcomes (i.e., grades, educational expectations, and educational status), the nonlinear function was significant. At high levels of involvement the well-being of youth either declined or leveled off slightly, suggesting there may be may be a threshold beyond which further increases in participation have diminishing academic benefits. There are several possible explanations for the nonlinear effects of organized activity participation on academic adjustment. First, at high levels of involvement identification with an activity may become so strong that it displaces identification with school (Cooper et al., 1999). Second, participation in a large number of extracurricular activities can start to cut into time needed for school work. Finally, this finding may reflect the fact that students have reached a ceiling in their academic performance. However, contrary to the media reports of stressed out and overscheduled adolescents, there was no evidence in this sample that high levels of organized activity participation was detrimental to the development of youth; students who engaged in a greater number of organized activities fared better on most dimensions than students who participated in very few or no activities.

In the cross-sectional analyses, participation in a larger number of organized contexts was associated with a lower likelihood of self-reported drug and alcohol use. Activity involvement may reduce problem behavior because it increases one's affiliation with a nondeviant peer group; adolescents in extracurricular activities have more academic friends and fewer friends who use drugs than adolescents who do not participate in these activities (Eccles & Barber, 1999). This finding also may reflect the increased role of nonfamilial adults in supporting and mentoring youth in extracurricular contexts who may help to steer them away from risky behaviors (Eccles & Templeton, 2002). The opportunity to participate in school-based organized activities that are highly valued and challenging also may lower the desire to drink or use drugs (Larson, 2000).

Consistent with previous research (Fredricks & Eccles, 2006a; Youniss, McLellan & Yates, 1997; Youniss, McLellan, Su, & Yates, 1999), greater participation in organized activities

during high school also predicted higher levels of civic engagement in young adulthood. Structured activity participation in high school, especially in service oriented activities, may increase civic engagement over time because it teaches youth leadership skills, exposes them to norms of collective action, and teaches them the value of social responsibility (Glanville, 1999; Youniss & Yates, 1997). However, because we were unable to control for prior civic engagement levels, it is not possible to rule out the hypothesis that the link between high school activity participation and political and civic involvement 2 years later reflects selection factors.

Differences by Race, Gender, and Socioeconomic Status

Our analyses showed that the effects of breadth of participation do not tend to vary by gender and race. One exception was the finding that the reduction in drug and alcohol behavior occurred only for European-American males. This finding may reflect demographic differences in alcohol and drug use; males and European-American youth report higher rates of alcohol and drug use than do females and African-American adolescents (Adlar, Smart, & Tan, 1989; Finn, 2006; Singer & Petchers, 1987). It also may be more important for European-American males than European-American females to be in a structured activity setting where they can be supervised by adults during the after-school hours. Finally, differences in the peer group culture by race and gender may explain this effect. Future research should test these hypotheses to better understand the potential of activity participation to reduce problem behavior and potential differences in the associations for African-American males, African-American females, European-American males, and European-American males.

In contrast to findings reported by Marsh and colleagues using large nationally representative datasets (Marsh, 1992; Marsh & Kleitman, 2002), we failed to document greater benefits of organized activity participation for low-income youth. This finding may reflect the unique characteristics of the MADICS sample. Socioeconomic status is fairly evenly distributed in the African-American and European-American families in this sample. As a consequence, there are fewer low-income and inner-city adolescents than in prior research (Marsh, 1992; Marsh & Kleitman, 2002), and we may not have adequate power to detect an interactive effect by socioeconomic status.

Limitations and Conclusion

Although we have provided some evidence of the benefits of greater participation in extracurricular activities, the measurement of participation is still quite crude (see Bohnert & Fredricks, 2007, for more discussion of measurement issues). No information was collected on the length, intensity, and quality of extracurricular involvement or characteristics of the activity setting, factors known to moderate the relation between extracurricular participation and development (see Holland & Andre, 1987; Mahoney et al., 2005). For example, the captain of the football team who practices for 20 hours each week is weighted the same as a youth who is a member of a service-oriented club and participates in meetings once a week. More sophisticated measures of participation and activity settings are critical to move this field forward. Furthermore, in these analyses, we assumed that organized activity participation is associated with changes in academic, psychological, and behavioral adjustment. An alternative explanation for our findings is that positive functioning predicts activity participation. Finally, it is not possible to rule out that our findings can be explained by some other individual or contextual self-selection factors that were not controlled for in these analyses. For example, parental support and the availability of extracurricular activities in the school and community are likely to be related to participation rates.

In summary, our results, along with the extant literature, illustrate a positive association between involvement in organized activities and adjustment. In fact, we find that youth benefit most from participating in a greater number of organized contexts. In an era of accountability pressures and fiscal constraints, the value of participating in organized nonacademic activities is being questioned. Rather than cutting these programs, these findings support recommendations for increasing the opportunities for youth to participate in a variety of extracurricular contexts in both the school and community (e.g., Carnegie Corporation, 1992; Eccles & Gootman, 2002; Eccles & Templeton, 2002). These activities may have beneficial effects because participation in structured contexts limits time for youth to be involved in risky behavior, connects youth to supportive nonfamilial adults who can provide them with social capital, enhances the opportunity to develop relationships with peers who value conventional norms, facilitates skill development, provides a forum for expressing one's identity, and is context well suited for the development of initiative or self-directed action.

Acknowledgments

This research was supported by grants from the NICHD (R01HD33437) and the W. T. Grant Foundation to Jacquelynne Eccles. We would like to thank the following people for their contributions to the Maryland Adolescent Growth in Context Study: Todd Bartko, Elaine Belansky, Heather Bouchey, Nick Butler, Celina Chatman, Diane Early, Kari Fraser, Leslie Gutman, Katie Jodl, Ariel Kahil, Linda Kuhn, Sarah Lord, Karen McCarthy, Oksana Malanchuk, Alice Michael, Melanie Overby, Stephen Peck, Robert Roeser, Sherri Steele, Erika Taylor, Janice Templeton, Cindy Winston, and Carol Wong. Portions of this paper were presented at the biannual meeting of the Society for Research in Child Development in Boston in 2007.

References

Achenbach, T. Manual for the Child Behavior Checklist: 4-18 and 1991 Profile. Burlington: Department of Psychiatry, University of Vermont; 1991.

Adlar EM, Smart RG, Tan SH. Ethnicity and drug use: A critical look. International Journal of the Addictions. 1989; 24:1–18. [PubMed: 2788147]

Barber BL, Eccles JS, Stone MR. Whatever happened to the jock, the brain, and the princess? Young adult pathways linked to adolescent activity involvement and social identity. Journal of Adolescent Research. 2001; 16:429–455.

Bohnert A, Fredricks JS. Comparing unique dimensions of youths' organized activity involvement: Theoretical and methodological considerations. Review of Educational Research. in press.

Bohnert AM, Martin NC, Garber J. Predicting adolescents' organized activity involvement: Role of maternal depression history, family relationship quality, and adolescent cognitions. Journal of Research on Adolescence. 2007; 17:221–244.

Boone ER, Leadbeater BJ. Game on: Diminishing risks for depressive symptoms in early adolescence through positive involvement in sport. Journal of Research on Adolescence. 2006; 16:79–90.

Broh BA. Linking extracurricular programming to academic achievement: Who benefits and why? Sociology of Education. 2002; 75:69–91.

Brown R, Evans WP. Extracurricular activity and ethnicity: Creating greater school connections among diverse populations. Urban Education. 2002; 37:41–58.

Busseri MA, Rose-Krasnor L, Willoughby T, Chalmers H. A longitudinal examination of breadth and intensity of youth activity involvement and successful development. Developmental Psychology. 2006; 42:1313–1326. [PubMed: 17087563]

Carnegie Corporation. A matter of time: Risk and opportunity in the non-school hours. New York: Author; 1992.

Cook TD, Herman MR, Phillips M, Setterson RA Jr. Some ways in which neighborhoods, nuclear families, friendship groups, and schools joints affect changes in early adolescent development. Child Development. 2002; 73:1283–1309. [PubMed: 12146748]

Cooper H, Valentine JC, Nye B, Lindsay JJ. Relationships between five after-school activities and academic achievement. Journal of Educational Psychology. 1999; 91:369–378.

Csikszentmihalyi, M.; Rathunde, K.; Whalen, S. Talented teenagers: The roots of success and failure. New York: Cambridge University Press; 1993.

Darling L. Participation in extracurricular activities and adolescent adjustment: Cross-sectional and longitudinal findings. Journal of Youth and Adolescence. 2005; 34:493–505.

Eccles, JS. The present and future of research on activity settings as developmental contexts. In: Mahoney, JL.; Larson, RW.; Eccles, JS., editors. Organized activities as contexts of development: Extracurricular activities, after-school and community programs. Mahwah, NJ: Lawrence Erlbaum Associates; 2005. p. 353-372.

Eccles JS, Barber BL. Student council, volunteering, basketball, or marching band: What kinds of extracurricular involvement matters? Journal of Adolescent Research. 1999; 14:10–43.

Eccles, JS.; Gootman, JA. Community programs to promote youth development. Washington, DC: National Academy Press; 2002.

Eccles, JS.; Sameroff, AJ. Risk and promotive effects on adolescent development (Grant NO R01HD333437). Bethesda, MD: National Institute of Child Health and Human Development; 2000.

Eccles JS, Templeton J. Extracurricular and other after-school activities for youth. Review of Research in Education. 2002; 26:113–180.

Ericsson, LA. The role to excellence: The acquisition of expert performance in the arts, and sciences, sports, and games. Hillsdale, NJ: Lawrence Erlbaum; 1996.

Fauth RC, Roth JL, Brooks-Gunn J. Does neighborhood context later the link between youth's after school time activities and developmental outcomes? A multilevel analysis. Developmental Psychology. 2007; 43:760–777. [PubMed: 17484586]

Feldman AF, Matjasko JL. The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. Review of Educational Research. 2005; 75:159–210.

Finn JD. Withdrawing from school. Review of Educational Research. 1989; 59:117–142.

Finn KV. Patterns of alcohol and marijuana use at school. Journal of Research on Adolescence. 2006; 16:69–77.

Fredricks JA, Eccles JS. Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. Developmental Psychology. 2006a; 42:698–713. [PubMed: 16802902]

Fredricks JA, Eccles JS. Extracurricular involvement and adolescent adjustment: Impact of duration, number of activities, and breadth of participation. Applied Developmental Science. 2006b; 10:132–146.

Glanville JL. Political socialization or selection? Adolescent extracurricular participation and political activity in early adulthood. Social Science Quarterly. 1999; 2:279–291.

Hansen DM, Larson RW, Dworkin JB. What adolescents learn in organized youth activities: A survey of self-reported developmental experiences. Journal of Research on Adolescence. 2003; 13:25–55.

Harter, S. Manual for the self-perception profile for children: Revision of the perceived competence scale for children. Denver: University of Denver; 1985.

Holland A, Andre T. Participation in extracurricular activities in secondary school: What is known, what needs to be known? Review of Educational Research. 1987; 57:437–466.

Huebner A, Mancini J. Shaping out-of-school time use among youth: Effects of self, family, and friend systems. Journal of Youth and Adolescence. 2003; 32:453–463.

Iso-Ahola, A. Social psychology of leisure & recreation. Dubuque, IA: W. Brown; 1980.

Kovac, M. Children's Depression Inventory Manual. North Tonawanda, NY: Multi-Health System Inc; 1992.

Larson RW. Towards a psychology of positive youth development. American Psychologist. 2000; 55:170–183. [PubMed: 11392861]

Larson RW, Hanson DM, Moneta G. Differing profiles of developmental experiences across types of organized youth activities. Developmental Psychology. 2006; 5:849–863. [PubMed: 16953691]

Larson RW, Verma S. How children and adolescents spend time across the world: Work, play and developmental opportunities. Psychological Bulletin. 1999; 125:701–736. [PubMed: 10589300]

Linville PW. Self-complexity and affective extremity: Don't put all of your eggs in one cognitive basket. Social Cognition. 1985; 3:94–120.

Luthar, SS.; Sexton, C. The high price of affluence. In: Kail, RV., editor. Advances in child development. Vol. 32. San Diego, CA: Academic Press; 2004. p. 126-162.

Mahoney JL, Cairns BD, Farmer T. Promoting interpersonal competence and educational success through extracurricular activity participation. Journal of Educational Psychology. 2003; 95:409–418.

Mahoney JL, Cairns RB. Do extracurricular activities protect against early school dropout? Developmental Psychology. 1997; 33:241–253. [PubMed: 9147833]

Mahoney, JL.; Larson, RW.; Eccles, JS.; Lord, H. Organized activities as developmental contexts for children and adolescents. In: Mahoney, J.; Larson, RW.; Eccles, JS., editors. Organized activities as contexts of development: Extracurricular activities, after-school, and community programs. Mahwah, NJ: Lawrence Erlbaum Associates; 2005. p. 3-22.

Mahoney JL, Schweder AE, Stattin H. Structured after-school activities as a moderator of depressed mood for adolescents with detached relations to their parents. Journal of Community Psychology. 2002; 30:69–86.

Mahoney JL, Stattin H. Leisure activities and adolescent antisocial behavior: The role of structure and social context. Journal of Adolescence. 2000; 2000:113–127. [PubMed: 10831137]

Marsh HW. Extracurricular activities: Beneficial extension of the traditional curriculum or subversion of academic goals. Journal of Educational Psychology. 1992; 84:553–562.

Marsh HW, Kleitman S. Extracurricular school activities: The good, the bad, and the non-linear. Harvard Educational Review. 2002; 72:464–514.

McGee R, Williams S, Howden-Chapman PH, Martin J, Kawachi I. Participation in clubs and groups from childhood to adolescence and its effects on attachment and self-esteem. Journal of Adolescence. 2006; 29:1–17. [PubMed: 16338427]

McNeal RB. Extracurricular activities and high school dropouts. Sociology of Education. 1995; 68:62–81.

McNeal RB Jr. High school extracurricular activities: Closed structures and stratifying patterns of participation. Journal of Education Research. 1998; 91:183–191.

Nam, CB.; Powers, MG. The socioeconomic approach to status measurement: With a guide to occupational and educational status scores. Houston, TX: Cap and Gown Press; 1983.

Osgood DW, Wilson JK, O'Malley PM, Bachman JG, Johnston LD. Routine activities and individual deviant behavior. American Sociological Review. 1996; 61:635–655.

Otto LB. Extracurricular activities and aspirations in the status attainment process. Rural Sociology. 1976; 41:217–233.

Pedersen S. Urban adolescents' out-of-school activity profiles: Associations with youth, family, and school transition characteristics. Applied Developmental Science. 2005; 9:107–124.

Rose-Krasnor L, Busseri MA, Willoughby T, Chalmers H. Breadth and intensity of youth activity involvement as contexts for positive development. Journal of Youth and Adolescence. 2006; 35:385–499.

Rosenfeld, A.; Wise, N. The overscheduled child: Avoiding the hyper-parenting trap. New York: St. Martin's Press Griffin; 2000.

Simpkins, S.; Little, P.; Weiss, H. Understanding and measuring attendance in out-of-school time programs. Cambridge, MA: Harvard Family Research Project; 2004.

Singer MI, Petchers MK. A biracial comparison of adolescent alcohol use. American Journal of Drug and Alcohol Abuse. 1987; 13:461–474. [PubMed: 3687901]

Spady WG. Status, achievement and motivation in the American high school. School Review. 1971; 79:379–403.

Youniss J, McLellan JA, Su Y, Yates M. The role of community service in identity development: Normative, unconventional, and deviant orientations. Journal of Adolescent Research. 1999; 14:248–261.

Youniss J, McLellan JA, Yates M. What we know about engendering civic identity. American Behavioral Scientist. 1997; 40:620–631.

Youniss, J.; Yates, M. Community service and social responsibility in youth. Chicago: University of Chicago Press; 1997.

Youniss J, Yates M, Su Y. Social integration: Community service and marijuana use in high school seniors. Journal of Adolescent Research. 1997; 12:245–262.

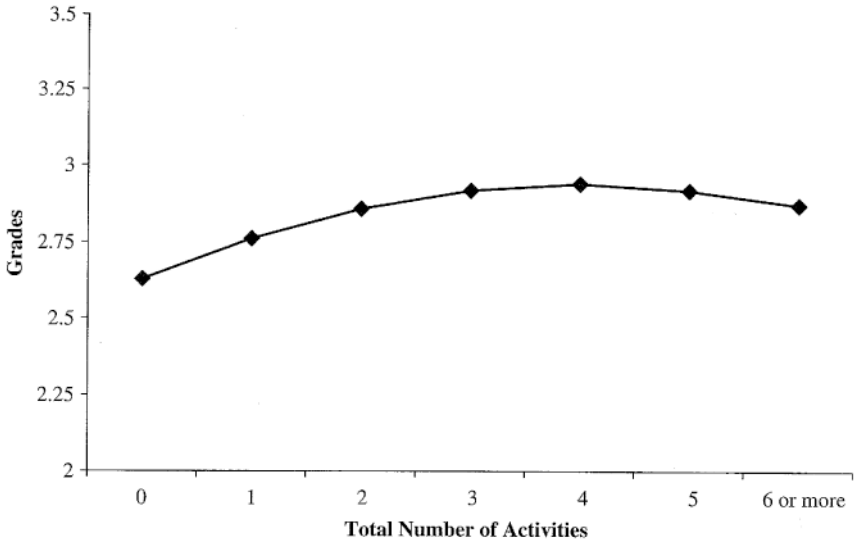

Figure 1.
Total number of organized activities and grades—11th grade.

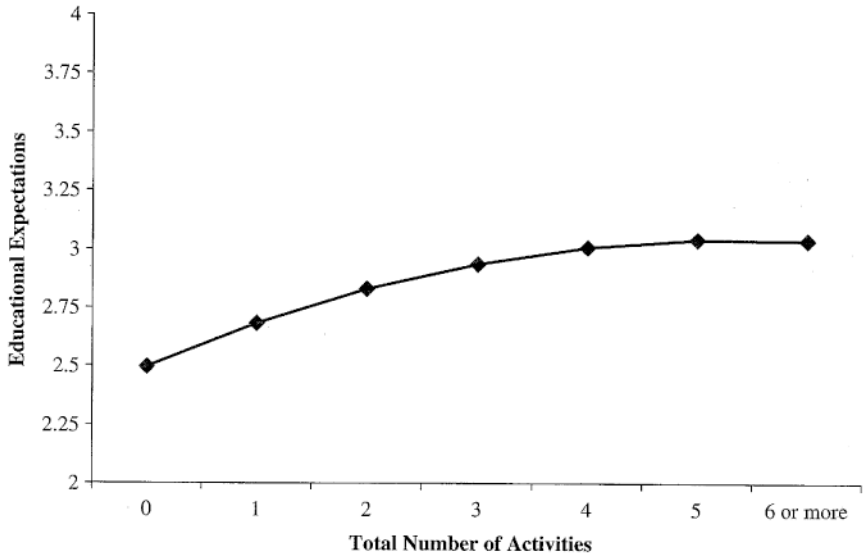

Figure 2.
Total number of organized activities and educational expectations—11th grade.

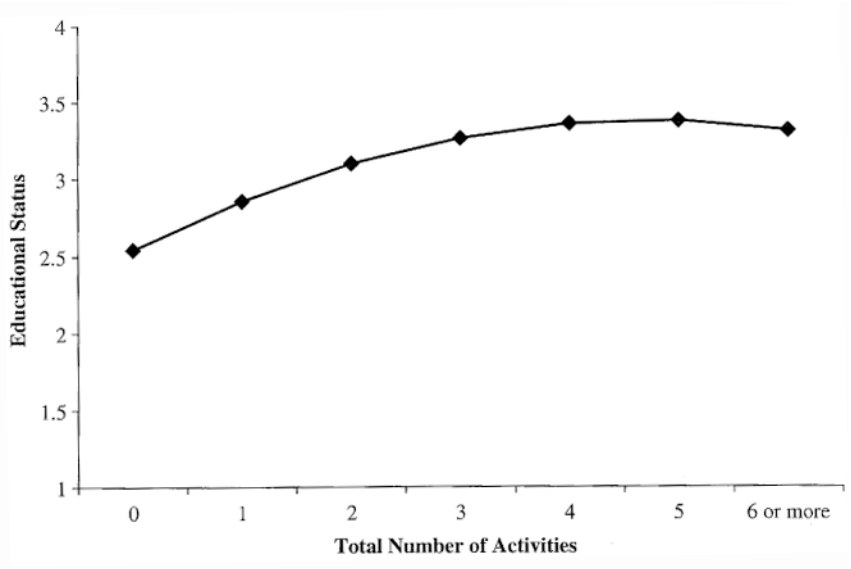

Figure 3.
Total number of organized activities and educational status—1 year after high school.

Table 1
Percent Participating in Each Activity Context

Activity Context	Percent Participating
1. School sports	41.6
2. School clubs	55.7
3. Community groups	24.6
4. Community sports	35.5
5. Volunteer service	56.0
6. Civil rights	6.1
7. Hobbies	42.4

Table 2
Descriptive Statistics by Total Number of Activities

Number Activities	Percent Participating
No activities	9.9
One activity	17.3
Two activities	23.6
Three activities	18.5
Four activities	16.4
Five activities	9.4
Six activities	4.5
Seven activities	0.4

J Res Adolesc. Author manuscript; available in PMC 2012 July 24.

Table 3

Bivariate Correlations

	1	2	3	4	5	6	7	8	9	10	11	12
1. Total activities—11th	—											
2. Sex	−.06	—										
3. Race	−.12***	.04	—									
4. SES	.31***	−.00	−.22***	—								
5. Parent motivation	.15***	−.19***	.06	.12***	—							
6. Grades—8th	.29***	−.26***	−.28***	.33***	.42***	—						
7. Grades—11th	.26***	−.23**	−.15***	.23***	.33***	.46***	—					
8. Expectations—8th	.17***	−.09**	−.03	.23***	.28***	.33***	−17***	—				
9. Expectations—11th	.36***	−.18***	−.06	.29***	.26***	.30***	.43***	.14***	—			
10. Education status	.31***	−.06	− .10**	.32***	.30***	.43***	.40***	.20***	.34***	—		
11. Family activity—8th	.03	.09**	−.05	−.02	.08*	.04	−.01	.06*	−.02	.04	—	
12. Family activity—11th	.09*	.04	−.03	.00	.08**	.10**	.05	−.01	−.06	.06	.41***	—
13. Alcohol use—8th	.00	−.03	−.13***	−.03	−.17***	−.05	−.09*	− .08**	−.11**	−.11**	−.09*	−.01
14. Alcohol use—11th	−.13**	.11**	−.20***	.01	−.16***	−.07*	−.20***	−.06	−.15***	−.21***	−.12**	−.10**
15. Alcohol use—PH	.07	.10**	−.30***	.11**	−.16***	.00	−.02	−.02	−.06	−.05	−.05	−.04
16. Marijuana use—8th	.02	.11***	−.01	.01	−.17***	−.07	−.12***	−.04	−.09*	−.11**	−.05	−.01
17. Marijuana—11th	−.16***	.14***	−.12***	−.03	−.17***	−.12**	−.21***	−.07*	−.19***	−.17***	−.08*	−.09*
18. Marijuana—PH	−.05	.15***	−.06	−.05	−.18***	−.15***	.14***	−.08*	−.14***	−.15***	−.04	−.07
19. Self-esteem—8th	−.01	.15***	.11**	.02	.20***	.10**	.07	.12***	.04	.10*	.12***	.13***
20. Self-esteem—11th	.00	.13***	.07*	−.02	.07*	.00	.03	.04	.04	.05	.04	.10**
21. Self-esteem—PH	−.01	.06	.10**	.00	.18***	.01	.03	.10**	.08	.15***	.06	.06
22. Depression—8th	−.05	−.05	.02	−.07*	−.26***	−.21***	−.15***	−.13***	−.14***	−.19***	−.11**	−.11***
23. Depression—11th	−.01	−.08	−.10**	−.01	−.14***	−.03	−.11**	−.07*	−.13***	−.10*	−.06	−.11***
24. Depression—PH	−.03	−.09	.00	−.09*	−.14***	−.08*	−.09*	−.09*	−.12**	−.16***	−.06	−.01
25. Internalizing—8 th	−.07	−.06	−.06	−.07*	−.27***	−.13***	−.08*	−.11***	−.04	−.11***	−.11***	−.08*

	1	2	3	4	5	6	7	8	9	10	11	12
26. Internalizing—11th	−.10**	−.11**	−.11**	.02	−.20***	−.07	−.10**	−.03	−.10**	−.12***	−.06	−.08*
27. Externalizing—8th	−.10***	.10**	.03	−.12***	−.38***	−.27***	−.21***	−.14***	−.11**	−.23***	−.13***	−.10**
28. Externalizing—11th	−.18***	.06	−.01	−.15***	−.35***	−.28***	−.31***	−.14***	−.26***	−.30***-	−.09*	−.11**
29. Political involvement—PH	.31***	−.03	.04	25***	.15***	.10***	.02	.06	−.14***	.15***	.03	.10*
30. Charitable involvement—PH	.31***	−.05	.09*	22***	.20***	.23***	.11**	.12**	.22***	.23***	.08	.08*

	13	14	15	16	17	18	19	20	21	22	23	24
13. Alcohol use—8th	—											
14. Alcohol use—11th	.24***	—										
15. Alcohol use—PH	.25***	−.46***	—									
16. Marijuana use—8th	.35***	.15***	.10*	—								
17. Marijuana—11th	.22***	.71***	.39***	.16***	—							
18. Marijuana—PH	.17***	.41***	.54***	.21***	.52***	—						
19. Self-esteem—8th	−.14***	−.06	−.02	−.08	.00	.00	—					
20. Self-esteem—11th	−.01	−.07*	.00	.03	−.06	−.07	.45***	—				
21. Self-esteem—PH	−.04	−.04	−.05	−.06	−.04	−.06	.39***	.52***	—			
22. Depression—8th	.17***	.12**	−.01	.10**	.11**	.04	−.55***	−.29***	−.29***	—		
23. Depression—11th	.08*	.17***	.10*	.02	.15***	−.12*	−.35***	−.52***	− .46***	.42***	—	
24. Depression—PH	.08	.04	.06	.08	.05	.07*	−.25***	−.29***	−.54***	.33***	.44***	—
25. Internalizing—8th	.03	−.05	.01	−.02	−.07	.01	−.18***	−.17***	−.19***	.26***	.18***	.18***
26. Internalizing—11th	.04	.07	.05	−.02	.03	.06	−.20***	−.20***	−.21***	.23***	.27***	.13**
27. Externalizing—8th	.11**	.10**	.13**	.13***	.08*	.20***	−.11***	.00	−.05	.24***	.13***	.15***
28. Externalizing—11th	.15***	.24***	.16***	.08*	.25***	.26***	−.12**	.14**	.14**	.24***	.20***	.16***
29. Political involvement—PH	.03	.05	.08*	.04	.10*	.06	−.02	.02	−.02	.05	.07	.03
30. Charitable involvement—PH	.01	.01	.07*	.03	.05	−.02	.01	.00	.04	−.05	.00	−.02

		25		26		27		28		29		30

	1	2	3	4	5	6	7	8	9	10	11	12
25. Internalizing—8 th		—										
26. Internalizing—11th		.60***		—								
27. Externalizing—8th		.65***		.36***		—						
28. Externalizing—11th		.37***		.62***		.61***		—				
29. Political involvement—PH		−.11**		−.08		−.08		−.01		—		
30. Charitable involvement—PH		−.11**		−.09*		−.12**		−.12***		−.12***		—

Note. Gender: 1 = male, 0 = female; race: 1 = African American, 0 = European American; PH = post high.

* $p <$. 05;

** $p <$ .01;

*** $p <$ .001.

Table 4

Standardized Regression Coefficients for Outcomes at 11th Grade Predicted by 11th-Grade Activity Involvement

	Academic Outcomes		Family	Risk Behavior	
	Grades	**Expectations**	**Family Activities**	**Alcohol Use**	**Marijuana Use**
Child gender	−.14***	−.13***	.02	.07	.10*
Race	−.04	.08*	−.03	−.18***	−.12**
Socioeconomic status	.08*	.17***	−.05	.04	.02
Prior level outcome—8th	.27***	.30***	.41***	.21***	.08
Child motivation—8th	.19*	.18***	.07	−.08*	−.12**
Linear: total # activities—11th	.13**	.22***	.07	−.12**	−.09*
Quadratic: total # activities—11th	−.08*	−.07*	.03	.02	−.02
Total R^2	.27	.35	.19	.12	.07
	Psychological Outcomes				
	Self-Esteem	Depression	Internalizing Behavior	Externalizing Behavior	
Child gender	.07*	−.04	−.10**		−.01
Race	.01	−.11**	−.10**		−.06
Socioeconomic status	−.03	.01	.04		−.04
Prior level outcome—8th	.44***	.37***	.60***		.56***
Child motivation—8th	−.01	−.07*	−.04		−.11**
Linear: total # activities—11th	04	−.01	−.11**		−.16***
Quadratic: total # activities—11th	−.01	.04	.02		.05
Total R^2	.21	.18	.42		.43

Note. Gender: 1 = male, 0 = female; race: 1 = African American, 0 = European American.

* $p < .05$;

** $p < .01$;

*** $p < .001$.

Table 5

Standardized Regression Coefficients for Outcomes at 1 Year After High School for High Socioeconomic Status Predicted by 11th-Grade Activity Involvement

	Academic Outcomes	Psychological Outcomes		Risk Behavior	
	Educational Status	**Self-Esteem**	**Depression**	**Alcohol Use**	**Marijuana Use**
Child gender	.05	.04	−.09*	.06	.06
Race	−.04	.09*	−.03	−.30***	.03
Socioeconomic status	.20***	.03	−.09	−.01	.09
Prior level outcome—8th[a]	.16***	.35***	.33***	.18***	.14**
Child motivation—8th	.21***	.08*	−.06	−.12*	−.15**
Linear: total # activities—11th	.26***	−.04	.03	.08	−.08
Quadratic: total #—11th	−.12**	.04	−.03	.07	.05
Total R^2	.26	.17	.14	.18	.07

	Civic Engagement[b]	
	Political Participation	Charitable Participation
Child gender	.01	−.01
Race	.03	−.05
Socioeconomic status	.07	.09*
Child motivation—8th	.11**	.18***
Linear: total # activities—11th	.24***	.20***
Quadratic: total # activities—11th	.03	.06
Total R^2	.10	.12

Notes. Race: 1 = African American, 0 = European American; gender: 1 = male, 0 = female.

[a]Educational expectations are used as a control in model predicting educational status.

[b]Civic engagement items were not included at 8th grade.

*$p < .05$;

** $p < .01$;

*** $p < .001$.