

# Families, Urban Neighborhood Youth Centers, and Peers as Contexts for Development

Stephen A. Anderson

Ronald M. Sabatelli

Iva Kosutic\*

**Abstract:** Three social contexts—family, neighborhood youth centers, and peer relationships—were examined in relation to several measures of adjustment among 1,406 mostly minority, inner-city adolescents. Family and center involvement were directly related to 3 of the 4 adjustment measures (i.e., achievement orientation, emotion regulation, attitudes toward school). Peer connections interacted with family and center involvement to also predict these variables. Substance use, the fourth adjustment measure, was related only to family involvement. Significant 3-way interactions suggested that within urban settings, favorable attitudes toward school may best be achieved when family, neighborhood youth center, and peer involvement are all strong. The combined effects of these 3 contexts appear to be greater among younger adolescents. Implications for promoting urban youth development programs are discussed.

**Key Words:** adolescent adjustment, inner-city, urban neighborhoods, youth centers, youth development.

Formulations of youth development have progressed from initial examinations of single sources of influence on youth, such as family, school, or peers, to considerations of multiple sources of environmental influence. These sources of influence have been referred to as external developmental assets (Benson, 2002), features of positive developmental settings (Eccles & Gootman, 2002), multilevel ecology of human development (Bronfenbrenner, 2005), and supports and opportunities (Connell, Gambone, & Smith, 2000). Although differences exist in how these terms are defined, they all refer to environmental influences that can promote the development of life skills, relational competencies, and resilience so that young people can succeed in domains such as employment, education, and civic life. Environmental influences include family, peers, schools, neighborhoods, communities, culture, and more specific settings such as after-school and other community-based programs. Generally, it is recognized that the greater the number of external assets and supports

available to youth, the more likely they will develop prosocial behaviors (e.g., academic achievement, leadership, resistance skills, tolerance for diversity), avoid risk behaviors (e.g., substance abuse, antisocial behavior, violence, school failure; Benson; Eccles & Gootman; Fredricks & Eccles, 2006), and contribute positively to self, family, and community (Mannes, Roehlkepartain, & Benson, 2005).

One important implication of this broader systems ecological view is that no particular relationship or environmental context is solely responsible for developmental outcomes (Bronfenbrenner, 2005; Granger, 2002). What becomes important is the configuration of these various sources of influence over time. Within the present study, three social contexts thought to be important to youth adjustment were examined. Specifically, family, peer, and neighborhood supports were examined as moderators of youth adjustment. The youth participating in this study were all from urban environments and attended neighborhood youth centers.

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\*Stephen A. Anderson is a professor in the Department of Human Development and Family Studies and Director at the Center for Applied Research in Human Development, University of Connecticut, Unit 2058, 348 Mansfield Road, Storrs, CT 06269 (stephen.anderson@uconn.edu). Ronald M. Sabatelli is Professor and Head in the Department of Human Development and Family Studies at the University of Connecticut, Unit 2058, 348 Mansfield Road, Storrs, CT 06269 (ronald.sabatelli@uconn.edu). Iva Kosutic is a doctoral candidate in the Department of Human Development and Family Studies and a research assistant at the Center for Applied Research in Human Development, University of Connecticut, Unit 1117, 843 Bolton Road, Storrs, CT 06269 (iva.kosutic@uconn.edu).

The urban context is characterized by multiple stressors (e.g., poverty, violence, crime), and the youth residing within these settings typically have limited resources available to them to help counter the pressures associated with these stressors (Annunziata, Hogue, Faw, & Liddle, 2006; Tolan, Gorman-Smith, & Henry, 2003). Although studies have examined the combined effects of parental support and monitoring, peer relationships, and general neighborhood conditions on youth adjustment (Cantillon, 2006; Chung & Steinberg, 2006), we are not aware of any studies to date that have examined how involvement with neighborhood youth centers complements the roles that family and peer relationships play in the lives of urban youth.

### Family Context

Research consistently has identified parental management skills and family relationship factors as two broad characteristics of family process related to adolescent adjustment. Given the kinds of urban stresses to which children are exposed, a particularly important parental management skill for inner-city parents is parental monitoring of children's out-of-home activities (Barrera et al., 2002). Close parental monitoring strategies, such as keeping close track of children's whereabouts, activities, and acquaintances, have been found to be associated with reduced delinquency and aggression and greater capacity to control anger and deal with frustration (Caldwell, Beutler, Ross, & Silver, 2006; Wright & Fitzpatrick, 2006). Conversely, lack of parental monitoring, unclear behavioral limits, and inconsistent or overly harsh discipline has been associated with elevated rates of adolescent delinquency and aggression (Reitz, Dekovic, & Meijer, 2006; Smetana, Campione-Barr, & Metzger, 2006) and substance abuse (Parker & Benson, 2004).

Another critical family characteristic is parental support. Previous research has indicated that parental support is especially important to the health and development of minority youth. For example, studies have found that parental support can insulate African American and other minority groups of youth from anxiety and depression (Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000), foster self-esteem (Gibson & Jefferson, 2006), reduce problem behaviors (Goldstein, Davis-Kean, & Eccles, 2005), buffer the effects of stress, and promote psychosocial adjustment (Bynum & Kotchick, 2006).

Youth who live in poor, crime-ridden neighborhoods have been found to receive less parental support and supervision than those who live in safer and resource-rich communities (Klebanov, Brooks-Gunn, & Duncan, 1994).

### Neighborhood Youth Centers Context

Most research on neighborhoods has focused on broad characteristics such as neighborhood disadvantage. Structural features of neighborhoods (e.g., poverty, low employment, residential mobility, racial-ethnic heterogeneity) and social aspects (e.g., perceptions of danger, presence of gangs, weak social connections among neighbors) have consistently been found to have a modest but significant negative relationship with youth outcomes (i.e., psychological stress, youth violence, substance abuse, juvenile crime; Cantillon, 2006; Chung & Steinberg, 2006; Roosa et al., 2005). The negative effects of neighborhood conditions are generally found to be mediated by strong parent-adolescent relationships and young people's avoidance of deviant peer groups (Chung & Steinberg; Roosa et al., 2005; Tolan et al., 2003).

Much of the research on neighborhoods has been deficit based and focused on negative outcomes connected with disadvantage. Far less research has examined the positive assets within these neighborhoods that can promote the development of life skills, relational competencies, and resilience. These positive assets enable young people to cope with, and overcome, adverse conditions. Community support programs such as neighborhood youth centers and other structured youth programs have been found to promote such competencies (Benson, 2002). This appears to be especially true for low-income minority youth living in disadvantaged neighborhoods where fewer organized after-school activities are generally available (Quane & Rankin, 2006). Inner-city neighborhood organizations such as youth recreation facilities, clubs, or drop-in centers have been described as providing both a *bonding* function that brings individuals with common interests (e.g., socioeconomic status, residential location) together and a *bridging* function that allows for the sharing of limited resources and information (e.g., civic engagement, positive peer associations, nonfamily adult role models; Putnam, 1999).

Research also has begun to examine the positive contributions these centers make to youth development. A study of neighborhood Boys and Girls Clubs in major urban centers found two critical

factors associated with positive youth outcomes. Supportive relationships with staff members and the kinds of activities offered at the program were associated with improved self-esteem, psychosocial functioning, and decreased problem behavior (Hirsch, Roffman, Deutsch, Flynn, & Pagano, 2000; Loder & Hirsch, 2003). Hirsch et al. (2000) found that staff offered a unique form of support falling between the caring and love received from family and the more specific skills received from schoolteachers. Other studies of youth centers have confirmed the importance of supportive staff relationships (Anderson-Butcher, Cash, Saltzburg, Midle, & Pace, 2004; Deutsch, 2005) and structured, stimulating activities in promoting adolescent prosocial behavior (Pierce & Shields, 1998; St. Pierre, Mark, Kaltreider, & Campbell, 2001). In contrast, youth centers that offer unstructured activities and little adult oversight are more likely to have high levels of negative peer influences and youth engaged in antisocial behaviors (Stattin, Kerr, Mahoney, Persson, & Magnusson, 2005).

#### *Peer Relationship Context*

Research consistently has documented the power of peer relationships to promote positive adjustment, or alternatively, encourage antisocial behaviors (cf. Boivin, Vitaro, & Poulin, 2005; Oman et al., 2004; Quane & Rankin, 2006). Developing close and supportive peer friendships has been referred to as 1 of the 10 essential developmental tasks of adolescence (Simpson & Roehlkepartain, 2003). Some research has suggested that out-of-school, neighborhood-based friendships may be especially important for minority youth who live in inner cities (Loder & Hirsch, 2003). The potential for youth to associate with deviant peer groups is significantly greater in disadvantaged, inner-city neighborhoods and has been associated with increased adolescent aggression, delinquency (Ingoldsby et al., 2006; Roosa et al., 2005), and mental health problems (Xue, Leventhal, Brooks-Gunn, & Earls, 2005). Positive peer associations take on added significance among disadvantaged youth because they can help counter the effects of negative peer pressures.

#### *Inner-City Youth and Adjustment*

In this study, adolescent adjustment was conceptualized as a multifaceted construct. Consistent with the

positive youth development perspective, the emphasis was on youth's acquisition of prosocial attitudes and skills and the avoidance of risk behaviors (Benson, 2002; Fredricks & Eccles, 2006). One such indicator of adjustment, especially for youth who live under adverse conditions, is the capacity to develop a positive, optimistic outlook toward one's future and potential for success (Eccles & Gootman, 2002). In particular, a positive achievement orientation has been found to predict subsequent academic success and emotional well-being (i.e., reduced frequency of distress symptoms; Roeser, Eccles, & Sameroff, 1998). Another indicator is the ability to manage anger and other strong emotions in conflict situations with peers and significant others. Youth with emotion regulation skills are better able to take the perspective of others and to think through solutions to interpersonal conflicts than youth with poorly developed emotion regulation skills (Kliewer, Cunningham, Diehl et al., 2004). A third factor that has been found to reflect positive adjustment among inner-city adolescents is positive attitudes toward school. Positive attitudes toward school are associated with positive school engagement and academic performance (Roeser et al., 1998), which in turn predicts long-term positive outcomes such as obtaining higher education, better job prospects, positive self-concept, reduced adult psychopathology, and future unemployment (Annunziata et al., 2006). The final adjustment variable included in the present study focused on avoidance of risk behaviors. The risk behavior included was the avoidance of alcohol and other illicit substances. Substance abuse consistently has been associated with a host of adolescent problem behaviors including delinquency, violence, sexual activity, and internalizing disorders such as depression (Sussman, Skara, & Ames, 2006).

In summary, adjustment among the inner-city youth who participated in this study was conceptualized as a multifaceted construct that included high achievement orientation, emotion regulation skill, positive attitudes toward school, and noninvolvement in illicit substance use. Research has identified each of these factors as being related to the adjustment of youth who live in highly stressful, inner-city environments.

#### *Research Goals and Hypotheses*

The first goal of the present study was to assess the relative contributions of three social contexts—family,

neighborhood youth centers, and peer relationships—to selected indicators of youth adjustment. Based upon the ecological and positive youth development perspectives discussed earlier, we hypothesized that each of the three social contexts would provide significant contributions to all four indicators of youth adjustment.

Our second goal was to assess linkages among the three social contexts. Drawing from the complementary learning framework, which posits that the goal of improving youth outcomes is better achieved by building connections among contexts in youth's lives (Bouffard, Little, & Weiss, 2006), we hypothesized that family characteristics, neighborhood youth centers, and peer relationships would moderate one another's associations with each of the four indicators of youth adjustment. For instance, a distant relationship with one's family or negative peer associations might be moderated by a strong connection with a neighborhood youth center. Alternatively, strong connections with family and a youth center might not be sufficient to compensate for dangerous peer associations.

Finally, because preliminary analyses of our data demonstrated significant correlations between age and indicators of youth adjustment, our third goal was to examine potential age differences in youth adjustment. Specifically, we wanted to learn whether and how age covaried with indicators of youth adjustment. Additionally, we wanted to explore whether associations among the three social contexts and each of the indicators of youth adjustment were moderated by youth's developmental level (i.e., age).

## Method

The youth involved in this study were attending neighborhood youth centers funded, in part, with grants from the State of Connecticut for the purposes of increasing the availability of positive experiences for at-risk youth. The centers are located in Connecticut's largest cities and generally serve low-income youth. These neighborhood centers are open evenings, weekends, and summers and required by state law to offer: athletic and recreational opportunities; enrichment or tutoring activities; skills training in areas such as problem solving, decision making, conflict resolution, peer counseling, and life skills; parent involvement in program planning; youth

involvement in planning and managing the program; youth leadership development; and coordination with other community services for youth.

The data were collected as part of an evaluation of neighborhood youth centers conducted between 2001 and 2003. The basic objectives of the evaluation were to assess center attendance and participation rates, determine youths' satisfaction with and attitudes toward the centers, elicit parents' impressions of the centers' impact on their children, and examine how youths' participation in center programs was related to their psychosocial adjustment.

### *Description of the Sample*

A total of 1,757 individuals, ranging from 12 to 21 years of age, completed the one-time survey. However, the sample used in the analyses was restricted to youth between the ages of 12 and 18 years because this represents a critical developmental period during which major biological, cognitive, and interpersonal (i.e., family, peer) changes take place (Eccles & Gootman, 2002). The sample was further reduced by missing data, resulting in a usable sample of 1,406 youth.

The mean age of the youth within the sample was 13.9 years (median = 13 years). Slightly over 55% of the total sample was youth between the ages of 12 and 13 years—meaning that older youth were somewhat underrepresented in this survey. Men comprised 57% of the sample. With respect to race/ethnicity, 4.4% were White, 37.2% were Hispanic, 50.8% were African American, and the remaining 7% reported other racial or ethnic backgrounds. The family living arrangements reported by youth were quite varied. Twenty-nine percent of the youth resided with both their biological mother and father. Another 39.7% of the participants lived in a mother-headed household, and another 14.1% lived in a household comprised of their mother and stepfather. Slightly over 2% of the youth in the sample resided in a father-headed household, and another 2% lived with their biological father and a stepmother. Just over 10% of the youth lived with relatives other than their biological parents. The remaining small percentage of participants reported living with other nonrelated adults. We do not have reliable information on the family income levels of the youth within the sample. However, slightly over 64% of the youth within the sample received free or reduced meals at school.

## Measures

### Independent Variables

The independent variables included in this study to assess family, neighborhood youth centers, and peer relationship contexts are described below.

*Family connections.* The Multidimensional Scale of Perceived Social Support (MSPSS)-Family (Canty-Mitchell & Zimet, 2000) was used to assess youth's perceptions of social support from family. The family support subscale consists of four items. The scale's dimensionality and psychometric properties have been affirmed in numerous studies (cf. Zimet, Dahlem, Zimet, & Farley, 1988; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). The alpha reliability coefficient in the present study was .90.

The items used to assess parental monitoring were developed by Voydanoff and Donnelly (1999). The scale consists of two items asking youth how often their parents (or parental figures) knew (inquired about) who they were with and what they were doing when away from home. The authors reported alpha reliability of .71 for the scale, and the scale's construct validity was demonstrated by significant relationships between the items and the measures of youth psychosocial adjustment and academic performance. The alpha reliability in the present study was .77.

In order to create a composite Family Connections score, youths' scores on the parental monitoring and family support scales were multiplied together. This composite score, thus, represented a continuum with youth reporting the lowest levels of monitoring and support at one end and youth reporting the highest levels of monitoring and support at the other end.

*Center involvement.* Youth's degree of involvement with the neighborhood centers was assessed with two measures. The amount of social support received from the staff at the centers was assessed with the Canty-Mitchell and Zimet (2000) Perceived Social Support Scale. The 4-item Significant Other Adult subscale was modified slightly to refer to relationships with center staff rather than open-ended questions about adults in general. The alpha reliability was .90.

Participation rates were assessed by asking youth how many times per week they participated in each of the following four activities sponsored at the centers: sports and recreation programs, assistance with

school-work, skills training (e.g., drug and alcohol classes, peer mentoring, conflict resolution, community service), and other social and special activities sponsored by the centers. These four items were summed to reflect the degree to which the youth were using the programs sponsored by the centers. The alpha reliability was .76.

A composite Center Involvement score was then created by multiplying the staff support and participation scale scores together. Youth at the low end of this composite continuum reported low levels of staff support and attended the centers infrequently. Youth at the high end of this composite continuum were those who reported high levels of social support from the staff and participated in a large number of activities sponsored by the centers.

*Peer support.* Peer support was assessed with the Canty-Mitchell and Zimet's (2000) MSPSS-Friends. Youth responded to the four items indicating the degree of social support they experienced from their peers. The alpha reliability coefficient in the present study was .87.

### Dependent Variables—Youth Adjustment Indicators

Four indicators of youth adjustment were used in this study—Achievement Motivation, Peer Self-Efficacy, Attitudes Toward School, and reported levels of Substance Use.

*Achievement motivation.* Achievement motivation was assessed by a scale developed by the Institute of Behavioral Science (1990) as part of the Denver Youth Survey. The scale consists of 13 items focusing on the degree to which youth aspire to achieve their future dreams and goals associated with job, family, and community. The authors reported a reliability coefficient of .78. The alpha reliability coefficient in the present study was .82.

*Peer self-efficacy.* The 5-item subscale of the Teen Conflict Survey (Bosworth & Espelage, 1998) was used to assess youths' perceptions of the degree to which they can manage anger and control conflicts with peers successfully. Internal consistency was reported by the authors to be .85. The scale was found to successfully measure changes following completion of a computerized tutorial on managing anger and violence (Bosworth, Espelage, & DuBay, 1998). The alpha reliability coefficient in the present study was .83.

*Attitudes toward school.* This 15-item scale was developed by the Center for Applied Research at the

University of Connecticut (Sabatelli, Anderson, & LaMotte, 2001). It measures the attitudes youth have toward their teachers, homework, grades, learning, and sense of school belonging. Alpha reliabilities have consistently been in the .89 – .91 range, and the scale correlated in expected directions with measures of psychological and social functioning. The scale also was able to assess changes resulting from participation in after-school programs (Sabatelli & Anderson, 2003). The alpha reliability coefficient in the present study was .72.

*Substance use.* Lastly, three questions probing the number of days in the last 30 days that youth used harmful and illegal substances (i.e., any alcohol, alcohol to intoxication, other illegal drugs) were combined into a scale measuring level of Substance Use. Items were derived from the Youth Risk Behavior Survey (Centers for Disease Control, 1999). The original survey has been in use since 1989 and has consistently shown good test-retest reliability. Kappa statistics for the items similar to the ones used in this scale ranged from .68 to .71 (Brener et al., 2002). The alpha reliability for this 3-item scale was .64.

## Results

### Preliminary Analyses

The correlations among the variables used in the study along with their means and standard deviations are reported in Table 1. Correlations among

dependent variables were low to moderate, ranging from  $-.09$  to  $.29$ , suggesting that they were conceptually distinct; that is, each of the indicators tapped a somewhat different dimension of youth adjustment.

The approach to data analyses was determined, in part, by whether systematic differences in the adjustment indicators were noted for gender, race/ethnicity, family living arrangements, and age. No significant group differences were found for gender, race, and family living arrangement, so these variables were not included in subsequent data analyses. However, several correlations between age and the adjustment indicators were found to be significant. Though the effects sizes were relatively small, age was negatively correlated with Achievement Motivation ( $r = -.06$ ;  $p < .01$ ) and Attitudes Toward School ( $r = -.05$ ;  $p < .05$ ) and positively correlated with Substance Use levels ( $r = .08$ ;  $p < .001$ ). Age was not significantly correlated with Peer Self-Efficacy.

### Multivariate Analyses

A series of four-step hierarchical multiple regression analyses were conducted to examine associations between Family Connections, Center Involvement (composite scores), Peer Support, and four indicators of youth adjustment, while also exploring potential age differences and interactions. Age, Family Connections, Center Involvement, and Peer Support were entered on the first step followed by the inclusion of all possible two-way interaction terms on the second step (e.g., Age  $\times$  Family Connections,

Table 1. *Correlations Among Study Variables*

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Family monitoring	—										
2. Family support	.30	—									
3. Family connections	.73	.85	—								
4. Staff support	.14	.36	.34	—							
5. Participation rates	.02	-.04	-.03	.12	—						
6. Center involvement	.09	.21	.19	.60	.79	—					
7. Peer support	.16	.46	.41	.34	-.05	.19	—				
8. Achievement motivation	.24	.14	.22	.08	.10	.13	.11	—			
9. School attitudes	.12	.09	.13	.15	.08	.14	.10	.15	—		
10. Peer self-efficacy	.25	.17	.26	.22	.06	.15	.16	.29	.15	—	
11. Substance use	-.15	-.10	-.13	-.03	-.01	-.01	-.06	-.07	-.10	-.09	—
<i>M</i>	8.1	21.8	181.5	19.4	10.5	211.0	20.2	53.3	46.2	20.3	.44
<i>SD</i>	2.1	7.0	80.4	7.9	6.8	173.8	6.9	6.2	8.0	4.2	2.9

Note. Given the large sample size a correlation value of .04 is significant at the  $p < .05$  level, a value of 0.06 at the  $p < .01$  level, and a value of 0.08 at the  $p < .001$  level.

Table 2. Summary of Hierarchical Regression Analysis for Variables Predicting Achievement Motivation and Peer Self-Efficacy (N = 1,406)

Variable	Achievement Motivation			Peer Self-Efficacy		
	B	SE B	$\beta$	B	SE B	$\beta$
Step 1						
Age	-.12	-.09	-.04	.10	.06	.04
FC	.02	.00	.21**	.01	.00	.24**
CI	.08	.02	.09**	.00	.00	.11**
PS	.01	.03	.01	.03	.02	.05
Adjusted R <sup>2</sup>	.052			.083		
F	21.43**			33.14**		
Step 2						
FC × PS	.05	.00	.47**	.00	.00	.57**
$\Delta R^2$	.018			.019		
F change	4.51**			5.56**		

Note. FC = family connections; CI = center involvement; PS = peer support.  
\* $p < .01$ . \*\* $p < .01$ .

Family Connections × Peer Support). All possible three-way interactions were entered on the third step, and the four-way interaction term was entered on the final step. Variables are said to interact in their accounting for variance in a criterion variable when they have a joint effect, which is, over and above, any additive combination of their separate

Table 3. Summary of Hierarchical Regression Analysis for Variables Predicting Attitudes Toward School and Substance Use

Variable	Attitudes Toward School			Substance Use		
	B	SE B	$\beta$	B	SE B	$\beta$
Step 1						
Age	-.07	.12	-.02	.11	.04	.08*
FC	.01	.00	.09**	-.00	.00	-.09*
CI	.01	.00	.11**	.00	.00	.01
PS	.05	-.03	.04	-.00	.01	-.02
Adjusted R <sup>2</sup>	.029			.014		
F	11.13**			4.51*		
Step 2						
FC × PS	.00	.00	.27*			
$\Delta R^2$	.008					
F change	2.53*					
Step 3						
Age × CI × PS	.00	.00	-.72*			
FC × CI × PS	.00	.00	-.94*			
$\Delta R^2$	.010					
F change	2.08*					

Note. FC = family connections; CI = center involvement; PS = peer support.  
\* $p < .01$ . \*\* $p < .001$ .

effects (Cohen & Cohen, 1983). In order to minimize the possibility of multicollinearity, given that the interaction terms are derived from the cross product of the predictor variables, the interaction terms were created using “centered variables.” This transformation is one of the primary ways of reducing multicollinearity because of the highly correlated nature of interaction terms with the corresponding independent predictors (Norusis, 2006). Results for each of the four youth adjustment indicators are reported below. Results for each of the four youth adjustment indicators are reported in Tables 2 and 3.

*Achievement motivation.* The first step of the regression analysis produced two significant main effects for Family Connection ( $t = 6.75$ ;  $p < .001$ ) and Center Involvement ( $t = 2.47$ ;  $p < .01$ ) accounting for 5.2% of the variance. In the second step, 1 two-way interaction term, Family Connection × Peer Support, also was found to be statistically significant ( $t = 4.51$ ;  $p < .0001$ ) and accounted for an additional 1.8% of the variance.

The significant Family Connection × Peer Support interaction term suggests that these two predictors operate conditionally. That is, the association between Family Connection and Achievement Motivation is moderated by the level of Peer Support youth report. Similarly, the association between Peer Support and Achievement Motivation is moderated by youth’s reported levels of Family Connection. To clarify this finding further, median scores on each variable were used to divide youth into low and high groups. The data summarized in Table 4 suggest that youth experiencing higher levels of Family Connection reported higher levels of Achievement Motivation. Furthermore, youth reporting the highest levels of Achievement Motivation were those who were highly connected to their families and experienced high levels of peer support.

*Peer self-efficacy.* The first step of this regression analysis produced significant main effects for Family Connection ( $t = 7.90$ ;  $p < .001$ ) and Center Involvement ( $t = 4.38$ ;  $p < .001$ ) accounting for 8.3% of the variance. A significant two-way Family Connection × Peer Support interaction term ( $t = 5.56$ ;  $p < .001$ ) was produced on the second step of the equation and accounted for an additional 1.9% of the variance. This result is consistent with the previously reported findings in that the highest levels of Peer Self-Efficacy were found among those who experienced strong family and peer supports (see Table 4).

Table 4. Descriptive Statistics: Family Involvement × Peer Support Interactions on Criterion Variables

Family Involvement (FI) Groups	Peer Support (PS) Groups	Achievement Motivation	Attitudes Toward School	Peer Self-Efficacy
Low FI	Low PS	51.9 (478)	44.8 (465)	19.0 (490)
	High PS	52.5 (253)	46.2 (255)	19.7 (260)
High FI	Low PS	54.1 (259)	45.9 (246)	20.7 (257)
	High PS	54.9 (475)	47.4 (463)	21.9 (485)

Note. The *ns* for the groups are reported in parentheses.

*Attitudes toward school.* The first step of the regression equation produced two significant main effects for Family Connection ( $t = 3.09$ ;  $p < .001$ ) and Center Involvement ( $t = 3.97$ ;  $p < .001$ ) that accounted for 2.9% of the variance. One significant two-way interaction term for Family Connection × Peer Support ( $t = 2.53$ ;  $p < .01$ ) was produced in the second step and accounted for an additional 0.8% of the variance. Two significant three-way interaction terms for Age × Center Involvement × Peer Support ( $t = 2.42$ ;  $p < .01$ ) and Family Connection × Center Involvement × Peer Support ( $t = 2.08$ ;  $p < .05$ ) also were found to be significant in the third step of the regression equation and these accounted for an additional 1.0% of the variance.

Paralleling the findings for Achievement Motivation and Peer Self-Efficacy, the statistically significant Family Connection × Peer Support interaction once again suggests that youth with the most positive attitudes toward school were those who experienced strong connections to their families and high levels of peer supports (see Table 4).

To interpret the three-way interactions between Age, Center Involvement, and Peer Support, we divided the sample into three age-groups (12-year-

olds, 13- to 14-year-olds, and 15- to 18-year-olds). Center Involvement groups were created by using the median score on this variable to divide youth into low and high groups. Similarly, Peer Support groups were created by using the median score on this variable to divide the youth into low and high groups. The mean scores for these groupings are depicted in Table 5. The results suggest that the most positive attitudes toward school were found among the relatively younger youth in the sample who reported high involvement in the youth centers and experienced strong support from their peers. In addition, there appears to be a tendency for youth who were less connected to the youth centers and who also experienced less supportive connections to their peers to have less favorable attitudes toward school. This trend appears to be most pronounced for older teens.

A similar method was followed to interpret the three-way interactions between Family Connection, Center Involvement, and Peer Support. Groups were created for each of these variables by using the median scores to divide youth into low and high groups. These results are depicted in Table 6. Youth with the most positive attitudes toward school are

Table 5. Descriptive Statistics: Family Involvement × Center Involvement × Peer Support on Attitudes Toward School

Family Involvement (FI) Groups	Center Involvement (CI) Groups	Peer Support (PS) Groups	<i>M</i>	<i>SD</i>	<i>n</i>
Low FI	Low CI	Low PS	44.59	8.99	227
		High PS	44.57	5.79	102
	High CI	Low PS	44.91	8.73	180
		High PS	47.86	8.11	125
High FI	Low CI	Low PS	45.26	7.35	96
		High PS	46.02	6.01	170
	High CI	Low PS	47.16	6.73	125
		High PS	48.26	8.36	245

Table 6. *Descriptive Statistics: Age × Center Involvement × Peer Support Interaction on Attitudes Toward School*

Age-Groups	Center Involvement (CI) Groups	Peer Support (PS) Groups	<i>M</i>	<i>SD</i>	<i>n</i>
12-year-olds	Low CI	Low PS	46.07	9.31	113
		High PS	45.75	5.98	82
	High CI	Low PS	45.52	7.33	110
		High PS	48.10	8.00	140
13- to 14-year-olds	Low CI	Low PS	44.51	6.93	110
		High PS	44.39	5.13	74
	High CI	Low PS	45.20	9.87	98
		High PS	49.03	8.66	133
15- to 18-year-olds	Low CI	Low PS	43.36	8.82	95
		High PS	45.90	6.70	114
	High CI	Low PS	46.07	5.42	89
		High PS	47.84	9.31	96

those who experienced strong family, youth center, and peer connections. Youth with the least favorable attitudes toward school reported relatively low ties to their family, youth center, and peer networks. However, it is interesting to note that high levels of Center Involvement and Peer Support appear to moderate the negative relationship that low levels of Family Connection have on youth's Attitudes Toward School.

*Substance use.* Two significant main effects were found for age ( $t = 2.76$ ;  $p < .005$ ) and reported levels of Family Connection ( $t = -2.86$ ;  $p < .005$ ). What is of note here is that a very low percentage of variance was accounted for by the regression model ( $R^2 = 1.4\%$ ). No interaction terms were found to be statistically significant. The interpretation of this finding is straightforward. The use of substances appears to positively covary with the age of the youth and negatively covary with levels of Family Connection.

## Discussion

### *Families, Youth Centers, Peer Relationships, and Youth Adjustment*

The study results support previous conceptual and theoretical formulations that highlight the importance of various social contexts in determining child and adolescent development (Benson, 2002; Bronfenbrenner, 2005). Multiple regression analyses indicated that family connections (i.e., monitoring and support) and neighborhood youth center

involvement (i.e., staff support, participation rates) were both positively related to three of the four indicators of adolescent adjustment (i.e., achievement motivation, peer self-efficacy, attitudes toward school). Although empirical evidence for the importance of the family context is extensive, support for the potential of inner-city neighborhood youth centers to positively affect youth development has been limited. Peer support, the third social context examined in this study, was not directly and independently associated with any adjustment indicators. However, this is not to say that peers played no role in promoting young people's adjustment. Rather, their influence appears to be less direct and moderated by the degree to which youth reported being engaged with their families and the local youth center. This point will be examined further in the next section.

Contrary to expectations, substance use, the fourth indicator of adolescent adjustment included in the study, was related only to one social context, connections with family. This finding is consistent with other research that has documented the importance of parental monitoring and family support as protective factors against substance abuse (Broman, Reckase, & Freedman-Doan, 2006; Siebenbruner, Englund, Egeland, & Hudson, 2006), yet it is inconsistent with previous research suggesting that peers also play an important role in reducing substance abuse (Parker & Benson, 2004). One explanation is that youth centers expose young people to positive, prosocial peer relationships rather than negative peer pressure to use drugs. Some evidence suggests that affiliating with deviant friends who encourage antisocial behavior is more likely to affect

drug use than positive peer affiliations (Bukowski & Adams, 2005).

#### *Interactions Among Family, Youth Center, and Peer Relationships With Youth Adjustment*

As noted earlier, peer support did not emerge as a statistically significant main effect in any of the analyses. However, it did significantly interact with family connections as a predictor of achievement motivation, attitudes toward school, and peer self-efficacy. The pattern of results here was consistent in highlighting how these two predictors operate conditionally with respect to youth adjustment. In all instances, youth adjustment was highest among young people who were highly connected to both their families and their peers.

A more complex finding was found specifically for young people's attitudes toward school. There was a significant three-way interaction among Family Connections, Center Involvement, and Peer Support. Although, as noted earlier, a high level of family support was associated with more favorable attitudes toward school, the family's contribution is clearly augmented when youth are also highly involved with neighborhood centers and strongly supported by their peers. In other words, within these urban settings, family supports may not be sufficient to ensure that youth will maintain positive attitudes toward school. In these at-risk environments, favorable attitudes toward school are more likely to result when youth experience not only support from their families but also high involvement in neighborhood youth centers that support school attendance and performance (as mandated by the State) and encourage youth to interact with other young people who share these same values.

#### *Stage of Adolescent Development, Social Contexts, and Youth Adjustment*

Adolescents' attitudes toward school were further elaborated by a second three-way interaction that included Developmental Stage (Age), Youth Center Involvement, and Peer Connections. One striking aspect of this finding was that attitudes toward school were higher among younger youth compared to older youth. One explanation for this is that developmentally, younger inner-city youth may be more invested in school or open to academic assistance than older youth who may have a longer history of school alienation. Another possibility is that

youth centers placed greater emphasis on working with younger youth on improving academic skills. Another noteworthy finding was that, in all age ranges, attitudes toward school were more favorable when the youth were also highly connected to both the centers and their peers. These findings suggest that youth centers and supportive peers together may keep youth positively oriented toward school, even when they reside in what are considered to be high-risk environments.

#### *Implications for Inner-City Youth Programs*

These findings illuminate some important considerations for youth intervention programs, especially those that operate in inner-city neighborhoods. First, programs most likely to promote positive youth adjustment are those that (a) have direct access to parents and can offer parents opportunities to strengthen their parenting skills (i.e., monitoring, support), (b) provide opportunities for young people to develop supportive relationships with peers, (c) offer stimulating activities and supportive interactions with staff in order to promote greater youth participation (Benson, 2002; Halpern, 2005; Quane & Rankin, 2006), and (d) tailor programming to the different developmental stages of young people who attend the program. The latter appears to be especially critical in programs that target academic success as one of their goals.

We have found that most intervention programs offer some but not all of these dimensions. For instance, the neighborhood youth centers with which we have been involved offer the latter two factors but have little, if any, direct contact with parents. Recent empirically based family therapy interventions for troubled adolescents have emphasized the importance of family, peer, and community contexts, but the primary vehicle through which peer and community connections are fostered is through working directly with parents to address problems that arise in these other contexts (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). Parent education programs work with parents, and sometimes youth, to improve parent-child communication and parental management skills (i.e., emotional bonding, discipline) but typically do not bring children in direct contact with their peers (e.g., Smith, Sells, Rodman, & Reynolds, 2006; Toumbourou & Gregg, 2002). Because of their physical presence in the inner-city neighborhood, youth centers are in an excellent position to

offer interventions directly to youth, parents, and peers and to connect families with other available supports within the community in order to promote youth development.

Some limitations and suggestions for future research must be noted. First, the correlational nature of the study precludes conclusions about causal relationships between social contexts and youth adjustment. For example, it is not possible to conclude that participants' psychosocial adjustment improved because of their youth center participation or their relationships with parents or peers. Youth with personal, peer, familial, or other protective factors may self-select to become actively involved in youth centers. Second, all data were collected from youth self-report surveys raising the possibility of shared methods variance among indicators. One factor that argues against this being a serious limitation is the relatively low correlations among indicators of adjustment included in the study. Third, the amount of variance explained in some outcomes, most notably substance use, was relatively small. This may be because of the fact that other important social contexts were not included in the study. Future research might consider the inclusion of other sources of social influence such as school or neighborhood characteristics. This study focused primarily on several social contexts or external assets (Benson, 2002) that were hypothesized to affect youth development. Future studies might also be expanded to examine interrelationships among external and internal assets (e.g., youth competencies, skills, self-perceptions) as predictors of youth development. We also need to look more closely at the type of programming being implemented within neighborhood youth centers to determine which philosophies and activities are most effective in promoting positive youth outcomes. Despite some limitations, the results of this study suggest that inner-city youth centers, along with family and peer relationships, are important contexts for promoting youth development.

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