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Breadth and Intensity of Youth Activity Involvement as Contexts for Positive Development

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Research has linked youth activity involvement to positive development. However, past studies have confounded at least two separable dimensions of involvement: breadth (number of activities) and intensity (participation frequency). Theory and the limited available evidence suggest that these dimensions may make independent contributions to development. Based on self-reports from 7430 high school students, this study assessed whether breadth and intensity dimensions were related to each other, to a typical aggregate measure of involvement, and to various indicators of positive development. Breadth and intensity were moderately interrelated and, in combination, they explained the majority of the variance in the typical involvement measure. Both dimensions were positively related to each development index. When examined simultaneously, only breadth had a unique relation with each developmental index. Further, evidence of nonlinear effects was found. Findings were consistent across age levels. Implications for measurement of involvement and interpretations of the extant research are discussed.

KEY WORDS: Youth activity involvement; positive development.

INTRODUCTION

Youth activities can serve as important developmental contexts (e.g., Hansen *et al*., 2003; Yates and Youniss, 1996). A growing interest in the potential benefits of youth activity involvement stems, in part, from an emerging conceptualization of adolescence as a period of potential and growth—rather than simply a time of risk and hazard. A defining feature of this new perspective is that it looks at young people as resources rather than as problems (Damon, 2004). Within this framework, researchers have sought to identify individual, family, peer, and community factors that promote healthy youth development. This collective body of work indicates that involvement in community and extracurricular activities may be an important source of positive development, likely through the provision of a variety of growth-promoting experiences (see Hansen *et al*., 2003; Mahoney *et al*., 2004a,b; Yates and Youniss, 1996).

For example, activity involvement has been linked positively to *social development*, including healthy interpersonal connections, peer support, social integration, and community ties (Fletcher and Shaw, 2000; Hansen *et al*., 2003; Hart and Fegley, 1996; Mahoney *et al*., 2003; Youniss *et al*., 1999), as well as commitment to helping others (Johnson *et al*., 1998). Such activities provide perhaps unique opportunities for youth to establish positive relations with extra-familial adults and form new relationships with peers of similar interests (e.g., Smoll *et al*., 1993; Youniss *et al*., 1997). Similarly, youth involvement has been related to *academic* success, including school retention, academic achievement, university attendance, and higher academic goals (e.g., Cooper *et al*., 1999; Eccles and Barber, 1999; Fletcher *et al*., 2003; Mahoney *et al*., 2003).

There also has been considerable empirical support for a link between activity involvement and sense of personal *well-being* in youth. For example, involvement has been associated with strengthened initiative

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(Larson, 2000), sense of self-directedness and empowerment (McMahon *et al*., 2004), and higher self-esteem (e.g., Richman and Shaffer, 2000; Smoll *et al*., 1993). In addition, involvement has predicted lower depressed mood, less anxiety, and fewer psychiatric visits in high school samples (e.g., Barber *et al*., 2001; Mahoney *et al*., 2002). Further, youth involvement has been linked with *reduced problem behavior* in areas such as substance use (e.g., Anderson-Butcher *et al*., 2003; Youniss *et al*., 1999) and school drop-out (e.g., Eccles and Barber, 1999; Mahoney, 2000).

Thus, there has been an extensive history of investigations linking youth involvement to positive developmental factors. Within this literature, however, there has been considerable inconsistency and conceptual ambiguity in the measurement of youth involvement. In particular, investigators largely have not distinguished two major dimensions of involvement: (a) intensity, which we define as the *average frequency of involvement*; and (b) breadth, defined as *the number of different types of activities* in which the youth are involved. Little is known about how breadth and intensity may be related to each other and how each may be uniquely related to indicators of positive development.

Some youth, for example, may be engaged frequently in many different types of activities, while others may participate only in a small number of activity domains. In a longitudinal exploration of adolescent time-use patterns, for example, Shanahan and Flaherty (2001) found that over 50% of students showed moderate-to-high involvement (measured by number of hours spent over a week) in six categories of activities (jobs, extracurricular activities, chores, with friends, homework, time with mother), while the remainder of the youth focused on a more limited set of activities. A recent cluster analysis provides support for examining breadth and intensity dimensions in relation to each other. Bartko and Eccles (2003) found six clusters of involvement "styles," based on frequency of adolescents' involvement in 11 categories of activities. One cluster consisted of adolescents who had high rates of involvement in 7 of the 11 activities (high breadth and intensity), while another cluster was characterized by relatively low participation frequency in all activities (low breadth and intensity). Several of the other clusters consisted of adolescents with high participation in a small number of activities (e.g., sports or school related) and thus were characterized by relatively little breadth but high intensity. Significant differences in psychosocial factors (e.g., problem behaviors, depression) were found among identified clusters, indicating that breadth and intensity dimensions might interact in meaningful ways.

However, researchers often have measured involvement in ways that confound intensity and breadth, which precludes such analyses. For example, involvement sometimes has been considered as a dichotomous variable (i.e., involved vs. not) in order to compare characteristics of involved and non-involved groups (e.g., Barber *et al*., 2001; Eccles and Barber, 1999; Johnson *et al*., 1998; Mahoney, 2000; Mahoney and Stattin, 2000; Mahoney *et al*., 2002). For example, Eccles and Barber (1999) assessed youth involvement in five categories of extracurricular activities (prosocial activities, sport teams, performing arts, school involvement, academic clubs) by assigning scores of involved (vs. not involved) for respondents participating in at least one activity within each category. Both cross-sectional and longitudinal analyses indicated that involved youth reported stronger academic performance and lower levels of risk behavior involvement, particularly among youth involved in prosocial activities. By treating involvement as an "all or nothing" variable, however, differences in characteristics *among involved youth* that may be related to either breadth or intensity of involvement are obscured. Indeed, implicit in the treatment of involvement as a dichotomous variable is the assumption that each respondent in the "involved" group is identical in terms of the nature of their involvement.

Measures of the frequency of involvement (intensity) may yield information that dichotomous measures cannot capture. The most common strategy for assessing participation frequency is to ask youth or their parents to rate how often the youth participate in various activities over a specified time period, often using a global rating such as "never" to "a lot" or estimates of the specific amount of time youth are involved in each activity (e.g., number of hours or days). Typically, analyses are based on averaged (or summed) frequencies, aggregated *across* activities, including activities for which respondents indicated no involvement (e.g., McHale *et al*., 2001; Oman *et al*., 2002; Pratt *et al*., 2004; Youniss *et al*., 1997, 1999). For example, Youniss and colleagues (1997) assessed frequency of youth involvement in 15 activities based on ratings ranging from "never" to "almost every day" that were factor analyzed; composite scores for four activity types (schools, creative activities, sports, and fun) were assigned by summing frequency ratings for the multiple activities within each of the four activity types. These summed scores then were used to derive involvement profiles, which were examined in relation to marijuana use, religiosity, community service, and political participation.

The use of such overall indices—whether based on averaging or summing of frequency ratings for a subset of activities within a given "type" or for a wide range of activities—confounds breadth and intensity dimensions.

Indeed, a youth may be involved in a few activities very frequently, while a peer is involved in a wide range of activities but at lower frequency; yet both may have similar involvement scores. Furthermore, whether it is breadth of involvement or involvement intensity that is in fact uniquely related to the developmental phenomena of interest is obscured by averaging or summing frequency ratings across multiple activities. Thus, we argue that frequency and breadth need to be considered as separate constructs.

Researchers investigating youth involvement also have focused on frequency of participation. The regularity of amount of time youth participated in various types of activities has been used to predict a wide range of individual characteristics, including school achievement (Cooper *et al*., 1999), personal adjustment (McHale *et al*., 2001), identity development (Youniss *et al*., 1999), self-esteem and perceived competence (Bowker *et al*., 2003), and antisocial behavior (Mahoney *et al*., 2004). Intense/frequent participation in an activity may facilitate the development of skill mastery and intensive knowledge. The development of such expertise requires extensive practice, effort, and time; such commitment, therefore, necessarily may restrict the child to a relatively small number of activities (Cote, 1999) and thus restrict the breadth of experience.

In contrast to the earlier focus on intensity, other researchers have assessed breadth of participation. These researchers frequently measure activity involvement in terms of the *number* of activities in which youth are involved (e.g., Fletcher and Shaw, 2000; Gerber, 1996; Mahoney, 2000). In such studies, "more" involvement reflects greater diversity of participation. For example, Fletcher and Shaw (2000) found that the number of different extracurricular and community activities was related positively to parental community involvement, as well as parenting style and parent–child relationships. These authors interpreted intensity of involvement in a small number of activities as reflecting specific interest or talent, while involvement in a large number of community activities was considered an indication of community integration. In a recent study, Jacobs *et al*. (2005) used several measures reflecting breadth of involvement to assess links between middle school activities and adolescent self-perceived competence and values. Children's concentrations in different types of activities were measured by the proportion of all of their activities that fell within a given category, as well as the number of activities within that category. Results indicated both number of activities and concentration of activity *within* a domain (i.e., low breadth) in childhood positively predicted adolescent values and self-perceived competence in that domain, after controlling for initial values and competence.

In general, being involved in several activities (independent of how frequently one does those activities) may not have the same developmental implications as being intensely involved in one activity (e.g., Fletcher and Shaw, 2000). Breadth of involvement may provide youth with opportunities for gaining a broad range of skills and values, as well as exposing the child to a variety of different people and experiences. Indeed, the relation between youth involvement and outcomes has varied as a function of the specific type of activity engagement. Barber and her colleagues (Barber *et al*., 2001; Eccles and Barber, 1999), for example, found that involvement in prosocial activities predicted subsequent higher self-esteem, while sports participation was associated with lower levels of social isolation. Similarly, Hamilton and Fenzel (1988) found that community service activities had a greater impact on socially responsible attitudes than did child mentoring activities, while Gerber's (1996) results indicated that school-based extracurricular activities had stronger associations with academic achievement than non-school activities. Involvement in a diverse set of activities, thus, may facilitate exploration and provide rich opportunities for children to learn different abilities and develop a variety of interests. With this range of knowledge, youth may better be able to achieve identity-related developmental tasks than if their participation experiences had been narrow or constrained (Shanahan and Flaherty, 2001). Further, involvement in many different activities provides the child with multiple sources of engagement-related benefits. If the child encounters difficulty or frustration in one of the activities, experiences in other activities may compensate or replace the problematic activity (see Iso-Ahola, 1980).

Surprisingly, few researchers have examined breadth and intensity of youth activity involvement simultaneously. (Within the affect literature, however, Diener and colleagues have proposed an analogous distinction for affective experience based on conceptual and empirical grounds; see Diener *et al*., 1985; Schimmack and Diener, 1997). In one study of youth activities, intensity of involvement—but not breadth—was related to positive individual characteristics. Powell *et al*. (2002) found that frequency of participation in out-of-school activities (intensity) had a curvilinear relation to school grades in a sample of grade 1 children. Frequency was positively related to academic performance from low to moderate participation rates; from moderate to high participation, this relationship was negative. Breadth of involvement (measured by number of out-of-school activities), however, was not related to school grades. In contrast, other

research has shown breadth of activities to be more closely related to positive outcomes than involvement intensity. Loy *et al*. (2003) examined the relation between involvement in leisure activities and recovery from spinal cord injury. Multiple dimensions of leisure activity involvement were assessed, including involvement diversity (the number of activities engaged in) and frequency (the average times per year participants were involved in their three most frequent activities). Diversity of leisure activity involvement had stronger associations with subjective well-being and self-perceived health than did frequency of leisure involvement.

Breadth and intensity of involvement, therefore, may provide the youth with different opportunities and experiences at a single point in time. With development, however, individuals also may move from states characterized by breadth of experiences to those characterized by intensity. One theoretical framework for this developmental progression is identity development (Erikson, 1968; Marica, 1966). In this view, achievement of mature identity is preceded by an exploration phase, in which youth engage in a period of "trying out" different roles, beliefs, and experiences. Through these diverse experiences, adolescents select their own developmental paths and form an integrated and stable sense of self. Indeed, these periods of identity exploration and consolidation may re-occur throughout development and may be particularly common in times of transition (Stephen *et al*., 1992).

Baltes *et al*. (1999) also proposed a developmental progression from breadth to depth. For these lifespan theorists, development was conceptualized generally as "ontological selection from a pool of more or less constrained potentialities and the subsequent selective optimization of the entered pathways" (p. 1045). The developing individual samples from a range of opportunities and then selects a path. Non-selected possibilities are eliminated, as the individual optimizes development in the chosen direction by acquiring relevant skills and focusing attention and efforts. The individual experiences breadth first, without intense investment in any one path; this is followed by intensity of involvement and reduced breadth.

Some evidence for this developmental progression is provided by Côté's (1999) study of the development of talent in sport, in which he found three stages of participation. In the first stage, the *Sampling Years* (ages 6–13 years), children participated in a wide range of activities, with a focus on fun and experimentation. The *Specializing Years* (13–15 years of age) comprised the second stage, in which children gradually focused on one or two specific activities and decreased their involvement in other activities. A commitment was made from a range of possibilities and the youth sacrificed some "breadth" to achieve "intensity" of experience. The Specializing period was followed by the *Investment Years* (older than 15 years), in which the young person made a commitment to excel in the sport. Skill development and practice became primary components, as well as a focus on strategy and competition. This concentration on a single path maximized the achievement of mastery, rather than diversity of experience. Such findings suggest that intensity of involvement may increase with age over the adolescent period, accompanied by a decrease in breadth. Similarly, Jacobs *et al*. (2005) found that children's activity participation became more concentrated within activity domains and less homogeneous across domains from middle childhood to early adolescence. In contrast, Shanahan and Flaherty (2001) found considerable individual stability in breadth of involvement over the high school years, especially for students who started high school with a relatively diverse pattern of time use.

In summary, despite a large body of research linking youth involvement to a wide variety of positive outcomes, researchers have failed to distinguish between involvement intensity and breadth. Both developmental theory and the limited available evidence suggest that these two dimensions may make independent contributions to development. In the current study, our first goal was to assess the relationship between involvement breadth and intensity. Further, we sought to determine how both dimensions were related to a commonly-used aggregate index of involvement that potentially confounds these dimensions. Our second major aim was to assess the relation between involvement dimensions and several indices of positive youth development that have been frequently linked to youth involvement: risk behaviors; sense of well-being; academic orientation; and interpersonal functioning. Results indicating that the breadth and intensity dimensions have different relations with indices of youth development would have important implications for the conceptualization and measurement of involvement—as well as for the interpretation of findings from previous studies which have largely confounded the assessment of breadth and intensity of involvement.

Our third goal was to determine whether there were age-related changes in the two dimensions over the adolescent years. We expected to find that breadth would decrease and intensity would increase over this developmental period. A full assessment of this developmental hypothesis requires longitudinal data in which developmental changes in breadth and intensity are examined independently. Since this model has not been fully tested in the context of youth involvement, we explored this hypothesis in an exploratory fashion based on cross-sectional analysis. In addition, we assessed whether relationships

between the involvement dimensions and four developmental domains (risk behaviors, sense of well-being, academic orientation, and interpersonal functioning) would be consistent across age level.

METHOD

Participants

Students from 25 high schools encompassing a school district in Ontario, Canada, took part in the study. The overall participation rate was 76% of students enrolled in the participating schools ($N = 7430$). Non-participation was due to student absenteeism (17%), student refusal (4%), and parental refusal (3%). Participants (50% male) ranged in age from 13 to 18 years or older ($M = 15.70$, SD = 1.39). Consistent with the broader Canadian population (Statistics Canada, 2001), 91% of the adolescents were born in Canada; the most common ethnic background reported other than Canadian was British (18%), German (15%), French (13%), and Italian (11%). Mean levels of education for mothers and fathers fell between "some college, university or apprenticeship program" and "a college/ apprenticeship/technical diploma."

Procedure

As part of the Youth Lifestyle Choices Community–University Research Alliance project, or YLC-CURA, a 23-page self-report questionnaire was administered to students in classrooms by trained research staff (see Willoughby *et al*., 2004). A total of 2 h was allotted for survey administration at each school. To ensure that all students could participate regardless of their literacy level, the survey was read to students with literacy difficulties. Students were informed that their responses were confidential.

Measures

Details on each study measure are provided in Table I, including means and standard deviations.

Demographics

Age, sex, and parental education (one item per parent, averaged) was assessed.

Youth Involvement

Eight domains of activity involvement were assessed using the following question: "How often in the last month have you done the following?" Activity categories included "played school sports"; "played organized sports outside of school"; "gone to school clubs"; "gone to clubs outside of school"; "done theatre arts outside of school"; "practiced a musical instrument"; "done volunteer work"; and "been a leader in a school or community activity." An aggregate *overall involvement* score was computed based on the average frequency of involvement across all eight items, such that higher ratings indicated greater overall involvement. A *breadth of involvement* score was computed as the number of activities (out of eight) for which respondents indicated at least some degree of involvement. An average *involvement intensity* score was computed as the average frequency of involvement based only on activities in which respondents indicated at least some degree of involvement. Respondents not involved in any of the eight activities (i.e., breadth scores of 0) were assigned average intensity scores of 0.

Risk Behaviors

Items assessed substance use (alcohol, smoking, marijuana, and hard drugs) and sexual activity (oral sex, intercourse, and sexual touching; see Table I for time frames for each behavior). Delinquency was assessed in terms of minor delinquent acts (sneaking out at night, joyriding, shoplifting, wrecking other's property) and major deliquent acts (joined a gang, carried a gun as a weapon, carried a knife as a weapon). Aggressive behaviors were assessed based on direct (e.g., pushed and shoved someone) and indirect acts (e.g., spread rumors and untrue stories). A composite index was formed by standardizing and averaging the risk behavior scores ($\alpha = 0.84$), such that higher scores indicated greater overall risk behavior involvement.

Well-Being

Domains assessed included depression (CESD; National Institutes for Mental Health, 1972), social anxiety (Ginsburg *et al*., 1998), self-esteem (Rosenberg, 1965), optimism (e.g., "I expect the best"), and daily hassles (e.g., finances, friends and peers, school work, self-image). A composite index was formed by standardizing and averaging the individual well-being measures ($\alpha = 0.80$) such that higher scores indicated greater overall well-being.

Table I. Description of Study Measures

Domain	Variable	Items	Scale anchors	Alpha	Mean	SD
Demographics	Age	1	10 years old to >18 years old	—	15.70	1.39
	Sex	1	1 (male) or 2 (female)	—	1.50	0.50
	Parental education	2	1 (not finish hs) to 6 (professional/grad degree)	—	3.21	1.18
Youth involvement	Overall involvement	8	0 (never) to 4 (every day)	0.65	0.75	0.62
	Breadth of involvement	Up to 8	0–8 activities	—	2.76	2.02
	Intensity of involvement	Up to 8	0 (never) to 4 (every day)	—	1.82	1.01
Youth activities	Sports (in school)	1	0 (never) to 4 (every day)	—	1.08	1.42
	Sports (outside of school)	1	0 (never) to 4 (every day)	—	1.11	1.38
	Clubs (in school)	1	0 (never) to 4 (every day)	—	0.72	1.16
	Clubs (outside of school)	1	0 (never) to 4 (every day)	—	0.76	1.10
	Theatre arts	1	0 (never) to 4 (every day)	—	0.35	0.81
	Musical instrument	1	0 (never) to 4 (every day)	—	0.89	1.41
	Volunteering	1	0 (never) to 4 (every day)	—	0.65	0.92
	Leadership	1	0 (never) to 4 (every day)	—	0.40	0.83
Risk behavior	Alcohol—frequency	1	0 (never) to 8 (everyday)	—	2.33	1.33
	Alcohol—amount (per episode)	1	0 (less than 1 drink) to 6 (more than 10 drinks)	—	2.78	1.52
	Smoking (per day)	1	0 (none) to 8 (more than a pack)	—	1.69	1.46
	Marijuana use (past year)	1	1 (never) to 6 (everyday)	—	2.20	1.61
	Hard drugs use (past year)	6	1 (never) to 6 (everyday)	0.92	1.22	0.65
	Sexual activity (past year)	3	1 (never) to 6 (everyday)	0.92	2.42	1.46
	Delinquency (past year)	7	1 (never) to 4 (more than five times)	0.70	1.28	0.04
	Aggression (past year)	8	1 (never) to 5 (everyday)	0.86	1.50	0.61
Well-being	Depression (past 2 weeks)	20	1 (most of the time) to 5 (none of the time)	0.92	2.04	0.62
	Social anxiety	14	1 (almost always) to 4 (almost never)	0.93	1.74	0.50
	Self-esteem	10	1 (strongly disagree) to 5 (strongly agree)	0.89	3.70	0.68
	Optimism	4	1 (almost never) to 4 (almost always)	0.65	2.90	0.55
	Daily hassles	25	1 (often bothers me) to 3 (never bothers me)	0.88	1.78	0.33
Academic orientation	Grades	1	1 (below 50%) to 6 (A+)	—	4.13	1.01
	Planning	1	1 (almost never) to 4 (almost always)	—	2.09	0.78
	Aspirations	1	1 (not finish hs) to 6 (professional training)	—	4.28	1.47
	Bored at school	1	1 (all the time) to 4 (never/almost never)	—	2.18	0.85
	Importance of education	1	1 (not at all important) to 5 (very important)	—	4.28	0.83
	Skipping class (typical month)	1	1 (6 or more times) to 5 (never)	—	4.13	1.15
	Student–teacher relations	12	1 (strongly disagree) to 5 (strongly agree)	0.94	3.49	0.67
Social/interpersonal	Attachment—mom	17	1 (almost never) to 4 (almost always)	0.92	3.02	0.56
	Attachment—dad	17	1 (almost never) to 4 (almost always)	0.92	2.87	0.58
	Friendship quality	18	1 (almost never) to 4 (almost always)	0.92	3.15	0.47
	Best friendships	18	1 (almost never) to 4 (almost always)	0.91	3.17	0.45
	Victimization (past year)	8	1 (almost always) to 4 (almost never)	0.84	1.58	0.63
	Support network size	16	0–16 supports	—	2.73	1.69

Note. $N = 7430$.

Academic Orientation

Measures included typical school grades, educational aspirations, frequency of planning ahead, frequency of being bored at school, how important it was to the respondents that they do well in school, and frequency of skipping classes. In addition, a 12-item measure (Kelly *et al*., 1996) assessed student perceptions of student–teacher relations in their school. A composite index was formed by standardizing and averaging the seven scores ($\alpha = 0.71$) such that higher scores indicated stronger academic orientation.

Social/Interpersonal Functioning

Six domains were assessed, including paternal and maternal attachment (Armsden and Greenberg, 1987), relationships with best friends (Gauze *et al*., 1996), friendship attachment (Armsden and Greenberg, 1987), victimization from peers (Marini *et al*., 1999), and support network size measured by the sum of the number of categories of people to whom respondents indicated they would go if they needed help (e.g., family members, peers, professionals, coaches). A composite index was formed by standardizing and averaging the six scores ($\alpha = 0.70$),

such that higher scores indicated stronger interpersonal functioning.

Treatment of Missing Data

Some students did not finish the entire study questionnaire. The amount of missing data was directly related to survey length, i.e., missing values were greatest towards the end of the survey. Further, the amount of missing data per participant was largely unrelated to scores on the study variables (see Willoughby *et al*., 2004). Scale scores were computed for participants who responded to at least 50% of the items within a multi-item scale. For students who did not give a sufficient number of responses within a scale, scale scores were imputed. In total, 15% of the data utilized in the present study was missing due either to non-response or to an insufficient number of responses. Missing data were imputed using the EM algorithm in SPSS (see Schafer and Graham, 2002).

RESULTS

Involvement varied widely across activities: sports outside of school (44% of respondents), sports teams at school (42%), volunteering (41%), clubs outside of school (38%), musical instruments (33%), clubs at school (32%), leadership activities (24%), and drama/fine arts (21%). Comparing across sex, involvement was higher among males for sports outside of school (54% of males, 36% of females) and sports teams at school (47% of males, 38% of females); both ps < 0.001 in chi-square tests. In contrast, involvement was more common among females for volunteering (47% of females, 35% males), participation in school clubs (37% females, 28% males), and drama/fine arts (24% females, 17% males); ps < 0.001. Male and female involvements were similar, however, for participation in clubs outside of school (38% for males and females), musical instruments (34% males, 33% females), and leadership activities (23% males, 24% females).

Across all respondents, 15% reported no involvement in any of the eight activities (13% of males and 17% of females). The remaining youth reported an average involvement in two or three activities. Among those reporting low breadth (i.e., involvement in one or two activities) the most common activities were sports inside and outside of school (29% and 34% of respondents respectively), practicing a musical instrument (27% of participants), volunteering (26%), and clubs outside of school (23%). Among those reporting high breadth (i.e., involvement in six or seven activities), the most common activities were clubs outside of school (90% of respondents), volunteering (90%), clubs inside of school (89%), and sports inside and outside of school (81 and 83% respectively).

As shown in Table I, among the eight individual activities, frequency of involvement was relatively highest for sports-related activities (inside and outside of school) and musical instrument involvement; frequency of involvement was lowest for theatre arts and leadership activities. Among involved youth (i.e., those reporting involvement in at least one activity), the typical respondent participated an average of "once a week"; although intensity scores were slightly higher among males ($p < 0.001$), typical involvement in one's chosen activities for both sexes also was "once a week." Age-based results are detailed in later sections.

Associations Among Activity Involvement Measures

The first goal of this study was to explore the relationship among the three measures of youth involvement (overall aggregate, breadth, and average intensity). We first assessed connections among these measures using bivariate correlations. As shown in Table II, associations between overall activity involvement and breadth and intensity dimensions were strong. Further, the breadth and intensity measures were themselves positively intercorrelated such that youth involved in a greater number of activities also tended to participate in those activities more frequently. Despite this trend, the magnitude of the shared variance between breadth and intensity measures ($r^2 = 0.22$) suggested that they did not entirely overlap.

Multiple regression analysis was then used to assess the combined relation between the two involvement dimensions and the overall involvement measure, as well as the unique relations between each involvement dimension and the overall measure (controlling for the other involvement dimension). In this analysis, the overall involvement measure was regressed onto the two involvement dimensions simultaneously. Together, the breadth and intensity measures explained 89% of the variance in the overall involvement score ($R = 0.95$, $p < 0.001$). Both dimensions had positive, unique relations with the overall measure. The regression weight for breath of involvement, however, was substantially stronger ($\beta = 0.79$, $p < 0.001$) than intensity ($\beta = 0.27$, $p < 0.001$).

Associations Between Youth Involvement and Positive Developmental Indices

The second major goal of this study was to assess the relation between the three measures of involvement and

Table II. Correlations Among Study Measures

Measure	1	2	3	4	5	6	7	8	9	10
1. Age	—									
2. Sex	0.01 (ns)	—								
3. Parental education	0.01 (ns)	− 0.04	—							
4. Overall involvement	− 0.01 (ns)	− 0.04	0.24	—						
5. Breadth	− 0.02 (ns)	0.01 (ns)	0.24	0.92	—					
6. Intensity	− 0.04	− 0.13	0.17	0.64	0.47	—				
7. Risk behavior index	0.16	− 0.17	− 0.14	− 0.09	− 0.12	− 0.08	–			
8. Well-being index	0.06	− 0.12	0.16	0.17	0.16	0.14	− 0.19	—		
9. Academic index	0.01 (ns)	0.17	0.29	0.25	0.27	0.18	− 0.54	0.38	—	
10. Social index	0.07	0.32	0.10	0.12	0.14	0.07	− 0.31	0.57	0.46	—

Note. $N = 7430$. All $ps < 0.001$ except those marked with 'ns.'

the four developmental indices (risk behavior, well-being, academic orientation, and social/interpersonal functioning). As shown in Table II (columns 4–6), pairwise correlations indicated that greater overall involvement, breadth of involvement, and intensity each were associated with less involvement in risk behavior, more positive well-being, stronger academic orientation, and more positive interpersonal functioning.

Hierarchical multiple regression was then used to assess the combined relation between the two involvement dimensions and each developmental index, as well as the unique relation between each involvement dimension and the developmental indices (controlling for the other involvement dimension). In these analyses, three demographic variables (age, sex, parental education) were included in step 1 of each regression model as covariates, followed by breadth and intensity dimensions in step 2. Further, to assess possible nonlinear effects, curvilinear terms for breadth and intensity as well as a breadth by intensity interaction term were added in step 3 in each regression model. Continuous measures were standardized and sex was recoded as −1 for males and 1 for females. Curvilinear (squared) terms and interaction terms (multiplicative products) were computed based on standardized scores. As a result, the unstandardized regression coefficients are interpretable as standardized effects. Results are shown in Table III.

For the *risk behavior index*, both breadth and intensity were significant predictors in step 2. In the final regression model, however, breadth, but not intensity, had a significant unique predictive relation. Further, the curvilinear effect for breadth indicated that the relation between risk behavior and breadth of involvement was stronger among those reporting low levels (e.g., 1 SD below the mean) of breadth ($b = -0.17$) than those reporting high levels (e.g., 1 SD above the mean) of breadth ($b = -0.05$). For those reporting involvement in up to five or six activities (out of a possible eight), mean levels of risk behavior involvement decreased as a function of breadth of involvement. For respondents reporting higher levels of breadth, however, risk behavior involvement did not show additional, significant decreases or increases.

Both breadth and intensity had positive, unique associations with the *well-being index* in step 2 and step 3 of the regression model. Further, the interaction effect in step 3 indicated that the relation between well-being and breadth of involvement was stronger among those reporting high levels of intensity ($b = 0.17$) compared to those reporting low levels ($b = 0.03$).

For *the academic index*, both breadth and intensity had significant, unique relations in step 2 and step 3 of the regression model. Further, the curvilinear effect in step 3 for breadth indicated that the relation between academic orientation and breadth of involvement was stronger among those reporting low levels of breadth ($b = 0.28$) compared to those reporting high levels ($b = 0.14$). For those reporting involvement in up to five or six activities, mean levels of academic orientation increased as a function of breadth of involvement. For respondents reporting higher levels of breadth, however, academic orientation did not show additional improvement.

In the prediction of the *social/interpersonal functioning index*, both breadth and intensity had significant regression weights in step 2, but only breadth of involvement had a significant, unique predictive effect in step 3 of the final regression model. The nonlinear effects in step 3 were each nonsignificant.

Table IV provides additional details concerning relations between the breadth and involvement dimensions and each of the individual measures comprising the composite developmental indices.

Table III. Results from the Regression of Developmental Indices on Breadth and Intensity of Involvement

	Risk behavior			Well-being			Academic orientation			Social/interpersonal		
Predictor	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Age	0.17*	0.16*	0.16*	0.06*	0.07*	0.07*	0.00	0.01	0.01	0.06*	0.07*	0.07*
Sex	− 0.18*	− 0.19*	− 0.18*	− 0.11*	− 0.11*	− 0.11*	0.18*	0.19*	0.19*	0.32*	0.32*	0.32*
Parental education	− 0.14*	− 0.12*	− 0.12*	0.15*	0.12*	0.12*	0.30*	0.24*	0.24*	0.11*	0.08*	0.08*
Breadth		− 0.07*	− 0.11*		0.11*	0.10*		0.17*	0.21*		0.10*	0.12*
Intensity		− 0.04*	0.00		0.06*	0.09*		0.08*	0.07*		0.05*	0.04
Breadth^2			0.06*			− 0.03			− 0.07*			− 0.04
Intensity^2			0.01			− 0.04			− 0.02			− 0.02
Breadth by intensity			0.02			0.07*			0.04			0.01
Model R^2 (%)	7.7	8.6	9.3	4.0	6.0	6.2	11.5	16.2	16.7	11.5	13.1	13.3

Note. $N = 7430$. Regression coefficients are shown by criterion (column variable).
*$p < 0.001$.

Examining Involvement in Individual Activities

Relations between frequency of involvement in the eight individual activities and the composite developmental indices also were examined. Each activity frequency was correlated with each of the composite indices. Further, multiple regression analysis was used to regress each index onto the three demographic variables (age, gender, parental education) and the set of eight activity frequencies simultaneously. Given the high degree of multicollinearity between the set of activity frequencies and the breadth and intensity of involvement scores (Rs = 0.92 and 0.69 respectively), these two dimensions were excluded from multiple regression analyses involving the eight individual activities.

Results are shown in Table V. In terms of pairwise correlations, three activities each were associated with less risk *behavior*: clubs in school; practicing a musical instrument; volunteering. In the context of all eight activities, these three activities remained unique predictors of less risk behavior. In contrast, involvement in leadership activities and theatre arts were uniquely associated with *greater* risk behavior. *Well-being* was positively associated with involvement in each activity except theatre arts. In the context of all eight activities, three activities remained unique predictors of greater well-being: sports in school; sports outside of school; clubs in school. *Academic orientation* was positively associated with involvement in each activity. In the context of all eight activities, however, only three activities remained unique predictors of stronger academic orientation: school clubs; musical instruments; volunteering. The *social relations* index was positively associated with involvement in each activity, except sports outside of school and musical instrument involvement. In the context of all eight activities, however, only involvement in clubs in school and volunteering remained unique predictors of stronger social relations.

Assessing Consistency in Breadth and Intensity Across Age Level

Our third general goal was to explore possible age-related changes, both in terms of breadth and intensity of involvement and in the relations between these two dimensions and the composite indices of positive developmental functioning. Breadth and intensity scores were compared across age levels (14 through >18 years of age) using ANCOVAs and post-hoc pairwise comparisons; mean breadth scores were compared across age level controlling for intensity, and mean intensity scores were compared controlling for breadth. An overall difference among age groups was found for breadth of involvement ($F(4,7424) = 4.60$, $p < 0.001$); the magnitude of this difference, however, was small ($\eta^2 = 0.002$). In pairwise comparisons, breadth scores (adjusted for intensity) for 16- and 17-year-olds (Ms = 2.67, 2.65 respectively) were significantly lower (ps < 0.001) than the breadth scores for the other three age levels (Ms = 2.77, 2.85, and 2.90 for 14-, 15-, and >18-year-olds respectively). For involvement intensity, the overall differences among age groups was not significant ($F(4,7424) = 2.36, p = 0.051$). Mean intensity scores (adjusted for breadth) were 1.86, 1.84, 1.81, 1.79, and 1.77 for 14- through >18-year-olds respectively.

To examine whether relations between the two involvement dimensions and the composite developmental indices were consistent across age level, a series of multiple regression analyses were performed, in which age was tested as a moderator. Each developmental index was regressed onto the three covariates in step 1,

Table IV. Relations Between Involvement Dimensions and Individual Developmental Indicators

	Breadth		Intensity	
Criterion variable	*r*	*β*	*r*	*β*
Risk behavior composite	−0.12*	−0.07*	−0.08*	−0.04*
Alcohol use	−0.09*	−0.06*	−0.04*	0.00
Smoking	−0.20*	−0.14*	−0.14*	−0.05*
Marijuana use	−0.14*	−0.11*	−0.09*	−0.04
Hard drug use	−0.03	0.00	−0.03	−0.04
Sexual activity	−0.08*	−0.04	−0.06*	−0.02
Delinquency	−0.05*	−0.01	−0.03	−0.04
Aggression	−0.03	0.00	0.01	−0.02
Well-being composite	0.16*	0.11*	0.14*	0.06*
Depression	−0.11*	−0.07*	−0.08*	−0.01
Social anxiety	−0.08*	−0.05*	−0.05*	−0.02
Self-esteem	0.17*	0.11*	0.15*	0.07*
Optimism	0.20*	0.14*	0.16*	0.07*
Daily hassles	−0.05*	−0.03	−0.08*	−0.03
Academic orientation composite	0.27*	0.17*	0.18*	0.08*
Grades	0.23*	0.14*	0.16*	0.08*
Planning	0.15*	0.11*	0.10*	0.06*
Aspirations	0.20*	0.10*	0.13*	0.05*
Bored at school	0.16*	0.13*	0.07*	0.01
Importance of education	0.17*	0.11*	0.12*	0.08*
Skipping class	0.10*	0.05*	0.08*	0.03
Student-teacher relations	0.13*	0.10*	0.10*	0.05*
Social relations composite	0.14*	0.10*	0.07*	0.05*
Attachment—mom	0.11*	0.07*	0.09*	0.05*
Attachment—dad	0.14*	0.11*	0.10*	0.03
Friendship quality	0.08*	0.05*	0.02	0.04*
Best friendships	0.07*	0.04*	0.00	0.03
Victimization	0.03	0.04*	0.04*	0.00
Support network size	0.17*	0.16*	0.08*	0.03

Note. $N = 7430$. Results should be read by row. Standardized regression weights (βs) for breadth and intensity are shown based on simultaneous regression of criterion (row variable) on age, gender, parental education, and breadth and intensity involvement dimensions.
*$p < 0.001$.

breadth and intensity measures in step 2, and five nonlinear terms (breadth^2, intensity^2, breadth by intensity, age by breadth, age by intensity) in step 3. In each regression model, the interactions involving age were nonsignificant. Thus, results presented in Table III (described earlier) based on the full sample were consistent across age.[4]

[4] Gender was also explored as a potential moderating variable. To do so, hierarchical regression models were tested for each developmental index entering age, gender, and parental education as predictors in step 1, breadth and intensity measures in step 2, and five nonlinear terms (breadth^2, intensity^2, breadth by intensity, gender by breadth, gender by intensity) in step 3. In each regression model, the interactions involving gender were nonsignificant. Similarly, results were nonsignificant when social class (using the parental education variable as a proxy indicator) was tested as a moderator instead of gender.

DISCUSSION

Evidence linking overall measures of youth involvement with positive developmental outcomes has accumulated rapidly over the last decade. In much of the previous research on youth involvement, however, the dimensions of breadth and intensity have not been differentiated. The first major goal of the current study was to assess potential relationships between breadth, intensity and an overall measure of involvement. As shown in the present study, the overall measure of activity involvement was decomposed into meaningful dimensions of breadth and intensity. Participants in the present sample who reported involvement in a greater number of activities (i.e., greater breadth) tended to report more frequent involvement in those activities (i.e., greater intensity), although the magnitude of the correlation was moderate.

Table V. Results from Correlational and Regression Analyses Between Individual Activities and Developmental Indicators

	Risk behavior		Well-being		Academic orientation		Social relations	
Predictor	*r*	*β*	*r*	*β*	*r*	*B*	*r*	*β*
Sports in school	− 0.02	0.00	0.13*	0.06*	0.12*	0.04	0.04*	0.02
Sports out of school	0.02	0.03	0.14*	0.08*	0.07*	0.02	0.02	0.05*
Clubs in school	− 0.14*	− 0.12*	0.11*	0.05*	0.26*	0.15*	0.11*	0.03
Clubs out of school	− 0.03	0.03	0.09*	0.01	0.12*	0.00	0.08*	0.02
Theatre arts	− 0.02	0.06*	0.04	− 0.01	0.10*	− 0.03	0.05*	− 0.02
Musical instrument	− 0.08*	− 0.05*	0.04*	0.02	0.12*	0.06*	0.04	0.03
Volunteering	− 0.14*	− 0.10*	0.06*	0.01	0.20*	0.10*	0.11*	0.04*
Leadership	0.00	0.05*	0.11*	0.03	0.14*	0.02	0.08*	0.03
Model R^2 (%)	10.5		6.3		16.9		12.9	

Note. $N = 7430$. Standardized regression coefficients (βs) are from the simultaneous regression of the criterion (column variable) on activity frequencies, age, gender, and parental education.
*$p < 0.001$.

Our "overall" involvement measure was strongly related to both breadth and intensity. Given the magnitude of these correlations, the overall measure might be interpreted as a proxy for breadth *and* intensity of involvement. Based on the unique relations between the overall measure and each involvement dimension, however, it appeared that the overall measure could be decomposed into separable breadth and involvement dimensions. Of the two dimensions, breadth had the strongest unique relation to overall involvement. Importantly, this distinction between dimensions was found when breadth and intensity were examined *in the same analysis* as simultaneous predictors of the overall aggregate involvement measure. Therefore, breadth and intensity measures were not found to carry the same information about participant's overall activity involvement.

Our second major goal was to examine relations between the breadth and intensity dimensions and several developmental indices. Both dimensions were related to more positive well-being, higher academic orientation, stronger interpersonal bonds, and less-risk behavior involvement. These findings are consistent with results from previous studies using involvement measures based on frequency, which reflect intensity (e.g., Bowker *et al*., 2003; Cooper *et al*., 1999; Loy *et al*., 2003; McHale *et al*., 2001; Powell *et al*., 2002; Youniss *et al*., 1999), and activity counts, which reflect breadth (e.g., Fletcher and Shaw, 2000; Gerber, 1996; Loy *et al*., 2003; Mahoney, 2000).

However, unique relations between involvement dimensions and the developmental factors further demonstrated that breadth and intensity of involvement were not redundant. Rather, when examined simultaneously, the dimensions were separable in terms of their independent associations with the positive developmental factors. Consistent with findings reported by Loy *et al*. (2003), we found that breadth of involvement had more robust unique relations with each of the developmental indices than intensity. Although the cross-sectional nature of our data preclude causal conclusions, these findings suggest that an important reason why involvement may benefit youth is through the experience of different activity contexts rather than the average "depth" of their participation. Each type of activity may bring a different set of positive developmental contexts, in which the young person has the opportunity to have social, cognitive, and physical experiences that promote healthy development. Participation in multiple activities may have both additive and compensatory effects. With success in each activity, positive development may be advanced further, become more resilient, and/or more generalized. The compensatory effects of multiple involvements may occur when an individual type of activity does not offer all of the factors that may promote positive youth development (Mahoney *et al*., 2004): supportive relationships, opportunities for belonging, positive social norms, support for self-efficacy beliefs, chances for skill building, and a sense of safety. What the young person misses in one context may be provided in another. Thus, across the entire range of activities, the individual experiences the full range of possible activity-related growth opportunities. The benefits of this diversity may have its limits, however.

We found significant curvilinear relationships between breadth and two of the four domain-specific developmental indicators. For risk behavior involvement and academic orientation, increasing breadth was positively associated with developmental indices *up to* five or six different types of activity participation. No advantage was apparent from involvement exceeding this number

of activities. This apparent threshold effect suggests that the "value added" from diversity of experience may have reached its limits for these youth at approximately this level. It has been suggested that youth, especially those from affluent families, may experience excessive pressure to participate and excel in large numbers of activities (Luthar, 2003). Such pressure has been linked to heightened distress and potential increased substance abuse in adolescence (e.g., Luthar and Becker, 2002; Luthar and D'Avanzo, 1999). Further, there is some evidence that very intense involvement may result in lowered academic performance in elementary school children (e.g., Powell *et al*., 2002). In the present analysis, however, although there appeared to be 'diminishing returns' at higher levels of participation, heightened involvement was not associated with decreases in positive developmental indicators.

In terms of interactions between breadth and intensity, well-being was the only developmental index for which we found a 'synergistic' effect between breadth and intensity such that the relation between one dimension of involvement and well-being was strongest at high levels of the other involvement dimension. Taken together, these findings suggest that it is important to assess potential nonlinear effects (curvilinear trends, interactions) in future studies of potential causal associations between involvement breadth and intensity and adjustment, as well as including measures that might help identify mediating links.

The final major goal of this study was to explore possible age and sex differences in involvement intensity and breadth, as well as examining whether relations between involvement and indices of youth development were consistent across age. Boys and girls did not differ in breadth, although there was a sex difference in participation intensity. Overall, boys participated more frequently in their chosen activities than girls did. The magnitude of this difference, however, was slight. Further, sex differences in participation rates varied across the type of activity examined. Thus, the observed sex differences likely reflect, at least in part, the nature of the eight activities included in the present study. Nonetheless, to the extent that greater involvement intensity among male respondents reflects a true sex difference, further study of this issue is merited—particularly in the context of examination of dimensions of youth involvement.

We predicted that breadth would decrease and intensity would increase over the high school years, reflecting age-relevant processes of identity formation (e.g., Marica, 1966) and developmental specialization (Baltes *et al*., 1999). Although the first-order correlation between intensity and age was significant and negative, intensity explained virtually no variance and was nonsignificant in the hierarchical multiple regression analyses, as both a main effect and curvilinear predictor, when breadth was controlled. Further, there was only limited support for our hypothesis that breadth would decrease. Although the first-order correlation between age and breadth was not significant, there was a decrease in breadth with age—albeit a small one—from 15 to 17 years of age; however, this was followed by an slight *increase* from 17 to 18 years of age. One possible reason for this increase is that youth may engage in additional activities during their senior high school year as a resume-building strategy, in preparation for university application or entry into the job market. Overall, then, little evidence was found for the predicted age-related sequence of reduced breadth and increased intensity in adolescence.

Further, the linkages we found between engagement and indices of positive youth development were largely consistent across age. Breadth of involvement did not become less strongly associated with risk behavior involvement, well-being, academic orientation, or interpersonal bonds across age level, nor did involvement intensity become more strongly associated with any of these factors. Instead, associations between the involvement dimensions and the developmental factors were consistent regardless of respondent age. Such results are inconsistent with Côté's (1999) proposal concerning the importance of concentration on a single path to maximize achievement or mastery during adolescence, as well as the anticipated progression from breadth to depth in relation to identity development (e.g., Erikson, 1968)

However, since this study did not include direct measures of constructs such as activity mastery or identity formation, the present results have not provided a full test of their proposals. Age-related changes in breadth and intensity may be more clearly apparent in studies across a wider age range (e.g., from middle childhood to young adulthood) than in the current high school sample. Further, since the present results were based on a cross-sectional analysis, we could not address directly whether *within-person* identity or skills development was associated with changes in breadth and/or intensity of activity involvement. Longitudinal studies of such issues, such as that by Shanahan and Flaherty (2001), would provide insight into these developmental questions, as well as clarifying the issue of causal direction between youth involvement and positive development.

An important implication of the present results is that estimates of associations between measures of involvement and other developmental factors (including involvement-related experiences, outcomes, hypothesized benefits, etc.) may unintentionally confound separable aspects of involvement. In the present study, the distinction

between breadth and intensity was found when the dimensions were examined jointly, in the same analysis. Indeed, one of the novel contributions of this research is that we assessed the relative role of each of dimension, while controlling for the effect of the other dimension. Without this joint examination, it would not have been clear whether results reflected the unique role of breadth of involvement, involvement intensity, or both.

Present results also illustrated the value of assessing youth involvement both in terms of summary dimensions (such as breadth and intensity) and in terms of individual activities. We found that individual activities had unique patterns of relations with the developmental indicators. These results are consistent with other research, which has also found that relations between youth activity involvement and developmental indicators vary as a function of the type of activity (e.g., Barber *et al*., 2001; Bartko and Eccles, 2003; Cooper *et al*., 1999; Eccles and Barber, 1999; Eccles *et al*., 2003; Hansen *et al*., 2003; McNeal, 1995). In particular, sports involvement has been associated with both positive (e.g., Eccles *et al*., 2003; Hansen *et al*., 2003; McNeal, 1995) and negative outcomes and experiences (e.g., Eccles *et al*., 2003; Hansen *et al*., 2003) in comparison to other activities.

The present results, however, do not reveal a clear pattern of positive or negative indicators of development and sports involvement. Rather, for most activities, greater involvement was positively associated with at least three of the developmental indices in bivariate analyses. In a multivariate context, however, only involvement in school clubs and volunteering were related consistently and positively to the developmental indicators. Further, involvement in theatre arts and leadership activities were both associated with *greater* risk behavior when involvement in the other activities were controlled. Given the modest magnitude of the regression weights in these analyses, however, the reliability of the present results needs, to be assessed before conclusions can be drawn. Overall, we consider the examination of involvement dimensions (such as breadth and intensity) and the examination of individual types of activities to be complementary pursuits—with each approach providing valuable and unique information. In light of the present results, we expect that future research on youth activity involvement would benefit from incorporating both approaches within the same study.

To the extent that the distinction between breadth and intensity dimensions is applicable to other study samples, previously published findings based on dichotomous, aggregate, and/or unidimensional measures of activity involvement may need to be reconsidered. Indeed, the present findings highlight the equivocal nature of previously published research findings. What would the conclusions have been if both breadth and intensity been examined in studies opting to measure involvement dichotomously (e.g., Eccles and Barber, 1999). Would researchers utilizing activity counts (e.g., Mahoney, 2000) have arrived at the same conclusions if measures of intensity were simultaneously assessed? Would studies focusing on involvement intensity (e.g., Youniss *et al*., 1999) have led to the same conclusions had the breadth of participants' involvement also been assessed?

One of the major strengths of the current study is that we examined the unique and joint relations between involvement breadth and intensity and positive developmental indicators, using a large sample of high school students and a diverse set of developmental indicators. A limitation of current study is its cross-sectional nature, which did not allow us to address causal directions. In addition, it may be important to look at the number of activities within each activity category (e.g., number of different community groups), as well as diversity across different types of activities (see Fletcher *et al*., 2003; Jacobs *et al*., 2005). Future research also should include measures of mastery and identity in order to assess theoretical predictions regarding the developmental roles of breadth and intensity of experience. Studies of youth involvement based on student surveys also would benefit from assessing relevant school-level characteristics and accounting for such effects within a hierarchical modeling context. Examples of such variables might include school size and school-based opportunities for involvement.

In summary, the present results support the growing evidence that youth activity involvement can be an important developmental context. The present study provides evidence that the delineation of distinct involvement dimensions offers a simple, but novel methodology to explore questions related to the nature of the processes linking youth activity involvement and healthy adolescent development that are beginning to receive direct attention (e.g., Hansen *et al*., 2003; Mahoney *et al*., 2004). We hope that the present results will prompt a more rigorous conceptualization and measurement of youth activity involvement in future studies. Our results indicate, for example, that when a typical, overall measure of involvement was decomposed into two dimensions, breadth of involvement showed stronger relationships with indices of positive youth development than did intensity. Further, it is important for future reviews of the extant literature to examine carefully whether the use of different measurement strategies across studies has indeed resulted in multiple sets of potentially confounded findings: those based on dichotomies (e.g., involved in an activity vs. not involved), those based on activity "counts" (breadth of

involvement), and those based on frequency of involvement (intensity).

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