Continuity and Change in Extracurricular Activity Involvement from Grade 7 to Grade 12

by

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Abstract

Research has shown extracurricular activities to be positive contexts for youth development. Such activities have recently been conceptualized in terms of both breadth (number of activities) and depth (intensiveness of participation). However, relatively little is known about developmental changes in activity participation, whether such changes vary by activity domain (school, church and community), and whether intervening life transitions are associated with patterns of change. Moreover, there have been few examinations of selection factors (e.g., peer deviance and academic achievement) in relation to activity participation across development. The current study addressed these issues using data from an ongoing prospective longitudinal study of youth development ($N = 428$). To obtain the extracurricular activity measure a survey was administered in 7th and mailed out in 12 grade; intervening life transition measures were collected from the mother in 8th through 10th grade; and information on possible selection factors was collected either before or during the 7th grade. Findings indicated that breadth and commitment generally decreased through adolescence, while hours of participation increased. However, the pattern varied depending on domain (e.g., hours in school and church activities increased whereas hours in communities activities decreased). Negative life transitions were associated with declines in breadth of participation in school and community activities but increased levels of commitment to church activities. Early involvement in activities generally predicted later involvement. Selection factors (especially academic performance and peer deviance) also predicted participation, even after controlling for prior participation. The current findings add to the body of research on activity participation by documenting the multidimensionality of depth of participation (hours and commitment), and identifying moderators and selection factors of activity participation.

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Introduction

Youth today participate in a variety of out-of-school activities, some structured and some unstructured. Generally, participation in structured activities is associated with positive developmental outcomes; whereas participation in unstructured activities—especially when no adults are present—is associated with negative outcomes (see review by Mahoney, Vandell, Simpkins, & Zarrett, 2009). Although establishing that activity involvement predicts, or co-occurs with, good adjustment, has been an important research endeavor, several issues must be addressed before the developmental implications of activity involvement can be fully understood. One issue concerns how activity involvement is defined. Recent conceptualizations have stressed the importance of distinguishing between the breadth (or extensiveness) of involvement across a range of activities and the depth (or intensiveness) of involvement within a single domain or type of activity (Rose-Krasnor, Busseri, Willoughby, & Chambers, 2006). The measurement of extensivity of involvement is relatively straightforward and typically entails summing across the number of different activities within which children and adolescents report spending some minimal (e.g., 1 hour per week) amount of time. The measurement of intensiveness of involvement is more problematic. Some researchers have counted the total number of hours (Busseri, Rose-Krasnor, Willoughby, & Chalmers., 2006) or average number of hours (Denault & Poulin, 2009) spent in a particular type of activity and used this "total hours" score as an index of how important the activity is to the individual and, by implication, how "committed" he or she is to that type of activity. As will be argued later, there are reasons to

question the sum-up-the-hours approach as a measure of intensiveness. More directly assessing expressed commitment to an activity or type of activity may provide a more useful and valid means of assessing intensiveness of activity participation.

A second issue needing further attention is that of continuity and change in activity involvement across key developmental periods of childhood and adolescence. The transition to middle school and the transition to the final year of high school represent periods in development where there are greater opportunities for activity involvement as well as (at the latter age) a possible shifting of interest from being involved in many activities to being more intensively involved in a few activities. However, to date there have been few prospective longitudinal studies of continuity and change (at the developmental-age mean-group level) in activity involvement across substantial periods of time. Some developmental perspectives (e.g., Cote, 1999; Lerner Freund, De Stefanis, & Habermas, 2001) suggest that across the adolescent years there should be a narrowing of interest in activities, with greater time and commitment devoted to just a few activities. If this were the case, levels of extensiveness would be expected to decline and levels of commitment should increase. An alternative perspective is that commitment to any particular type of activity declines as youths get older because of new challenges (e.g., preparing for college), responsibilities (e.g., getting a job), and interests (e.g., dating). No study has yet examined long-term continuity and change in the breadth and commitment of activity involvement.

Change in breadth and depth of involvement may reflect not only normative developmental patterns but also individual differences in life experiences that may increase the likelihood that some individuals will become more or less involved in activities over time. This constitutes a third issue in the study of activity involvement. Intervening life events, such as a

move to a new school, a prolonged illness, or changes in family circumstances, could alter both the opportunity for activity involvement and the degree of commitment one feels toward these activities. The moderators of continuity of activity involvement have received little or no study, but there are reasons to expect some degree of discontinuity as a function of changes in life circumstances. Previous research has shown that continuity in effective parenting is disrupted in families experiencing economic hardship or stressful life events (Leinonen, Solantus, & Punamäki, 2002; Weinfield, Ogawa, & Egeland, 2002). Other research has pointed out that trajectories of child and adolescent adjustment may be altered when certain positive (e.g., supportive peers) or negative (e.g., exposure to divorce) experiences are present (e.g., Criss Pettit, Bates, Dodge, & Lapp, 2002; Lansford, Malone, Castellino, Dodge, Pettit, & Bates, 2006). It therefore would seem reasonable to expect some degree of discontinuity in activity involvement for those youths in families experiencing negative life events.

A final issue in need of greater research attention concerns the role of selection factors in activity involvement and whether similar or different factors operate to "select" youths into types of activity (and commitment to those activities) across developmental periods. Whereas there is a good bit of research on the role of selection factors in non-parental childcare (e.g., Belsky, Vandell, Burchinal, Clarke-Stewart, McCartney, Owen, & the NICHD Early Child Care Research Network., 2007; Gamble, Ewing, & Wilhlem, 2009), less is known about the role of selection factors in extracurricular activities and other forms of out-of-school activities. Much of the research bearing on selection factors in out-of-school activities treats such factors as controls in analyses of the association between activity involvement and youths' adjustment (e.g., Pettit, Laird, Bates, & Dodge, 1997). Such controls are useful when the factor of interest is associated with both activity involvement and outcome (as is so often the case with socioeconomic status,

for example). However, some selection factors may not be associated with outcomes, but examining them can still shed important light on why some youths are involved in types of activities (and show varying levels of commitment to those activities) whereas other youths are not. Moreover, from a developmental perspective, it is important to know whether selection factors that are associated with initial (time 1) activity involvement also predict later (time 2) activity involvement, as well as whether time 1 selection factors predict changes (increases or decreases) in activity involvement from time 1 to time 2. These kinds of developmental analyses have not been conducted in prior research on extensiveness and intensiveness of structured activity participation.

Activity Domain, Extent of Activity Involvement, and Developmental Changes

Activity domain. Organized activities are characterized by having structure, adult supervision, and an emphasis on skill building, and typically include on-site after-school activities, and off-site church and community-based activities (Mahoney, Larson, Eccles, & Lord, 2005). Examples of school activities are art, music, and drama clubs, school sports, and band. Examples of church activities are youth groups, choir, teaching Sunday school. Community activities include boy or girl scouts, taking classes at local community centers, and volunteering for clean-up projects. In spite of the possible activities within each of these broad domains, the clustering of activities into school, church, and community settings is typical of much of the research on organized activity participation (Bohnert, Martin, and Garber, 2007; Denault & Poulin, 2009; Fletcher, Elder, and Mekos, 2000; Mahoney et al., 2005).

Extent of activity involvement: extensiveness, intensiveness, and commitment. The distinction between extensiveness and intensiveness is important theoretically for understanding the significance of activity involvement in youth development (Rose-Krasnor et al., 2006). The

most common approach to conceptualizing and measuring activity involvement has been to tabulate the number of activities. This has been done by youth interviews (Fauth Roth, & Brooks-Gunn, 2007), questionnaires (Bohnert et al., 2007), and review of year books (Mahoney, Cairns, & Farmer, 2003). The great majority of research studies examining links between activity involvement and adjustment outcomes have used some variant of the cumulative activity index.

Rose-Krasnor et al. (2006) have drawn the useful distinction between number of different activities and amount of involvement in a particular activity. Depth (or intensiveness) of participation is thought to reflect the extent to which an individual values, or is committed to, a particular activity or set of activities. However, counting up the number of hours spent participating in an activity may not provide an accurate picture of whether an individual values or is committed to that activity. For example, some activities require large amounts of investment (e.g., school sports teams) but large variations may nonetheless exist in the degree to which team members feel connected to the team. A more direct approach would be to ask students to report how committed they feel about their activity involvements. There is therefore a need to determine whether hours of involvement and extent of commitment converge.

Developmental changes. Cote (1999), in his model of talent development, discusses a progression from breadth of involvement in many activities to intensive involvement in one activity. This is thought to occur because individuals experiment with a wide range of activities and as they find certain activities that they enjoy there is a gradual focus on one or two activities. Others have suggested a selection effect in which youths drop some of their activities to participate in the same number of hours in fewer activities (Denault & Poulin, 2009). From a life span development framework (Baltes, 1997), an individual is expected to sample a range of activities, select a path, and then focus effort in the chosen direction. Each of these perspectives

would predict a reduction in number of activities (i.e., breadth) but an increase in number of hours per activity (i.e., depth). Likewise, as breadth of participation narrows, an increase in commitment to the selected activities would be expected (Denault & Poulin, 2009). An alternative point of view is the idea that with increasing age many school-based activities (e.g., sports and music) require greater skill and commitment (McNeal, 1998; Pederson, 2005), leading to a decline in amount of time (and perceived commitment) to any particular activity. Yet another possibility is that with increasing numbers of alternatives for discretionary time use, such as work, and with greater involvement in romantic relationship pursuits, both depth and breadth of youth activity participation declines. Given these divergent ideas regarding youth activity participation, more research is needed to examine breadth and depth of participation within and across developmental periods. Two developmental periods were of interest in the present study. Grade 7 represents an important time because it closely follows the transition from elementary school to middle or junior high school. It is during this age that youths begin to make their own decisions, parent-child relations become more strained, and youth begin identity exploration (Fredricks & Eccles, 2008). By grade 12, many new developments have occurred, including, for some, work, driving, serious dating, and preparing for life after high school. The current study examined (a) variations in breadth and depth within activity domains, (b) whether depth and breadth in activity involvement change across development, and (c) whether perceived commitment shows within-domain and cross-development variations similar to an hours-of-involvement index of depth.

Moderators of Continuity in Activity Involvement

Youth activity involvement may change as youths reprioritize their time due to different life experiences. Changes in breadth of involvement could be expected due to a greater

restriction on discretionary time and accessibility of activities. Changes in depth and commitment could also be expected, because of life distractions, such as parental separation, or the need to focus more on pressing personal issues, such as an illness. The moderators of continuity may not impact all types of activity to the same degree. For example, a change in family finance (as is often the case following parental divorce) might lead to greater reductions in school and community involvement than in church involvement. However, the moderators of continuity in activity involvement have not been studied. Although a wide range of possible life events may serve as moderators, the current research focused on variables within the broad domains of youth and family transitions.

Youth transitions. An intervening youth life transition, such as having a serious accident or illness, may moderate continuity in activity participation (Miller, 1995). For, example, an adolescent who previously participated in a school sport may no longer be able to do so if he or she becomes ill with asthma or diabetes. Thus, serious accidents and illness can hinder the continuity of youth activity participation. Other youth transitions that may hinder continuity of participation could be becoming involved in a romantic relationship, getting someone pregnant or becoming pregnant, or starting a job (Byrne, Davenport, & Mazanov, 2007; Jo Lohman, & Jarvis, 2000).

Family transitions. Parental circumstances may also change and can impact family functioning as well as continuity in youth activity participation. For instance, parental divorce of separation could impact participation by only having one parent to pay for activities or drive the youth to the activities. Not having the ability to pay for or travel to an activity would hinder a youth's continued participation. Moving to a new neighborhood or community is another major life transition for many youths and could hinder youths' continued participation in some

activities because participation options offered in the old school or neighborhood may not be offered in the new school or neighborhood (Fauth et al., 2007). Other parental or family transitions that may be important are parent losing a job, birth of child, severe illnesses or accidents (Attar, Guerra, & Tolan, 1994; Byrne et al., 2007).

Selection Factors Associated with Activity Involvement

Selection factors refer to characteristics of youths, families, and socio-cultural contexts that co-vary with activity level. Such factors may explain why youths "select into" some kinds of activities. Therefore the identification of such factors might shed light on which youths are most likely to get involved in certain types of activity, which are more committed to certain types of activity, and which remain involved and committed across development. As with the life-transition domains, both youth characteristics and family-ecological characteristics would be expected to serve as initial selection factors. A third category of selection factor that has received some attention in research on activity involvement is that of supportive vs. unsupportive relationships with parents and peers.

Youth characteristics. Child sex is a youth characteristic that has been considered in previous adolescent activity participation research, with studies reporting greater activity participation for girls (e.g., Bohnert et al., 2007), others report greater activity participation for boys (Persson, Kerr, & Stattin, 2007), and still others report no variation in participation between sexes (Mahoney et al., 2003). Child behavioral adjustment also has been examined as a possible selection factor. For example, Pettit and colleagues (1997) found that teacher-rated externalizing behavior was associated with less adult-supervised activity-oriented after-school care. Similarly, Persson and colleagues (2007) found that youths who reported more delinquency behaviors were

less involved in activity participation. Sociability is also an important youth characteristic as less sociable youth participate in fewer activities (Barber, Eccles, & Stone, 2001).

Family characteristics. Among the family factors that have been considered in activity participation are socio-economic status, family structure, and neighborhood characteristics (Mahoney et al., 2005). For example, parents' divorce increased the likelihood that youths were not in involved in organized activities or switched from such activities to hanging out with peers (Persson et al, 2007). Neighborhood selection factors have also been examined, such as whether the environment the adolescent lives in is rural or urban (Linver, Roth, & Brooks-Gunn, 2009) and the extent of violence in the neighborhood that the adolescent lives in (Fauth et al., 2007). Thus, family and neighborhood may be an important factor when considering why youth select into extracurricular activities.

Relationships with parents and peers. Low levels of family relationship quality are indirectly related to lower levels of activity participation (Bohnert et al., 2007). Children with supportive parents are more likely to be involved in activities and children whose parents provide less monitoring and supervision are less likely to be involved in structured activities (Pettit, Bates, Dodge, & Meece, 1999). Peer characteristics have also been considered as impacting youth activity participation. Children with anti-social peers tend to be less involved in activities (Mahoney, Stattin, & Lord, 2004). It also is likely that children who are unpopular with their peers or have few friends would not actively participate in extracurricular activities, as peer endorsement impacts participation (Huebner & Mancini, 2003).

Although selection factors have received considerable study in the non-parental care and after-school activities literatures, the role of selection factors in activity participation in specific domains (e.g., church, school, community) has received little study. It seems likely that some

factors, such as SES, might be associated with participation across a range of domains, whereas other factors might be more specific to a particular domain. For example, academic achievement might be expected to better predict school activity participation and perceived neighborhood safety might be expected to better predict community activity participation. Moreover, little research has examined longitudinal links between selection factors at one developmental period (in the current research, around grade 7) and activity participation at a subsequent developmental period (grade 12), and no research has looked at whether selection factors predict change (either increases or decreases) in activity participation across development. Such analyses are potentially important because they could shed light on which selection factors have relatively short-term relations with activity participation and which are associated with more enduring orientations toward, or opportunities for involvement in, different domains of activity participation. While past research suggests that there are a myriad of variables that could serve as selection factors, the current study focuses on what were considered to be representative variables from the three predictor categories of interest

Summary

In summary, the current research examined characteristics of activity involvement in terms of breadth and depth (assessed via hours per activity and perceived commitment to that activity), continuity and change in activity participation, moderators of continuity, and selection factors. Findings are expected to shed light on the dynamics of activity involvement and why youths become more (or less) involved in certain types of activity across development.

Review of Literature

The current research was concerned with activity involvement in different domains across development. The following review of literature is divided into several sections. The first section deals with why activity involvement is an important feature of child and adolescent life experience and with how activity involvement has been operationalized in past research. The typical measurement of the extent of extracurricular activity participation will be discussed, including breadth, depth, and commitment. The next section will discuss developmental changes in level of involvement in activity participation. Research bearing on possible moderators of the continuity of extracurricular activity participation will then be reviewed, including youth and family transitions. Finally, the literature on the selection factors associated with selecting into extracurricular activities, within the broad domains of youth and family characteristics, and the youth's relationship with parents and peers, will be summarized.

Meaning and Measurement of Extracurricular Activities

A large body of research has documented relationships between extracurricular activity participation and positive youth outcomes. These outcomes have ranged from educational, social, civic, and physical development (for review see Eccles, Barber, Stone, & Hunt, 2003; Gilman, Meyers, & Perez, 2004). Positive youth development and level of involvement in extracurricular activities may be reciprocally related (e.g., more socially competent youths seek out extracurricular activity opportunities and participation in such activities promotes positive youth adjustment). However, contemporary thinking about extracurricular activity involvement has

tended to emphasize its beneficial effects through the provision of opportunities to engage in challenging tasks that promote learning of valued skills, ability to build relationships with prosocial peers and non-familial adults, and ability to develop and confirm positive identity (Eccles et al., 2003).

The ways in which activity participation has been conceptualized and measured has varied considerably across studies. At the most general level, activity participation can be described in terms of organized and unorganized activities (Mahoney et al., 2005). As the name suggests, organized activities are characterized by having structure, adult supervision, and an emphasis on skill building. Organized activities include school, after-school, extracurricular, and community-based activities (Mahoney et al., 2005). Conversely, unstructured activities are not necessarily supervised by adults and are not skill based. Unstructured activities include watching television, listening to music, "hanging out," eating, resting, and other passive leisure activities (Mahoney et al., 2005). Most research on organized activity participation concentrates on level or extent of involvement in specific types or domains of activity, as is discussed below.

Identification of activity domains. Clustering activities into broad domains is seen in much of the research on extracurricular activities. Some research has clustered activities by context or setting of the activity. The different contexts of activities that are typically considered are school, church, and community activities. Examples of school activities are art, music, and drama clubs, school sports, and band. Examples of church activities are youth groups, choir, teaching Sunday school. Community activities include boy or girl scouts, taking classes at local community centers, and volunteering for clean-up projects. Mahoney and colleagues (2003) limited their consideration of extracurricular activities to school activities, as a unique type. Other studies have looked at school and community activities together (Bohnert et al., 2007;

Fletcher et al., 2000; Mahoney et al., 2005. In the study by Fletcher and colleagues (2000), adolescents were asked to report all their school and community activities. Other researchers have considered church activity as a separate activity type, as different outcomes may be observed because of the youth's religious activity participation (Peck, Roeser, Zarett & Eccles, 2008).

Other studies have clustered activities by the type of activity. For example, Barber and colleagues (2001), asked adolescents to report what school, sports, community clubs and organizations they participated in. Then they grouped the responses into categories, such as prosocial activities, team sports, performing arts, and school involvement. Prosocial activities included church attendance, volunteer, and community services activities. Team sports were considered as participation in a school sport. Performing arts are band, drama, and dance. School involvement included participation in student government, pep club, and cheerleading. Some research has considered both context and activity type in their classifications of activity participation. For example, Linver et al. (2009) used the categories of sports groups, non-sport school groups, community groups, volunteer time, and religious youth groups. Sports and volunteering describe types of activity whereas school, community, and religious describe the contexts in which activities may occur.

It is clear that extracurricular activities typically have been categorized either by context or activity type. For the purposes of the current research extracurricular activity participation was considered within the broad domain of school, church, and community activities. This method was chosen to two reasons: these contextual domains are among the most commonly used categories of activity participation; and research that clusters by activity type typically begins by first asking youths to report activity within each of these broad domains.

Measuring extracurricular activity participation. Extracurricular activity participation has typically been measured by adding the number of total number of activities youth participate in, i.e. breadth. Some researchers have done this by conducting youth interviews (Fauth et al., 2007), questionnaires (Bohnert et al., 2007), and reviews of year books (Mahoney et al., 2003). In a longitudinal cohort study of 1,315 youths aged 9 through 17 from Chicago neighborhoods, Fauth and colleagues (2007) measured activity participation at wave 1 by asking the primary caregiver if the youth participated in any extracurricular activity. At wave 2 (2 years later) the youths were asked if they participated in five different extracurricular activities during the past school year: sports, performing arts, student government, community-based clubs or church groups. At wave 3 (2 years later) youths were again asked about their frequency of participation in the same five activities over the past month. In order to account for the various assessments used, youths' participation in each activity was coded 0 for no participation at wave 2 or 3, 1 for participation at either wave 2 or 3, and 2 for participation at both wave 2 and 3. The mean of youths' participation across the five activities was computed from a breadth of participation score (range 0-5).

Bohnert and colleagues (2007) studied a sample of 145 ethnically and socioeconomically diverse adolescents and their mothers, from 6th through 12th grade, in a metropolitan area. This study assessed youth activity involvement by administering the Adolescent Activity Involvement Inventory (AAII) to both mothers and adolescents at the end of 12th grade. Both mothers and adolescents were asked if the adolescent had participated in the listed activities in each of grades 9-12. Adolescents were given a score of 1 for participation and 0 for no participation in each activity (sports at school, sports in community, drama, religious activity, community service,

etc.). Mother and adolescent responses were then combined, in that if either mother or adolescents reported participation it was recorded as participation.

Mahoney and colleagues (2003) used data from the Carolina Longitudinal study of 695 youths from the southeastern United States. The sample was originally drawn from 4 public elementary schools and 4 public middle schools, 4th and 7th grade respectively. These youths were tracked annually through 12th grade. To assess extracurricular activity participation, school year books were examined to determine the number of clubs, school sports, and activities that were associated with each child. Participation was coded dichotomously, 1 for participation in any activity and 0 for no participation.

These measures of breadth all have their advantages and disadvantages. One disadvantage of these studies is that they all combine their data in some way for a simpler analysis (e.g., recoding a range of participation dichotomously). A limitation of the Fauth and colleagues (2007) study is that different measures were used at each time point, as well as different informants, making it difficult to compare level of activity participation across times. Bohnert and colleagues (2007) combined both adolescent and mother reports, which may over-represent some activities because if either the mother or the adolescent reported participation it was considered participation, i.e. an adolescent may have ceased participating in an activity but the mother thinks that he or she is still participating in that activity. The Mahoney et al. (2003) method has the advantage of being able to study this topic without personally interviewing the individuals. However, the yearbook method may over-represent some and under-represent others. Yearbooks are created by the students and some margin of error would be expected, as some youth who participate in an activity may not have their name included and others who do not participate may have their name accidentally included. Thus, the methods of measuring

breadth that have typically been employed may be insufficient for accurately depicting a youth's extracurricular activity participation.

Another way of measuring activity participation is in terms of depth. Rose-Krasnor and colleagues (2006) suggest that it is important to distinguish amount of involvement in a particular activity (depth) from the total number of activities that youth participate in (breadth). From this perspective, depth (or intensiveness) of participation is thought to reflect the extent to which an individual values, or is committed to, a particular activity or set of activities. Two recent studies illustrate approaches that have been used to examine depth of activity involvement. Rose-Krasnor and colleagues (2006) used a one-time assessment to measure extracurricular involvement in a sample of 7,430 youths from 25 high schools in Ontario, Canada. Youths were asked how often they participated in eight activity domains in the last month: 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 eight domains, with higher ratings indicating greater involvement. Breadth of involvement was computed as the number of activities out of eight that the youth indicated participating in. An average involvement intensity (depth) score was computed as the average frequency of involvement in which the youth reported some degree of involvement, from never (0) to every day (4). Youth with no breadth of involvement were given an intensity score of 0.

Gardner, Roth, and Brooks-Gunn (2008) used data from the National Education Longitudinal Study, which began in 1988 with 24,599 ethnically diverse 8th graders. Youths were followed up in 10th grade, 12th grade, 2 years after high school, and 8 years after high

school. This study considered both activity participation duration and intensity (depth). Participation duration was measured by asking youth if they participated in a school or community activity in grades 10 and 12. If they had not participated in either grade 10 or 12, they received a score of 0; if they had participated in either grade 10 or 12, they received a score of 1; and if they participated in both grades 10 and 12, they received a score of 2. Participation intensity was measured by asking youths the total number of hours they spent during an average week in all combined extracurricular activities in 10^{th} and 12^{th} grade. Hours were then put into dichotomous categories (0-5), with 0 being no participation and 5 being 20 or more hours per week. This study found that both duration and intensity uniquely predict positive youth development outcomes.

Depth seems to have been measured somewhat arbitrarily in these studies (as well as others discussed later), as the average frequency of involvement or total number of hours. However, these methods may not provide an accurate depiction of depth (or intensiveness) of participation because depth is thought to reflect the extent to which an individual values, or is committed to, a particular activity or set of activities (see Rose-Krasnor et al., 2006). For example, some activities require large amounts of investment (e.g., school sports teams) but large variations may nonetheless exist in the degree to which team members feel connected to the team. Another example could be a youth that participates in a religious group. The group may only meet once a week, but the youth may be very committed to that activity, never missing a week and preparing for that meeting ahead of time. A more direct approach would be to ask students to report how committed or satisfied they feel about their activity involvements. It is unclear whether the two approaches—counting the number of hours of participation in an activity vs. directly asking whether youths feel committed to the activity—yield comparable

information. There is therefore a need to determine the extent to which hours of involvement and extent of commitment converge.

Developmental Changes

There is reason to expect changes in activity involvement across key developmental periods of childhood and adolescence. The transition to middle school and the transition to the final year of high school represent periods in development where there are greater opportunities for activity involvement as well as (at the latter age) a possible shifting of interest from being involved in many activities to being more intensively involved in a few activities. Some developmental perspectives (e.g., Baltes, 1997; Cote, 1999) suggest that across the adolescent years there should be a narrowing of interest in activities, with greater time and commitment devoted to just a few activities. An alternative perspective is that commitment to any particular type of activity declines as youths get older because of new challenges (e.g., preparing for college), responsibilities (e.g., getting a job), and interests (e.g., dating).

A life span development framework (Baltes, 1997) sheds light on the developmental changes that impact extracurricular activity involvement. From this perspective an individual is expected to sample a range of activities, select a path, and then focus effort in the chosen direction. This framework suggests that in all human development there is a selection process, an optimization process, and a compensation process (SOC). The nature of selection is that there is always a specific goal, constraints on resources, behavioral dispositions, and age-related changes in plasticity. Optimization is characterized by increased efficacy and higher levels of functioning, and application of behavior enhancing factors (knowledge, physical status, goal commitment, practice and effort). Compensation is the response when a given set of resources is no longer available and is used to maintain success. Based on this theoretical perspective, it would be

expected that extracurricular activity participation would begin with involvement in many activities as the selection process is occurring. As optimization occurs, activity participation will begin to focus on certain activities. Compensation processes would cause activity participation to decline due to lack of resources.

Lerner and colleagues (2001) discuss how SOC can be understood in adolescence. They provide a framework for understanding how youths decide what to do, how to do it, and whether to stay with an activity or pursue an alternate. Lerner et al. (2001) note that compensation may be particularly difficult for adolescents because they have egocentric cognitive structures and may not see the need to compensate; they often fail to compensate (burning the candle at both ends); and because their goal may be to do it all. Based on this theoretical perspective, it would be expected that extracurricular activity participation selection and optimization occur, but that compensation may not widely occur. It is possible that youths will sample a wide variety of activities, begin to focus on a few activities, but may not drop (compensate) the activities they are not invested in. Thus, it may be expected that some adolescents have high levels of both breadth and depth.

Cote (1999), in his model of talent development, discusses a progression from breadth of involvement in many activities to intensive involvement in one activity. Activity participation is thought to occur in stages of sampling, specialization, and investment. The period of sampling is between 6 and 13 years. The sampling years are characterized with an emphasis on sampling a wide range of fun and enjoyable activities. The specializing years are a shorter period from 13 to 15. During this time involvement in a wide variety of extracurricular activities decreases and involvement is focused on one or two activities. In the specializing years fun and enjoyment are still important but now there is also an emphasis on domain specific skill development. The

investment years begin around age 15. The investment years are characterized by commitment to achieving an elite level of performance in a single activity, with strategic, competitive, and skill development as the most important elements.

Pedersen (2005) suggests that with increasing age there is greater skill and commitment required to participate in activities, and thus there is a decline in the amount of time in any particular activity. Pedersen (2005) used data from the Adolescent Pathways Project, assessing 1,115 students from urban public schools in New York City, Baltimore, and Washington, D.C., to examine in activity involvement across time. Data were collected in three waves beginning in the final year of elementary school and following up for the next two years. Extracurricular activities were measured by asking youths how often they participated in 7 activities: volunteer activities, cheerleading, music activities, performing arts, school publications, student government activities, and other school clubs. Response options were 1 (never or almost never), 2 (once a year), 3 (a few times a year), 4 (once a month), 5 (once a week), and 6 (almost every day). Using latent growth models, it was found that for school based and team sport activities, there was a decline in breadth of participation as youths age (depth was not considered). It is suggested that this is because joining in these activities becomes difficult for youths with no prior experience, because of the specialized skills set necessary. These findings support both the Baltes life span development framework (1997) and the Cote model of talent development (1999) in that breadth of activity participation was found to decline across adolescence. From this study it is not evident whether as breadth declines, there is a corresponding increase in depth.

McNeal (1998) also considered the changes in average activity participation in high school. Data from the first two time points of the NELS: 88 database were used. The sample consisted of 14,720 eighth graders, followed up two years later. This study found that high

school athletics, cheerleading, and fine arts were closed structures, meaning that first time participants could not easily enter into an activity. The closed structure of these high school activities indicates that overall participation in these activities drops, since new participants cannot join. This again supports both the Baltes life span development framework (1997) and Cote's model of talent development (1999) as the breadth of activity participation declined through adolescence. Because this study did not consider depth, it is not known whether there is a corresponding decrease in breadth as a function of an increase in depth.

Other studies have more specifically considered breadth and depth simultaneously, but not over time. The Rose-Krasnor and colleagues (2006) study discussed previously found that breadth and intensity (depth) measures were positively intercorrelated. This means that youths who are involved in a greater number of activities also tend to participate in those activities more frequently. However, the magnitude of the shared variance was low, indicating that they did not entirely overlap. Thus, breadth and depth represent somewhat distinctive features of activity involvement. These findings did not consider changes in breadth and depth overtime, therefore, no conclusions about the transition from breath to depth can be made. However, the intercorrelation of breath and depth does lend support to the Lerner et al. (2001) idea that because youths are not good at compensation they participate in many activities intensely (i.e., high levels of both breadth and depth).

Another study looks at breadth and depth changes over time (Denault & Poulin, 2009). They studied a sample of 272 Canadian sixth graders over four years. This study had two goals: to examine the growth curves of participation during the high school years and to assess the predictive power of individual, friend, and family factors on rates of participation and change over time. Breadth was measured by asking youths to identify all the organized activities that

they had participated in during the last year, using a free recall method. Participation was considered in the three broad domains of sports, performance and fine arts, and youth clubs. Intensity or depth of participation was measured by asking a series of questions about the activities that were listed: frequency of participation, number of hours in participation, number of months of participation during the school year, presence of adult activity leader, and presence of rules. Only activities that met criteria for organized activities were considered: participation at least once a month, presence of adult activity leader, and the presence of rules. The number of hours of participation in each valid organized activity was computed by multiplying weekly number of hours per week by the number of participation within a school year. Then the number of hours of participation in each type of activity was summed, giving three activity participation scores, one for each domain. Denault and Poulin (2009) found that over time group-level means of hours of participation in each activity domain is rather stable and linear, inconsistent with previous research. This is likely because of the operationalization of participation as intensity (depth) rather than breadth. This reflects a specialization effect, in that youths tend to drop some activities over time but continue to invest the same amount of time in a smaller number of activities. The specialization effect is a transition from breath to depth, supporting both the Baltes life span development framework (1997) and Cote's model of talent development (1999).

Another study specifically studied breadth and depth in activity participation (Busseri et al., 2006). The goals of this study were to determine if breadth and depth of involvement, and changes in breadth and depth, are predictive of developmental success. This study had 401 participants from Canada. The study accessed youths in 9^{th} and 10^{th} grade and then followed up 20 months later. Breadth was measured as the total number of activities youth participated in up to 7 and depth was measured as level of involvement from 0 for never involved to 4 involved

every day. Breadth and depth at time 1 were positively intercorrelated, but only shared 11% of the variance, indicating overlapping but somewhat distinct dimensions. At time 2 breadth and depth were more highly and positively intercorrelated. The correlation between time 2 depth and breadth was significantly stronger than at time 1. This indicates that there may be convergence over time between breadth and intensity of involvement, i.e., activities at later agers are participated in more intensely than activities at earlier ages. These findings again support the Baltes life span development framework (1997) and Cote's model of talent development (1999).

While there is an overabundance of research on developmental change over time there is relatively little known about the developmental changes in extracurricular activity participation. In particular, very few studies have studied how breadth and depth of participation are impacted by developmental changes, although there is good theoretical reason to suspect a decrease in breadth and an increase in depth. Also, there is reason to suspect that commitment to an activity may play a role in the depth of activity involvement, as Cote's (1999) model suggests.

Developmental periods of interest. The current study focused on developmental changes in activity participation from grade 7 to grade 12. These ages were of interest because prior research has shown that activity participation tends to be highest in grade 7 or about age 13 (Persson et al., 2007). Between grades 7 and grade 11 youths tend to drop out of organized activities (Persson et al., 2007). Grade 7 may also be an important time to consider because it is after a school transition from elementary school to junior high. It is during this age that youths begin to make some of their own decisions, parent-child relations become more strained, and identity exploration accelerates (Fredricks & Eccles, 2008). Entering 12^{th} grade is another important time in youths' lives since they are considering their aspirations for college and

transitioning to adult status. Thus, the current research considered activity participation in grades 7 (approximately age 13) and 12 (approximately age 17).

Moderators of the Continuity

Based on the previously discussed theories and empirical findings, decreases in breadth and increases in depth might be expected between ages 13 and 17. However, intervening life experiences might contribute to decreases in both depth and breath. In other words, stressful life events and transitions, such as having a chronic illness, might moderate the continuity of activity participation across ages. While moderators of continuity have not been studied directly, there is good reason to suspect that changes (for the worse) in a youth's life would impact his or her ability to participate in extracurricular activities.

Youth and family transitions. Life transitions may moderate the continuity of youths' participation in extracurricular activities by creating barriers and hindering access to activities. Three transitions (or stressful life events) might be especially significant in this regard: moving to a new school; experiencing family disruption, such as parents' divorce; and onset of chronic illness. Each of these factors has been found to be associated with poorer adjustment outcomes for adolescents, including anxiety and depression (e.g., Attar et al., 1994; Byne et al., 2007). To the extent that depressed or anxious youths would be expected to show less interest in out of school activities, these kind of stressful life events that occur between earlier (grade 7) and later (grade 12) adolescence would be expected to be associated with declines in participation.

Miller (1995) specifically discusses how chronic illness could relate to extracurricular activity participation. He suggests that structured social contexts, such as extracurricular activities, are important to all children, including the chronically ill. However, onset of chronic illness can compromise participation because the ill child may have difficulty fitting in and being

accepted by peers. The ill child may also feel rejected in these contexts as they may be used to increased attention and they do not receive it in their extracurricular activities. Thus, the onset of a chronic illness may moderate the level of a youth's participation in extracurricular activities because of difficulties with peers and not receiving the desired attention.

Parental divorce and separation has been shown to lead to many negative outcomes in youth. A review of the literature by Lansford (2009) on the impact to parental separation on child adjustment indicates that children of divorced parents have lower academic achievement and higher levels of internalizing and externalizing behavior problems. Children after divorce have more social relationship problems than children of non-divorced parents. Thus, parents' divorce or separation impacts child and youth development in many ways, and could possibly impact the continuity of extracurricular activity participation.

There also is evidence that moving to a new school or neighborhood is associated with youth adjustment difficulties. South, Haynie, and Bose (2007) examined this issue using data from the National Longitudinal Study of Adolescent Health, a multi-survey, multi-wave study of U.S. youth, their parents, and their schools. The sample for this study consisted of 8,516 youth 14 and older. Moving or mobility was measured by asking youths' parents when they had moved into their current house. Youth were considered to be mobile if they had moved and changed schools in the last year. This study found movers had smaller social networks and were less likely to be central in those networks, compared to non-movers. Movers also had lower GPA's, participated in fewer extracurricular activities, and reported lower levels of school engagement, than non-movers. These findings are consistent with the notion that moving may moderate a youth's continuity of participation in extracurricular activities, directly or indirectly through parental and peer relationships, as well as through declining interest in school work.

With these studies in mind it is evident that youth and family life transitions and other stressors could moderate the continuity of youth extracurricular activity participation. Thus, for the purposes of the current research, onset of chronic illness, divorce or separation, and family moving were explored as possible moderators. A general life-transition index was created to reflect the occurrence of any of the three adverse life experiences.

Selection Factors Associated with Extracurricular Activity Participation

Selection factors are factors that increase the likelihood of a youth's initial and continuing participation in an extracurricular activity. In some research on activity participation, such factors are explicitly labeled as selection factors (see below). In other research, a variety of factors have traditionally been treated as controls when considering the outcomes associated with extracurricular activity participation. These factors likewise could be construed as selection factors because in most instances they are correlated with extracurricular activity participation. A review by Mahoney and colleagues (2009) discusses broad sets of predictors of participation, including socio-demographic characteristics (sex, SES, neighborhood safety), youth characteristics (e.g., behavioral adjustment, academic performance, social competence), and parenting and peer factors (e.g., joint decision making, parental involvement in academics, peer deviance). While there are other factors that could serve as self-selection factors (e.g., motivation) the broad areas that were considered as selection factors here are youth characteristics, parenting and peer characteristics, and demographic characteristics.

Youth characteristics. The Denault and Poulin (2009) study, previously discussed, included several youth characteristics as predictor variables. Academic achievement, depressive symptoms, and problem behaviors were measured in 6th grade, one year prior to measuring extracurricular activity participation. Academic achievement in 6th grade was significantly and

positively correlated with girls' 9th and 10th grade arts participation (depth- hours) and girls' club participation (depth- hours) in 10th grade, but not any other activity types. Youth depressive symptoms did not correlate with later extracurricular participation (depth- hours). Problem behavior was found to be significantly and positively related to sport participation (depth- hours), but not with other activity domains.

McNeal (1998), discussed previously, included youth characteristics as selection factors for extracurricular activity (breadth). They controlled for possible covariates of academic ability and GPA. They found that youth with high academic ability (standardized test scores) were more likely to participate in fine arts, academic activities, newspaper/yearbook, and student government. However, those with high GPAs are more likely to participate in athletics, cheerleading, and vocational activities. McNeal (1998) speculates that the reason why different facets of academic achievement predict involvement in different activities is because some activities require a certain GPA (e.g., sports) whereas other activities (e.g., fine arts) may attract students who tend to score high on standardized tests.

Another youth characteristic that has been examined in research on activity involvement is youth delinquency (Persson et al., 2007). This study used longitudinal data, with one year follow up, of 1,186 youth from 7th to 11th grade in Sweden. Youth leisure activities (breadth) were measured in terms of whether youths moved into or out of structured activities (i.e., stayers, quitters, switchers, both or nonjoiners). Leisure activities were measured at time 1 and one year follow-up. The results indicate that delinquency at time 1 was association with a decrease in the likelihood of being involved in structured activities at time 2. That is, youths who were involved in structured activities at both times or who became involved in structured activities at time 2 were lower in delinquency that other youths at time 1.

Youths' social skills or competencies could also influence whether youths select into an activity. Mahoney et al. (2002) (previously discussed in detail) examined the relation between teacher-reported interpersonal competence (e.g., has lots of friends; refrains from fighting with peers) and extracurricular activity involvement. A bidirectional relation was found between interpersonal competence and activity involvement. Interpersonal competence in early adolescence (grade 7-8) predicted extracurricular activity participation middle adolescence (grade 9-10), and extracurricular activity participation early adolescence (grade 7-8) predicted interpersonal competence in middle adolescence (grade 9-10). Thus, social skill, as operationalized as interpersonal competence, is positively associated with extracurricular participation, as suggested by Mahoney et al. (2009).

Taken together, the findings from these studies suggest that youths' behavioral adjustment, school performance, and social skills might serve as selection factors for activity participation. That is, behavioral and psychological problems, poor school performance, and lack of social skills predict a lower likelihood of structured activity participation.

Family and peer characteristics.

Joint decision-making and parental involvement. Differing aspects of parenting and family characteristics have been evaluated in relation to youth extracurricular activity participation. For example, Fletcher and colleagues (2000) found that parental warmth was associated with higher levels of activity participation, and Morrissey and Werner-Wilson (2005) found that youths who reported that their parents were high in parental monitoring also reported being involved in more structured out-of-school activities. However, other parental qualities may be even more instrumental in youths' activity involvement. Parental involvement in academics

and parent-adolescent joint decision making in particular would appear to be important factors in youths' positive youth development and activity participation.

Joint decision making has been shown to relate to many positive youth outcomes (Lansford, Criss, Pettit, Dodge, & Bates, 2003). As part of the same ongoing longitudinal project as the current study, Lansford interviewed mothers of 6th graders about the degree to which parents made decisions for their adolescent regarding daily activities. Parents rated 16 items on a 4 point scale (1= child decides, 2= joint decision, 3= discuss but parents have final say, 4= parent decides). Items were averaged to create a measure of parental unilateral decision making. Unilateral decision making was significantly and positively related to youths' externalizing behavior in grade 7. It was also associated with low levels of peer group affiliation. These findings suggest that unilateral parental decision making may foster early adolescent adjustment problems, problems which prior research also has linked with decreased level of activity participation. Lansford et al. (2003) did not examine joint decision making (i.e., joint decision and discuss but parents have final say), but to the extent that joint decision making and unilateral parental decision making represent opposite ends of a continuum of decision making, joint decision making might be expected to be associated with higher levels of activity participation.

Parent-adolescent decision making also has been linked with adolescent problem behaviors and substance use (Raboteg-Saric, Rijavec, & Brajsa-Zganec, 2001). Participants in this study were in 5th and 6th grade. A measure of joint decision-making was based on a three-item scale of the extent to which parents involved their children in the decision-making process. Youth leisure time was measured by whether youth participated in organized activities or unstructured and unsupervised involvement with peers. Joint decision making was positively and significantly related to participation in organized activities, compared to involvement with peers.

Joint decision making was also found to be significantly and negatively related to using alcohol, smoking cigarettes, school misconduct, and deviant behavior.

Parents' involvement in their adolescents' academics might also be expected to be associated with activity involvement. In a study of cross-generational continuity of educational attainment, parental involvement in academics was considered as a mediator of the link between mothers' academic attainment and their children's academic attainment at age 21 (Pettit, Yu, Dodge, & Bates, 2009). A measure of parental academic involvement was obtained from teachers, adolescents, and mothers, when youth were in 7th grade. Parental academic involvement was correlated significantly and positively with child's education, negatively with externalizing behaviors in grade 1-3, and positively with child's GPA in grade 1-3. This suggests that parental involvement in academics might have an indirect effect on activity participation because of its association with problematic behavior. But to the extent that parental involvement in academics also reflects parental involvement in school and school-based activities more generally, it may also serve as a selection factor for differing forms of activity participation.

Fletcher and colleagues (2000) examined another form of parental involvement—community involvement--as a control variable for extracurricular activity participation. This study sampled families of 9th graders living on farms or in rural communities with 2 biological parents in the home. Parental community involvement was measured in 9th grade by asking each parent what community activities they were involved in, hours spent in each activity, leadership positions held, and church attendance. Youth activity involvement (breadth) was measured in 9th and 10th grade by youth report. Fletcher and colleagues (2000) found that adolescents from high-involvement families participated in an average of about one more activity at 9th and 10th grade than adolescents from low-involvement. Parental community involvement was associated with

9th grade youth activity involvement and predictive of time 2 activity involvement, with children in high involved families participating in more activities in 9th grade and more likely to participate highly in 10th grade.

Peer group characteristics. Peer group characteristics have been linked with a number of youth development outcomes. An important adolescent peer group characteristic in terms of youth development is involvement with antisocial peers. Antisocial peer involvement has been found to predict adolescent smoking, drinking, other drug use, and deviant behavior (for review see Gifford-Smith, Dodge, Dishion, & McCord, 2005). For example, Barnes, Hoffman, Welte, Farrell, and Dintcheff (2006) found a positive relation between peer deviance and alcohol misuse and illicit drug use. In this study 506 adolescents from 13-16 were studied longitudinally for 6 years. Over the 6 waves adolescent alcohol misuse and illicit drug use was measured. Peer deviance was measured in waves 1-3 by youth reports of their peers' delinquent acts in the last year. Adolescents with more deviant peers at wave 1 had higher initial levels of alcohol misuse, and drug use, and adolescents with more delinquent peers at wave 2 and 3 had higher rates of increase in problem behaviors. Thus, association with deviant peers is related to involvement in problem behaviors and increases in problem behaviors over time.

While peer deviance has not been studied as an extracurricular activity selection factor, other peer group characteristics have been shown to relate directly to extracurricular activity participation (Persson et al., 2007). As noted earlier, Persson et al. (2007) collected a variety of measures of youths in 7th through 11th grade. Follow-up assessments were conducted one year later. Three peer characteristics were measured at time 1: important peers, peer group, and peers in structured activities. Youth participation breadth in structured activities was measured at time 1 and time 2. Youths were found to leave structured activities to spend time with their peers that

are not involved in structured activities. Therefore, it appears that peer influences impact a youths' activity participation.

Thus, it is evident that both parenting (joint decision making and parental involvement in school activities) and peer characteristics (deviant peer group) are associated with youth positive development. Given that extracurricular activity involvement is more common among well-adjusted youths, it is likely that these parenting and peer characteristics could serve as selection factors for extracurricular activities.

Socio-demographic characteristics. As noted by Mahoney and colleagues (2009), many socio-demographic factors have been measured as covariates or predictors of extracurricular activity participation. Among the most frequently considered are child sex and socio-economic status. An extensive body of research has revealed sex differences in activity participation. In general, this research shows that breadth of participation (e.g., number of different activities) tends to be greater for girls, whereas depth of participation (e.g., number of hours in a particular activity) tends to be greater for boys. However, the higher level of depth for boys is almost solely accounted for by boys' greater participation in sports. Bohnert et al. (2007), for example, found no overall sex differences in level of activity involvement in youths from grade 9th through 12th, but females reported having more domains of participation. Fredricks and Eccles (2008) considered 8th grade activity participation breadth in 3 categories: school clubs, school sports and out-of school recreational activities. Males were more likely to participate in sport teams, and females were more likely to participate in school clubs and other recreational activities. Linver and colleagues (2009) found that when high-school age girls did participate in sports they also tended to participate in non-sport activities as well. Boys, on the other hand, were more likely to participate in sports only. McNeal (1998) included sex as selection factors for extracurricular

activity participation breadth and found that boys participated more in athletics than girls; however, girls were more likely to participate in all other categories of extracurricular activities than boys. It therefore would appear that sex differences are likely in both depth and breadth of participation as well as type of preferred activities.

Another widely-studied socio-demographic selection factor is SES. Generally, lower SES youths participate in fewer activities, with the exception of school sports, where findings are inconsistent. Fredricks and Eccles (2008) found that higher SES youths tended to participate, breadth wise, in more school clubs and other recreational activities, but not sport teams. Linver and colleagues (2009), on the other hand, found that youths in families with higher incomes were more likely to be involved in sports compared to youths in families with lower incomes, when considering breadth. Findings from a variety of other studies on after-school activities show that students of higher SES are more likely to participate in all categories of extracurricular activities than lower SES youth (Bohnert et al., 2007; McNeal, 1998; Pettit et al., 1997).

Neighborhood characteristics have been examined as covariates of extracurricular activity participation. As pointed out by Mahoney et al. (2009), neighborhoods that are free of crime and that provide opportunities for school and non-school structured likely facilitate greater participation. Attitude toward one's community and perceived opportunity for activity participation have been studied as neighborhood characteristics that might influence extracurricular activity participation (Morrissey et al., 2005). They found that participants who had more positive feelings about their community reported higher levels of involvement in structured activities in their community. A set of neighborhood risk indices were included by Wimer, Simpkins, Dearing, Bouffard, Caronongan, and Weiss (2008) as related to youths' extracurricular activity participation. The neighborhood factors include: high poverty

neighborhood, high neighborhood disorder, low collective efficacy, dangerous neighborhood, neighborhood as a poor place to raise children, and difficulty distinguishing strangers in neighborhood. The dangerous neighborhood variable, of interest here, was measured by asking primary caregiver report on level of danger. High levels of neighborhood danger was related to lower levels of participation in athletics and scouting, and higher levels of participation in community and school activities. Wimer and colleagues (2008) suggest that this may be the case because youth and families may actively select into certain activities to compensate for the lack of opportunity in their neighborhood.

Summary. It is apparent that many predictors of activity participation have been identified, both cross-sectionally and longitudinally. Youth characteristics, family and peer characteristics, and socio-demographic factors all have been linked with activity participation. However, it is unclear whether selection factors within these categories will remain significant controlling for all the others. For example, youth adjustment may no longer be associated with activity participation once SES is taken into account. There is a need to examine possible selection factors simultaneously to determine which are most important in the selection process. It also is important to note that one of the most substantial predictors of participation is prior participation (e.g., Denault & Poulin, 2009). Thus, also of interest was if selection factors predicted later participation controlling for earlier participation.

Research Questions/Goals

A. The first goal was to describe structured activity participation in grades 7 and 12 in terms of breadth and depth in each of three activity domains: school, church, and community. Depth of participation was operationalized in terms of both hours (hours per week and weeks per year) and commitment. Breadth was operationalized in terms of the total number of activities a youth participates in.

B. The second goal was to examine continuity and change in activity participation level between grades 7 and 12. Of particular interest was whether level of participation varies as a function of activity domain (school, church, community) and breadth and depth of involvement.

C. The third goal was to examine whether the degree of continuity in activity involvement was moderated by intervening life transitions assessed during the interval between grade 7 and grade 12. That is, does breadth and depth of involvement in school, church, and community settings decline following one or more life transitions (i.e., moving, having a serious accident or illness, and/or parental divorce or separation)?

D. The fourth goal was to identify selection factors that predict grade 7 and grade 12 participation levels as well as whether these selection factors predict grade 12 participation levels after controlling for grade 7 participation. The latter analyses will show whether selection factors assessed prior to grade 7 predict an increase (or decrease) in types of activity participation over time. Selection factors of interest include youth

characteristics (e.g., behavioral adjustment, sociability and academic performance), family and peer characteristics (e.g., joint decision making, parental involvement in academics, peer deviance), and socio-demographic characteristics (e.g., SES, youth sex, and perception of neighborhood safety).

Method

Participants

The participants for this study are part of the longitudinal, multi-site, multi-informant Child Development Project (Pettit et al., 1999). The study assesses participants in two cohorts from the Nashville and Knoxville, TN and Bloomington, IN areas. The majority of participants (85%) were recruited at pre-registration for kindergarten during two consecutive years (1987 and 1988). The remaining participants were recruited at the schools registration at the beginning of the school year or by phone or letter. Data collection began the summer before participating children began kindergarten using interviews and parent interviews and continued with yearly assessments. The sample from the initial study included 585 participants, consisting of 52% male, 81% European American, and 17% African American. The Hollingshead (1975) index of social status indicated the sample was predominately middle-class (M = 40.4, SD = 14.0), although a range of statuses was represented, 9%, 17%, 25%, 33% and 16% in the five possible classes (from lowest to highest), in accordance with Hollingshead's recommendations. The current research assessed 431 participants in 7th grade and 428 participants in 12th grade, 206 and 205 males, 363 and 351 European American, and 62 and 71 African American (respectively).

Measures

Extracurricular activities. The measures of extracurricular involvement include number of activities, hours per year of participation, and extracurricular commitment in early (7th grade) and late (12th grade) adolescence, derived from the Extracurricular Activities Survey (The

Conduct Problems Prevention Research Group, 2002), see appendix C. In 7th grade the Extracurricular Activity Survey was administered by a trained interviewer during the winter youth interview. In the summer before 12th grade the Extracurricular Activity Survey was mailed to the target child's home, as part of a packet to be filled out by the adolescent, and returned through the mail. Participants were asked to list their involvement in extracurricular activities connected to school, church, and community programs. A sum score for total number of activities (i.e., breadth) was used for primary analyses for school, church, and community domains. An overall breadth score was created by summing the school, church, and community breadth sums. Participants were also asked how many hours per year and weeks per year they participated in each activity. Using these questions a total number of hours per year was computed, to be used as one measure of depth for school, church, and community domains. An overall depth-hours measure was created by averaging the sum of school, church, and community hours per year. Participants were also asked about their level of satisfaction/commitment to each of the extracurricular activities they identified on a five-point scale (1 = not very satisfied or committed; might quit soon, 2 = a little satisfied; probably will continue for a while, 3 = satisfied; will continue, 4 = quite satisfied; definitely want to stay involved, 5 = extremely satisfied; activity is very important to me; highly committed). A commitment score was calculated by averaging the commitment in the top two activities reported for each domain. Only the top two activities were used because these were judged as most likely to represent general levels of commitment. An overall commitment score was created from the average of school, church, and community commitment. If there was no activity reported for a particular domain, then that domain was not included in the calculation of overall commitment. Thus, only a single activity in one domain was required for the overall activity scores (*N*s = 366

in 7th grade and 294 in 12th grade). The numbers of participants with at least one activity in all three domains was small (*N*s = 62 and 49, respectively, for 7th and 12th grade, and *N* = 11 for both grades).

Intervening life transitions. The intervening life transition measures were taken from the Changes and Adjustment Questionnaire (Pettit et al., 1997) (see appendix D). This questionnaire was administered by a trained interviewer to the target child's primary caregiver the summer before 8th and 9th grade and mailed to the target child's primary caregiver for them to fill out in the summer before 10th grade. In both cases mothers were asked: "What kind of changes and adjustments has your family had in the past year?" Then a list of 10 major stressors was given for the parent to respond to such as death of family member, divorce, and legal problems. If the family had experienced the change or adjustment the mother circled yes. For purposes of the current study, if the family had experienced the change or adjustment in either or both years the child was coded as having experienced the change or adjustment (i.e., 1 = change occurred in either or both years; 0 = change did not occur in either year).

Experience of a move. This measure was taken from the Changes and Adjustments Questionnaire from grades 8-10. In each year a single question asked whether the family had moved. If the youth experienced a move in any of either year they were considered to have experienced a move (1); if no move had occurred the child received a score of 0.

Experience of serious illness or injury. This measure was also taken from the Changes and Adjustments Questionnaire from grades 8-10. This was measured by two questions: if the child had a serious illness and if the child had an accident or injury. If the youth experienced a serious illness or injury in either or both years they received a score of 1; if no serious illness or injury had occurred, a score of 0 was assigned.

Parental divorce or separation. This measure was taken from the Changes and Adjustments Questionnaire from grades 8-10. Mothers were asked whether they had been "been divorced or separated from our spouse or partner" during the past year. If the youth experienced divorce or separation of their parents in any of these years they were considered to have experienced a parental divorce of separation (scored as 1).

Intervening life transition composite. A composite measure of intervening life transition was created by summing the scores of the three life transitions. If the summed score yielded a 1, 2, or 3 it was recoded as a 1 to index the occurrence of at least one adverse life transition; a score of 0 was assigned to those who had not experienced any of the three life transitions.

Selection factors. During the summer prior to and early fall of grade 7, mothers and adolescents were interviewed in their homes. During the spring of grade 6 teachers completed a set of questionnaires.

Youth characteristics.

Teacher-reported behavioral adjustment. In the spring of 6th grade Teachers completed a 113-item Child behavior checklist (Achenbach, 1991). Teachers noted whether each statement was not true for the youth (0), somewhat or sometimes true (1), or very often or often true (2). An index of youths' externalizing behavior was taken from the 34 item externalizing behavior scale and then summed. An index of internalizing behavior was created from the 34 item internalizing behavior scale and then summed. The scales are known to be highly reliable (Achenbach, 1991).

Teacher-rated social skillfulness. Teacher rated social skillfulness was measured through the teacher questionnaires collected during the spring of 6th grade (Pettit et al., 1997). The Teacher Checklist of Peer Relations (Coie & Dodge, 1988) contained 7 items of teacher

judgments of children's social skillfulness with peers on a 5-point scale (from very poor to very good). Included items such as "understands others feelings" and "is aware of the effect of his/her behavior on others." These items were then averaged to create a measure of social skillfulness (α =. 89).

Academic performance. A measure of academic performance was created from an inspection of school records during the spring of 7th grade, and was based on records from the most recently completed school year (6th grade) (Pettit et al., 1997) . A composite grade point average (GPA) was calculated for each child by averaging the grade (A = 4, B = 3, C = 2, D = 1) received across all subjects (reading, math, language arts, spelling, special studies, and science). If grades were missing in some subject areas, GPA was based on the subject areas where grades were assigned. If three or more subject area grades were missing then no GPA was given. Achievement test scores were also included, the percentile ranking for three common scales (reading, language, and math) were noted. A composite achievement test score was then created by averaging the three scores. If one scale was missing then the average was taken from the other two scales; if both scales were missing no score was recorded.

Family and peer characteristics.

Parental involvement in academics. Parental academic involvement was obtained from teachers and mothers (see Pettit et al., 2009). In the spring of seventh grade teachers completed the 21-item Parent- Teacher Involvement questionnaire (Kohl, Lengua, & McMahon, 2000) using a five point scale. Items were averaged to create a teacher report of parental academic involvement score (α = .91). Mothers were asked two questions if they had participated in school PTA (or other like meeting) and open house in the last year. A mother composite variable was

created to reflect if parents were involved in 0, 1, or 2 of the activities. A composite variable was created by standardizing the teacher and mother measures and then summing them.

Joint decision making. The joint decision making variable was created from the mother's interview before the youth's entry into sixth grade. A measure of unilateral decision making based on the instrument developed by Steinberg, Elmen, and Mounts (1989) was used to determine the degree to which parents made decisions for their child about daily activities (e.g. how to spend money or what to eat). Parents rated the 16-items on a 4-point scale (1= the child decides, 2= joint decision, 3= discuss but parent has the final say, 4= parent decides). The number of items rated as a 2 or 3 were tabulated to create a measure of joint decision making.

Peer deviance. The target child was asked to complete questions regarding their peers' deviance, in 7th grade. (No peer deviance measure was available for earlier years.) Each child was asked to rate the behavior of the peers in their friendship group on a 5-point Likert scale, with 1 indicating never participating in the behavior and 5 indicating very often participating in the behavior. The survey questions such as gets into fights with other kids, steals things, smokes cigarettes, drinks alcohol, uses bad language, gets into trouble at school. Items were scored so that higher numbers indicate higher levels of peer deviance. The average of these items was used to create a peer deviance composite score.

Socio-demographic characteristics.

Socio-economic status. In 6th grade data collection family demographic information was collected. The child's parent was asked to report on mothers' and fathers' occupations and level of education. From these variables a Hollingshead index of social position was calculated, which was used as a measure of Socio-economic status (Hollingshead, 1979).

Perceived neighborhood safety. A neighborhood questionnaire was administered to the target child's mother in 6th grade of data collection. This measure was adapted from the self care checklist (Posner and Vandell, 1994). Mothers rated items based on a 6 point scale of general neighborhood safety, accessing both mothers feeling of their own safety and how safe they though it was for their children to play outside (Pettit et al., 1999). The α internal consistency for this 6-item measure is .90.

Results

Results are presented in several sections. In the first section descriptive statistics are presented for all study variables. Then bivariate correlations among study variables are given. Next, results of a series of repeated measures multivariate analyses of variance (MANOVAs) testing for change in activity involvement and the extent to which life transitions moderate these changes are presented. For descriptive purposes, findings from univariate repeated measures ANOVAs also are summarized. Finally, results of regression analyses designed to examine selection factors are reported. These analyses show which selection factors are significant predictors of activity participation controlling for all the others, and whether selection factors predict later activity participation controlling for earlier participation.

Descriptive Statistics

Extracurricular activities. Inspection of the univariate revealed some extreme outliers for 12th grade hours of participation for overall, school and community. A decision was made to delete variables over 2,000 hours per year because these were deemed to be either unrealistic estimates or a coding error. This resulted in 6 case variables being deleted. The descriptive information for the extracurricular activity variables can be found in Table 1. First, considering activity involvement in 7th grade, average overall breadth ranged from 0 to 11 activities with a mean of 2.32. The number of school activities was slightly larger than the number of church activities (*M*s = .93.and .61) with number of community activities falling in-between (*M* = .78). Second, the average number of hours spent in all extracurricular activities

ranged from 0 to 502.67 with a mean of 76.31, a very wide range and standard deviation (82.51). The number of hours in community (M = 89.10) extracurricular activities was greater than school activity hours, followed by church activity hours (Ms = 75.83 and 64.72, respectively). The range of commitment to all extracurricular activities (school, church, and community) was from 1 to 5, with a means from 4.16 to 4.30, indicating that most youths are highly committed to the activities in which they are involved.

With respect to 12th grade, average overall number of activities ranged from 0 to 10, with a mean of 2.04. The mean number of school activities (M = 1.18*)* was three times that of community activities (M = .33), and almost twice that of church activities (M = .55). Average overall number of hours spent in extracurricular activities ranged from 0 to 794.67 with a mean of 104.35. Overall hours in school extracurricular activities (M = 190.65) was more than double the number of hours spent in church and community hours (Ms = 71.93 and 53.17, respectively). The range of commitment across domains was from 1 to 5, with means between 3.98 and 4.20, indicating that most youth are highly committed to the activities in which they are involved.

Life-event moderators. On average, 27% of the sample had experienced at least one move between 8th and 10th grade. About 10% of the participants had parents who divorced or separated between 8th and 10th grade. On average, 30% of the target children were seriously ill or injured at some point between 8th and 10th grade. On average, 50% of the participants had experienced at least one of these three life events.

Selection factors. The descriptive information for the selection factor variables can be seen in Table 2. Most noteworthy are that youths tended to present relatively few externalizing and internalizing behaviors and to have relatively high levels of social skillfulness. The parenting and peer relationship variables showed a reasonable range and central tendency.

Intercorrelations among Measures

Extracurricular activity variables. Correlations between overall breadth, hours, and commitment are shown in Table 3. As can be seen, breadth and hours are moderately correlated in both 7th and 12th grade, i.e., the greater the number of activities the greater the number of hours spent in activities. Commitment was unrelated with breadth in either grade. However, higher levels of commitment were associated with greater number of hours of participation. Significant stability from grade 7 to grade 12 was found for all three measures of overall activity involvement.

Table 4 shows the correlations between each domain of activity participation (school, church, and community) within and across grades. It should be noted that for breadth and hours there was a significant positive relationship between each activity domain in 12th grade but no significant overlap between activity domains in 7th grade. In other words, in 12th grade, youths who participated in more school activities (and spent more hours in those activities) were also likely to participate in community and church activities. This was not the case in 7th grade. In terms of 12th grade commitment, a higher level of community commitment was positively associated with higher levels of school and church commitment. Commitment levels across domains were not significantly related in 7th grade.

A consistent pattern of positive relationships within domains across years can be seen for breadth, hours, and commitment (i.e., higher levels in grade 7 were associated with higher levels in grade 12). Also, within each grade, greater number of hours was associated with breadth and commitment, but commitment and breadth were unrelated.

Selection factors. The correlations between selection factors are shown in Table 5. Variables were intercorrelated in the expected way (e.g., externalizing problems were associated

with lower levels of social skillfulness). Variables unrelated to one another are as follows: Joint decision making and peer deviance were not related to internalizing or externalizing behaviors, or to each other. SES and youth sex were not related, and youth sex was not related to internalizing behavior.

Extracurricular activity variables and selection factors. The correlations between extracurricular activity variables and selection factors are reported in Table 6. In general, selection factors predict overall involvement better than involvement in any particular activity domain. Selection factors were more strongly and consistently associated with breadth and commitment than with hours in 7th grade. In 12th grade, selection factors were associated with breadth but not with hours or commitment. The correlational patterns were somewhat weaker for commitment and hours in 12th grade compared to 7th grade, but somewhat stronger for breadth in 12th grade than in 7th grade. The selection factors showing the largest number of predictive relations with breadth and hours were academic performance and SES, whereas the selection factors showing the largest number of predictive relations with commitment were parental involvement in academics and association with deviant peers.

Moderator variables and extracurricular activity. The correlations between the moderator variables and extracurricular activity variables are shown in Table 7. All three of the life-event transitions were associated with lower levels of overall breadth in 12th grade but not in 7th grade. Child illness was associated with less overall activity commitment and less commitment to school activities in 7th grade and to less community activity commitment in 12th grade.

Continuity and Change in Activity Involvement: Church, School, and Community Considered Simultaneously

Separate MANOVAs for repeated measures were performed for extracurricular breadth, hours, and commitment. Activity domains (school, church, community) in grade 7 and in grade 12 were within-group (repeated measures) factors (i.e., time). Having experienced any of the life-transition events was used as a between-subjects factor.

Extracurricular activity breadth. For extracurricular breadth, significant main effects were found for time ($F(3, 365) = 27.81$, $p < .001$), life transition ($F(3, 365) = 4.38$, $p < .005$), and the interaction of time and life transition ($F(3, 365) = 3.97$, $p = .008$). The number of different activities that youth participated in decreased over time (*Ms* = .77 and .68 for 7th and 12th grade, respectively). Inspection of univariate effects showed significant increases from 7th to 12th for school, $F(1, 365) = 10.82$, $p < .001$ (*Ms* = .92 and 1.17, respectively) and significant decreases for community ($F(1, 365) = 43.73$, $p<.001$) (*Ms* = .79 and .31, respectively).

The life transition main effect indicated that overall breadth was lower for those youths experiencing the life transition (*M* = .51) than for those not experiencing the life transition (*M* = .82). The univariate effects revealed significant differences in breadth as a function of experiencing vs. not experiencing the life-transition event for school, $F(1, 365) = 8.73$, $p < .001$ (*Ms* = .92 and 1.20, respectively) and church, $F(1, 365) = 8.58$, $p < .01$ (*Ms* = .49 and .69, respectively).

Turning to the moderator (life transition) by time interaction, overall breadth decreased from 7th to 12th grade for those youths experiencing a life transition (*Ms* =.75 and .53, respectively) compared to those not experiencing a life transition (*Ms* =.80 and .84, respectively). Looking at individual domains (see Figure 1), univariate analyses showed that

changes over time occurred as a function of life transition for school $F(1, 365) = 4.52$, $p < .05$), and church, $F(1, 365) = 8.75$, $p < .05$). Inspection of means revealed that for school breadth, youths not experiencing the life transition were involved in fewer activities in grade 7 ($M = .98$) than in grade 12 ($M = 1.41$), $t(182) = -3.63$, $p < .001$, whereas those experiencing the life transition were involved in relatively the same number of activities across grades (Ms = .86 and .95, respectively) ($t(187) = -.87$, $p = .39$). For church breadth, youths not experiencing the life transition were involved in about the same number of activities from 7th to 12th grade (Ms = .64 and .74, respectively) ($t(182) = -1.22$, $p = .23$), while those experiencing the life transition were involved in fewer activities from 7th to 12th grade (Ms = .58 and .39, respectively) ($t(187) = 3.52$, $p < .001$).

Hours of activity participation. For extracurricular hours of participation, significant main effects were found for time ($F(3, 327) = 22.81$, $p < .001$), but not life transition or the interaction of time and life transition. The number of hours spent in activities increased over time ($Ms = 77.44$ and 106.47 for 7th and 12th grade, respectively). Inspection of univariate effects showed significant increases from 7th to 12th for school, $F(1) = 54.72$, $p < .001$, ($Ms = 75.53$ and 191.68, respectively), and significant decreases for community, $F(1) = 14.11$, $p < .001$ ($Ms =$ 95.13 and 54.53, respectively).

With regard to hours of participation there were no main effects or univariate effects for life transition or the interaction and time and life transition.

Commitment to activity participation. Because of the small number of participants with commitment scores for all three domains (62 in 7th grade, 49 in 12th grade, 11 for both grades), MANOVA analyses were not conducted for commitment.

Continuity and Change in Activity Involvement: Church, School, and Community Considered Individually

An exploratory analysis examined whether life-transition events moderated continuity for each of the three type of extracurricular activity when considered separately. This was a less conservative test than the omnibus test described above, but may yield insights into patterns of change within each of the domains of school, church, and community (as well as average levels across these domains). A total of 12 repeated measures analyses were conducted, with each of the three activity measures (breath, hours, commitment) examined separately as within-group factors in each domain (school, church, community, and overall). As before, life-transition event (occurred or did not occur) served as the between group factor.

Breadth.

Overall breadth of participation. For overall breadth there was a significant time ($F(1, 367) = 5.26$, $p < .05$), life transition ($F(1, 367) = 6.32$, $p < .001$) and time by life transition ($F(1, 367) = 10.03$, $p < .01$) effect. The number different activities that youth participated in decreased over time (*Ms* = 2.32 and 2.04 for 7th and 12th grade, respectively). The life transition main effect indicated that overall breadth was lower for those youths experiencing the life transition ($M = .64$) than for those not experiencing the life transition ($M = .83$). Concerning the time by life transition effect, overall breadth remained relatively the same for youth not experiencing a life transition from 7th to 12th grade (*Ms* =.81 and .84, respectively) ($t(182) = -.55$, $p = .58$), while those experiencing the life transition decreased from 7th to 12th grade (*Ms* = .75 and .52, respectively) ($t(187) = 4.47$, $p < .001$) .

School Breadth. For breadth in school activities there was a significant time ($F(1, 367) = 10.83$, $p < .001$), life transition ($F(1, 367) = 8.73$, $p < .001$) and time by life transition ($F(1, 367)$

= 4.52, $p < .05$) effect. Number of activities in school generally increased from 7th to 12th grade (*Ms* = .91 and 1.17). The life transition main effect for school indicated that those experiencing a life transition participated in fewer activities than those not experiencing the life transition (*Ms* = .91 and 1.20). The significant time by life transition effect of school breadth indicates those who had not experienced a life transition had an increase in school activities from 7th to 12th grade (*Ms* = .98 and 1.41, respectively; t (182) = -3.63, p <.001); see Figure 1. However, those who had experienced a life transition participated in the same number of activities from 7th to 12th grade (*Ms* =.86 and .95; t (187)= -.87, p = .39).

Church Breadth. For church breadth of participation there was not a significant time effect but there were significant life transition (F(1, 367) = 8.58, p <.01) and time by life transition effect (F(1, 367) = 8.75, p <.01). The life transition effect denotes that those who experienced the life transition (*M* = .49) participated in fewer church activities than those who had not experience the life transition (*M* =.69). The interaction effect indicates that for church breadth those who had not experienced a life transition had nearly the same church breadth from 7th to 12th grade (*Ms* = .64 and .74, respectively; t (182) = -1.22, p = .23), while those who had experience the life transition decreased in church breadth from 7th to 12th grade (*Ms*=.58 and .39; t (187) = 3.52, p <.001); see Figure 1.

Community breadth. Community breadth of participation had a significant time effect (F(1, 367) = 70.63, p<.001), indicating that over time community activities generally decreased from 7th to 12th grade (*Ms*= .79 and .31, respectively). The life transition and time by life transition effects were not significant.

Hours.

Hours overall. There was a significant time effect for overall hours of participation ($F(1, 366) = 12.07$, $p < .001$) and a significant life transition effect ($F(1, 366) = 6.74$, $p < .01$) but no interaction of time and life transition effect. From 7th to 12th grade overall hours of participation increased (*M*s= 77.10 and 101.45, respectively). Those who had experienced the life transition ($M = 62.57$) participated in fewer hours of activities than those who had not experienced the life transition ($M = 101.37$).

School Hours. There was a significant time effect for school hours of participation ($F(1, 345) = 56.22$, $p < .001$) but no life transition or interaction of time and life transition effect (see Figure 2). Thus, in school hours of participation there was a significant increase from 7th to 12th grade (*Ms* = 74.67 and 187.87).

Church Hours. For church activity hours there was not a significant time or time by life transition effect (see Figure 2). However, there was a significant main effect for life transition ($F(1, 357) = 4.49$, $p < .05$), revealing that those who had experienced the life transition ($M = 58.09$) participated in fewer hours of church activities than those who had not experienced the life transition ($M = 82$).

***Community Hours*.** For community hours of participation there was a significant time effect ($F(1, 357) = 16.20$, $p < .001$), with a decrease from 7th to 12th grade (*Ms* = 92.18 and 51.59). However, there was not a significant life transition effect or interaction of time and life transition (see Figure 2).

Commitment.

Commitment overall. There was a significant main effect for time ($F(1, 232) = 4.50$, $p < .05$, with a decrease in overall commitment from 7th to 12th grade (*Ms* = 4.22 and 4.06). There

were no main effects for life transition or the interaction of time and life transition for overall commitment.

School Commitment. For school commitment there was a significant time by life transition interaction ($F(1, 124) = 6.32$, $p < .05$), indicating that those who had not experienced the life transition had a decrease in school commitment from 7th to 12th grade ($Ms = 4.35, 4.04$; $t(70) = 2.91$, $p < .01$); see Figure 3. However, for those who had experienced a life transition, commitment remained the same from 7th to 12th grade ($Ms = 3.96$ and 4.11 , $t(56) = -.97$, $p = .34$).

Church Commitment. Church activity commitment also had a significant time by life transition effect ($F(1, 92) = 4.33$, $p < .05$), but not a main effect for time or life transition; see Figure 3. This indicates that those who had not experienced a life transition decreased in church commitment from 7th to 12th grade ($Ms = 4.22$ and 4.0; $t(54) = 1.28$, $p = .21$). However, those who had experienced any transition had increased commitment to church activities from 7th to 12th grade ($Ms = 4.13$ and 4.48; ($t(40) = -1.60$, $p = .12$).

Community Commitment. Community commitment did not significantly vary by time, life transition or by the interaction of time and life transition, see Figure 3.

Extracurricular Activity Selection Factors

In order to determine what factors predict extracurricular activities in 7th and 12th grade a series of regression analyses were performed. For each extracurricular activity variable three regressions were conducted. In the first regression, all the selection factors were entered simultaneously, with 7th grade activity as the dependent variable. In the second analysis, all the selection factors were entered in a single step, with the 12th grade activity variable as the dependent variable. In the third analysis, the 7th grade activity variable was entered in step one,

then all other selection factors were entered in step two, with 12th grade activity as the dependent variable.

Overall breadth. The selection factors were significantly associated with overall breadth in grade 7, $F(10, 312) = 3.46$, $p = .001$, and together explained 10% ($p = .001$) of the variance (see Table 8). Academic performance ($\beta = .135$, $p = .05$) and parental involvement in academics ($\beta = .138$, $p = .01$) were the only significant predictors. For 12th grade overall breadth, selection factors together explained 26%, $F(10, 285) = 9.80$, ($p < .001$), of the variance, with academic performance ($\beta = .286$, $p < .001$), socioeconomic status ($\beta = .191$, $p = .01$), and peer deviance ($\beta = -.122$, $p < .05$) making significant contributions to the prediction. The third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade overall activity breadth after controlling for previous levels of participation. Prior breadth of participation explained 9.7% of the variance in later participation ($\beta = .311$, $p < .001$), $F(1, 284) = 30.45$. Selection factors accounted for an additional 19.6% of the variance in grade 12 overall breadth, $F(10, 274) = 7.59$. After controlling for previous participation, academic performance and SES in 7th grade remained significant predictors of 12th grade overall breadth ($\beta = .220$, $p < .01$ and $\beta = .201$, $p < .01$, respectively).

School breadth. The selection factors were not associated with school activity breadth in 7th grade (see Table 9). For 12th grade breadth overall all selection factors were entered simultaneously into the model. All selection factors together explained 20%, $F(10, 285) = 6.90$, ($p < .001$) of the variance in 12th grade overall breadth. Academic performance in 7th grade ($\beta = .236$, $p < .001$) and socioeconomic status ($\beta = .203$, $p = .01$) contributed to the prediction. A third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade school breadth after controlling for 7th grade school breadth. Prior school

breadth of participation explained 5.2% of the variance in later participation, $F(1, 284) = 15.57$, ($\beta = .311$, $p < .001$). Selection factors accounted for an additional 19.6% of the variance in grade 12 school breadth. After controlling of previous participation, academic performance and SES in 7th grade remained significant predictors of 12th grade school breadth ($\beta = .263$, $p < .001$ and $\beta = .162$, $p < .01$, respectively).

Church breadth. Selection factors were associated with church activity breadth in 7th grade and together explained 6%, $F(10, 322) = 1.97$, ($p < .05$) of the variance (see Table 10). Teacher rated social skillfulness ($\beta = -.191$, $p = .05$) and parental involvement in academics ($\beta = .173$, $p = .01$) were the only significant predictors. For church breadth in 12th grade, selection factors together explained 18%, $F(10, 285) = 6.03$, ($p < .001$) of the variance. Academic performance in 7th grade ($\beta = .253$, $p < .001$) and peer deviance ($\beta = -.171$, $p = .01$) contributed to the prediction. A third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade overall activity breadth after controlling for previous levels of participation. Prior church breadth explained 13.9% of the variance in later participation, $F(1, 284) = 45.99$, ($\beta = .373$, $p < .001$). Selection factors accounted for an additional 13.9% of the variance, $F(10, 274) = 5.26$ ($p < .001$). After controlling of previous participation, academic performance and peer deviance in 7th grade remained significant predictors of 12th grade church breadth ($\beta = .255$, $p < .001$ and $\beta = -.140$, $p < .05$, respectively).

Community breadth. Selection factors were associated with community activity breadth in 7th grade and together explained 11%, $F(10, 322) = 3.91$, ($p = .001$) of the variance (see Table 11). Externalizing behavior problems ($\beta = .203$, $p < .01$) and youth sex ($\beta = -.130$, $p < .05$) were the only significant predictors. For 12th grade community breadth, selection factors together explained 8%, $F(10, 285) = 2.39$, ($p < .01$) of the variance. Academic performance in 7th grade (β

= .125, p <.10) was the only significant predictor. A third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade community breadth after controlling for previous levels of participation. Prior community breadth explained 1.3 % of the variance in later participation, $F(1, 284) = 2.39$, ($\beta = .114$ $p < .05$). Selection factors accounted for an additional 7.1% of the variance, $F(10, 274) = 2.11$, ($p < .05$).

Hours overall. Selection factors were associated with average overall hours in 7th grade and together explained 8.5%, $F(10, 322) = 2.91$, ($p = .01$) of the variance (see Table 12). Academic performance ($\beta = .149$, $p < .05$) was the only significant predictor. For 12th grade hours overall, selection factors together explained 19.6%, $F(10, 284) = 6.68$, (p <.001) of the variance. Academic performance in 7th grade ($\beta = .198$, $p < .01$), peer deviance ($\beta = -.119$, $p <$ .05) and SES ($\beta = .163$, $p < .05$) contributed to the prediction. A third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade hours overall after controlling for previous levels of participation. Prior hours of participation explained 12.2% of the variance in later participation, $F(1, 283) = 39.48$, ($\beta = .34$, $p < .001$). After controlling of previous participation, all selection factors together explained an additional 13.6% of the variance, $F(10, 273) = 5.02$, ($p < .001$), with academic performance ($\beta = .168$, $p <$ .05) and peer deviance ($\beta = -.125$, $p < .05$) remaining significant predictors.

School hours. Selection factors were not associated with school hours in 7th grade (see Table 13). For 12th grade school hours, selection factors together explained 13.9%, $F(10, 272) =$ 4.22, (p <.001) of the variance in 12th grade school hours. Academic performance in 7th grade (β = .183, $p < .05$) and SES (β =.134, $p < .10$) were significant predictors. A third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade school hours after controlling for previous levels of participation. Prior school hours

of participation explained 3.5% later participation, $F(1, 271) = 9.80$, ($\beta = .187$, $p < .01$). After controlling of previous participation, all selection factors together explained an additional 11.8% of the variance, $F(1, 261) = 3.62$ ($p < .001$), with academic performance ($\beta = .170$, $p < .05$) remaining the only significant predictors.

Church hours. Selection factors were associated with church hours in 7th grade and together explained 6.6%, $F(10, 318) = 2.18$, ($p < .05$) of the variance (see Table 14). Parental involvement in academics ($\beta = .170$, $p < .01$), teacher rated social skillfulness ($\beta = -.197$, $p < .05$) and joint decision making ($\beta = .121$, $p < .05$) were the only significant predictors. For 12th grade church hours, selection factors together explained 10%, $F(10, 277) = 3.19$, $p < .001$) of the variance in 12th grade church hours. Academic performance in 7th grade ($\beta = .201$, $p < .01$) and parental involvement in academics ($\beta = .129$, $p < .05$) contributed to the prediction. A third regression analysis was conducted to determine if these selection factors remain significant predictors of 12th grade church hours after controlling for previous levels of participation. Prior church hours of participation explained 13.8% of the variance in later participation, $F(1, 276) = 44.37$, ($\beta = .372$, $p < .001$). After controlling of previous participation, all selection factors together explained an additional 8.7% of the variance, $F(10, 266) = 2.97$, ($p < .001$), with academic performance ($\beta = .223$, $p < .01$) remaining the only significant predictor.

Community hours. Selection factors were associated with community hours in 7th grade and together explained 6.4%, $F(10, 319) = 2.11$, ($p = .05$) of the variance (see Table 15), with externalizing behavior problems ($\beta = .141$, $p < .10$) and parental involvement in academics ($\beta = .136$, $p < .05$) the only significant predictors. For 12th grade community hours, selection factors together did not explain any of the variance. A third regression analysis was conducted to determine if prior community hours were a significant predictor of 12th grade community hours.

Prior hours of participation explained 16.3% of the variance in later participation, $F(1, 275) = 55.56$, ($\beta = .404$, $p < .001$).

Commitment overall. Selection factors were associated with overall commitment in 7th grade and together explained 14%, $F(10, 279) = 4.56$, ($p = .001$) of the variance (see Table 16). Peer deviance ($\beta = -.287$, $p < .001$) and parental involvement in academics ($\beta = .197$, $p < .001$) were the only significant predictors. For 12th grade commitment overall, selection factors together did not explain any of the variance in 12th grade commitment overall. A third regression analysis was conducted to determine if prior commitment overall was a significant predictor of 12th grade overall commitment. Prior hours of participation explained 2.6% of the variance in later commitment, $F(1, 183) = 4.82$, ($\beta = .16$ $p < .05$).

School commitment. Selection factors selection factors were not associated with 7th grade school commitment (see Table 17). For 12th grade school commitment, selection factors together did not explain any of the variance. A third regression analysis was conducted to determine if prior school commitment was a significant predictor of 12th grade school commitment. Prior school commitment explained 9.4% of the variance later commitment, $F(1, 93) = 2.39$, ($\beta = .307$, $p < .01$).

Church commitment. Selection factors were associated with church commitment and together explained 15.2%, $F(10, 142) = 2.37$, ($p < .05$) of the variance (see Table 18). Peer deviance ($\beta = -.226$, $p < .05$) and parental involvement in academics ($\beta = .220$, $p < .05$) were the only significant predictors. For 12th grade church commitment, selection factors together did not explain any of the variance. A third regression analysis was conducted to determine if prior church commitment was a significant predictor of 12th grade school commitment. Prior church commitment was not a significant predictor of 12th grade church commitment.

Community commitment. Selection factors were associated with 7th grade community commitment and together explained 15.8%, $F(10, 173) = 3.07$, ($p < .001$) of the variance (see Table 19). Peer deviance ($\beta = -.173$, $p < .05$), parental involvement in academics ($\beta = .247$, $p < .01$), and youth sex ($\beta = .164$, $p < .05$) were significant predictors. For 12th grade community commitment, selection factors together did not explain any of the variance. A third regression analysis was conducted to determine if prior community commitment was a significant predictor of 12th grade community commitment. Prior community commitment was not a significant predictor of 12th grade community commitment.

Discussion

Extracurricular activities have been shown to be positive developmental contexts for adolescents (Mahoney et al., 2009). However, little is known about developmental changes in activity participation, why these changes occur, and the selection factors that are associated with initial and continuing participation. The purposes of the present study were to (1) describe breadth (extensiveness) and depth (hours spent in activities and commitment to those activities) of involvement in 7th and 12th grade in the domains of school, church, and community activities; (2) determine whether intervening stressful life experiences are associated with change in activity participation levels across development; and (3) identify the characteristics of youths, their families and peer groups, and the broader ecological context that predict youth participation in extracurricular activities in 7th and 12th grade. In the sections that follow, findings pertaining to each of these study objectives will be discussed. Conclusions, limitations, and suggested future directions for research on extracurricular activity participation also will be presented.

Levels of Breadth, Hours, and Commitment

In this study, activity participation was defined in terms of breadth and depth, consistent with the framework developed by Rose-Krasnor et al. (2006). Rose-Krasnor et al. suggest that it is important to distinguish amount of involvement in a particular activity (depth) from the total number of activities that youth participate in (breadth). From this perspective, depth (or intensiveness) of participation is thought to reflect the extent to which an individual values, or is committed to, a particular activity or set of activities.

Grade 7 extracurricular participation.

Overall breadth was more than two activities per child, on average. Bohnert et al. (2007) and Fauth et al (2007) report that overall breadth in early adolescence averages approximately 2 activities, similar to the current findings. However, Fredericks and Eccles (2008) found a mean of less than .5 in early adolescence, less than the current findings. These mean-level differences may reflect measurement or sample characteristics. It should be noted that a wide range of activity participation was reported in the current study, with many youths listing no activities and others listing many activities. Other studies likewise report a considerable range in breadth of involvement (e.g., Bohnert et al., 2007).

In terms of breadth in each specific domain, school activities in early adolescence averaged about one activity, church near .5, and community near .75, all with a range from 0 to 5. These averages are similar to those reported by Fauth et al. (2007) for school and church activities; however, they report less average involvement in community activities. Mahoney and colleagues (2003) reported similar levels of school participation in early adolescence. Fredericks and Eccles (2008) report for school activities in early adolescence means between .29 and .49, less than the current findings. Thus, it would seem that the participation levels in the current study generally are in line with those reported in previous research.

Depth of participation showed a very large range for hours and a much narrower range for commitment, which is to be expected given the ways the measures were operationalized. Hours of participation ranged from 0 to 1508 (M = 76), which means that some youths reported more than 30 hours per week of participation whereas others reported no participation. These high levels of participation can be explained by the fact that summer and weekend activities are included (e.g., a week long summer band camp or weekend soccer tournaments). The

prototypical “average” child reported about 1.5 hours per week of participation. The greatest number of hours of participation was for community, the least for church. It is difficult to directly compare these results with those of past research because of the differences in how hours were conceptualized and measured. For example, Gardner et al. (2008) used a categorical approach to operationalizing amount (hours) of activity participation, from less than one hour per week (coded as 1) to 20 or more hours per week (coded as 5). At the most general level it can be concluded that for those youths who reported participating in any activity, the number of hours devoted to that activity (or activities) was quite substantial.

Commitment to activities in early adolescence was high across all domains with a small range, indicating that the average 7th grader is highly committed to all the activities that he or she participates in. It is unknown if this is typical in early adolescence as other studies have not considered commitment as a measure of depth. The low range has implications for developmental change in commitment, as will be discussed in a later section.

Grade 12 extracurricular participation.

Overall number of activities averaged about 2, with some youth participating in no activities and others participating in many different activities. Busseri et al. (2006) found over 2 activities on average for overall breadth in late adolescence, comparable to the current findings. However, Fauth et al. (2007) found less than one activity on average in late adolescence, less than the current findings. Although these studies reported more activities on average than the current study, both report ranges similar to the current findings.

School activities were participated in most frequently (slightly over 1), followed by church and community activities. Mahoney et al. (2003) also reported near one activity for school activities in late adolescence. The range in the current study was from 0-5 (i.e., the

maximum allowed on the Extracurricular Activity Survey was 5 and some youths reported the maximum), indicating that some youth were not involved in any activity in a particular domain and others were involved in as many as five activities per domain. Other studies also found a varied range of participation within each domain (Fletcher et al., 2000). Thus, it would seem from the limited research on specific domains of participation that the current findings are typical for 12th graders.

Overall hours in 12th grade averaged over 100 hours per year, with a range from 0-1800 hours per year. School activities had the highest number of hours per year (190) followed by church (71) and community (51) activities. This indicates that the average 12th grader was involved in near two hours per week while some participated in no activities and others participated in over 35 hours per week. As noted earlier, these high levels of involvement may reflect summer, and weekend, camps or tournaments. It also should be noted that the activity participation, including hours of involvement, was assessed with a self-administered questionnaire in grade 12, which may have resulted in over-reporting. Other studies that considered depth of participation in terms of hours cannot be compared directly as they used categorical scales for hours of participation. Gardner et al. (2008) reported for 12th grade participation a mean of 2.19 for school activities where 2 equaled between 1 and 4 hours per week, about 52 to 208 hours per year, and .78 for community activities, so overall breadth was somewhere between 1 and 208 hours per year, which encompasses the current findings. Rose-Krasnor (2006) reported a mean of 1.82 for overall hours, where 2 equaled once a week, about 52 hours per year, less than the current findings. Studies have also reported wide ranges from 0 to at least one hour a day (352 hours per year) (Busseri et al., 2006).

Commitment to all activity domains was high in 12th grade, with a small range. As was the case in grade 7, the average child in 12th grade is highly committed to the activities in which he or she is involved. As noted earlier, it is not known if this is typical as commitment has not been considered as a measure of depth of activity participation in prior research.

In general, the current findings are similar to previous research for breadth in 7th and 12th grade across domains. However, hours of participation were higher in the current study than in previous research, especially in 12th grade. Reasons for this may be that more domains were considered in the current study than in previous studies, allowing for more possible hours, and the use of self-report data that are subject to over-reporting. Commitment is high irrespective of domain and grade, a finding that adds to previous research as commitment has not been studied as a measure of extracurricular activity depth.

Variations in activity participation within and across domains.

Relations among breadth, hours, and commitments. Correlational analyses showed that those who participated in many activities were also likely to participate in many hours of those activities. This pattern was seen within as well as across domains and in both 7th and 12th grade. Large correlations between breadth and hours were also found by Rose-Krasnor et al. (2006) and Busseri et al. (2006). The interrelation of breadth and hours lends support for the Lerner et al. (2001) idea that youths are not good at compensating and thus when breadth is high depth also tends to be high. However, the significant relation between breadth and hours is counter to the Baltes life span development framework (1997) and Cote's model of talent development (1999). These perspectives suggest that decreases (or increases) in breadth should be unrelated (or only weakly related) to decreases (or increases) in hours.

Commitment was unrelated to breadth in either 7th or 12th grade. However, it was positively related to hours of participation in both grades. The convergence between hours and commitment lends support to the notion that commitment as assessed in the current study does in fact reflect how much time and effort youths put into activities. Unlike hours, however, it does not overlap with breadth. As noted earlier, the strong relation between breadth and hours may be due in part to the way in which they were measured, i.e., having an activity requires at least some amount of time be devoted to that activity. However, being in an activity does not require any commitment to that activity. It therefore may be that commitment as measured in the current study fits better with the depth construct discussed by Rose-Krasnor et al (2006) than does a sum-up-the-hours approach.

Relations among school, church, and community participation. In 7th grade, participation levels across school, church, and community were unrelated. That is, youths who were involved in more school activities were not necessarily involved in more church or community activities. This general pattern held for breadth, hours, and commitment. These findings are similar to those reported by Fredericks and Eccles (2008), who found little overlap between school clubs and community recreation activities in 8th grade.

In 12th grade, activity participation was correlated across the school, church, and community domains, for both breadth and hours, and to a lesser extent for commitment. The overlap in 12th grade could be because late-adolescent youth are able to drive themselves to their own activities allowing them to participate in as many different activities that they want, which is more limited in early adolescence because parents must drive their teens to and from activities. Commitment may not be related as strongly across domains because one's commitment is related to how much one enjoys a particular activity and is likely to vary depending on the type of

activity. Thus, it seems that there is considerable cross-domain consistency in activity participation in late adolescence but not in early adolescence.

Developmental Changes

Developmental changes were found for all three indicators of participation. Some developmental perspectives (e.g., Baltes, 1997; Cote, 1999) suggest that across the adolescent years there should be a narrowing of interest in activities, with greater time and commitment devoted to just a few activities. Lerner et al. (2001) suggests that adolescents do not compensate and thus high levels of breadth and depth would persist into late adolescence. An alternative perspective is that commitment and involvement in any particular type of activity declines as youths get older because of new challenges (e.g., preparing for college), responsibilities (e.g., getting a job), and interests (e.g., dating) (McNeal, 1998; Pederson, 2005).

Breadth. The number of different activities that youth participated in decreased through adolescence; however, there were increases in the school domain, decreases in community activities, and no change in church activity participation. Thus, the average youth participated in fewer activities in 12th grade than in 7th grade. The overall decrease in breadth is consistent with both theory (Baltes, 1997; Cote, 1999) and previous findings (McNeal, 1998; Pederson, 2005). However, the increase in school domain breadth was not expected, but this could be because in high school there tend to be more school activities available (Mahoney et al., 2009). Further research is needed to examine why and under what circumstances school activity participation may increase across the middle-school and high-school years.

Hours. Overall number of hours spent in activities increased from 7th to 12th grade. This increase largely was driven by increases for the school domain, which, as noted earlier, is the activity domain where youths spend the most time. There were decreases for the community

domain and no change in the church domain. The average youth spent more time in activity participation in 12th grade than in 7th grade, opposite of the pattern for overall breadth of participation. This increase in hours of participation is consistent with theory (Baltes, 1997; Cote, 1999; Lerner et al., 2001), as it may reflect participating more intensely in activities through adolescence. However, the finding runs counter to those of Denault and Poulin (2009), who report that hours of participation is stable or linear across time, and McNeal (1998) and Pederson (2005), who found that frequency of participation declines across adolescence. The developmental changes in hours of participation within each domain are consistent with the changes in each domain for breadth of activity participation, i.e., within the school domain, both breadth and hours increased; within the community domain, both breadth and hours decreased; and within the church domain, there was no change in breadth and hours across development. The decrease in community hours was not expected but this could be because there are not as many community activities available for older adolescents or that older adolescents tend to gravitate away from community activities and toward school activities.

Commitment. Overall commitment decreased over time, indicating that the average youth is less committed to his or her activities in 12th grade than he or she was in 7th grade. The overall decrease in commitment is not consistent with theory (Baltes, 1997; Cote, 1999, Lerner et al., 2001), as it was expected that depth (both hours and commitment) would increase over time. However, it is consistent with the findings of McNeal (1998) and Pederson (2005) that there is an overall decline in depth of activity participation through adolescence. In the current study, commitment was meant to serve as a proxy for depth; however, it appears that hours and commitment operate differently. Depth could perhaps be multi-dimensional with both a time element and a psychological commitment element. As noted earlier, some activities require large

amounts of hours of participation (e.g., school sports teams) but large variations may nonetheless exist in the degree to which team members feel connected or committed to the team. The group may meet every day for 3 hours, but the youth may be not committed to that activity, not engaging with their peers or in the activity.

It also is worth noting that those with low commitment to activities in 7th grade may have been most likely to stop participating in those activities in 12th grade and thus were dropped from the developmental-change analyses. This suggests that the current results likely provide an under-estimation of the actual decline in commitment across grades.

It should be noted that none of the individual domains of activity participation showed changes in commitment over time. The lack of any significant change within individual domains could be due to the smaller number of cases included in those analysis. For example, whereas the overall commitment score in 7th grade included 336 participants (i.e., those with any activity in any domain), school commitment scores could be computed for only 227 participants. Nonetheless, school commitment showed a non-significant mean-level decrease in commitment and there were more participants with school commitment scores at both time periods (126) than participants with scores for community (94) or church (53) commitment at both time periods. As with changes in hours, changes in overall commitment likely are driven by changes in commitment to school activities.

Conclusion. In general, the overall decreases in number of activities but increases in amount of time spent in activities are consistent with the expected pattern based on the Baltes life span development theory (1997) and Cote's (1999) model of talent development, and suggest that most youth participate in many activities for only one or two hours in early adolescence and in late adolescence most youth participate in one or two activities but for many hours. By

examining developmental changes in specific domains, however, it is apparent that the pattern of increases and decreases is not uniform (e.g., the unexpected finding of increases in school breadth and hours). This finding points to the importance of considering multiple dimensions of activity participation across multiple activity domains and settings.

Intervening Life Transitions

There is a considerable body of research literature on moderators of change in socialization practices (e.g., see review by Bates & Pettit, 2007) and individual adjustment characteristics (e.g., Attar et al., 1994; Byne et al., 2007).). There is no known prior study of life-adjustment moderators of extracurricular participation, however. Findings from the present study suggest that intervening life transitions are in fact associated with meaningful—though not completely expected—changes in aspects of activity participation.

Breadth. Overall breadth decreased from 7th to 12th grade for those youths experiencing a life transition compared to those not experiencing a life transition, with a similar pattern for school and church activities. The decrease in overall, school, and church breadth for those experiencing any life transition is consistent with the research that finds life transitions to be associated with negative outcomes (Lansford, 2009) and less activity participation (Miller, 2005; South et al., 2007) and extends that research by showing the life transitions are associated with change (decreases) in activity breadth. Many negative life events cause lower income or mobility, hindering access to many different kinds of activity either by physical or financial limitation.

Hours. There was no change over time in hours of participation for those experiencing vs. not experiencing a negative life transition. The lack of difference between these two groups indicates that negative life transition events may not impact hours of participation as they do

breadth of participation. Thus, even though experiencing a negative life event may limit the number of different activities, those activities the youths continue to participate in, the total number of hours of involvement does not change.

Commitment. There was no change in overall commitment for those experiencing vs. not experiencing a major life transition. Contrary to expectation, school commitment remained the same from 7th to 12th grade for those who had experienced the life transition but decreased for those who had not experienced a life transition. Similarly, church commitment increased for those experiencing the life transition and decreased for those who had not experienced any transition. The relatively higher levels of commitment for those experiencing negative life events may reflect a need for connection or belongingness as a way to escape or get away from the stress in other areas of their lives (Ano & Vasconcelles, 2005).

Selection Factors Predicting Extracurricular Activity Participation

Individual correlates. Selection factors are personal characteristics and life experiences that increase (or decrease) the likelihood of a youth's initial and continuing participation in an extracurricular activity. A variety of factors have been examined in past research (Mahoney et al., 2009). In the current study, youth characteristics, parenting and peer experiences, and socio-demographic characteristics were considered as selection factors predicting breadth, hours, and commitment to activity participation in the domains of school, church, and community. Of particular interest was whether such factors predicted 12th grade participation after taking into account 7th grade participation. The findings of the current study suggest that academic performance, social skills, parental involvement, and exposure to deviant peers are the most robust predictors of activity participation, with some variation in prediction as a function of domain, age, and type of activity measure (breadth, hours, commitment). It should be noted that

while a few sex differences were found at the bivariate level (e.g., more school hours for females), these differences were no longer significant when other selection factors were included in the multiple regression analyses.

At the bivariate level, breadth in 7th grade had the most numerous significant correlations with selection factors. All were in the expected direction (e.g., children high in internalizing problems participated in a smaller number of activities). The pattern of correlations was similar in 12th grade, although the number and magnitude of the significant correlations was slightly larger than in 7th grade. There were comparatively fewer significant correlations between selection factors and either hours of participation or commitment, and this was especially the case in 12th grade.

Fairly high levels of cross-time stability (i.e. early participation predicting later participation) in breadth, and hours, were found. Although there have been few prior reports of stability of activity participation over time, there does appear to be some evidence that year-to-year levels of participation tend to remain fairly consistent (e.g., those youths involved in more school activities in one grade also tend to participate in more school activities in the subsequent grade; see Denault & Poulin (2009) and Mahoney & colleagues (2003)). The current study demonstrates that these patterns of cross-time consistency are evident across a larger period of time, one that incorporates the important developmental transition from middle school to the end of high school.

Commitment to school activities also was somewhat stable (though the magnitude was considerably smaller than that of breadth and hours); commitment to church and community activities was not stable. This might be because church and community activities are optional, and commitment levels may fluctuate over time. Commitment to school activities, on the other

hand, may reflect the degree of investment or attachment to school and those youths with high (vs. low) investment early on tend to remain invested over time.

Unique predictors. A large number of regression analyses were performed (36) to determine the unique predictors of extracurricular activity involvement. However, the results are not likely due to Type 1 error, as the goal was to find the broad and consistent patterns of predictors, which were readily apparent. Of the 12 analysis for 7th grade, selection factors significantly predicted participation in 9 of those analyses. Of the 12 analysis for 12th grade, selection factors significantly predicted participation in 7 of those analyses, all of which remain significant even after controlling for prior participation. This consistency of prediction of the selection factors is not likely due to chance alone.

Results of the regression analyses showed that for both breath and hours, academic performance and peer deviance were the most consistent "unique" predictors. This was the case across grades and across domains, with the exception of the community domain, for which there were no longitudinal predictions of either breadth or hours. SES also was associated with breadth (overall and in the school domain) of participation in 12th grade. Parental involvement was particularly related to the church domain in breadth, hours, and commitment to extracurricular activities, perhaps because some degree of parent involvement is required for youths to even be able to participate in church activities. Other selection factors were either unrelated to breadth or hours or showed an inconsistent pattern of relations.

Prior research on selection factors (whether explicitly treated as such or considered as controls in analyses of relations with adjustment outcomes) has highlighted academic achievement (Fletcher et al., 2000; McNeal, 1999), high SES (Bohnert et al., 2007; Fredericks & Eccles, 2008; Linver et al., 2009; McNeal, 1998; Pettit et al., 1997), and parental warmth

(Denault & Poulin, 2009; Morrissey & Werner-Wilson, 2005) as being associated with higher rates of participation. The current findings add to this literature by documenting that peer deviance, previously shown to be associated with negative life outcomes (Barnes et al., 2006; Gifford-Smith et al., 2005), also predicts number of activities and number of hours spent in activities in early and late adolescence. Also, the current research shows the domain specificity of certain predictors (i.e., parental involvement in academics, and SES).

With respect to commitment, the overall set of selection factors accounted for small and mostly nonsignificant portions of variance, paralleling the correlational analyses. In those instances in which the predictive relation was significant, the unique predictors included social skillfulness (but not academic prowess), low peer deviance, and, to a lesser extent, parental involvement. (Note that higher levels of externalizing behaviors were associated with more school commitment; this was an unexpected and counter-intuitive finding that likely is a statistical artifact.) As there is no prior research on commitment (as an indicator of depth), the current findings should be considered exploratory. However, to the extent that commitment reflects a conscious awareness of the personal importance of activity participation, it is not surprising that social skillfulness emerged as a predictor of commitment. Socially skilled individuals may become activity leaders or captains, and thus may feel more responsible or committed to those activities (Morrissey & Werner-Wilson, 2005).

Collectively, these findings suggest that selection factors are associated with types of activity participation, both concurrently and longitudinally. Previous research has established that such factors are associated with concurrent participation, but the current study is the first to document that selection factors predict participation longitudinally (four years later) and do so even after taking into account earlier participation. This pattern of findings is consistent with the

premise, outlined in the introduction and literature review, that selection factors are associated with enduring orientations toward, or opportunities for involvement in, different domains of activity participation.

Limitations and Future Directions

The present study had several limitations that deserve discussion. The first and most noteworthy is the imperfection of the commitment measure. For the commitment measure it was the case that youths would not have any data if they reported on the questionnaire that they had zero activity breadth and hours. There were issues with computing and analyzing commitment scores because of the missing scores. Many cases were dropped in the MANOVA analysis because not all individuals had data for all domains in both years. A commitment measure in which it is possible to have a zero commitment score, if breadth is zero, would likely produce more revealing results. Also, the results did indicate that commitment was a somewhat meaningful measure of extracurricular activity depth, as discussed by Rose-Krasnor et al. (2009), and that depth is likely multifaceted with both a hours and commitment aspect. Future research should continue to examine the facets of commitment in extracurricular activity participation, in order to determine if the patterns found in the current study are typical (i.e. commitment high irrespective of domain and grade, and school commitment higher for those who experience a life transition). Such findings regarding depth and commitment will deepen the understanding of youth activity participation, how it changes though adolescence, and what predicts true depth of participation.

A second limitation to the study is that the measurement implementation of the Extracurricular Activities Survey changed from 7th to 12th grade. While the exact same form was used in both years, in 7th grade the form was asked by an interviewer and in 12th grade the form

was mailed to the child's home to fill out. This could impact the results because youths were allowed to report freely in 12th and were not guided by an interviewer as in 7th grade, possibly leading to over-reporting. In order to ensure the validity of the current findings future research should use the same measure implemented in the same way.

A third limitation was the sample size. While the sample is relatively large, subgroups of those experiencing a particular life transition were too small to consider separately. Thus, all life transitions were considered together. While this is not entirely flawed, as life transitions are related to poorer individual adjustment (e.g., Attar et al., 1994; Byne et al., 2007), it would shed more light on how participation is impacted by life transitions if each individual life transition was able to be analyzed independently. Thus, future research should seek to have a large enough sample to allow subsamples to be analyzed separately.

The findings of the current study suggest that future research on activity participation could benefit from examining participation levels in differing domains. It was found that school breadth and community hours operated differently than was expected from 7th to 12th grade (i.e., school breadth increased while all other domains of breadth decreased, and community hours decreased while all other domains of hours increased). However, the expectations (breadth decreases and hours increase) were derived from non-domain specific measures of extracurricular activity participation. Thus, subsequent research should seek to explore how and why developmental changes in breadth and depth differ across domains (Baltes, 1997; Cote, 1999).

Future research is also needed to explore hours of involvement, community breadth, and church commitment between those who experienced vs. those who had not experienced a life transition. This is because the current study found no change for community breadth or hours of

participation for those who had experienced a life transition. For church commitment an unexpected increase was found for those who had experienced a life transition compared to those who had not. This would help broaden the knowledge base as it would help determine if particular domains of participation are more impervious to negative life events than others.

Another area needing further investigation is particular patterns or profiles of involvement. It would be interesting to cluster individuals based on patterns of involvement (i.e. high breadth, high hours, high commitment; high breadth, low hours, high commitment; low breadth, high hours, high commitment; low breadth, low hours, high commitment; high breadth, high hours, low commitment; high breadth, low hours, low commitment; low breadth, high hours, low commitment; low breadth, low hours, low commitment). This would allow for research to determine the numbers of youths who show each pattern and how the groups may differ across adolescence.

The current selection factors explained between 5% and 25% of the variation in activity participation, leaving much of the variance to be explained. Future research should consider more and new selection factors in order to be able to better predict participation and to be able to target individuals with a low likelihood of participation to participate in extracurricular activities, as they are positive developmental contexts. For example, parental warmth, parenting style, ethnicity, interests, motivations, friends' participation, and number of activities available may also add to the prediction of extracurricular activity participation.

Community activities were participated in more by male than by females in 7^{th} grade. Further research is needed to determine if this is because the community activities are sport activities (the traditional context where boys excel) or if boys are actually involved in more

community activities. This would expand the current research pool as males are considered to be only sport oriented.

Conclusion

In summary, the findings from the current study indicated that breadth and commitment generally decreased through adolescence, while hours of participation increased. However, the pattern varied depending on domain (e.g., hours in school and church activities increased whereas hours in communities activities decreased). Negative life transitions were associated with declines in breadth of participation in school and community activities but increased levels of commitment to church activities. Early involvement in activities generally predicted later involvement. Selection factors (especially academic performance and peer deviance) also predicted participation, even after controlling for prior participation. The current findings add to the body of research on activity participation by documenting the multidimensionality of depth of participation (hours and commitment), identifying moderators of continuity of participation, and selection factors that are associated with activity participation across an important developmental transition. These findings point to the importance of context in extracurricular activity participation research.

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Appendices

Appendix A

Tables

Table 1. *Descriptive Statistics for Extracurricular Activity Variables.*

	Extracurricular Variables	N	Mean	Standard Deviation	Range
Breadth	All 7th	431	2.32	1.76	0-11
	School 7th	431	.93	1.11	0-5
	Church 7th	431	.61	.78	0-5
	Community 7th	431	.78	1.0	0-5
	All 12th	428	2.04	2.20	0-10
	School 12th	428	1.18	1.37	0-5
	Church 12th	428	.55	.91	0-5
	Community 12th	427	.33	.65	0-5
Depth Hours	All 7th	431	76.31	82.51	0-502.67
	School 7th	429	75.83	124.12	0-1040
	Church 7th	427	64.72	109.25	0-780
	Community 7th	428	89.10	176.61	0-1508
	All 12th	410	104.35	139.41	0-794.67
	School 12th	407	190.65	287.71	0-1820
	Church 12th	421	71.93	159.99	0-1600
	Community 12th	418	53.17	149.68	0-1456
Depth Commitment	All 7th	366	4.19	.85	1-5
	School 7th	227	4.18	.92	1-5
	Church 7th	206	4.16	1.01	1-5
	Community 7th	217	4.30	.94	1-5
	All 12th	294	4.04	.89	1-5
	School 12th	240	3.98	.97	1-5
	Church 12th	154	4.20	.95	1-5
	Community 12th	105	4.20	.92	1-5

Table 2. *Descriptive information of the Selection Factor Variables.*

Selection Factor Variables	N	Mean	Standard Deviation	Range
Externalizing	444	7.11	10.56	0-57
Internalizing	444	5.70	6.63	0-35
Teacher rated social skills	446	3.60	.97	1.14-5
Academic performance	420	-.01	.91	-2.55-1.3
Parental involvement	487	.00	1.47	-4.32-4.66
Decision making	466	.54	.20	0-1.19
Peer deviance	429	1.84	.67	1-4.40
Neighborhood danger	465	1.98	.84	1-5.67

Table 3. *Correlations between overall Extracurricular activity participation variables.*

	Breadth7 All	Breadth 12 All	Hours 7 All	Hours 12 All	Commitment 7 All
Breadth 7 All					
Breadth 12 All	.319***				
Hours 7 All	.507***	.262***			
Hours 12 All	.118	.594***	.216***		
Commitment 7 All	.078	.032	.159**	.049	
Commitment 12 All	.098	.108	.072	.153*	.156*

Note: Ns Rage from 285-431

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

Table 4. *Correlations between Extracurricular Activity Variables Breadth, Depth (hours), Depth (commitment)*

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Breadth	1. School 7th																	
	2. Church 7th	.070																
	3. Community 7th	.041	.048															
	4. School 12th	.240**	.201**	.051														
	5. Church 12th	.107*	.369**	.039	.411**													
	6. Community 12th	.195**	.000	.106*	.319**	.237**												
Hours	7. School 7th	.734**	.013	.025	.226**	.079	.145**											
	8. Church 7th	.106*	.708**	-.025	.153**	.288*	.064	.055										
	9. Community 7th	.012	-.032	.520**	.143**	.072	.142**	.065	-.038									
	10.School 12th	.212**	.106*	.048	.626**	.295**	.231**	.192**	.097	.071								
	11. Church 12th	.058	.289**	-.017	.263**	.652**	.146**	.005	.236**	.021	287**							
	12. Community 12th	.084	-.044	.071	.197**	.102*	.511**	.082	-.051	.292**	.126*	.089						
Commitment	13.School 7th	.043	.057	-.016	-.012	.083	-.070	.136*	.101	-.027	.044	.072	-.030					
	14. Church 7th	-.047	.095	-.088	-.008	.025	.048	-.047	.282**	-.094	.015	.004	.052	-.012				
	15. Community 7th	.033	.160*	.060	.013	.079	.082	.037	.125	.091	.052	.077	.088	.114	.171			
	16.School 12th	.156*	-.113	.155*	.090	.090	.092	.168*	-.001	.020	.210**	.017	.086	.341**	.011	.181		
	17.Church 12th	.009	.019	-.052	.001	-.026	.039	-.081	-.094	.049	-.031	.027	.092	.142	-.036	.146	.136	
	18.Community 12th	.098	-.035	.099	.048	.045	.031	-.080	.091	.121	-.069	.024	.288**	.186	.148	.020	.303**	.261*

Note: Ns Range from 105- 431

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. *Correlations between Selection Factor Variables*

	1	2	3	4	5	6	7	8	9	10
1. Externalizing										
2. Internalizing	.40***									
3. Teacher rated social skills	-.63***	-.42***								
4. Academic performance	-.37***	-.29***	.48***							
5. Parental involvement	-.20***	-.16***	.28***	.17***						
6. Decision making	-.19***	-.08	.15**	.26***	.21***					
7. Peer deviance	-.18***	-.01	-.16**	-.18***	-.10*	.01				
8. Youth Sex	-.16***	.01	.22***	.15**	-.05	-.11*	-.09			
9. SES	-.29***	-.23***	.23***	.44***	.24***	.40***	-.10*	-.08		
10. Neighborhood danger	.27***	.19***	-.21***	-.26***	-.18***	-.18***	.19***	.04	-.38***	
Mean (SD)	7.11 (10.56)	5.70 (6.63)	3.60 (.97)	-.01 (.91)	.00 (1.47)	.54 (.20)	1.84 (.67)	.48 (.50)	39.02 (13.98)	1.98 (.84)

Note: Ns Range from 377-585

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 6. *Correlations between Extracurricular Activity Variables and Selection Factors*

	Extracurricular Activity Variables	External-izing	Internal-izing	Social Skillfulness	Academic Perform.	Parental involvement	Decision making	Peer deviance	Youth Sex	SES	Neighbor_ Danger
Breadth	All 7th	-.08	-.19***	.13*	.22***	.20***	.13**	-.05	-.03	.21***	-.10*
	School 7th	-.12*	-.13*	.14**	.19**	.09	.05	-.08	.06	.11*	-.13*
	Church 7th	-.08	-.05	.01	.06	.17***	.10*	-.07	.00	.11*	-.04
	Community 7th	.05	-.15**	.06	.13*	.12*	.09	.06	-.12*	.17***	-.01
	All 12th	-.18***	-.17***	.24***	.41***	.17***	.16***	-.16**	.07	.34***	-.14**
	School 12th	-.18***	-.16**	.26***	.41***	.15**	.16**	-.14**	.07	.35***	-.17***
	Church 12th	-.11*	-.10	.12*	.30***	.15**	.11*	-.14**	.06	.23***	-.07
	Community 12th	-.07	-.12*	.10	.17***	.09	.06	-.06	.00	.11*	-.02
Depth Hours	All 7th	-.05	-.12*	.071	.16**	.07	.11*	-.02	.13	.18***	-.08
	School 7th	-.04	-.09	.09	.15*	.08	.06	-.13*	-.07	.22**	-.10
	Church 7th	-.02	-.02	-.09	-.15*	.11	.08	-.01	.09	-.01	-.04
	Community 7th	-.03	-.03	.07	.17*	-.07	.03	.04	.04	.06	-.03
	All 12th	-.06	-.09	.15*	.16*	.08	.04	-.11	-.07	.14*	-.13*
	School 12th	.05	-.05	.04	.04	.06	.02	-.05	-.17**	.05	-.157**
	Church 12th	-.05	-.06	.13	.04	.10	-.10	-.11	.01	-.02	-.02
	Community 12th	-.12	-.03	.13	.02	-.05	.03	-.16	.01	.09	-.03
Depth Commitment	All 7th	-.06	-.08	.15**	.04	.23***	.06	-.28***	.02	.06	-.11*
	School 7th	-.12	-.11	.08	-.01	.08	.06	-.18**	.02	.00	-.04
	Church 7th	.07	.12	-.01	-.03	.12	-.08	-.23***	.15*	-.06	-.02
	Community 7th	-.15*	-.11	.22**	.13	.29***	.11	-.22***	-.15*	.12	-.15*
	All 12th	.00	-.06	.12	.06	.01	-.03	.01	-.02	-.05	.05
	School 12th	.02	-.08	.10	.07	-.02	.08	.01	-.11	-.01	-.01
	Church 12th	-.03	.05	.02	.00	-.05	-.11	.02	.19*	-.08	.01
	Community 12th	-.10	-.01	.12	.00	-.04	.01	.02	.13	.03	.03

Note: Ns range from 88- 366 for commitment and 347-431 for breadth and hours

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

Table 7: *Correlation between Extracurricular Activity Variables and Moderator Variables.*

	Extracurricular Variables	Family Moved	Child Illness	Parental Divorce
Breadth	All 7th	-.06	-.04	-.05
	School 7th	-.07	-.01	-.05
	Church 7th	-.04	-.036	-.015
	Community 7th	.00	-.03	-.03
	All 12th	-.13**	-.11*	-.13*
	School 12th	-.11*	-.08	-.12*
	Church 12th	-.12*	-.120*	-.030
	Community 12th	-.07	-.03	-.15**
Depth Hours	All 7th	-.11*	.03	-.08
	School 7th	-.08	-.01	-.07
	Church 7th	-.04	-.08	-.01
	Community 7th	-.09	.04	-.07
	All 12th	-.10	-.05	-.03
	School 12th	-.10	-.05	-.04
	Church 12th	.02	-.03	-.03
	Community 12th	-.08	-.06	-.10
Depth Commitment	All 7th	-.10	-.16**	.02
	School 7th	-.05	-.25***	.08
	Church 7th	-.10	-.08	.10
	Community 7th	-.10	-.06	-.08
	All 12th	-.04	-.08	-.03
	School 12th	-.03	.03	.02
	Church 12th	.01	-.04	.03
	Community 12th	.03	-.25*	-.12
	Mean (SD)	27 (.445).	10 (.296)	.30 (.457)

Note: Ns range from 105- 431

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 8. *Regression Analysis Breadth Overall (standardized betas)*

	7th Grade Breadth		12th Grade Breadth	
	β	R^2	β	R^2
Step 1		.10***		.263***
Externalizing	.087		.072	
Internalizing	-.101		-.078	
Teacher rated social skills	-.022		-.007	
Academic performance	.135*		.286***	
Parental involvement	.138**		.080	
Decision making	.031		.092	
Peer deviance	.009		-.122*	
Youth Sex	-.044		.090	
SES	.103		.191**	
Neighborhood danger	-.060		.022	
			β	ΔR^2
Step 1				.097***
7th grade breadth			.311***	
Step 2				.196***
Externalizing			.053	
Internalizing			-.034	
Teacher rated social skills			.044	
Academic performance			.220**	
Parental involvement			.020	
Decision making			.053	
Peer deviance			-.038	
Youth Sex			.054	
SES			.201**	
Neighborhood danger			-.008	

Table 9. *Regression Analysis for School Breadth (standardized betas)*

	7th grade school breadth		12th grade school breadth	
	β	R^2	β	R^2
Step 1		.045		.201***
Externalizing	.023		.059	
Internalizing	-.032		-.038	
Teacher rated social skills	-.025		.054	
Academic performance	.105		.236***	
Parental involvement	.035		.027	
Decision making	-.019		.052	
Peer deviance	-.022		-.044	
Youth Sex	.026		.059	
SES	-.002		.203**	
Neighborhood danger	-.124		-.023	
			β	ΔR^2
Step 1				.097***
7th grade school breadth			.311***	
Step 2				.196***
Externalizing			.048	
Internalizing			-.057	
Teacher rated social skills			-.006	
Academic performance			.263***	
Parental involvement			.053	
Decision making			.082	
Peer deviance			-.120*	
Youth Sex			.096	
SES			.162**	
Neighborhood danger			.026	

Table 10. *Regression Analysis for church breadth (standardized betas)*

	7th grade church breadth		12th grade church breadth	
	β	R^2	β	R^2
Step 1		.059*		.180***
Externalizing	-.101		.041	
Internalizing	-.026		-.061	
Teacher rated social skills	-.191*		.121	
Academic performance	-.009		.253***	
Parental involvement	.173**		.103	
Decision making	.070		.094	
Peer deviance	-.062		-.171**	
Youth Sex	.035		.10	
SES	.059		.115	
Neighborhood danger	.011		.047	
			β	ΔR^2
Step 1				.139***
7th grade church breadth			.373***	
Step 2				.139***
Externalizing			.060	
Internalizing			-.052	
Teacher rated social skills			-.057	
Academic performance			.255***	
Parental involvement			.047	
Decision making			.064	
Peer deviance			-.140*	
Youth Sex			.087	
SES			.086	
Neighborhood danger			.031	

Table 11. *Regression Analysis for community breadth (standardized betas)*

	7th grade community breadth		12th grade community breadth	
	β	R^2	β	R^2
Step 1		.111***		.080**
Externalizing	.203**		.065	
Internalizing	-.119		-.109	
Teacher rated social skills	.083		.032	
Academic performance	.126		.125~	
Parental involvement	.064		.079	
Decision making	.019		.077	
Peer deviance	.087		-.091	
Youth Sex	-.130*		.043	
SES	.133		.058	
Neighborhood danger	.021		.065	
			β	ΔR^2
Step 1				.013*
7th grade community breadth			.114*	
Step 2				.071*
Externalizing			.052	
Internalizing			-.100	
Teacher rated social skills			.027	
Academic performance			.119	
Parental involvement			.074	
Decision making			.076	
Peer deviance			-.097	
Youth Sex			.051	
SES			.045	
Neighborhood danger			.063	

Table 12. *Regression Analysis for Hours Overall (standardized betas)*

	7th Grade Hours		12th Grade Hours	
	β	R^2	β	R^2
Step 1		.085**		.196***
Externalizing	.089		.105	
Internalizing	-.099		-.036	
Teacher rated social skills	-.015		.108	
Academic performance	.149*		.239***	
Parental involvement	.058		.103	
Decision making	.033		.076	
Peer deviance	-.003		-.113*	
Youth Sex	-.045		-.013	
SES	.129		.137*	
Neighborhood danger	-.022		.029	
			β	ΔR^2
Step 1				.122***
7th grade Hours			.350***	
Step 2				.136***
Externalizing			.082	
Internalizing			-.009	
Teacher rated social skills			.106	
Academic performance			.213**	
Parental involvement			.092	
Decision making			.059	
Peer deviance			-.117*	
Youth Sex			.004	
SES			.095	
Neighborhood danger			.037	

Table 13. *Regression Analysis School Hours (standardized betas)*

	7th Grade School Hours		12th Grade School Hours	
	β	R^2	β	R^2
Step 1		.054		.139***
Externalizing	.029		.113	
Internalizing	-.021		-.040	
Teacher rated social skills	.005		.097	
Academic performance	.135		.183*	
Parental involvement	.057		.074	
Decision making	-.057		.070	
Peer deviance	-.041		-.064	
Youth Sex	-.050		-.038	
SES	.112		.134~	
Neighborhood danger	-.020		-.015	
			β	ΔR^2
Step 1				.035**
7th grade school hours			.187**	
Step 2				.118***
Externalizing			.109	
Internalizing			-.039	
Teacher rated social skills			.091	
Academic performance			.170*	
Parental involvement			.071	
Decision making			.072	
Peer deviance			-.062	
Youth Sex			-.034	
SES			.122	
Neighborhood danger			-.012	

Table 14. *Regression Church Hours.*

	7th Grade Church Hours		12th Grade Church Hours	
	β	R^2	β	R^2
Step 1		.066*		.107***
Externalizing	-.079		.060	
Internalizing	-.054		-.026	
Teacher rated social skills	-.197*		-.043	
Academic performance	-.051		.201**	
Parental involvement	.170**		.129*	
Decision making	.121*		.054	
Peer deviance	-.078		-.117*	
Youth Sex	.090		.072	
SES	.032		.079	
Neighborhood danger	.031		.051	
			β	ΔR^2
Step 1				.138***
7th grade church hours			.372***	
Step 2				.087***
Externalizing			.080	
Internalizing			-.006	
Teacher rated social skills			.029	
Academic performance			.223**	
Parental involvement			.071	
Decision making			.010	
Peer deviance			-.088	
Youth Sex			.042	
SES			.057	
Neighborhood danger			.043	

Table 15. *Regression Community Hours.*

	7th Grade Community Hours		12th Grade Community Hours	
	β	R^2	β	R^2
Step 1		.064*		.055
Externalizing	.141~		.039	
Internalizing	-.086		-.011	
Teacher rated social skills	.082		.127	
Academic performance	.136*		.074	
Parental involvement	-.049		.037	
Decision making	.018		.023	
Peer deviance	.061		-.082	
Youth Sex	-.071		.003	
SES	.085		.079	
Neighborhood danger	-.034		.038	
			β	ΔR^2
Step 1				.163***
7th grade community hours			.404***	
Step 2				.038
Externalizing			-.011	
Internalizing			.027	
Teacher rated social skills			.091	
Academic performance			.036	
Parental involvement			.057	
Decision making			.008	
Peer deviance			-.108	
Youth Sex			.027	
SES			.029	
Neighborhood danger			.050	

Table 16. *Regression Commitment overall.*

	7th Grade Commitment Overall		12th Grade Commitment Overall	
	β	R^2	β	R^2
Step 1		.145***		.085
Externalizing	.108		.181	
Internalizing	-.080		-.023	
Teacher rated social skills	.125		.306**	
Academic performance	-.045		.068	
Parental involvement	.197***		-.072	
Decision making	-.008		-.108	
Peer deviance	-.287***		.012	
Youth Sex	.004		-.082	
SES	-.041		-.108	
Neighborhood danger	-.018		.011	
			β	ΔR^2
Step 1				.026*
7th grade commitment			.160*	
Step 2				.080
Externalizing			.148	
Internalizing			-.012	
Teacher rated social skills			.274*	
Academic performance			.085	
Parental involvement			-.102	
Decision making			-.108	
Peer deviance			.054	
Youth Sex			-.078	
SES			-.117	
Neighborhood danger			.015	

Table 17. *Regression School Commitment.*

	7th grade school commitment		12th grade school commitment	
	β	R^2	β	R^2
Step 1		.076		.123
Externalizing	-.062		.262*	
Internalizing	-.097		-.060	
Teacher rated social skills	.023		.279*	
Academic performance	-.089		.141	
Parental involvement	.079		-.098	
Decision making	.036		-.023	
Peer deviance	-.246**		.062	
Youth Sex	-.023		-.162	
SES	-.046		-.108	
Neighborhood danger	.049		-.096	
			β	ΔR^2
Step 1				.094**
7th grade school commitment			.307**	
Step 2				.125
Externalizing			.243*	
Internalizing			-.021	
Teacher rated social skills			.276*	
Academic performance			.124	
Parental involvement			-.175	
Decision making			-.013	
Peer deviance			.119	
Youth Sex			-.147	
SES			-.118	
Neighborhood danger			-.105	

Table 18. *Regression Church Commitment.*

	7th Grade Church Commitment		12th Grade Church Commitment	
	β	R^2	β	R^2
Step 1		.152*		.083
Externalizing	.109		.167	
Internalizing	.044		.096	
Teacher rated social skills	-.058		.116	
Academic performance	.074		.120	
Parental involvement	.220*		.084	
Decision making	-.114		-.131	
Peer deviance	-.226*		.113	
Youth Sex	.167		.098	
SES	-.081		-.080	
Neighborhood danger	-.029		-.025	
			β	ΔR^2
Step 1				.001
7th grade church commitment			.031	
Step 2				.083
Externalizing			.167	
Internalizing			.093	
Teacher rated social skills			.114	
Academic performance			.123	
Parental involvement			.079	
Decision making			-.130	
Peer deviance			.121	
Youth Sex			.100	
SES			-.079	
Neighborhood danger			-.026	

Table 19. *Regression Community Commitment.*

	7th Grade Community Commitment		12th Grade Community Commitment	
	β	R^2	β	R^2
Step 1		.158***		.108
Externalizing	-.025		-.032	
Internalizing	-.064		.142	
Teacher rated social skills	.092		-.013	
Academic performance	.085		-.105	
Parental involvement	.247**		.106	
Decision making	-.022		-.191	
Peer deviance	-.173*		.079	
Youth Sex	.164*		.156	
SES	-.102		.329	
Neighborhood danger	-.002		.265	
			β	ΔR^2
Step 1				.000
7th grade community commitment			.018	
Step 2				.109
Externalizing			-.024	
Internalizing			.161	
Teacher rated social skills			-.024	
Academic performance			-.087	
Parental involvement			.088	
Decision making			-.190	
Peer deviance			.099	
Youth Sex			.161	
SES			.326	
Neighborhood danger			.257	

Appendix B

Figures

Figure 1. *Breadth by Life Transition.*

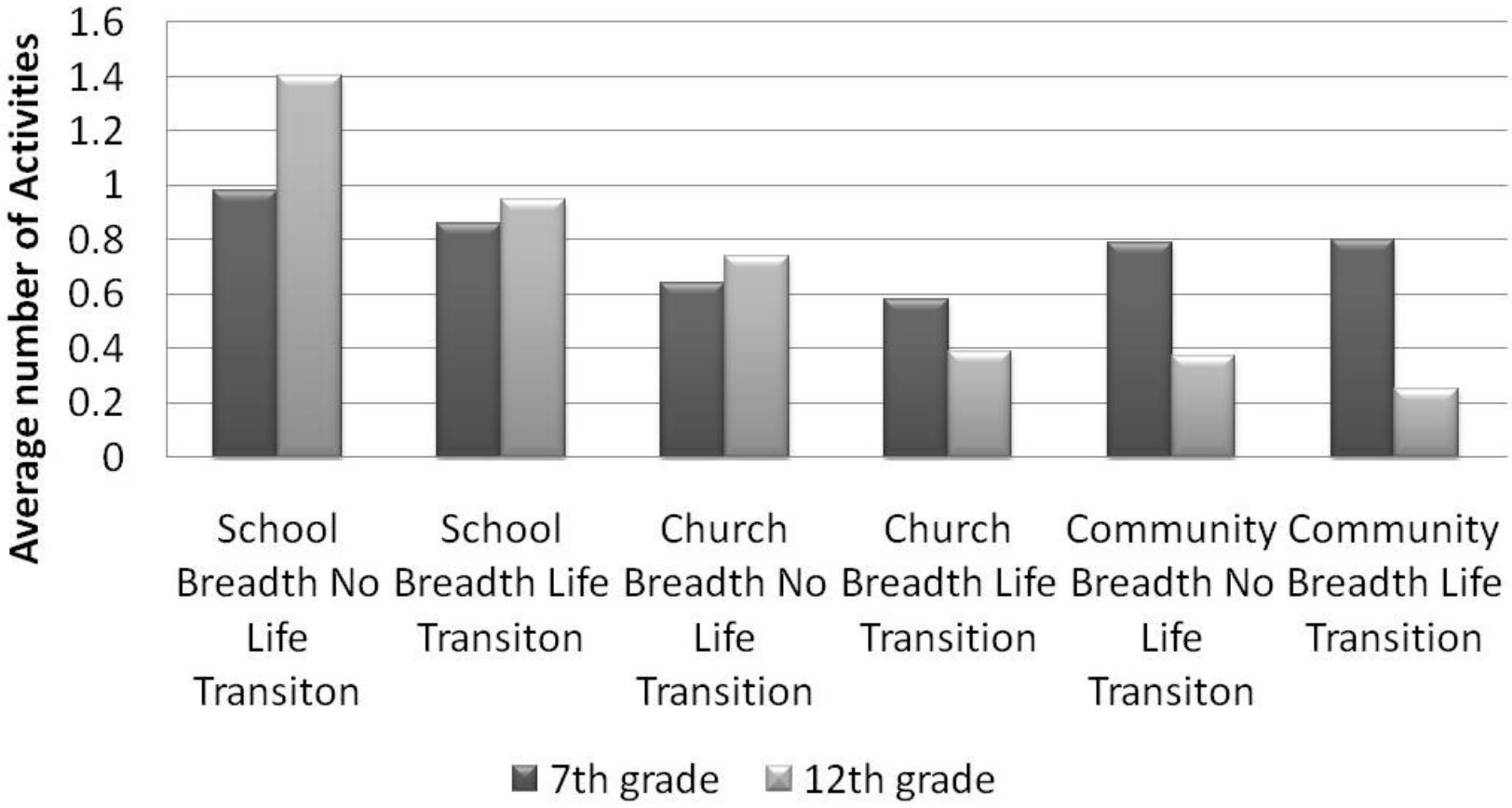


Figure 2. *Hours by Life Transition.*

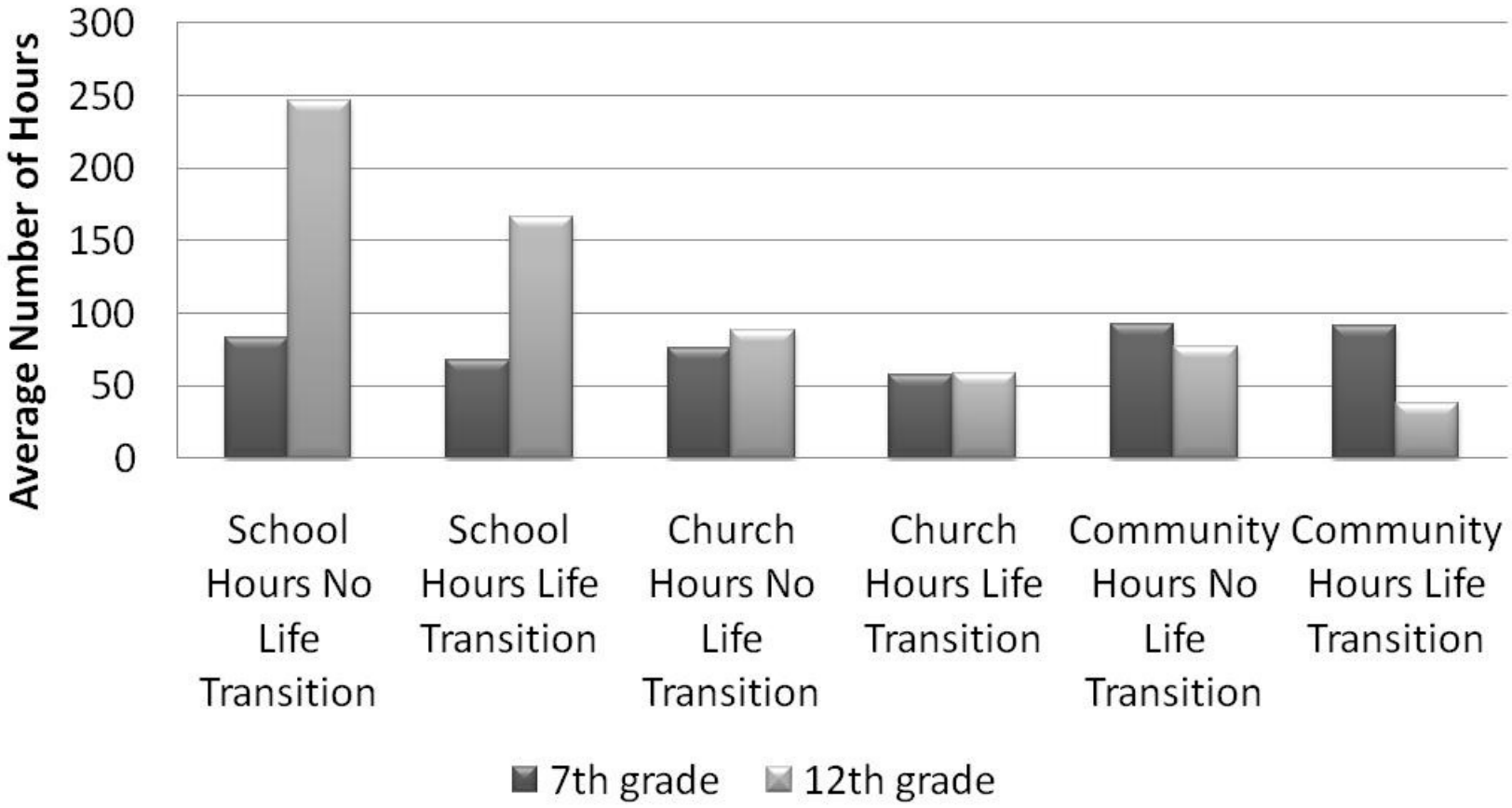
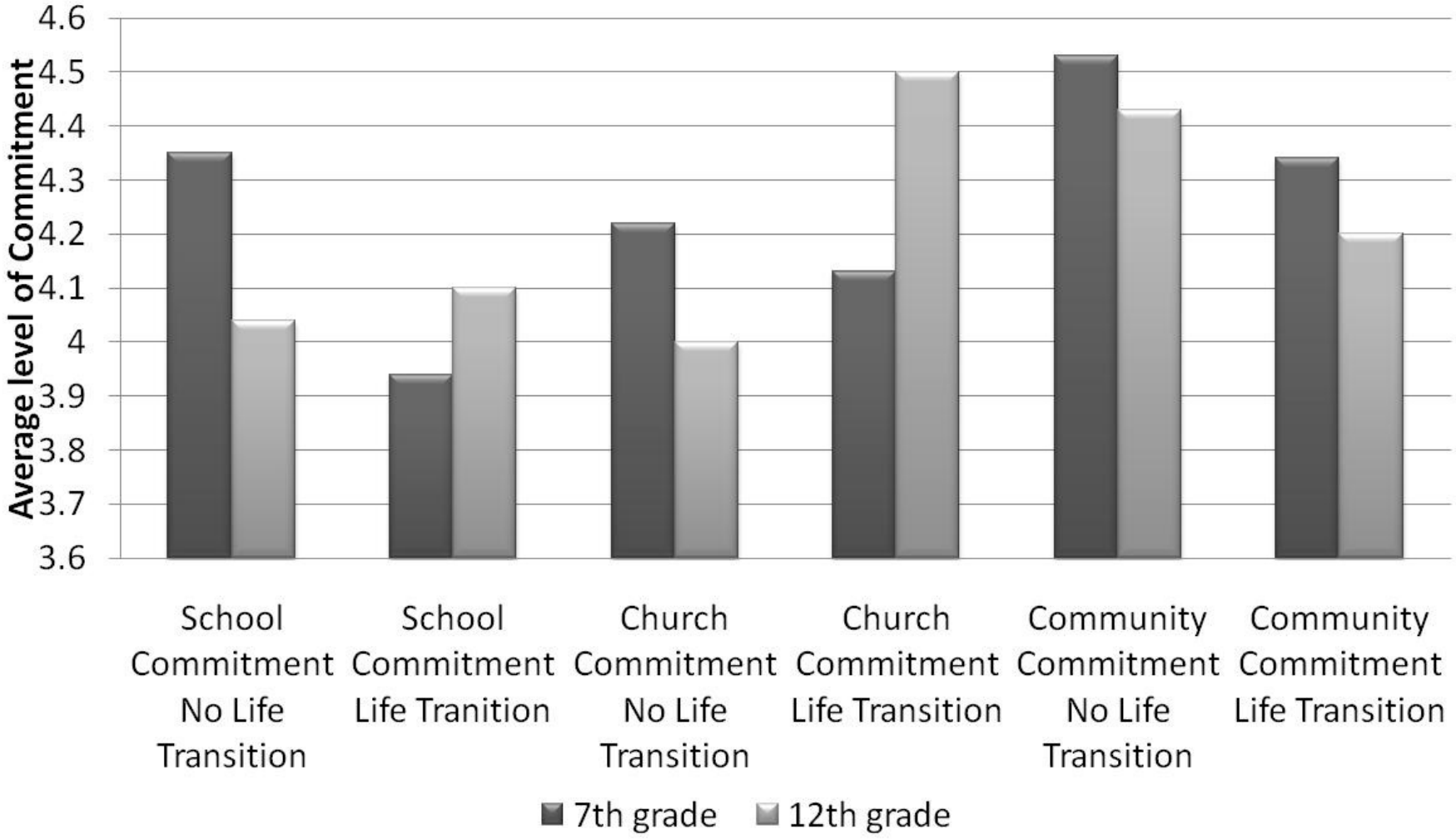


Figure 3. *Commitment by Life Transition.*



Appendix C

Extracurricular Activity Survey

Name _____ TCID _____ Date_____

Extracurricular Activity Survey

We are interested in knowing some things about how you spend your free time. We would like to consider this past summer and the full current school year.

1. First, we would like to know if you are involved in any **extracurricular activities at school**, such as sports teams, clubs, and student council. We are interested only in those activities that take place before or after normal school hours. Please name each of the extracurricular activities in which you are officially involved:

Name of activity	**Hrs/wk**	**Wks/year**	**Satisfaction/commit**
1. _CA - # school activities_____	CA1A	CA1B	CA1C
2. _____	CA2A	CA2B	CA2C
3. _____	CA3A	CA3B	CA3C
4. _____	CA4A	CA4B	CA4C
5. _____	CA5A	CA5B	CA5C

Now, please tell us how many hours each week and how many weeks per year that you spend in each activity. One full school year is 40 weeks, so if you are involved all school year that would be 40 weeks. One semester would be 20 weeks. The summer time is considered 12 weeks. Next, for each activity, please use this scale to tell us how much you are satisfied with each activity and how committed you feel to this group. The scale points are:

1. **not very satisfied** or committed; might quit soon
2. **a little satisfied**; probably will continue for a while
3. **satisfied**; will continue
4. **quite satisfied**; definitely want to stay involved
5. **extremely satisfied**; activity is very important to me; highly committed

2. Now, let's consider **church-based activities**, such as clubs, fellowship groups, and things like that. Please list each activity:

Name of activity	**Hrs/wk**	**Wks/year**	**Satisfaction/commit**
1. ___CB - # church activities_____	CB1A	CB1B	CB1C
2. _____	CB2A	CB2B	CB2C
3. _____	CB3A	CB3B	CB3C
4. _____	CB4A	CB4B	CB4C
5. _____	CB5A	CB5B	CB5C

Now, please tell us how many hours each week and how many weeks per year that you spend in each activity. One full school year is 40 weeks, so if you are involved all school year that would be 40 weeks. One semester would be 20 weeks. The summer time is considered 12 weeks. Next, for each activity, please use the same scale as before to tell us how much you are satisfied with each activity and how committed you feel to this group.

3. Now let's consider **neighborhood and community programs**, like the YMCA, Boys or Girls Club, a neighborhood recreation center, neighborhood sports teams, and other programs. Please name each of those activities that you have joined.

Name of activity	**Hrs/wk**	**Wks/year**	**Satisfaction/commit**	
1. __CC - # program activities _____	CC1A		CC1B	CC1C
2. _____	CC2A		CC2B	CC2C
3. _____	CC3A		CC3B	CC3C
4. _____	CC4A		CC4B	CC4C
5. _____	CC5A		CC5B	CC5C

Now, please tell us how many hours each week and how many weeks per year that you spend in each activity. One full school year is 40 weeks, so if you are involved all school year that would be 40 weeks. One semester would be 20 weeks. The summer time is considered 12 weeks.

Also, please list here any other program or activity that you are involved in that you have not yet named, such as music lessons and special groups.

Next, for each activity, please use the same scale as before to tell us how much you are satisfied with each activity and how committed you feel to this group.

4. Finally, we would like to know about any employment you might have had. Please list each job that you had during the past school year and this summer.

Name of activity	**Hrs/wk**	**Wks/year**	**Satisfaction/commit**	
1. _CD - # job activities_____	CD1A		CD1B	CD1C
2. _____	CD2A		CD2B	CD2C
3. _____	CD3A		CD3B	CD3C
4. _____	CD4A		CD4B	CD4C
5. _____	CD5A		CD5B	CD5C

Now, please tell us how many hours each week and how many weeks per year that you spend in each job. One full school year is 40 weeks, so if you are involved all school year that would be 40 weeks. One semester would be 20 weeks. The summer time is considered 12 weeks.

Next, for each job, please use the same scale as before to tell us how much you are satisfied with each job and how committed you feel to this job.

Appendix D

Changes and Adjustments Questionnaire

TCID _____ (Card 3, #44)

Parent's name _____ Date _____

Mother Father Other (Please circle) Child's Name _____

Changes and Adjustments Questionnaire

In this questionnaire we would like you to bring us up to date on what's been going on for your family since we visited you last year. Please take some time to think about what has happened in the past year before answering the questions. As before, the information you give us is strictly confidential. When we say "your child" we mean the child who is part of our project.

PARENT'S WORK INFORMATION

1. Mother's work:

During the past year, on the average, about how much time per week did the mother in this family work or go to school? Please circle the answer that comes closest.

	Part-time	part-time	full-time	more than 40	no mother	
0 hours	1-19 hrs.	20-34 hrs.	35-40 hrs.	hrs. a week	in the home	
1	2	3	4	5	8	M*XA1

2. Father's work:

During the past year, on the average, about how much time per week did the father in this family work or go to school? Please circle the answer that comes closest.

	part-time	part-time	full-time	more than 40	no mother	
0 hours	1-19 hrs.	20-34 hrs.	35-40 hrs.	hrs. a week	in the home	
1	2	3	4	5	8	M*XA2

FAMILY CHANGES AND ADJUSTMENTS

1. What kind of changes and adjustments has your family had in the past year?

Please circle yes (1) or no (0) for each item

		no	yes	Recode 0=Yes 1=No
a.	moved	0	1	M*XC1
b.	major repairs/remodeling to home	0	1	M*XC2
c.	severe and/or frequent illness for child	0	1	M*XC3
d.	accidents and/or injuries for child	0	1	M*XC4
e.	other medical problems for child	0	1	M*XC5

f.	medical problems for close family members	0	1	M*XC6
g.	death of close family member	0	1	M*XC7
h.	death of other important person	0	1	M*XC8
i.	divorce and/or separation for you and your husband/wife	0	1	M*XC9
j.	parent and child were separated (due to illness, divorce, work, etc.)	0	1	M*XC10
k.	money problems	0	1	M*XC11
l.	legal problems	0	1	M*XC12
m.	problems and conflicts with relatives	0	1	M*XC13
n.	birth of a baby	0	1	M*XC14
o.	problems at school for child	0	1	M*XC15
p.	problems at work for parents	0	1	M*XC16
q.	loss of a job	0	1	M*XC17
r.	remarriage or marital reconciliation	0	1	M*XC18

2. How hard were these changes and adjustments for your child?

no changes, or changes were helpful	not hard at all	a little hard	hard	very hard	
1	2	3	4	5	M*XC21

3. How hard were these changes and adjustments for you and the rest of the family?

no changes, or changes were helpful	not hard at all	a little hard	hard	very hard	
1	2	3	4	5	M*XC22