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THE IMPACT OF EXTRACURRICULAR ACTIVITIES ON
CHILDREN'S SCHOOL PERFORMANCE
AND MENTAL HEALTH

by

Amber L. Crews

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Psychology

Approved:

UTAH STATE UNIVERSITY
Logan, Utah

2005

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ABSTRACT

The Impact of Extracurricular Activities on Children's
School Performance and Mental Health

by

Amber L. Crews, Master of Science

Utah State University, 2005

Major Professor: Dr. Gretchen A. Gimpel
Department: Psychology

The relationship between the amount of extracurricular activities and the school performance and mental health of children and adolescents was examined. One hundred thirty-three parents completed measures on extracurricular activity participation, academic performance, and mental health for their children in Grades 3-12. Results indicated one significant linear and one significant curvilinear relationship between extracurricular activity participation and school performance of adolescents. As adolescents were involved in additional extracurricular activities, their school performance improved (in a linear relationship), while median amounts of activity were related to the best grades (in a curvilinear relationship). Although these results were significant, their practical meaningfulness is limited due to a weak linear relationship and moderate curvilinear relationship. Significant relationships were not found between extracurricular activity participation and school performance of children or between

extracurricular activity participation and the mental health of children or adolescents

(52).

(66 pages)

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Amber L. Crews

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CHAPTER I

INTRODUCTION

Research has shown that participation in extracurricular activities (EA; i.e., athletics, clubs, art/music/dance lessons, religious participation, volunteer activities, theatre, etc.) significantly benefits the school performance and mental health of adolescents (Camp, 1990; Cooper, Valentine, Nye, & Lindsay, 1999; Eccles & Barber, 1999; Gerber, 1996; Impara, Enders, & Beecham, 1996; Jordan & Nettles, 1999; Mahoney, 2000; Mahoney & Cairns, 1997; Marsh, 1992; Pettit, Laird, Bates, & Dodge, 1997; Posner & Vandell, 1999; Silliker & Quirk, 1997; Youniss, McLellan, Su, & Yates, 1999). It was once believed that time spent in EA was time taken away from students' academic study and with less time for study, students would suffer academically. As research increased within the fields of education and psychology, studies were conducted to examine these beliefs and the possible benefits of these activities.

The literature concerning adolescents' school performance indicates that involvement in one or more EA, versus no structured after-school activities, is related to improved grades, higher achievement test scores, higher levels of school attainment, a decreased dropout rate, and more time spent on academics in general (Camp, 1990; Cooper et al., 1999; Eccles & Barber, 1996; Gerber, 1996; Mahoney & Cairns, 1997; Marsh, 1992; McNeal, 1995; Silliker & Quirk, 1997). The literature concerning adolescents' mental health indicates that involvement in one or more EA, versus no such structured activities, is related to increased self-esteem, decreased peer rejection

and increased peer acceptance, increased sense of identity, increased rates of behavioral adjustment, and improved social skills (Bluehardt & Shepard, 1995; Impara et al., 1996; Mahoney, 2000; Pettit et al., 1997; Youniss et al., 1999).

Unfortunately, researchers have not investigated whether participation in these activities has the same benefits for children and whether there are possible negative effects on the school performance and mental health of both children and adolescents from participating in a high number of EA. Few researchers have assessed whether the effects of participation in EA vary based on the number of activities in which students participate and/or the total time of participation in those activities. Instead, researchers have typically categorized their participants as being involved in extracurricular activity (EA) or not involved, sometimes with reference to which specific EA or type of EA (e.g., school vs. community, or clubs vs. athletics) the adolescent is involved. With an abundant amount of research concerning EA and their effects on adolescents' school performance, it is surprising that researchers have overlooked investigating the relationship between the quantity of EA, the time spent in those EA, and the resulting school performance and mental health of children and adolescents.

More information is needed to determine the effects of involvement in EA (in terms of number of activities, type of activities, and total hours spent in activities) on the school performance and mental health of children and adolescents. The need to determine an optimal amount of extracurricular participation for both children and adolescents is becoming increasingly important in today's busy and industrious American society. Many adults are finding themselves overloaded and as a result, they

are enduring the negative effects of stress. Stress is associated with various harmful physical and mental consequences (e.g., aggression, withdrawal, sleeping problems, bladder control, depression, change of appetite, other somatic symptoms; Longo, 2000; Rosenfeld, Wise, & Coles, 2002). With these ideas in mind, it is theorized that children and adolescents can also become overloaded and stressed because of being involved in a high number of activities or spending large amounts of time in such activities. If overscheduling stress is occurring, it is likely that the effects would appear within the areas of school performance and/or mental health. Hundreds of doctors, parents, and teachers have authored books and magazine articles asserting that children are being overloaded, overprogrammed, or overextended. However, none of these sources have cited or completed empirical research verifying that this phenomenon is actually occurring (Elkind, 2001; Rosenfeld et al.).

The purpose of this study is to examine the relationship between the amount of EA, in terms of the quantity of activities and the total hours spent participating in those activities, and the school performance and mental health of children and adolescents. It is hypothesized that the relationship between EA and the school performance and mental health of children and adolescents is curvilinear. Specifically, it is hypothesized that students participating in fewer hours of EA (in terms of quantity and time) as well as those participating in more activities will have lower grades and more mental health problems than students “in between.” This study is needed to develop a better understanding of the relationship between extracurricular participation and the school performance and mental health of children and adolescents. With this information, we

may then be able to recommend or discourage activities to children and adolescents to maximally promote school performance and positive mental health.

CHAPTER II

REVIEW OF PREVIOUS LITERATURE

Today's children are involved in various EA each year and many adults are unsure of how these activities relate to their children's school performance and mental health. Within the last 50 years, the availability of EA for adolescents and children has steadily increased with children now being able to select from a plethora of activities. It was once believed that such activities would interfere with positive academic performance so as research increased within the fields of education and psychology, studies were conducted to examine the relationship between EA participation and the school performance and mental health of children and adolescents.

At this point, hundreds of studies have been conducted on this topic (mostly between the years of 1960 and 1980) and most show that the relationship between EA and the school performance and mental health of adolescents is positive. Due to the large number of studies on this topic, only a subset of studies is reviewed on the following pages. The subset of studies includes those with current publication dates (1992-present) and a majority of Caucasian participants (due to a large number of studies including Caucasians as their primary subject pool with minority research being a smaller less inclusive group of studies). This subset of studies indicates that participation in EA is related to better academic achievement and more positive mental health compared to spending time at home alone, socializing with friends, or completely uninvolved. The bulk of this literature focuses on adolescents' EA participation and its relation to school performance/achievement. It indicates that involvement in EA, versus

no structured activities, is related to improved grades/higher GPA, higher achievement test scores, higher levels of school attainment/lower dropout rates, and more time spent on academics in general (Cooper et al., 1999; Eccles & Barber, 1999; Gerber, 1996; Impara et al., 1996; Mahoney & Cairns, 1997; Marsh, 1992; McNeal, 1995; Posner & Vandell, 1999; Silliker & Quirk, 1997). Researchers have defined EA as sports, clubs, or other adult supervised activities that are preplanned with outlined objectives. In addition to looking at academic outcomes, researchers have also examined mental health outcomes such as self-esteem, identity, and peer acceptance.

Some researchers have investigated children's "out-of-school" time by studying the relationship between after-school programming and the school performance and mental health of the participating children. These studies have defined out-of-school time as any time beyond a typical school day. Out-of-school time may include EA, but it also includes time spent working, alone, socializing without adult supervision, napping, and so forth. Researchers have defined after-school programming as any activity that is after-school and geared towards providing supervision and/or the development of children's academic skills. All of the studies on after-school programs have been conducted in the last 5 years, and they have produced mixed results. In some studies, after-school programs were related to increased school performance and mental health, while in other studies there was no relationship between these programs and the school performance and mental health of children. Most researchers agreed in their conclusions that the results were related to what was actually occurring during such programs. The programs most similar to EA were significantly positively related to the

children's school performance and mental health (Alexander, 2000; National Institute on Out-of-School Time, 2003; Pettit et al., 1997; Pierce, Hamm, & Vandell, 1999; Posner & Vandell, 1999). In the following pages, various representative studies concerning the relationship between EA and the school performance and mental health of children and adolescents are reviewed. All of these studies have been conducted within the last 15 years.

EA and School Performance

School Performance Measured by Test Scores

Gerber (1996) studied 10,094 primarily Caucasian and African American eighth-grade students who participated in the National Educational Longitudinal Study (NELS) of 1988. Students reported on their involvement in 31 EA activities in this study with two broad categories of school-based and community-based activities. The results indicated that achievement test scores in mathematics, reading, and science were positively related to EA participation ($p < .001$ for each univariate test and $p < .05$ for the multivariate test). The association was strongest in mathematics and relatively weaker in reading and science. There was a stronger relationship between school-related activities and achievement ($p < .05$ to $.001$) than between community-based activities and achievement ($p > .05$). Gerber explained these results by stating that school-related participation provides experiences that further the whole development of the individual students, and that "part of total development includes increased self-esteem, self-concept, and identification with the school" (p. 48). Gerber's study shows a positive

relationship between EA participation and school achievement as measured by standardized academic tests.

Another study, with similar but extended findings, indicated that adolescent EA participation in out-of-school activities had a significant positive relationship with various educational outcomes including increased school achievement ($p < .05$ to $.01$), as measured by standardized math and science tests, and increased preparedness for classes ($p < .05$ to $.01$), as measured by a self-report survey (Jordan & Nettles, 1999). The results also indicated a negative relationship between time spent "hanging out" with friends and school achievement ($p < .01$). This study controlled for background variables such as socioeconomic status (SES), gender, ethnicity, and grade level and obtained its data from the NELS of 1988 (Jordan & Nettles).

School Performance Measured by Grades

Many studies have indicated that adolescent participation in EA is positively related to higher grades. Silliker and Quirk (1997) showed that involvement in athletic activities can have positive effects on students' grades ($p < .05$). This study obtained data from five rural western New York high schools. Participants were chosen because they played soccer during the first grading quarter and were not involved in scholastic sports in the second quarter. The results indicated that both male and female high school students had significantly higher GPAs during in-season and in-training periods than during injury or off-season ($p < .05$), although this study did not investigate if students participated in other nonathletic EA during the off-season (Silliker & Quirk).

Another study not only indicated that EA participation is related to improved grades, but it also assessed the relationship between non-EA participation and school performance (Camp, 1990). This study's data were from the large-scale High School and Beyond (HSB) research study conducted by the National Opinion Research Center (NORC). The sample of 7,668 adolescents were in the 10th grade and consisted of students from 1,015 different schools across the United States. Camp did not define or list which activities were included as EA. The results indicated that females watch less television, study more, participate in more EA, and earn higher grades than do males, but for both males and females there was a significant positive correlation between EA participation and grades ($p < .05$). This study also controlled for the effects of other variables that could reasonably be expected to affect grades (i.e., family background, and academic ability) thus, allowing the study to compensate for earlier studies' limitations (Camp).

Marsh (1992) also investigated this relationship, but he defined EA as any out-of-school activity. This study utilized the HSB research pool, and findings indicated that EA participation is not only favorably associated with GPA ($p < .05$ to $.01$) but also with social self-concept, academic self-concept, taking advanced courses, time spent on homework, postsecondary aspirations, parental involvement, and absenteeism ($p < .05$). This research shows that the positive relationship between EA participation and school performance is more than just improved grades or test scores, but that it extends to time spent on studies and dropout rates (Marsh).

*School Performance Measured by
Test Scores and Grades*

Other studies have focused on the relationship between adolescent EA participation and school performance as measured by both grades and tests scores. In these studies, researchers chose to use both measures to increase the validity of their findings (Cooper et al., 1999; Eccles & Barber, 1999). One study indicated that EA participation is positively related to being enrolled in college by the age of 21, a higher GPA, and higher test scores (Eccles & Barber). This study utilized data from 1,200 students in Grades 6 through 12 from the longitudinal Michigan Study of Adolescent Life Transitions of 1983. EA were included in this study if they fell into the categories of prosocial activities, sports teams, performing arts, school involvement, and academic clubs. The results demonstrated that EA participation was positively related to academic performance as measured by GPA in the 11th and 12th grades ($p < .01$), as well as measured by the verbal and numerical subscores of the Differential Aptitude Test ($p < .01$). Variables such as social class, gender, and academic aptitude were controlled for, thus indicating that EA participation is positively related to school performance regardless of other factors (Eccles & Barber).

A study by Cooper et al. (1999) examined the relationship between school performance (as measured by test scores and grades) and adolescent EA participation (or other structured activities) in comparison to time spent working or watching television. The EA or other structured activities included in this study were not specifically defined. This research included 424 middle and high school students from Tennessee. The researchers controlled for gender, grade level, ethnicity, free-lunch

eligibility, and level of adult supervision after school. Results indicated that increased time in EA and other structured groups and less time in jobs and spent watching television was associated with higher test scores ($p < .05$ to $.01$) and class grades ($p < .05$ to $.001$). The results also indicated that an inverted U relationship occurred between EA participation and high-school school performance when little or no time was spent working or watching television. This means that EA may become detrimental to achievement when high levels of EA participation occur (Cooper et al., 1999).

School Performance Measured by Dropout Rates

A group of researchers focusing mainly on the relationship between EA participation and school dropout rates has shown that there is a negative relationship between these variables (Mahoney, 2000; Mahoney & Cairns, 1997; McNeal, 1995). Mahoney and Cairns' research included school-related EA that were divided into four categories (fine arts, athletics, vocational, and all others). This study followed 392 adolescents from Grades 7 through 12. The results showed that students who participated in school-related EA during elementary and middle school had lower dropout rates as compared with those students who did not participate in EA during their early school experiences ($p < .001$). Early dropout was defined as when a student failed to complete the 11th grade (Mahoney & Cairns). In a separate study, Mahoney showed a similar relationship between school-based EA participation and early school dropout rates. This research included 695 students from the Carolina Longitudinal Study, which included students attending public schools in the southeastern United

States. The results indicated that students who participated in EA were less likely to drop out of school during high school than similar students who did not participate in EA ($p < .05$ to $.001$).

Most of the studies concerning the relationship between EA participation and school performance/dropout rates have focused on EA participation as all activities summed together, but McNeal (1995) focused on which activities were related to the decrease in students' dropout rates. He suspected that different activities may have different relationships with school dropout rates and that because activities cannot be considered equal, they cannot be summed together as one. This study used the data from 14,249 students sampled in the HSB research pool. The results indicated that increased EA participation in athletics and fine arts was associated with decreased dropout rates ($p < .05$), whereas EA participation in academic or vocational clubs was not related to dropout rates ($p > .05$). These findings remained stable even after other variables were controlled for such as race, SES, gender, and employment status (McNeal).

*Children's After-School Programming
and Its Relatedness to EA and
School Performance*

Although none of the previously reviewed studies were conducted specifically regarding EA and children (the focus was on adolescents), researchers have begun investigating the relationship between after-school programs/care and the school performance of children. The National Institute on Out-of-School Time, sponsored by Wellesley College, presented a paper titled, "Making the Case: A Fact Sheet on Children and Youth in Out-of-School Time" (2003). This paper reviewed and referred

to over 50 other studies and papers that investigated or discussed after-school programming/care for children and adolescents. From this paper a limited number of studies were found to be related to children's participation in EA and their subsequent school performance. Most of these studies did not use the term EA, but from the authors' descriptions of the after-school programs, it appeared that two studies were investigating activities similar or identical to how EA is being defined in this current study. These studies are reviewed below.

Pettit and colleagues (1997) studied various types of after-school care for children in kindergarten through sixth grade. They found that nonschool-based adult-supervised activity-oriented care was curvilinearly related to achievement test scores and GPA. When children participated in activities from 1-3 hours per day, there was a significant positive relationship between the adult-supervised activity-oriented event and school performance ($p < .05$ to $.001$), but when children spent four or more hours per day in such activities, there was no relationship. SES was found to significantly impact results. In the low SES group, there was a larger, positive relationship between after-school activities and academic achievement than in the middle or high SES groups. When the researchers controlled for SES in their results, the magnitude of the relationship decreased (Pettit et al.).

Posner and Vandell (1999) studied low-income Caucasian and African American children from third to fifth grade to determine the relationship between after-school programs and school adjustment over time. The after-school programs included nonsport, academic activities and coached sports activities. They found that children

who attended the programs more frequently, as compared to those children who attended less or not at all, developed better classroom work habits ($p < .05$) and missed fewer days of school ($p < .05$ to $.001$). These children were also found to spend more time in other academic activities, whereas the children in informal after-school care spent more time watching TV and hanging out with peers. When the children in EA were compared to those not in EA, such participation was significantly positively related to GPA for the African American students ($p < .001$). The relationship was also positive for the Caucasian students, but not at a statistically significant level (Posner & Vandell).

EA and School Performance Summary

Based on the current literature, which was primarily conducted with adolescents, it appears that involvement in EA or programs structured similar to that of EA, is positively related to higher grades/GPA, higher achievement/standardized test scores, higher levels of school attainment, lower school dropout rates, and more time spent on academics in general. However, only one paper and two research studies related to children's involvement in EA participation could be located. It is important to extend the findings regarding EA participation to focus on children as well as adolescents.

EA and Mental Health

Research on childhood mental health problems has only been conducted during the past 40 years. It was once believed that such problems in childhood were temporary and would subside without intervention. Research has since shown that many problems

begin in childhood and persist into adulthood and treatment is often needed to resolve the problems (Aries, 1962; Borstelmann, 1983; French, 1977). Although research on childhood mental health problems has greatly increased, more research is still needed.

Over the past 5-10 years there has been increased interest in childhood mental health problems. According to Mash and Dozois (1996), this is due to the realization that many childhood problems have lifelong effects, with most adult disorders related to childhood conditions and experiences. More research on childhood disorders may provide for the creation of better and new intervention and prevention programs. With these realizations, research has been conducted to gain more information about mental health problems of children. There have been several major findings from this research. The first is that mental health problems in children are more common than once thought. Fourteen to 22% of all children have diagnosable disorders and another 30% are believed to have marginal problems, not able to be clinically diagnosed (Brandenburg, Friedman, & Silver, 1990). Additionally, the fallacy that children will grow out of their difficulties has been refuted. Children often do not grow out of their mental health difficulties, but the ways in which the problems are expressed may change along with the severity (Mash & Dozois). Recent changes in society such as increased family instability, increased economic instability, and decreased expectations of childhood behavior may be placing children at greater risk for the development of more severe problems (Duncan, Brooks-Gunn, & Klebanov, 1994). According to Mash and Dozois, "The lifelong consequences associated with child psychopathology are exceedingly costly in terms of their economic impact and toll on human suffering" (p.

9). The costs are in reference to demands on resources such as health, education, and mental health access, and the demands for repeated interventions (Kadzin & Kagan, 1994; Mash, 1989).

The most common mental health problems of today's children and adolescents fall into two broad categories, internalizing and externalizing disorders (Mash & Barkley, 1998; Nolen-Hoeksema, 1998). Internalizing disorders are those mental health problems in which the primary symptoms are inner directed and are not easily observed by others. These disorders may include but are not limited to anxiety and depression. Depression is diagnosed when a person has a prolonged sense of sadness, hopelessness, lack of life enjoyment, and/or increased irritability. Depression can lead to impaired cognitive and social functioning, and decreased interest in everyday events. Anxiety is diagnosed when a person has a heightened sense of fear about something specific or general and for which the cause is unrealistic. Anxiety can lead to avoidance of certain objects or people, decreased social interactions, decreased attention or focus on school or social activities (American Psychiatric Association, 1994; Mash & Barkley; Nolen-Hoeksema).

Externalizing disorders are those mental health problems in which the primary symptoms or problems are more outwardly directed and are observable by others. These disorders include attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), or conduct disorder (CD). ADHD is a disorder that can be displayed in three forms, increased hyperactivity, decreased attention/concentration abilities, or a combination of the two. ADHD has significant implications within the domains of

school performance, social relations, and the self-esteem of children and adolescents. For example, many children with ADHD have difficulty staying on task at school, are unable or unwilling to finish many assignments, and receive poor grades as a result. ODD is a disorder that involves disobedience, defiance, and disrespect of others. ODD can have implications for impaired social relations, decreased school performance, and legal reprimands. Some children with ODD have poor grades due to their resistance to follow the directions on assignments or to even follow the command to do the assignments. CD is often considered a more severe form of ODD. Children with CD exhibit more extreme antisocial behaviors such as being harmful to others, destroying or stealing valued possessions or objects, and lying or cheating to obtain goods without regard to others well-being. This disorder has the same implications as ODD, but typically outcomes and associated problems are more severe. Children with CD are more likely to miss more school and while in school, they have tendencies to misbehave and they are less willing to complete activities or assignments viewed as undesirable or challenging (American Psychiatric Association, 1994; Mash & Barkley, 1998; Nolen-Hoeksema, 1998).

EA Participation and Mental Health

Although researchers have hypothesized that EA participation and mental health are indirectly linked, limited research on this topic has been conducted (Bluehardt & Shephard, 1995; Eccles & Barber, 1999; Mahoney, 2000; Marsh, 1992; Pettit et al., 1997). Mental health problems may be linked to EA participation in that related problems (i.e., self-esteem, social skills, self-concept, self-worth, social patterns, etc.)

increase or decrease in relation to EA participation. Studies have found that adolescent EA participation is related to decreased substance abuse and risky behavior and increased prosocial behaviors. High school students involved in EA were more likely to have plans for college ($p < .05$ to $.01$) and had increased grades ($p < .01$), less drug use ($p < .05$ to $.01$), and higher class attendance ($p < .01$) as compared to those students not participating in EA (Eccles & Barber, 1999). Another study found that students participating in EA activities had an increased sense of social and academic self-concept ($p < .01$; Marsh).

A study by Bluechardt and Shephard (1995) investigated the relationship between extracurricular physical activity and social skills. The authors sampled 34 children with learning disabilities who participated in 90 minutes of a physical extracurricular activity program twice a week for 10 weeks. Teacher ratings and self-report measures were used to assess various behavioral and academic areas pre- and post-EA participation. The results indicated that physically orientated adolescent EA participation was positively related to enhanced social skills and increased self-perceptions in the areas of athletic competency and global self-worth ($p < .05$). Participation in these activities was also related to increased social status in the daily school environment, as rated by the teachers. The results were maintained at a 3 month follow-up (Bluechardt & Shephard).

In a study examining the antecedents and moderators of the development of antisocial patterns (Mahoney, 2000), EA were related to reduced rates of early dropout and criminal arrest among boys and girls ($p < .001$). When an individuals' social

network also participated in EA, a decline in antisocial patterns were also noted. This research included 695 boys and girls who were part of the Carolina Longitudinal Study and the students were interviewed annually from childhood to the conclusion of high school and again at ages 20 and 24 years. Mahoney concluded that EA are moderators of antisocial patterns in adolescence due to the students' involvement in a structured and supervised activity rather than being left alone to do as they wish.

Pettit and colleagues (1997) not only studied after-school programs in relation to school adjustment and performance as reviewed in the children's EA section earlier, but they also studied after-school programs in relation to social skills and behaviors. Based on teacher measures, the researchers concluded that children in 1-3 hours of after-school programs per day had better social skills ($p < .05$) and fewer externalizing behaviors ($p < .05$) than children not involved in activities or children who spent more than 4 hours per day in such after-school programs. Posner and Vandell (1999) also studied both school performance and mental health in relation to after-school programs. In addition to the positive benefits discussed earlier, at-risk children who attended quality after-school programs, as compared to those children who attended low quality programs or other forms of after-school childcare, were found to use fewer aggressive strategies to resolve disputes with peers ($p < .05$).

Summary

The previously reviewed literature indicates that adolescents' involvement in EA is positively related to their school performance as measured by grades,

achievement test scores, levels of school attainment, dropout rates, and time spent on academics. The reviewed literature also indicates that involvement in one or more EA, versus nonstructured after-school activities, is positively related to adolescents' self-esteem, peer acceptance, sense of identity, rate of behavioral adjustment, and social skills.

Although many of the reviewed studies investigated the relationship between EA participation and the school achievement and mental health of adolescents, no studies were conducted specifically regarding EA and children. Adolescent research results may not generalize to children due to developmental differences between these two age groups. Thus there is a need for further research with children in both areas. Additionally, the relationship between EA participation and mental health was only measured with regard to subsets of mental health (i.e., identity, self-esteem, peer relations, externalizing problems), and the concept of broad mental health has not been addressed.

Purpose and Objectives

The purpose of this study was to determine the relationship between EA participation and school performance and mental health of children and adolescents. Although research has been conducted with regard to adolescent school performance and EA participation, no studies have been completed with a child population other than those focused on after-school programming. In addition, no studies have investigated

the relationship between EA participation and children's and adolescents' broad mental health.

Exploring the possible outcomes with both children and adolescents is important. There may be different relationships between EA participation and the mental health outcomes for these two age groups because they are developmentally different with regard to cognitive and social-emotional development. The EA and mental health relationship may differ due to children's shorter attention spans and less developed organizational, social, and problem-solving skills. It is hypothesized that adolescents' higher level of development in these areas allows them to benefit from greater amounts of EA participation than children. Although one after-school programming study indicated possible negative outcomes of being involved in a large number of extracurricular or programming activities, more research on time involved in EAs is needed. With large numbers of doctors, parents, and teachers believing that negative effects are occurring from youth overscheduling, it is a critical to determine if this is occurring and what amounts of activities might constitute "overscheduling" (Elkind, 2001; Longo, 2000; Rosenfeld et al., 2002). If overscheduling is occurring, adults may need to adjust their expectations for children's involvement in EA. Analysis of our youth's schedules may provide information regarding what amounts of EA will allow youth to reap positive academic and mental health benefits and to avoid possible negative outcomes.

Research Questions and Hypotheses

The specific research questions addressed in this study are as follows.

1. What is the relationship between EA participation and the school performance of children and adolescents? Research has shown that for adolescents participation in one or more EA is related to improved school performance. However, no studies have investigated this relationship with non-at-risk children. It is hypothesized that the relationship between EA participation and school performance as measured by average grades over the past year will be similar for both children and adolescents. It is hypothesized that the relationship will graphically appear as an inverted U-shape indicating that as involvement in EA increases, students' school performance will improve. However, beyond a certain point it is hypothesized that as EA participation increases, students' school performance will decrease.

2. What is the relationship between EA participation and overall mental health of children and adolescents? It is hypothesized that the relationship between mental health and EA will be graphically represented by a U-shape indicating that moderate amounts of EA participation will be associated with fewer mental health problems than no involvement in EA or high level of EA involvement. It is also hypothesized that the relationship will be graphically similar for both children and adolescents. However, the optimal amounts of EA participation for children are hypothesized to be less than the optimal amounts of EA participation for adolescents due to developmental differences as previously discussed.

A. What is the relationship between EA participation and internalizing

disorders of children and adolescents? It is hypothesized that the relationship will be similar for both children and adolescents, and that the relationship will graphically appear as a U-shape indicating that moderate amounts of EA participation will be associated with fewer internalizing problems.

B. What is the relationship between EA participation and externalizing disorders of children and adolescents? It is hypothesized that the relationship will be similar for both children and adolescents, and that it will be a U-shaped relationship with moderate amounts of EA participation associated with fewer externalizing problems.

CHAPTER III

METHODS

Participants

The participants in this study consisted of 133 students in Grades 3-12. They were recruited from a school district in Illinois located approximately 60 miles from downtown Chicago. The district has approximately 5,500 students that are primarily Caucasian, although the numbers of Indian and Latino students are increasing. The district serves primarily upper-middle class families (e.g., only 4.48% of the 5,357 student population qualifies for free or reduced lunch) and the growth rate of the community is approximately 25% per year. This growth is predicted to occur for the following 4 years (Consolidated School District 158, 2003). There was an even distribution of participants across the child and adolescent groups and approximately equal numbers of male and female participants. The participants ranged from third to twelfth grade with an approximately even distribution across grades, except twelfth, which had significantly fewer participants due to early graduation. The average age of the sample was 13 years 4 months ($SD = 4$ years 9 months). The Child Group (ages 8-12 years) reported a mean age of 10 years 10 months ($SD = 2$ years 4 months), and the Adolescent group (ages 13-18 years) reported a mean age of 16 years 0 months ($SD = 3$ years 2 months). The measures were primarily completed by the students' mothers and the majority of the students were Caucasian. Forty-five participants reported their family income with a mean income of \$81,733 ($SD = \$31,078$). The Child Group

reported a mean income of \$92,563 and the Adolescent Group reported a mean income of \$71,245. Complete demographic information is provided in Table 1.

Instrumentation

Parent Measures

As a means of evaluating the mental health of the participants, the Behavior Assessment System for Children (BASC) was completed by each student's parent in

Table 1

Demographic Information

Student characteristics	Total sample (<i>n</i> = 33)		Child group (<i>n</i> = 64)		Adolescent group (<i>n</i> =69)	
	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>
Grade in school						
Third	7.5	10	16	10		
Fourth	12	16	25	16		
Fifth	11	15	23	15		
Sixth	14	19	30	19		
Seventh	8	11	5	3	12	8
Eighth	12	16			23	16
Ninth	10.5	14			20	14
Tenth	10.5	14			20	14
Eleventh	11	15			23	15
Twelfth	1.5	2			3	2
Gender						
Male	41	54	41	26	41	28
Female	59	79	59	38	59	41
Ethnicity						
Caucasian	86	115	86	55	87	60
Asian	7	9	8	5	6	4
Hispanic	4	5	3	2	4	3
African-American	2	3	1.5	1	3	2
Bi-racial	1	1	1.5	1	0	0
Measures completed by:						
Mother	86	114	89	57	83	57
Father	14	19	11	7	17	12

accordance with standard instructions. The BASC-Parent Rating Scales (PRS) was used in two separate forms, one for children (ages 6-11 years) and one for adolescents (ages 12-18 years). The forms contained descriptors of behaviors that are rated on a 4-point scale of frequency, ranging from never to almost always. The PRS assessed for mental health problems in the domains of Externalizing problems and Internalizing problems, while also measuring Adaptive Skills. The child and adolescent forms are comparable with only slight differences between them due to developmental changes in the behavioral manifestations of problems in childhood and adolescence. The PRS composites include The Behavioral Symptoms Index (BSI), Externalizing Problems, Internalizing Problems, School Problems, and Adaptive Skills. The Externalizing Problems composite include the subscales of aggression, hyperactivity, and conduct problems. The Internalizing Problems composite include the subscales of anxiety, depression, and somatization. The School Problems composite include the scales of attention and learning problems, but the learning problems scale is only on the teacher measure. The Adaptive Skills composite include adaptability (for children only), leadership, and social skills. For this study only the composite scores for the BSI, Externalizing Problems, and Internalizing Problems were used because they best represent a measurement of total mental health and the two largest subsets of mental health (e.g., externalizing and internalizing problems).

The authors of the BASC report good internal consistency for this measure, with reliability coefficients ranging from .71 to .94 across subscales and composites for both the child and adolescent forms. Specifically, the composite reliability scores were .89

(child and adolescent) for Externalizing Problems, .88 (child) and .90 (adolescent) for Internalizing Problems, and .92 (child) and .93 (adolescent) for the Behavioral Symptoms Index. Additionally, the measure demonstrates good test-retest reliability, with coefficients ranging from .85 to .90 across the composites. Reynolds and Kamphaus (1998) also reported that the BASC-PRS adequately discriminates between children with a clinical diagnosis and those with subclinical problems. The authors reported that this measure, as expected, correlates with the Child Behavior Checklist, Conner's Parent Rating Scales, and the Behavior Rating Profile (Reynolds & Kamphaus).

To obtain information about each student's EA participation, a survey was completed by parents. They were asked to report the name of each activity their children participated in during the past year, the months in which the participation occurred, the number of weeks of participation, and the average number of hours per week. Other information such as gender, age, ethnicity, year in school, grades obtained over the past year, and family income were also requested on this form. A sample list of EA was attached to the survey to serve as a reference for what is considered an EA. The list was derived from those activities that were included in previous literature and feedback from the first pilot study. The predictor variable was the average amount of EA participation per week over the past year and the outcome variables were the average grades over the past year and the BSI and Externalizing and Internalizing scores from the BASC. A copy of the survey is found in Appendix A.

Procedures

To pilot the EA survey, it was given to 10 parents who did not reside in the school district from which the sample was to be obtained. These parents were asked to fill out the survey and write any questions or comments they had about the survey on its back page. Based on their responses and additional feedback from professionals, some small changes were made to the survey. A second pilot was then conducted with eight parents who also lived outside of the school district that would be sampled. This pilot did not indicate a need to modify the EA Survey so it was used as it appears in Appendix A.

Participants in the sample were recruited from one school district in Illinois. Four hundred and fifty research packets containing the parent measures were provided to randomly selected teachers in Grades 3 through 12. The large number of packets were sent home in effort to have at least 100 returned. The number of 100 returned packets was considered realistic given the parents' high level of participation in other district events. Two teachers from each grade at the elementary level and one teacher per grade at the high school level gave the packets to their students to take home to their parents. Students with severe disabilities were excluded from this study as their school achievement and mental health may significantly differ from the average population of students. Severe disability was defined as those students labeled as mentally retarded by the school district (i.e., cognitive and adaptive standard scores below 70). The teachers that were chosen to participate, agreed to distribute the packets during with their Language Arts or Mathematics classes such that the severely disabled students would be

in another classroom. Teachers were given a \$10 gift certificate for their assistance. Parents were provided a letter describing the study (see Appendix B). If they chose to participate, they were instructed to return the packet to the child's teacher in a sealed envelope within 2 weeks. The envelope was provided in the information packet, and the teachers were instructed on the rules of confidentiality and to store the returned envelopes in a locked cabinet until the researcher's scheduled pick-up day. When each child returned an envelope, completed or blank, the teacher allowed the student to choose one reward from a choice of three (e.g., a pencil, a sticker sheet, or a school dollar). One week after the teachers sent home the packets, they sent home a follow-up letter (see Appendix B), to further increase the amount of returned packets. At the conclusion of the second week, 203 packets were returned. Fifty-six packets were blank and 14 packets were excluded (due to no EA survey in the envelope), thus leaving 133 useable packets for a usable response rate of 29.6% and a total response rate of 45.1%.

CHAPTER IV

RESULTS

Descriptive Statistics

In order to describe the sample, descriptive statistics were calculated on the variables of interest. A summary of these data is provided in Tables 2 and 3. The first variable of interest was weekly average EA participation for the past year. For this variable, the parents of the children (those ages 8-12 years) reported fewer hours of weekly average EA participation than did the parents of adolescents, however, children were reportedly involved in more activities than were adolescents. The adolescents were involved in an average of 2.35 EA for 6 hours and 27 minutes per week. The children were involved in an average of 3.3 EA for 4 hours and 11 minutes per week. The differences in the amounts of EA participation between the children and adolescents were statistically significant for both number of activities, $t(131) = 2.34, p = .001$ (two-tailed), and time spent in these activities, $t(131) = 3.06, p = .021$ (two-tailed).

The second variable of interest was average grades for the past year. For this variable, parents reported average grades for their children, on a scale of 1 to 7, in which 7 corresponded to Mostly A's, 6 corresponded to A's-B's, 5 corresponded to Mostly B's, and so forth. More children were reported to have A's and A's-B's than adolescents. Seventy-five percent of children versus 49% of adolescents obtained mostly A's or A-B's. None of the children or adolescents obtained mostly D's or below. Table 3 shows frequencies of each grade obtained for child and adolescent groups.

Table 2

Descriptive Statistics of the Sample

Variable	Child Group (<i>n</i> = 64)			Adolescent Group (<i>n</i> = 69)		
	Mean	<i>SD</i>	Range	Mean	<i>SD</i>	Range
# of activities	3.33	1.90	0-9	2.35	1.79	0-8
# of weeks of EA participation	35.23	16.79	0-52	29.39	18.86	0-52
Ave. per week for the year	4.18	3.91	0-24.46	6.45	6.79	0-29.08
BSI <i>t</i> scores	47.11	11.77	29-88	48.84	11.08	32-80
Externalizing <i>t</i> scores	46.22	10.98	29-90	49.32	10.49	33-82
Internalizing <i>t</i> scores	48.27	11.90	33-92	48.13	9.78	33-78

Table 3

Frequency of Grades

Grades	Child group (<i>n</i> = 64)		Adolescent group (<i>n</i> = 69)	
	%	<i>N</i>	%	<i>N</i>
Mostly A's	43.8	28	20.3	14
A-B's	31.3	20	29.0	20
Mostly B's	7.8	5	11.6	8
B-C's	12.5	8	18.8	13
Mostly C's	3.1	2	8.7	6
C-D's	1.6	1	11.6	8
Mostly D's or below	0	0	0	0

The third variable of interest was mental health and it was divided into broad mental health and subareas of internalizing and externalizing problems. For these variables, the parents reported similar Behavioral Symptoms Index, Internalizing, and Externalizing mental health scores for both the children and adolescents, and their score distributions were similar to what was reported in the BASC manual as typical. Scores

ranged from 29-88 but average *T*-scores were below 50.

The research questions related to the relationship between EA participation and the school performance and mental health of children and adolescents were answered via linear and curvilinear regression analyses. The amount of EA participation (as defined by the average number of hours per week of participation over the past year) was the predictor variable. The level of school performance (as defined by the students' average grades during the past year), the overall mental health (as measured by the Behavioral Symptoms Index on the BASC), and the amount of internalizing and externalizing problems (as measured by the internalizing and externalizing composite scores on the BASC) were the outcome variables.

The analysis of the data indicated only one significant linear and one significant curvilinear relationship. Graphs of these results are in Appendix C. The significant linear and curvilinear relationships were between average weekly amounts of EA participation and average grades for the adolescent group. The linear correlation coefficient was 0.297 and it was significant at $p < .05$. The curvilinear correlation coefficients (quadratic and cubic) were both 0.44. These relationships graphically appeared as an inverted U-shape as predicted. However, it should be noted that these three correlations are still small to moderate, indicating a relatively weak relationship between EA participation and academic performance. There were no significant relationships, linear or curvilinear, between average weekly amounts of EA participation and average grades for the child group or between average weekly amounts of EA participation and the BASC scores for children or adolescents groups. A

complete listing of the linear and curvilinear (quadratic and cubic) regression results are in Tables 4 and 5.

Table 4

Regression Statistics for the Child Group

Variables	Type of regression	<i>R</i>	<i>B</i>	<i>P</i>	<i>F</i>	<i>R Squared</i>
EA hrs and grades	Linear	.213	2.333	.090	2.96	.046
	Quadratic	.230	2.470	.191	1.70	.053
	Cubic	.251	2.701	.265	1.35	.063
EA hrs and BSI scores	Linear	.236	50.077	.061	3.63	.056
	Quadratic	.239	50.695	.166	1.85	.057
	Cubic	.286	54.118	.160	1.78	.082
EA hrs and internalizing scores	Linear	.190	50.680	.133	2.31	.036
	Quadratic	.195	51.335	.309	1.20	.038
	Cubic	.255	54.946	.256	1.38	.065
EA hrs and externalizing scores	Linear	.214	48.735	.089	2.98	.046
	Quadratic	.218	49.164	.232	1.50	.047
	Cubic	.232	50.918	.337	1.15	.054

Table 5

Regression Statistics for the Adolescent Group

Variables	Type of regression	<i>R</i>	<i>B</i>	<i>P</i>	<i>F</i>	<i>R Squared</i>
EA hrs and grades	Linear	.297	3.480	.013	6.48	.088
	Quadratic	.440	4.071	.001	7.92	.194
	Cubic	.440	4.043	.003	5.21	.194
EA hrs and BSI scores	Linear	.032	48.602	.854	.034	.001
	Quadratic	.032	48.889	.966	.040	.001
	Cubic	.141	50.493	.726	.440	.020
EA hrs and internalizing scores	Linear	.084	47.363	.501	.459	.007
	Quadratic	.100	47.107	.784	.240	.007
	Cubic	.219	48.174	.755	.400	.018
EA hrs and Externalizing scores	Linear	.084	48.477	.490	.481	.007
	Quadratic	.084	47.853	.717	.330	.010
	Cubic	.134	50.012	.395	1.090	.048

Summary

Based on parent responses, the majority of the children (97%) and adolescents (92%) in this study were involved in some EA participation with adolescents spending more time in such activities than children. The difference between the amount of EA participation for the children and adolescents was significant. The regression analysis indicated one significant linear and one significant curvilinear relationship between average weekly amounts of EA participation and average grades for the adolescent group. This relationship was as predicted with moderate amounts of EA participation being related to better academic performance. However, the *R* squared value was quite small and thus the practical meaningfulness of this result is limited. No significant relationships were found between EA participation and mental health for children and adolescents or between EA participation and school performance of children. The hypotheses made regarding these relationships were not supported.

CHAPTER V

DISCUSSION

Overview

The purpose of this study was to examine the relationship between EA participation and the school performance and mental health of children and adolescents. Previous research indicates that adolescents' involvement in EA is positively related to their school performance as measured by grades, achievement test scores, levels of school attainment, dropout rates, and time spent on academics (Camp, 1990; Cooper et al., 1999; Eccles & Barber, 1999; Gerber, 1996; Mahoney & Cairns, 1997; March, 1992; McNeal, 1995; Silliker & Quirk, 1997). Previous literature also indicates that involvement in one or more EA compared to nonstructured after-school activities, is positively related to adolescents' self-esteem, peer acceptance, sense of identity, rate of behavioral adjustment, and social skills (Bluechardt & Shepard, 1995; Impara et al., 1996; Mahoney, 2000; Pettit et al., 1997; Youniss et al., 1999).

Although many of the previous studies in this area investigated the relationship between EA participation and the school achievement and mental health of adolescents, no studies were conducted specifically regarding EA participation and children. Adolescent research results may not generalize to children due to their differing levels of development. Thus, there is a need for further research with children in both areas. Additionally, the relationship between EA participation and mental health was only measured with regard to subsets of mental health (i.e., identity, self-esteem, peer

relations), and the concept of broad mental health has not been addressed. Based on the previous studies, it was hypothesized that a curvilinear relationship would exist between EA participation and the school performance and mental health of children and adolescents. This was hypothesized due to a number of medical and mental health professionals' beliefs that some students are in too few activities and others are in too many activities such that these levels of activity may lead to decreased school performance and mental health for children and adolescents. This study also attempted to extend the findings from the few previous studies (Pettit et al., 1997; Posner & Vandell, 1999) that focused on children's involvement in EA.

This study included 133 children (ages 8-18 years) and their parents. The parents completed the Behavior Assessment System for Children (BASC) and an Extracurricular Activity Survey that requested information about their children's EA and grades. Three composite scores from the BASC were used to determine the children's broad mental health as well as internalizing and externalizing problems.

The parents of the children (those ages 8-12 years) reported fewer hours of weekly average EA participation than did the parents of adolescents. The adolescents (those ages 13-18 years) were involved in an average of 2.35 EA for 6 hours and 27 minutes per week. The children were involved in an average of 3.3 EA for 4 hours and 11 minutes per week. These differences (in terms of number of activities and time spent in EA) between children and adolescents were significant, thus indicating that the two groups cannot be viewed as one continuous population. Parents reported higher grades for the children than the adolescents (e.g., A's-B's compared to Mostly B's). Similar

Behavioral Symptoms Index, Internalizing, and Externalizing mental health scores were reported for both the children and adolescents with the average score falling near the average for this measure.

This study's first research question asked, "What is the relationship between EA participation and school performance of children and adolescents?" The relationship between the average number of hours of EA participation per week and the average grades obtained during the previous year were analyzed using linear and curvilinear regression. The data analysis indicated no significant relationship between these variables for children and the one significant linear and one significant curvilinear relationship between these variables for adolescents. This curvilinear relationship was as predicted and it graphically appeared as an inverted U-shape. As EA participation increased, students' grades improved with median amounts of EA participation associated with the best grades. However, given the small R squared, this result may not be practically meaningful. The hypothesis regarding this relationship was supported for the adolescent group but not the child group. In other words, the data indicated that the average weekly amount of EA participation was not related to children's grades as measured in this study. Although it was related to adolescents' grades, the relationship between these two constructs was weak. This finding contrasts with those from many of the earlier studies reviewed in the Introduction. However, this may, in part, be due to methodological differences. For example, many of the reviewed studies reported statistical significance, but they did not report effect sizes or comment on practical significance (Bluechardt & Shephard, 1995; McNeal, 1995; Silliker & Quirk, 1997).

The reviewed studies also measured school performance through GPA or test scores and their information was obtained directly from the schools, whereas this study relied on solely parent report. Finally, some of the reviewed studies had a limited list of what was included as an EA (McNeal; Silliker & Quirk), whereas this study had an all-encompassing list of EA.

The second research question asked, “What is the relationship between EA participation and mental health problems of children and adolescents?” The relationship between the average number of hours of EA participation per week and the BSI score on the BASC were analyzed using linear and curvilinear regression. The data analysis indicated no significant relationship between these variables for children or adolescents, thus indicating that the average weekly amount of EA participation was not related to mental health as measured by this study.

The second research question was then broken into subsections to analyze the relationship between EA participation and both internalizing and externalizing problems of children and adolescents. The relationship between the average number of hours of EA participation per week and the Internalizing and Externalizing Composite scores on the BASC were analyzed using linear and curvilinear regression. The data analysis indicated no significant relationship between these variables for children or adolescents. In other words, the data indicated that the average weekly amount of EA participation was not related to students’ internalizing or externalizing problems as measured in this study. Some previous studies (e.g., Eccles & Barber, 1999; Mahoney, 2000) reported that externalizing problems were related to EA participation. However, in the current

study, many students with behavior problems likely were not able to participate in school-based EA due to the school district's "No pass, no play rule." Given this, this study may not have adequately tested the relationship between EA participation and mental health. This study did not support the hypotheses that were made. The lack of significant results might be attributed to the sample utilized in this study. The sample was primarily Caucasian and the parents reported upper-middle class incomes. As Pettit et al. (1997) demonstrated, there is a weaker relationship between EA participations and school performance among middle or high SES groups as compared to lower SES groups. This finding may explain why there were not significant relationships between these variables in the current study. The sample might also have unknown differences from those who did not participate in this study and from other samples (e.g., more access to EA due to income, the ability to speak English, more knowledge of the positive benefits of such activities). The sample also had a restricted range of scores (e.g., limited range of grades and mental health scores) that may have made it difficult to obtain statistically significant effects. This study also had a significantly smaller sample size than many of the previous studies in this area, thus weakening the ability to obtain statistical significance.

The results from this study imply that the positive or negative benefits attributed to a student's participation in EA may be related to variables other than the amount of EA participation. Students may have other characteristics that are confounding the relationships between EA participation and their levels of school performance and mental health (e.g., personality characteristics, family income, community access,

family structure, religious and/or family values; Jordan & Nettles, 1999). This study may also imply that participation in EA was not related to students' school performance or mental health, but this seems unlikely given previous studies and their results.

Limitations

Several factors may have influenced the results of this investigation. In particular, the amount of EA participation and grades were derived from parent-report on the Extracurricular Activity Survey, so consideration must be given to its validity. Parents may have overreported their children's EA participation and grades to present them in a positive manner. Additionally, the school performance measure may have not been sensitive enough to detect true variation of school performance. The grades were divided into seven possible groups (e.g., Mostly A's [7] through Mostly Ds or below [1]) and an exact GPA was not obtained. Although a GPA would have differentiated the students' school performance better, the 7-point system was used instead of a GPA for ease of including participants in Grades 3-5. Even if the GPA was obtained from parents, it may not have been accurate due to parent report.

Three limitations relate to the population sampled. First, the sample was primarily Caucasian and reportedly from middle to upper-middle income families. Second, the sample of parents that chose to volunteer may have also had some unknown differences from those parents that chose not to participate (e.g., positive view of their children, insecurities about the amount of their children's EA involvement/mental health/school performance). Also, certain children and adolescents may not have

participated in EA due to the school district's "no pass, no play" rule or the character contract that requires students to be clear of behavior problems (e.g., multiple tardies, fighting, absenteeism, truancy, office referrals, etc.) in order to participate in school-related EA. These results may not generalize to other populations due to this sample's limitations

Another limitation relates to the EA that were included on the EA Survey. First, the analysis may also have yielded different results if the EA were separated into school-related or community based activities, although the previous studies did not agree that this aspect may affect the results. Second, parents may have listed activities for which their children and adolescents were not voluntarily involved. The parents may have influenced or forced their children to participate in one or more activities (e.g., church, music lesson, chess club) or they may have limited the amounts of EA participation. This action by the parent might have influenced their children's school performance and/or mental health. The parent may also have acted as a natural control for the child such that he/she knows how much or how little his/her child can tolerate mentally and academically.

Suggestions for Further Research

Future research on EA participation should study these variables again, but with more specific variable definitions, different instrumentation, and a more diverse sample. It would also be of interest to investigate individual child differences (e.g., motivation, personality type, intelligence) between those students who choose to participate in EA

and those students who choose not to. Another area of investigation would be to study how and if school performance and mental health vary before, during, and after EA participation. It would also be of benefit to investigate if children are voluntarily involved in their various amounts of EA participation and its relationship to school performance and mental health. Because many pediatricians and mental health professionals believe that a relationship does exist between the amount of EA participation and subsequent positive or negative effects (e.g., overscheduling stress), further research may be warranted to better guide their treatment and/or recommendations.

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Ohio State University
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APPENDICES

Appendix A

Extracurricular Activity Survey

Extracurricular Activity Survey for Students in 3rd-12th grade

Please fill in the following information:

Student Age: _____ (i.e. nine years and six months)

Student Grade in School _____ (i.e. 3rd-12th grade)

Take-home monthly income _____

Please circle the following information:

Student Gender: Male or Female

Person completing measures: Mother Father Other _____

Student Ethnicity: Caucasian African-American Hispanic Asian Other

Student's average grades over the past year: Mostly A's A's and B's Mostly B's
B's and C's Mostly C's C's and D's
Mostly D's or below

Activities

Please list any activity that your child participated in during the months of March 2003 to February 2004. Activities can be school or community based. **Read** the attached sheet of examples **before** completing this survey. If you are unsure if something qualifies as an activity, include it on the list. Do not include hours spent working for pay or those mandated by a court of law.

Name of Activity (i.e. Girl Scouts, music lessons)	Months in which participation occurred (i.e. March-June or Feb., June, July)	Number of weeks participated (They don't have to be consecutive.)	Average number of hours per week of participation
Example: Basketball	Nov-March	20	7
Example: Sunday School and Church	Jan-Dec.	52	2 ½
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

If you need to list more than 15 activities, please use the back of this sheet. Thank you for your participation in this study!

Example Extracurricular Activities

<u>All Sports</u>	<u>Lessons</u>	<u>Religion</u>	<u>Volunteer/Community Service</u>
Football	Music	Sunday services	Big brother/big sister/peer mentor
Basketball	Athletic	Clubs/groups	***Exclude activities completed to fulfill court rulings/orders.
Soccer	Dance		
Hockey	Acting/drama		
Baseball			
Cross country		<u>Community Organizations</u>	<u>Fine Arts</u>
Track		Girl/Boy Scouts	Dance
Gymnastics		YMCA activities	Chorus
Volleyball		Local/regional groups	Band
Cheerleading		4-H	Art/crafts
Golf			

Clubs/Committees

Drama/debate/theater

Church – youth groups

Vocational – Future Homemakers, Farmers of America

Publications – yearbook, journalism

Honor societies – National Honor Society, Beta Club

Key club

Hobby – photography, crafting, bird watching

Service clubs

Band/Chorus ***Only list time spent before or after school or on weekends/holidays.

Junior Achievement

Student government

After school clubs/programs ***Only list those used by choice not necessity.

Appendix B
Participant Letters

Utah State UNIVERSITY

DEPARTMENT OF PSYCHOLOGY
2810 Old Main Hill
Logan, UT 84322-2810
Telephone: (435) 797-1460
FAX: (435) 797-1448

Date Prepared: February 29th, 2004

Dear Parent,

We are writing to request your participation in a study looking at the relationship between extracurricular activities and the school performance and mental health of children and adolescents. You are being asked to participate because you have a child in the 3rd–12th grade in School District 158 where we are conducting our research. Many parents and professionals believe that children are over-involved in extracurricular activities and that this may lead to negative outcomes. This study may help to determine if negative and/or positive outcomes are occurring.

If you wish to participate, please complete the enclosed measures on your child. The measures include an extracurricular activity survey and a scale on emotional and behavior problems children might experience. If you have more than one child in school, please be sure to complete the measures only for the child who brought home this packet. Participation will only take 30-45 minutes of your time. There are no serious risks associated with participation in this study. However, you might experience some slight psychological discomfort while completing the measures. The results from this study will not provide any direct benefits to you or your child, although this study may provide information that will help in the budgeting and programming of extracurricular activities within schools and the community. The results could also potentially aid schools, parents, and mental health professionals in their efforts to improve the school performance and mental health of children and adolescents.

If you have any questions or concerns regarding this study, you may call us at the phone numbers listed below. Your participation in this study is completely voluntary and it in no way will affect your child's grades or school experience. All of the information you provide will be kept strictly confidential. Do not write your name or your child's name on any of the measures. If you do not wish to participate, please return the packet to your child's teacher. If you chose to participate, please return all of the forms to your child's teacher in the enclosed envelop within two weeks. If you return the completed forms, you are consenting to participate in this study. The Institutional Review Board (IRB) of Utah State University approved this study. If you have any questions regarding this approval, you may contact them at (435) 797-1831. Also, feel free to contact us at the numbers listed below

Thank You,

Amber Crews
Student Investigator
(847) 659-6951

Gretchen Gimpel
Supervising Professor
(435) 797-0721



DEPARTMENT OF PSYCHOLOGY
2810 Old Main Hill
Logan, UT 84322-2810
Telephone: (435) 797-1460
FAX: (435) 797-1448

Date Prepared May 3rd, 2004

Dear Parent,

We are writing to encourage you to return the research packet that your child brought home one week ago. Your participation in this research is completely voluntary. You may return the packet completed or blank, and if you have already done so, thank you. It is very important that we receive as many packets as possible. If you have any questions or concerns, you may call us at the phone numbers listed below or if you need a new packet, you may contact your child's teacher.

Thank You,

Gretchen Gimpel, Ph.D.
Principal Investigator
(435) 797-0721

Amber L. Crews
Student Investigator
(847) 659-6951

Appendix C

Curvilinear Relationship Graphs

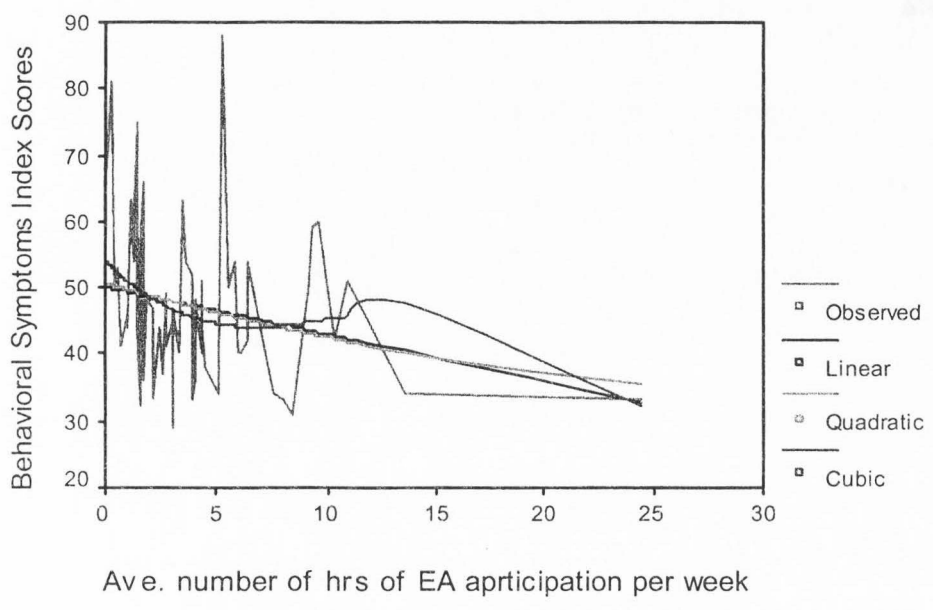


Figure C-1. The relationship between child BSI scores and EA participation.

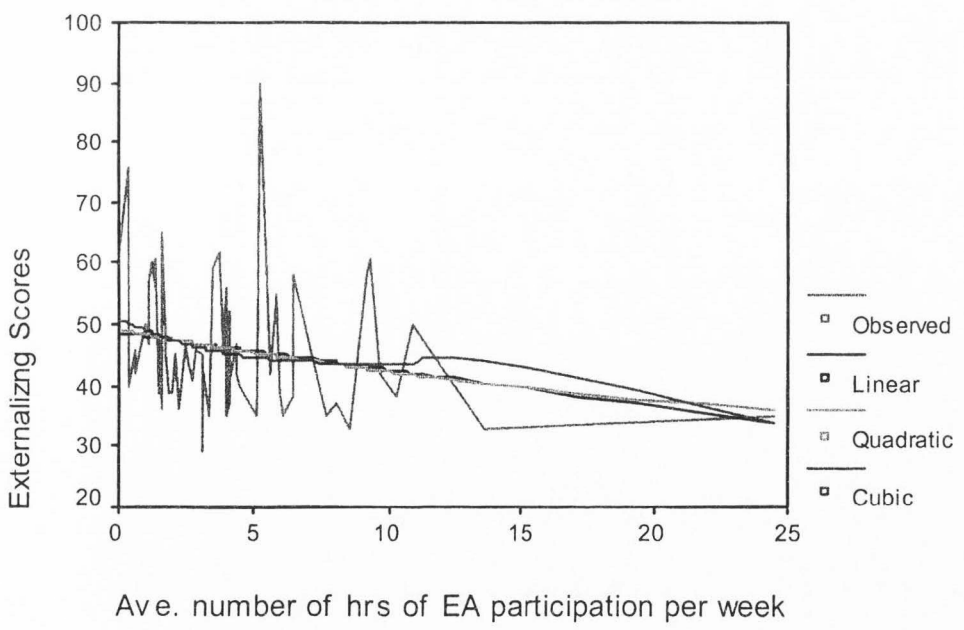


Figure C-2. The relationship between child externalizing scores and EA participation.

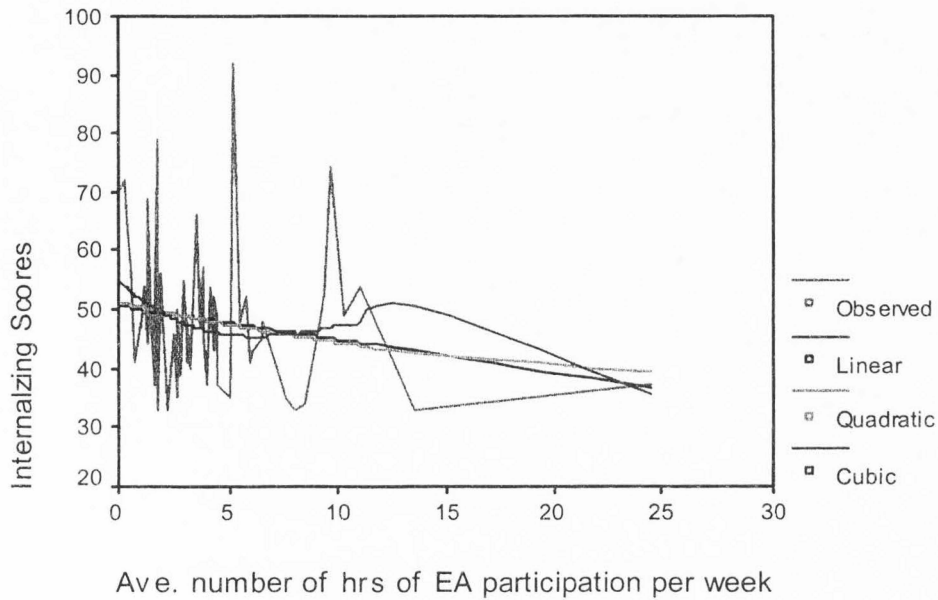


Figure C-3. The relationship between child internalizing scores and EA participation.

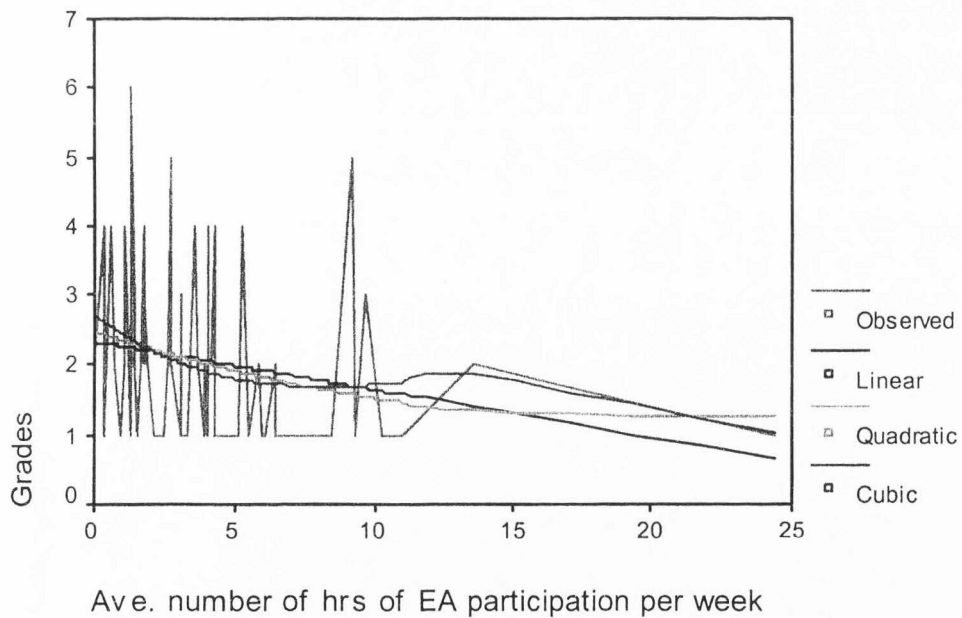


Figure C-4. The relationship between child grades and EA participation.

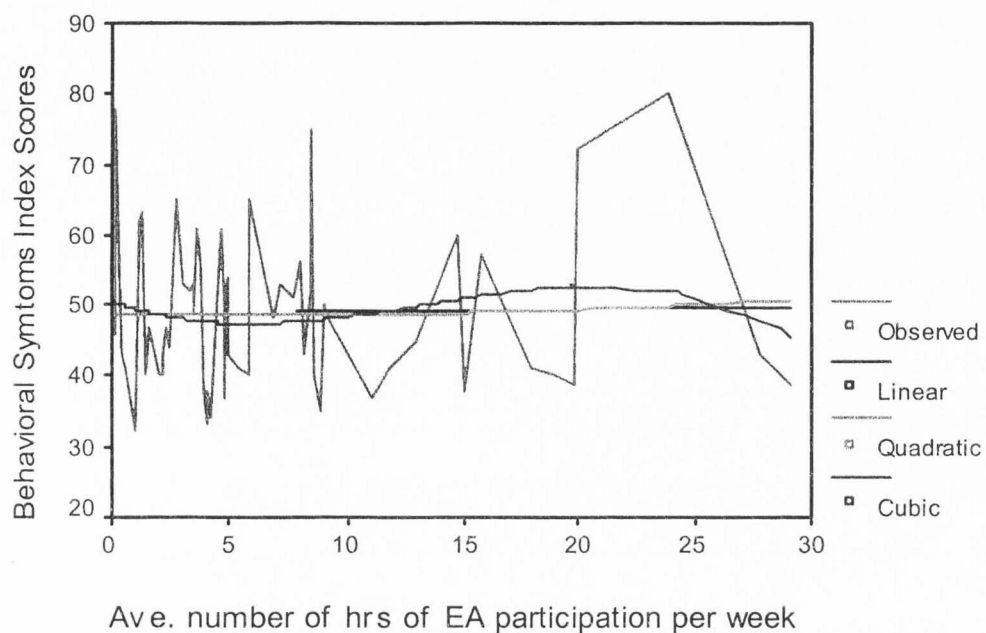


Figure C-5. The relationship between adolescent BSI scores and EA participation.

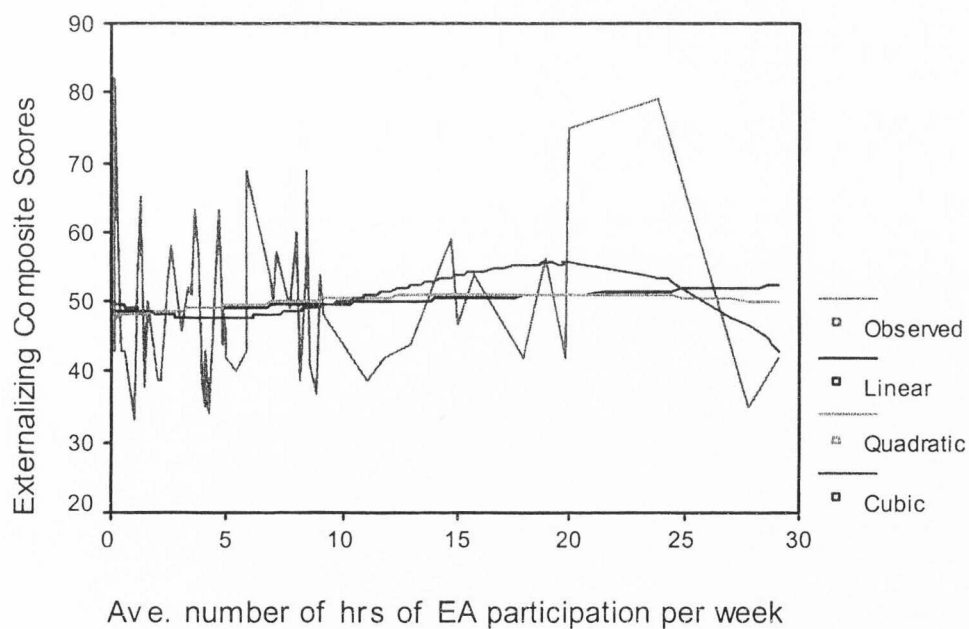


Figure C-6. The relationship between adolescent externalizing scores and EA participation.

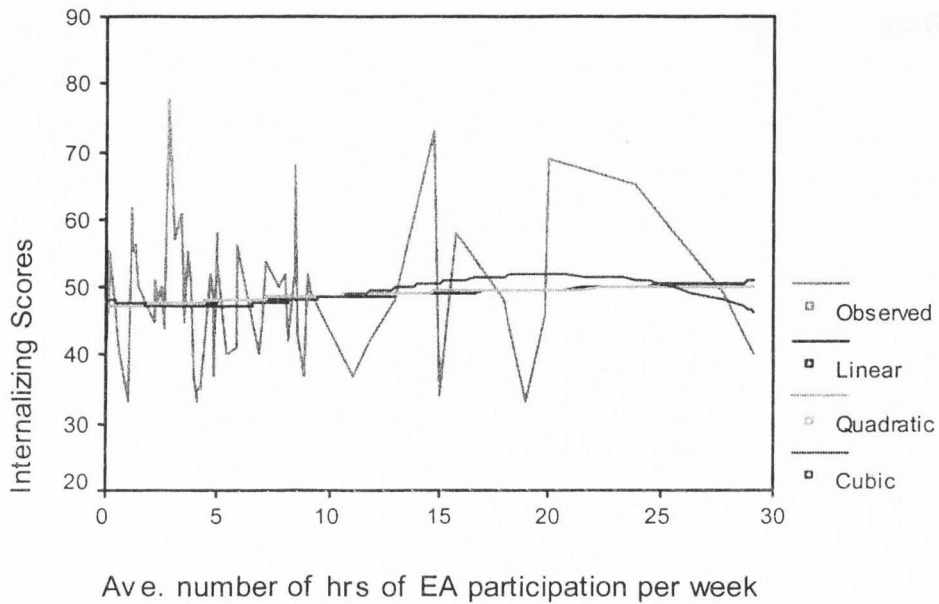


Figure C-7. The relationship between adolescent internalizing scores and EA participation.

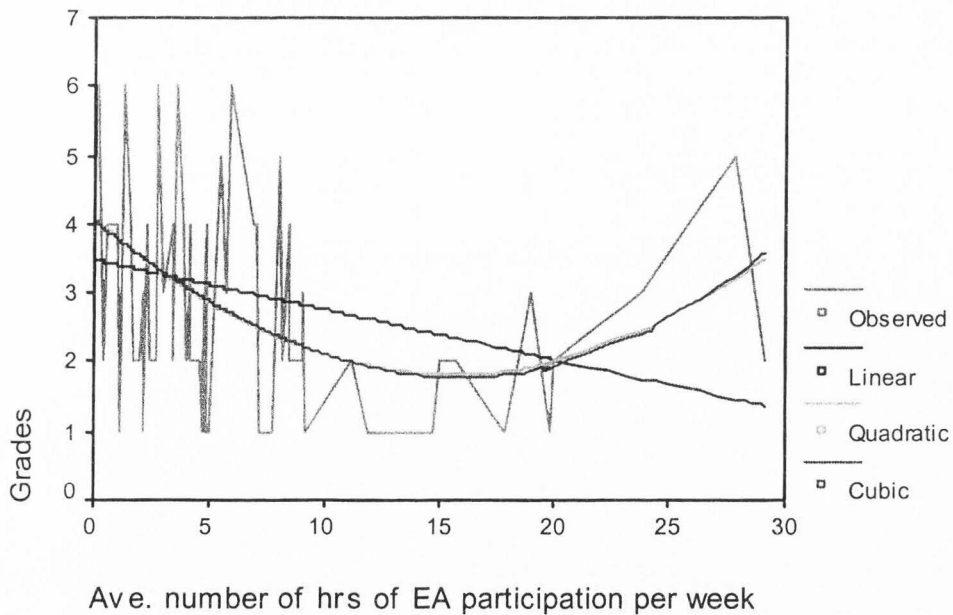


Figure C-8. The relationship between adolescent grades and EA participation.