The Link between Extracurricular Activities and Academic Achievement for Youth in Grades 5 and 7

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Abstract

This study examined the link between involvement in extracurricular activities and academic success for 504 youth in grades 5 and 7, using the first-year survey data from a longitudinal study conducted by Youth Lifestyle Choices-Community University Research Alliance (YLC-CURA). Specifically, the study investigated whether a linear or curvilinear relation existed between extracurricular activities and academic achievement for both in- and out-of-school activities. It was hypothesized that stress may be a possible mediator in the link between extracurricular activities and achievement.

Results indicated that students in grades 5 and 7 were involved in club and sport activities both inside and outside of school at fairly equal frequencies, with a mean frequency of approximately once a month. The hypothesis that a positive relation between in- and out-of-school extracurricular activities and achievement was supported. The hypothesis that a curvilinear relation would exist between extracurricular activities and achievement was only supported for out-of-school activities. This finding supports the argument that too much or too little involvement in out-of-school activities is related negatively to a student’s academic success; however, a moderate amount of involvement appears to be positive. The hypothesis that there would be a relation between involvement in extracurricular activities and stress level for both in-school and out-of-school activities was not supported. Results were discussed in terms of educational implications and community resources for extracurricular activities.
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CHAPTER ONE: THE PROBLEM

This study examined the link between involvement in extracurricular activities and academic success for youth in grades 5 and 7. Specifically, the study investigated whether a linear or curvilinear relation existed between extracurricular activities and academic achievement for both in- and out-of-school activities. For many years scholars have examined how children and youth spend their time outside of school in hopes of understanding this phenomenon (Hofferth & Jankuniene, 2001; Larson & Velma, 1999; McHale, Crouter, & Tucker, 2001).

Background to the Problem

Research indicates that children as young as 5 years old spend time in after-school programs (Pierce, Hamm, & Vandell, 1999). In addition, youth participate in sports programs, have hobbies, and are involved in structured extracurricular activities both inside and outside of school, some of which are school related (Gerber, 1996; McHale et al., 2001). More recently, attention has moved beyond a descriptive examination of which activities youth are involved in to exploring how these activities relate to psychosocial adjustment and academic achievement. There appears to be a positive relation between youth activities, in particular extracurricular activities, and academic achievement (Camp, 1990; Cooper, Valentine, Nye, & Lindsay, 1999; Eccles & Barber, 1999; Gerber, 1996). Importantly, youth spending little time engaged in structured activities or hobbies have been found to have lower academic achievement than those involved in moderate levels of structured activities (Bartko & Eccles, 2003; Cooper et al., 1999).
Three theories examining the relation of extracurricular activities to academic achievement have surfaced within the scholarly literature. The zero-sum theory argues that involvement in extracurricular activities will essentially divert attention and time from academic work and pursuits (Cooper et al, 1999; Fejgin, 2001; Marsh, 1993). This diversion away from academic pursuits including homework is thought to have a negative impact on achievement (Gerber, 1996). In contrast, the identification/commitment theory suggests that extracurricular activities help foster and develop non-academic skills, such as initiative, motivation, and interpersonal competence, which in turn “leads to more well-rounded, socially adept, and mature students” (Marsh & Kleitman, 2002, p. 471). Finally, the threshold model proposed by Marsh and Kleitman combines both the zero-sum and commitment theories, as it argues that moderate amounts of extracurricular activities will have benefits for students (commitment theory), but beyond a moderate amount there will be diminishing returns (zero-sum theory). Marsh and Kleitman found support for the threshold model among students in high school by observing a nonlinear pattern, or a curvilinear relation, in the link between extracurricular activities and academic achievement. Specifically, the authors found that moderate levels of extracurricular activities were positively related to achievement. However, as the level of extracurricular activities reached high amounts, the relation to academic achievement was negative.

Similarly, the curvilinear relation between extracurricular activities and school achievement was found by Cooper et al. (1999) in their study of students in grades 6 through 12. Students at the highest level of involvement in extracurricular activities had lower achievement test scores than those students involved at moderate levels. The
null
curvilinear relation among achievement and extracurricular activities has been noted in the scholarly literature for very young students as well. Powell, Peet, and Peet (2002) found a curvilinear pattern between frequency of participation in out-of-school activities and report card grades among grade 1 children. Using a regression model predicting report card grades from frequency of participation, Powell et al. found that out-of-school activities at low to moderate levels were beneficial; however, there appeared to be a point when the amount of time devoted to out-of-school activities became a hindrance to the academic performance for first grade children.

Prior research, therefore, indicates some support for the curvilinear relation between extracurricular activities and achievement. Few studies, however, have focused on elementary school-aged children, specifically students in grades 5 and 7. Early adolescence might be an ideal time to engage in extracurricular activities as the peer demands of adolescence and the academic standards of secondary school are not as high for these students. The purpose of this thesis was to specifically examine the relation between extracurricular activities and academic achievement with students in grades 5 and 7, and to investigate whether the curvilinear relation holds for this age group as well.

Researchers have offered few rationales for the curvilinear pattern or threshold model. Cooper et al. (1999) argued that the curvilinear pattern may relate to students’ identification with the extracurricular activity becoming stronger than the identification or commitment to school, or that little time is left for academic activities, such as homework, due to time taken with extracurricular activities. Such a rationale points to a zero-sum theory. Powell et al. (2002) noted that there may be an intensity threshold for out-of-school activities when children are adjusting to the demands of school. In
contrast, Marsh and Kleitman (2002) did not offer any rationale for the threshold model but note that it may relate to the threshold model being a combination of both the zero-sum theory and commitment/identification theory.

One potential explanation for the threshold model, however, may be that, as students engage in increasingly higher levels of extracurricular activities, their stress level also may increase. In fact, Lazarus (1984) identifies a threshold model for stress, whereby an individual reaches an upper limit of the amount of stress that is tolerable. Research is limited, however, on whether students who engage in high levels of extracurricular activities also report high levels of stress. Experiencing stress is common among children and is typically generated from the stressors of daily life (e.g., lack of time, fights with friends, trouble with a teacher; see Compas, Davis, & Forsythe, 1985; Kanner, Coyne, Schaefer, & Lazarus, 1981). To examine the link between extracurricular activities and stress, the amount of daily hassles that children experience may be the best way to measure their stress levels (Williams & McGillicuddy-De Lisi, 2000). The present study specifically examined the relation among daily hassles (i.e., stress), extracurricular activities, and academic achievement.

**Purpose of the Study**

The purpose of the study was to explore the involvement of youth in grades 5 and 7 in extracurricular activities and whether such involvement relates to academic success. To study this relation, the following questions were posed:

1. How are students in grades 5 and 7 spending their time both inside and outside of school?
2. Is there a relation between involvement in extracurricular activities and academic achievement for both inside and outside of school activities? Is this relation both linear and non-linear (curvilinear) in nature?

3. Is there a relation between involvement in extracurricular activities and stress level for both inside and outside of school activities? Is this relation both linear and non-linear (curvilinear) in nature?

4. If there is a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then is stress level a possible mediator in the link between extracurricular activities and achievement?

Application

Many parents, educators, and researchers question how extracurricular activities affect students, in particular their academic success (Gerber, 1996; Hofferth & Jankuniene, 2001). Investigating whether youth feel hurried and stressed by the demands of youth activities and school achievement is valuable information for researchers, parents, and educators. The results of this study also may benefit educators and school communities by defining the benefits of extracurricular activities. In particular, it is important to examine whether providing students with a variety of opportunities to become involved in extracurricular activities during school may foster achievement. In addition, school communities and local school boards may want to develop more extracurricular activities after school if such an involvement is beneficial for students.
Methodology and Research Procedure

This study analyzed the data already collected by the Youth Lifestyle Choices-Community University Research Alliance (YLC-CURA). YLC-CURA is a research group in southern Ontario that partners Brock University with several community agencies with the goal of better understanding resilience and youth lifestyle choices. This alliance offers opportunities in research, as well as training and intervention. Data were collected for this large-scale longitudinal study using a self-report questionnaire. The questionnaire was administered to students in grades 5 and 7 within a southern Ontario region.

Upon final collection and input of the data, analyses were completed on composite variables that investigated the relation of extracurricular activities and achievement in addition to the relation of stress.

Outline of Remainder of Document

Chapter Two familiarizes the reader with the current research on extracurricular activities, academic achievement, and stress or daily hassles. Chapter Three explains how the secondary analysis of Youth Lifestyle Choices Community University Research Alliance (YLC-CURA) data allowed for the examination of these variables among youth in grades 5 and 7. The instrumentation used in acquiring the data is explained. In Chapter Four, the results of the research findings and their interpretations are described. Any appropriate tables and charts are included here. Chapter Five provides a summary of all of the findings as well as a discussion of the implications of the findings for future educational practice and research. Recommendations to parents, educators, and future researchers are included.
CHAPTER TWO: REVIEW OF THE LITERATURE

This chapter reviews past research in the fields of youth extracurricular activities and academic achievement. Research on stress and daily hassles among youth, as well as its relation to extracurricular activities and achievement are discussed. The chapter concludes with suggestions for future research based on gaps noted in the literature, as well as a description of the present study.

Involvement in Extracurricular Activities among Youth

How children and youth spend their time outside of school has been an area of interest among scholars for many years (Hofferth & Jankuniene, 2001; Jordan & Nettles Murray, 2000; Larson & Verma, 1999; McHale et al., 2001). In their study of life after school, Hofferth and Jankuniene (2001) noted that 20% of students in kindergarten through grade 7 in their study attended youth organizations and spent between 30 minutes to 1 hour and 20 minutes per day at such organizations. In addition, they found that, as the children became older, their activities varied greatly, and many students were responsible for their own care and decision making about the activities in which they engage after school (Hofferth & Jankuniene). Similarly, research reports using the National Longitudinal Survey of Children and Youth (2001), currently being conducted in Canada, indicated that an estimated 87% of Canadian children aged 4-15 years participate in organized activities outside of school.

It is important to note, however, that the phenomenon of students having time for after-school activities, including youth clubs, sports, or extracurricular activities, is one that appears to exist only in industrial societies. As Larson and Verma (1999) explain in their review of cross-cultural research on how children and adolescents spend their time,
children and adolescents in the United States have large amounts of free time compared to children in non-industrial societies. Children in the United States also report more time playing than other children around the world. Similarly, as mentioned above, 87% of Canadian children aged 4-15 years report participating in activities outside of school (NLSCY, 2001).

**Viewpoints on Extracurricular Activities and Youth**

There appears to be two viewpoints on the issue of youth involvement in extracurricular activities. One view supports children’s involvement in extracurricular activities, as the activities are believed to contribute to the overall development of the individual, including school achievement (Fletcher, Nickerson, & Wright, 2003; Larson, 2000; Mahoney, Cairns, & Farmer, 2003; Marsh & Kleitman, 2002). This perspective relates to the overall development of the student, such as social competence and psychosocial behaviour, and supports an identification/commitment model. This model suggests that extracurricular activities help foster and develop non-academic skills, such as initiative, motivation, and interpersonal competence, which in turn “leads to more well-rounded, socially adept, and mature students” (Marsh & Kleitman, 2002, p. 471). In contrast, proponents of an alternate view believe that such activities take time away from academic activities, such as homework, therefore, hindering school achievement (Gerber, 1996). The latter view refers to a zero-sum theory, which argues that greater involvement in extracurricular activities will essentially divert attention and time from academic work and pursuits (Cooper et al., 1999; Fejgin, 2001; Marsh, 1993).

Marsh and Kleitman (2002) add to the debate of theories related to extracurricular activities and school achievement by referring to the “threshold model” (p. 472). The
threshold model asserts that moderate amounts of extracurricular activities will have benefits for students. Beyond a certain amount, however, there will be diminishing returns, which can be seen in a non-linear pattern. Marsh and Kleitman found support for the model among students in high school. Specifically, there were significant positive effects for extracurricular activities at moderate levels of involvement. As the level of extracurricular activities reached high amounts, however, the effect of diminishing returns occurred and there was evidence of a negative effect for extracurricular activities.

Extracurricular Activities and Academic Achievement – Linear Findings

A concern raised by parents and educators is how children and adolescents are able to find a balance between their activities so that one or all activities are not hindered in the long run. More importantly, many parents and educators question how many extracurricular activities children and adolescents should be involved in, what are the benefits of such involvement, and how children will cope with the potential stress that may occur as a result of participation in these activities. Perhaps due to the importance of schooling and academic success in our North American culture, particular attention in the scholarly literature has been paid to the relations that may exist between extracurricular activities and academic success or achievement (Broh, 2002; Camp, 1990; Cooper et al., 1999; Eccles & Barber, 1999; Marsh, 1992).

In the scholarly literature examining extracurricular activities, there appears to be a positive relation between youth activities, in particular between extracurricular activities (including sports) and school achievement (Camp, 1990; Cooper et al., 1999; Eccles & Barber, 1999; Gerber, 1996; Jordan & Nettles Murray, 2000; Marsh, 1992). In Camp's (1990) study of the effects of participation in activities, such as television
watching, sports and clubs, and other in-and out-of-school activities on students’ success in school, it was found that the students’ activity level had a positive relation to academic achievement. Camp argued that the findings refute the belief that extracurricular activities are detrimental to academic achievement. Camp, however, did not specifically measure the frequency of engagement per week in activities beyond homework, television viewing, and paid employment. Therefore, examining other extracurricular activities is necessary.

Eccles and Barber’s (1999) investigation of five different types of activities, including prosocial (church and volunteer activities), team sports, school involvement, performing arts, and academic clubs, revealed positive relations between the activities and academic achievement among 10th and 12th graders. In particular, prosocial involvement was linked to better academic achievement and a greater likelihood of being enrolled full-time in college at age 21, compared to non-participation. Students who participated in sports activities, performing arts, school activities, and academic clubs had a better than expected grade point average in grade 12, when compared to their grade point average in grade 10 (Eccles & Barber).

Researchers also have examined differences between school-related activities and activities outside the domain of school (Jordan & Nettles Murray, 2000). Jordan and Nettles Murray argue that out-of-school activities have important implications for students’ educational success and perceptions of life chances, while increasing a child’s commitment to school. In a study conducted with grade 12 students, out-of-school activities, such as structured community activities, religious activities, working for pay, “hanging out” with peers, time spent alone with a hobby or reading, and time spent with
adults, were related to participation and engagement in school at grade 12 (Jordan & Nettles Murray). Specifically, there was a statistically significant positive relation between the out-of-school activities and achievement, except for time spent participating in religious activities, which was not statistically significant. In addition, time spent hanging out with friends had a statistically significant negative relation to academic achievement (Jordan & Nettles Murray).

Some researchers investigating participation in out-of-school activities define them as leisure activities and have found a relation between such leisure activities and increased achievement (Bergin, 1992; Brown & Evans, 2002; Fejgin, 2001). Bergin (1992) investigated achievement and leisure activities, such as sports, fishing, music, drama, computer programming, and learning about current events. Intense leisure activities were defined as activities pursued for more than 10 hours per week. It was hypothesized that youth who displayed an intense time commitment and motivation would develop discipline and problem-solving skills that would transfer to academic situations. Results of Bergin’s (1992) study among students in grades 9 through 12 revealed that two individual leisure activities – school-based music lessons and learning about current events - showed a statistically significant positive relation with students’ grade point average.

Interestingly, the most common intense leisure activity found in Bergin’s (1992) study was sports. Fejgin (2001) noted that athletic participation was positively related to grades, self-concept, locus of control, and educational aspirations. In addition, participation in only academic clubs as a form of extracurricular activities also appeared
to be positively related to grades, self-concept, locus of control, and educational aspirations, similar to athletic participation (Fejgin).

These findings have led researchers to investigate further student’s commitment to school, through both athletic participation and other extracurricular activities. Marsh and Kleitman (2002) examined the identification and commitment model, which argues that extracurricular activities could enhance school identification and commitment both in academic and non-academic areas. The authors hypothesized that youth in grade 12 involved in in-school activities would have stronger identification to school, and therefore, increased academic outcomes, compared to those involved in out-of-school activities. Results indicated positive academic outcomes for those involved in in-school activities, and mixed, largely negative outcomes for those involved in high levels of out-of-school activities (Marsh & Kleitman). It is possible that out-of-school activities may not have fostered a commitment to school.

Gerber (1996) also suggests that outside-school activities do not foster a commitment or identification to school. Gerber’s study of grade 8 students revealed that participation in extracurricular activities was related to academic achievement. In particular, school-related activities generated a positive relation between participation and academic achievement. These findings suggest that academic achievement may be associated with more school-related activities, such as math clubs, language clubs, and yearbook committees, rather than activities outside of school, such as religious youth groups, hobby clubs, and scouting.

Other studies, however, have found that students’ involvement in extracurricular activities, including out-of-school activities, fosters a greater commitment to school, and
dropout rates are often reduced (Brown & Evans, 2002; Marsh, 1992; Mahoney & Cairns, 1997; McNeal, 1995). A particularly interesting finding of Brown and Evans' (2002) research on extracurricular activities and school connections was that sports and outside school participation in activities, such as Boy Scouts, were statistically significantly related to greater school connection among secondary students in grades 7-12. Similarly, Marsh's (1992) study revealed that total extracurricular activity participation was associated with background variables, such as college expectations, grade point averages, and educational aspirations, for students in secondary school. In addition, participation in extracurricular activities was related to an increase in the students' commitment to school (Marsh).

If participation in extracurricular activities is related to students' commitment to school, it is possible that lacking a commitment to school may be related to the potential for students to dropout. As Mahoney and Cairns (1997) argued in their study of students from grades 7-12, dropouts within their study participated in fewer extracurricular activities at all grade levels, even several years prior to dropping out. Similarly, McNeal's (1995) study of dropout rates among high school students involved in extracurricular activities revealed that participation in athletics reduced the students' likelihood of dropping out; however, participating in academic activities did not.

In addition to students developing a stronger commitment to school, Connolly, McMaster, and Hatchette (1999) found that students aged 10 to 11 during Cycle 1 of the National Longitudinal Survey of Children and Youth reported greater success in school when they had a positive attitude about school. Achievement was measured using scores from an objective math test and teacher ratings of academic skills (Connolly et al.). The
authors argue that in early adolescence children have already begun to internalize expectations related to achievement and attitudes toward school.

Fostering a rich positive attitude is important for youth involved in extracurricular activities, in addition to academic pursuits. However, perhaps it is the positive attitude or self-confidence that aids students in success in all areas. In addition to a positive attitude, students who are involved in a variety of activities may have the opportunity to develop initiative to a greater degree than students who are not as involved. Larson (2000) argues that for many adolescents there is a limited context for experiencing elements of initiative. For instance, with regard to schoolwork or homework, students report high concentration and engagement yet low intrinsic motivation. Therefore, the student is receiving little reward in return, and the motivation to remain focused may be minimal. In comparison, adolescents report high intrinsic motivation when watching television yet little concentration or challenge. Adolescents, therefore, may remain at this task for long periods of time. Finding a balance between both a challenge or concentration and high intrinsic motivation is what Larson argues is vital to an individual's success.

Larson (2000) suggests that both high intrinsic motivation and concentration can be found in structured voluntary activities, such as extracurricular activities or hobbies. In addition, such activities include the element of the temporal arc. Larson refers to the temporal arc as one's ability to be engaged in an activity over time, whereby eventually there are setbacks or evaluations. Both of these are necessary to improve within the activity and result in reaching a specific goal. The temporal arc is believed to increase motivation and attention with age and foster control and self-regulation among older adolescents (Larson). Increased participation over time in extracurricular activities may,
in fact, provide students with opportunities to develop their talents, and therefore, develop confidence, which transfers to areas of their academic life (Peet & Powell, 1999).

**Extracurricular Activities and Academic Achievement – Curvilinear Findings**

In spite of the literature that supports youth activities and reveals significant relations among such activities and school achievement, there is evidence to support the notion that these activities also may become detrimental to students’ academic success (Cooper et al., 1999). Simple correlations between academic achievement and five after-school activities, including homework, television viewing, student employment, extracurricular, and other structured group activities revealed that participation was associated with higher achievement scores and higher teacher-assigned grades for students in grades 6 through 12 (Cooper et al.). However, Cooper et al. also tested for a curvilinear relation between extracurricular activities and academic achievement. They found support for the curvilinear relation, whereby at the highest level of involvement in extracurricular activities, achievement test scores dropped.

Similarly, Powell et al. (2002) found a curvilinear pattern in their investigation of academic achievement and out-of-school activities, such as shopping, watching television, reading a book, attending music or dance lessons, or participating in a sport. Powell et al. specifically investigated the number of activities, frequency of activities, and length of participation among students in grade 1. The number of activities and length of participation showed a positive linear relation to students’ report card grades. However, the scatterplot for the relation between frequency of participation and report card grades also revealed a curvilinear relation. Students’ participation in activities at moderate levels was positively related to their grades. However, children’s participation
in activities at higher levels was associated with lower grades (Powell et al.). Powell et al. note that the curvilinear relation suggests that out-of-school activities at moderate levels are beneficial; however, there appears to be a point when the amount of time devoted to out-of-school activities may become a hindrance to the academic performance of first grade children.

These findings suggest that such activities may become detrimental to achievement if the activity becomes more important than school and/or if the amount of time invested in the activity leaves little time for school-related activities, such as homework. Similarly, Linder (1999) found that frequent sports participation, in a study of youth aged 9 to 18 years in Hong Kong, did not necessarily improve student achievement or foster better students. In fact, students who perceived their academic performance as good, average, below average, or poor had large variability in the breadth (the number of activities participated in) and intensity (how often during the week or month they participated) of participation in extracurricular activities. Students who rated their academic performance as good tended to participate more often in sport activities than students who rated themselves as poor academically. Linder's study revealed a curvilinear relation between frequency of sport participation and academic performance. Students involved in regular exercise at a frequency of once or twice a week reported good academic performance; however, a lack of activity and very frequent activity were associated with lower academic performance.

Frequent participation in a number of activities also was related negatively to report card marks in Peet and Powell's (1999) investigation of academic achievement and participation in out-of-school activities for students in grades 1 or 4. Interestingly,
however, students' report card grades were positively associated with participation for a greater length of time in organized activities. This finding suggests that a commitment to an activity over a long period of time may be related positively to a student's report card grades. Peet and Powell note that their findings suggest that too much involvement may have actually been detrimental to students' success academically.

Elkind (2001) would probably concur with Peet and Powell's (1999) findings, as he argued that highly involved students are being pushed to achieve academically, interpersonally, and in extracurricular areas, causing "achievement overload" (p. 151). Specifically, Elkind raised a concern over the stress and tolerance levels facing youth when demands are placed both in and outside of school. Elkind argued that youth often feel their achievements are for their parents and not for themselves, which places greater stress on the child, and in fact, hurries them to grow up and be adults. A serious limitation of Elkind's argument, however, is the lack of empirical research or evidence to support his claims.

**Extracurricular Activities, Academic Achievement, and Stress as a Possible Mediator**

Some researchers have found not only support for the hypothesis that students involved in extracurricular activities will develop a stronger commitment to school, but also that such activities may, in fact, influence students' ability to deal with other situations that happen in their life. For example, Brettschneider (1999) indicated in his study of youth aged 12 and 17 in elite sport that involvement may affect the youth's self-perception in positive ways, which in turn influences a "positive academic self-concept enabling youth to cope with the stress" (p. 121). Brettschneider documented through
interviews that the majority of elite athletes had few problems with school and were high academic achievers. He argued that involvement in elite sport may have fostered the group’s ability to develop self-confidence and self-esteem. In addition, narratives revealed that positive feedback on academic achievement played an important role in developing and stabilizing positive self-esteem (Brettschneider).

As previously mentioned, Larson’s (2000) research points to the positive aspect of student involvement in extracurricular activities. However, the threshold model also suggests that there might be potential negative effects. Perhaps one potential explanation for the threshold model may be that, as students engage in increasingly higher levels of extracurricular activities, their stress level also may increase. Bauwens and Hourcade’s (1992) study of school-based sources of stress among elementary and secondary students revealed that students found extracurricular activities a source of stress, including competition within events, such as sports. In addition, students found that time management problems, resulting from coordinating all of their daily activities, were a source of stress (Bauwens & Hourcade).

Managing time may, in fact, be important to understanding an individual’s stress level. As Lazarus (1984) notes, every individual has a threshold for stress, whereby an individual reaches an upper limit of the amount of stress that is tolerable. It was hypothesized in the current thesis that students who engage in high levels of extracurricular activities would also have more stress or daily hassles, similar to the curvilinear relation between extracurricular activities and achievement.
Summary of Research

It is clear that many students are involved in extracurricular activities. In fact, the literature demonstrates that students as young as age 5 or 6 are involved in a variety of activities outside of school. Therefore, it is important to understand how involvement in such extracurricular activities affects academic achievement, particularly for students in elementary school. The majority of the past research, however, has focused on high school students (Eccles & Barber, 1999; Jordan & Nettles Murray, 2000). Given that elementary-age students also are participating in a variety of activities, it is important to investigate this population. In addition, investigating this population will lead to a greater understanding of the relation between extracurricular activities and achievement in younger youth, before they reach high school, when the demands of academics become higher.

Researchers have offered few rationales for the threshold model and the curvilinear relation. Cooper et al. (1999) argue that the curvilinear relation may relate to students’ identification with the extracurricular activity becoming stronger than the identification or commitment to school, or that little time is left for academic activities, such as homework, due to time taken with extracurricular activities. Such a rationale points to a zero-sum theory. Powell et al. (2002) note that there may be an intensity threshold for out-of-school activities when children are adjusting to the demands of school. In contrast, Marsh and Kleitman (2002) do not offer any rationale for the threshold model but note that it may relate to the threshold model being a combination of both the zero-sum theory and commitment/identification theory.
One potential explanation for the curvilinear relation, however, may be that, as students engage in increasingly higher levels of extracurricular activities, their stress level also may increase. In fact, Lazarus (1984) identifies a threshold model for stress, whereby an individual reaches an upper limit of the amount of stress that is tolerable. Research is limited, however, on whether students who engage in high levels of extracurricular activities also report high levels of stress. Experiencing stress is common among children and is typically generated from the stressors of daily life (e.g., lack of time, fights with friends, trouble with a teacher; see Compas et al., 1985; Kanner et al., 1981). To examine the link between extracurricular activities and stress, the amount of daily hassles that children experience may be the best way to measure their stress levels (Williams & McGillicuddy-De Lisi, 2000). This thesis specifically examined the relation among daily hassles (i.e., stress), extracurricular activities, and academic achievement.

The Present Study

Based on the empirical evidence provided in this chapter, the present study explored the relation among stress, extracurricular activities, and achievement. It is hoped that this study will help to fill some existing gaps in the current research and further the discourse in the psychological and educational research on youth. All analyses were conducted with age, gender, and parental education as control variables, as past research has suggested that these factors may be related to extracurricular activity involvement (Bartko & Eccles, 2003; Eccles & Barber, 1999; Jordan & Nettles Murray, 2000).

The following research questions were investigated.
1. How are students in grades 5 and 7 spending their time both inside and outside of school?

2. Is there a relation between involvement in extracurricular activities and academic achievement for both inside and outside of school activities? Is this relation both linear and non-linear (curvilinear) in nature?

3. Is there a relation between involvement in extracurricular activities and stress level for both inside and outside of school activities? Is this relation both linear and non-linear (curvilinear) in nature?

4. If there is a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then is stress level a possible mediator in the link between extracurricular activities and achievement?

Hypotheses for Current Research Study:

1. It was hypothesized that students in grades 5 and 7 would be involved in clubs and sports both inside and outside of school.

2. It was hypothesized that there would be a positive relation between extracurricular activities and achievement for both in- and out-of-school activities. In addition, it was argued that there would be a curvilinear relation between extracurricular activities and achievement as found in Cooper et al. (1999).

3. It was hypothesized that there would be a relation between involvement in extracurricular activities and stress level for both inside and outside of school activities. In addition, it was argued that there would be a curvilinear relation between extracurricular activities and stress, similar to Lazarus’ (1984) identification of the threshold model for stress.
4. It was hypothesized that, if there was a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then stress levels may be a possible mediator in the link between extracurricular activities and achievement. This hypothesis has not been tested within the past research, but may account for the threshold model noted by Marsh and Kleitman (2002).
CHAPTER THREE: METHODOLOGY AND PROCEDURES

This chapter explains the way in which the data were collected, recorded, and analyzed throughout this research study. A thorough and comprehensive description of the methodology and procedures used during the quantitative study is provided.

As part of a longitudinal study on risk-taking in youth, the Youth Lifestyle Choices - Community University Research Alliance (YLC-CURA) administered questionnaires to secondary school students as well as students in grades 5 and 7 in a region of southern Ontario in 2001. The YLC-CURA project was funded by the Social Sciences and Humanities Research Council of Canada. The present study was a secondary analysis of that data set, examining only responses from the students in grades 5 and 7.

Participants

This study is part of a larger study designed to examine youth resilience and positive lifestyle choices in areas such as substance use, aggression, gambling, sexual activity, physical activity, and academic achievement. Approval for the current study was obtained from the Youth Lifestyle Choices – Community University Research Alliance (YLC-CURA). All of the participants in the study were from the southern Ontario area and attending school. A total of 14 elementary schools volunteered to participate in the study. Overall, 504 grades 5 and 7 students (244 males and 260 females) in these schools completed the survey, a participation rate of 63%. The mean age of participants was 11 years and 6 months old. An active parental consent procedure was used in this study.
Research Design and Methodology

This study employed a descriptive, survey method because of its easy distribution to large numbers of participants. The self-report questionnaire (see Appendix A) was group administered within the schools and took approximately 120 minutes to complete. Students were usually allowed two 60-minute class period sessions for completion.

On the day of implementation of the survey, research assistants from YLC-CURA were present in the classroom. One research assistant was present for every 25 students who participated. In some grades 5 and 7 classes, students completed the questionnaire in the library while others remained in their classrooms. For students who did not have parental consent, alternative materials were distributed to complete while classmates completed the questionnaire. The alternative materials consisted of small exercises, such as crossword puzzles, word and picture matching, and ‘what if’ scenarios dealing with stress management and conflict.

Prior to beginning the questionnaire, research assistants spent approximately 15 minutes explaining the importance of the questionnaire, what the questionnaire was about, that participation was voluntary, and that no answer was incorrect. Students with parental consent were given the questionnaire package and instructed to remove the face sheet and consent form prior to removing the questionnaire from their envelope. The face sheet was a single page asking for students’ name, birth date, school name, and grade. This information was kept completely confidential, except in the rare situation in which a student’s responses suggested that he or she might be in danger of abuse. Once completed, face sheets and consent forms were collected and placed in a sealed envelope.
and returned to the YLC-CURA office. To ensure confidentiality, the face sheet was never stored with the questionnaire.

The questionnaire was read aloud to the grades 5 and 7 students, although they had the opportunity to continue ahead on their own if they wished. Once students completed the questionnaire (or the time allotted for that session), students sealed their questionnaire in the envelope provided. If more than one session was required, students were instructed to sign their name across the back seal of the envelope to ensure confidentiality. The questionnaires were placed in the school office in a locked vault until the second session. The second session was conducted in the same manner. Students who were involved in the first session continued where they left off previously and placed their questionnaire in a new unmarked envelope for submission.

To obtain permission to conduct secondary data analysis on the YLC-CURA research database, a proposal was submitted to the YLC-CURA research committee for approval. This proposal outlined the present study’s research goals, present state of knowledge of the topic, methodology, anticipated results, and the importance or implications of those results, as well as the requested number of survey participants for research analysis. Following approval from the committee, an acceptance letter was obtained from YLC-CURA outlining the approval for use of the research database (Appendix B).

**Measures**

The YLC-CURA multidisciplinary research team created the survey questionnaire (see Appendix A). The present study focused on the following predictors: extracurricular activities, achievement, and daily hassles.
Demographics

Participants were asked to indicate gender (1 = male, 2 = female) and age (1 = 9 years or younger, 2 = 10 years old, 3 = 11 years old, 4 = 12 years old, 5 = 13 years old and 6 = 14 years old). Higher scores indicated female gender and older age, respectively.

Parental education was assessed with 2 items (one per parent) using a 6-point scale (1 = did not finish high school, 6 = completed professional or graduate degree); items were combined for both parents and then averaged such that higher values indicated more parental education.

Academic Achievement

Participants were asked to indicate the grades they normally get in school (See Appendix A). Students could choose from such responses as 1 = A+ (90-100%), 2 = A (80-89%), 3 = B (70-79%), 4 = C (60-69%), 5 = D (50%-53%), 6 = less than D (below 50%). Higher scores represented lower achievement.

Activities

Participants were asked to indicate their frequency of involvement in activities in their free time (See Appendix A). Two domains of involvement were measured including in-school and out-of-school activities. In-school and out-of-school activities each included clubs and sport activities. Ratings were based on 5-point scales (1 = never, 2 = once or twice a month, 3 = once a week, 4 = several times a week, 5 = every day). Frequency of club and sports were combined and averaged separately for in- and out-of-school activities. Increased scores indicated an increase in the frequency of activities.
Daily Hassles

Participants were asked to provide information on how frequently everyday hassles bothered them (See Appendix A). Nineteen items questioned issues such as not having enough money, problems with friends, homework, appearance, and not having enough time. These items were created by the YLC-CURA. Participants responded on a 3-point Likert scale with “almost never bothers me,” “sometimes bothers me,” and “often bothers me.” A test for internal reliability was conducted and indicated an alpha of .87. Scores were combined and averaged such that higher scores represented increased daily hassles.

Treatment of Missing Data

Some students did not finish the entire study questionnaire. The amount of missing data was directly related to survey length, that is, missing values were greatest towards the end of the survey. Further, the amount of missing data per participant was largely unrelated to scores on the study variables. Thus, missing data was likely due to time constraints, fatigue, and survey length. Composite (average) scale scores were computed for participants who responded to at least 50% of the items within the daily hassles scale. For students who did not give a sufficient number of responses within this scale, composite scores were imputed. Missing data were imputed using the EM (expectation-maximization) algorithm in SPSS (see Schafer & Graham, 2002). EM is an interactive maximum-likelihood procedure in which a cycle of calculating means and covariances followed by data imputation is repeated until a stable set of estimated missing values is reached. Methodological research has demonstrated that maximum
The page contains a column of text that is not legible due to the image quality. It appears to be a page from a book or a document, but the content cannot be accurately transcribed.
likelihood estimation of missing data is preferable to more common methods, such as pair-wise deletion, list-wise deletion, or mean substitution (see Schafer & Graham, 2002).

Data Analysis

Descriptive statistics (i.e., means, standard deviations, skewness, kurtosis) were conducted on all main variables. After internal reliability was examined for daily hassles, correlations were conducted for the frequency of activities for in- and out-of-school activities, academic achievement, and daily hassles. To determine if there was a relation between involvement in extracurricular activities and academic achievement, two hierarchical multiple regression analyses were conducted, one for the in-school activities and the other for the out-of-school activities. The hierarchical regression model was used in order to test the hypothesis that there would be a positive relation between extracurricular activities and achievement for both in- and out-of-school activities. Using this approach allows the researcher to enter predictors to determine possible criterion variables (Schafer, 1991). In addition, as it was anticipated that the variables may have non-linear effects on achievement and stress, a hierarchical multiple regression analysis was conducted so that the curvilinear terms could be assessed in the final step of the model.

To assess the relation between involvement in extracurricular activities and stress level, two additional hierarchical multiple regression analyses were conducted (one for in-school and one for out-of-school activities), again with the demographic variables in step 1, activities in step 2, and the curvilinear term in step 3.

If there is a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then perhaps stress
level is a possible mediator in the link between extracurricular activities and achievement. In other words, is the relation between extracurricular activities and achievement attenuated when level of stress is put in as a mediator variable? To answer this question, a multiple regression analysis was conducted (including linear and non-linear terms) with both extracurricular activities and stress put in as predictors, to examine whether in-school and out-of-school extracurricular activities predict school achievement while controlling for stress level (following guidelines for testing mediation by Baron & Kenny, 1986).

**Ethical Considerations**

The topics of risk taking behaviour are quite personal, so there may have been participants who did not wish to participate in the study. The YLC-CURA research team ensured that all student participants were aware that participation in this study was completely voluntary and they did not have to answer any questions that they deemed questionable or invasive. The study was in a questionnaire format so there were no physical requirements of the study, and at no time were researchers alone with an individual participant.

**Chapter Summary**

This chapter addressed the methodology and procedure that were used in this quantitative, descriptive research study. Participants included 504 students in grades 5 and 7 that completed the survey conducted by the YLC-CURA research group.
CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

This chapter outlines the results of the present study. The descriptive statistics are discussed first, addressing the research question of how students in grades 5 and 7 spend their time both inside and outside of school. The descriptive results are followed by the correlation results, and followed by the multiple regression analyses addressing each of the remaining research questions: a) Is there a relation between involvement in extracurricular activities and academic achievement for in-school activities and is this relation both linear and non-linear (curvilinear) in nature?; b) Is there a relation between involvement in extracurricular activities and academic achievement for out-of-school activities and is this relation both linear and non-linear (curvilinear) in nature?; c) Is there a relation between involvement in extracurricular activities and stress level for in-school activities, and is this relation both linear and non-linear (curvilinear) in nature?; d) Is there a relation between involvement in extracurricular activities and stress level for out-of-school activities, and is this relation both linear and non-linear (curvilinear) in nature?, and e) If there is a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then is stress a possible mediator in the link between extracurricular activities and achievement?

Descriptive Analysis

Descriptive analyses were conducted on the study measures to determine how grades 5 and 7 students were spending their time both inside and outside of school. Table 1 displays the means, standard deviations, range, skewness, kurtosis, and internal consistency (if applicable) for each of the study measures.
Table 1

Descriptive Statistics of Study Measures

<table>
<thead>
<tr>
<th>Domain</th>
<th>Measure</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
<th>Min-Max</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>Age</td>
<td>11 yrs, 6 mns</td>
<td>1.09</td>
<td>--</td>
<td>2-6</td>
<td>-0.228</td>
<td>-1.249</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>52% male</td>
<td>0.50</td>
<td>--</td>
<td>1-2</td>
<td>-0.054</td>
<td>-1.980</td>
</tr>
<tr>
<td></td>
<td>Parental education (SES)</td>
<td>3.42</td>
<td>1.09</td>
<td>--</td>
<td>1-6</td>
<td>-0.057</td>
<td>-0.736</td>
</tr>
<tr>
<td>Achievement</td>
<td>Marks</td>
<td>2.64</td>
<td>0.86</td>
<td>--</td>
<td>1-6</td>
<td>0.248</td>
<td>0.602</td>
</tr>
<tr>
<td>Extracurricular Activities</td>
<td>Frequency In-school</td>
<td>2.04</td>
<td>1.07</td>
<td>--</td>
<td>1-5</td>
<td>-0.418</td>
<td>-0.645</td>
</tr>
<tr>
<td></td>
<td>Frequency Out-of-school</td>
<td>2.20</td>
<td>1.12</td>
<td>--</td>
<td>1-5</td>
<td>-0.402</td>
<td>-0.339</td>
</tr>
<tr>
<td>Stress</td>
<td>Hassles</td>
<td>1.76</td>
<td>0.40</td>
<td>.87</td>
<td>1-3</td>
<td>.154</td>
<td>-.380</td>
</tr>
</tbody>
</table>

Note. N= 504
For in-school extracurricular activities, frequency of involvement rates in clubs and sports was 2.04, or once or twice a month, standard deviation of 1.07, skewness of -.42 and kurtosis of -.42. Frequency of involvement in sports and clubs for out-of-school activities was 2.20, or approximately once or twice a month, standard deviation of 1.12, skewness of -.40 and kurtosis of -.40. One aspect of how time is spent on activities also is its relation to academic achievement and daily hassles. Descriptively, the mean for achievement marks was 2.64, or between 80-89%, standard deviation of .86, with a range of 1-6, skewness of .25, and kurtosis of .25.

The mean score of the daily hassles measure was 1.76 or between “almost never” and “sometimes bothers me.” The standard deviation was .40, with a range of .95 to 3. The skewness was .15 and the internal consistency was .87.

A one-way analysis of variance (ANOVA) was calculated to look at the difference between in- and out-of-school activities on the demographic variables. ANOVA results indicate that there was no significance on age and in-school activities F (2, 501) = 2.22, p > .05. There was no significance on age and out-of-school activities as well F (2, 501) = 1.45, p > .05. Similarly, there was no significance on gender and in-school activities F (1, 502) = 0.04, p > .05 and gender and out-of-school activities F (1, 502) = 2.05, p > .05. The analysis was significant F (4, 499) = 3.67, p < .05, for parental education (SES) and in-school activities (M = 3.62, SD = 0.90), and for out-of-school activities F (4, 499) = 5.88, p < .05, (M = 3.71, SD = 0.93).

**Correlations among Study Measures**

Correlations among frequency of activities, academic achievement, and daily hassles ranged from a low of .02 to a high of .40. Table 2 displays the correlations and
Table 2

Correlations Among Study Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Achievement</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Frequency In-school</td>
<td>.17**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Frequency Out-of-school</td>
<td>.07</td>
<td>.40**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Hassles</td>
<td>.25**</td>
<td>.09*</td>
<td>.02</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. N= 504, **p<.01, *p<.05
significance level among the study measures. Frequency of involvement in out-of-school and in-school activities was significantly positively correlated. Frequency of involvement in in-school activities also was significantly positively correlated with the daily hassles measure, such that higher frequency of involvement was associated with the reporting of higher levels of stress. The daily hassles measure also was significantly positively correlated with the achievement measure, whereby increased daily hassles was associated with lower achievement.

**Inferential Analyses**

*a) Is there a relation between involvement in extracurricular activities and academic achievement for in-school activities and is this relation both linear and non-linear (curvilinear) in nature?*

Hierarchical multiple regression was used to assess the relation (both linear and non-linear) between involvement in extracurricular activities and academic achievement for in-school activities. To control for age, gender, and parental education, these demographic variables were included in step 1 of the regression model as covariates, followed by frequency of in-school activities as the predictor in step 2. Further, to assess possible non-linear effects (i.e., higher and lower levels of involvement in in-school activities may be linked to lower academic achievement than moderate involvement), a curvilinear term for frequency of in-school activities was added in step 3 of the regression model. The curvilinear term was created by squaring the frequency score for in-school activities. Results are shown in Table 3.

There was a statistically significant effect for step 1 (FCha (1, 500) = 22.53, p < .001). Age and parental education predicted academic achievement. Frequency of in-
Table 3

*Regression of Frequency of In-school Activities on Academic Achievement*

<table>
<thead>
<tr>
<th>Step</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>B</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Parental Education</td>
<td>-.27***</td>
<td>-.25***</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>.20***</td>
<td>.19***</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-.06</td>
<td>-.06</td>
</tr>
<tr>
<td>2</td>
<td>Frequency of in-school activities</td>
<td>.11**</td>
<td>.10*</td>
</tr>
<tr>
<td>3</td>
<td>Frequency of in-school curvilinear</td>
<td></td>
<td>-.04</td>
</tr>
<tr>
<td>R²</td>
<td>.12</td>
<td>.13</td>
<td>.13</td>
</tr>
<tr>
<td>R² Cha</td>
<td>.12**</td>
<td>.01**</td>
<td>.00</td>
</tr>
</tbody>
</table>

Notes: *** p < .001, ** p < .01, * p < .05.
school activities also statistically significantly predicted academic achievement in step 2 (FCha (1, 499) = 6.61, p < .01). The curvilinear term included in step 3 was not statistically significant (FCha (1, 498) = .76, p > .05). Overall, therefore, frequency of in-school activities revealed a linear positive relation to academic achievement, such that higher frequency of activities was related to higher levels of achievement.

b) Is there a relation between involvement in extracurricular activities and academic achievement for out-of-school activities and is this relation both linear and non-linear (curvilinear) in nature?

Hierarchical multiple regression was used to assess the relation (both linear and non-linear) between involvement in extracurricular activities and academic achievement for out-of-school activities. To control for the three demographic variables, age, gender, and parental education were included in step 1 for each regression model as covariates, followed by frequency of out-of-school activities as the predictor in step 2. Further, to assess the possible non-linear effects (i.e., higher and lower levels of involvement in out-of-school activities may be linked to lower academic achievement than moderate involvement), a curvilinear term for frequency of out-of-school activities was added in step 3 of the regression model. The curvilinear term was created by squaring the frequency score for out-of-school activities. Results are shown in Table 4.

There was a statistically significant effect for step 1 (FCha (3, 500) = 22.53, p < .001). Age and parental education predicted academic achievement. Step 2 was not statistically significant (FCha (1, 499) = .007, p > .05). The curvilinear term included in step 3 of the regression analyses, however, was statistically significant (FCha (1, 498) = 24.82, p < .001), indicating that only moderate levels of frequency of out-of-school
Table 4

Regression of Frequency of Out-of-school Activities on Academic Achievement

<table>
<thead>
<tr>
<th>Step</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Education</td>
<td>-.27***</td>
<td>-.27***</td>
<td>-.26***</td>
</tr>
<tr>
<td>Age</td>
<td>.20***</td>
<td>.20***</td>
<td>.19***</td>
</tr>
<tr>
<td>Gender</td>
<td>-.06</td>
<td>-.06</td>
<td>-.07</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of out-of-school activities</td>
<td>-.00</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of out-of-school curvilinear</td>
<td></td>
<td>.22***</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.12</td>
<td>.12</td>
<td>.16</td>
</tr>
<tr>
<td>$R^2$ Cha</td>
<td>.12***</td>
<td>.00</td>
<td>.04***</td>
</tr>
</tbody>
</table>

Notes: *** p < .001, ** p < .01, * p < .05.
activities predicted higher academic achievement (see Figure 1).

c) Is there a relation between involvement in extracurricular activities and stress level for in-school activities, and is this relation both linear and non-linear (curvilinear) in nature?

Hierarchical multiple regression was used to assess the relation between involvement in extracurricular activities and stress level (both linear and non-linear) for in-school activities. The three demographic variables were controlled (i.e., age, gender, parental education) in step 1 as covariates, followed by frequency of in-school activities as a predictor of stress in step 2. Further, to assess possible non-linear effects, a curvilinear term for frequency of in-school activities was added in step 3 of the regression model. By squaring the frequency score for in-school activities, the curvilinear term was created. Results are shown in Table 5.

Results indicated that parental education, age, and gender statistically significantly predicted levels of stress as revealed in step 1 (FCha (3, 500) = 10.84, p < .001). Frequency of in-school activities, however, did not predict stress (FCha (1, 499) = .36, p > .05). Further, the curvilinear effect for frequency of in-school activities included in step 3 was not statistically significant (FCha (1, 498) = .46, p > .05).

d) Is there a relation between involvement in extracurricular activities and stress level for out-of-school activities, and is this relation both linear and non-linear (curvilinear) in nature?

Hierarchical multiple regression was used to assess the relation between involvement in extracurricular activities and stress level (both linear and non-linear) for out-of-school activities. To control for age, gender, and parental education, these
Figure 1. The curvilinear graph indicating moderate levels of frequency of out-of-school activities predicted higher academic achievement
Table 5

Regression of Frequency of In-school Activities on Daily Hassles

<table>
<thead>
<tr>
<th>Step</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>1 Parental Education</td>
<td>-.14***</td>
<td>-.13*</td>
<td>-.12*</td>
</tr>
<tr>
<td>Age</td>
<td>.11**</td>
<td>.10*</td>
<td>.10*</td>
</tr>
<tr>
<td>Gender</td>
<td>.15***</td>
<td>.15***</td>
<td>.15***</td>
</tr>
<tr>
<td>2 Frequency of in-school activities</td>
<td>.06</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>3 Frequency of in-school curvilinear</td>
<td></td>
<td></td>
<td>-.03</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.06</td>
<td>.07</td>
<td>.07</td>
</tr>
<tr>
<td>$R^2_{Cha}$</td>
<td>.06***</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>

Notes: *** p < .001, ** p < .01, * p < .05.
demographic variables were included in step 1 for each regression model as covariates, followed by frequency of out-of-school activities as a predictor of stress in step 2. Further, to assess possible non-linear effects, a curvilinear term for frequency of out-of-school activities was added in step 3 of the regression model. The curvilinear term was created by squaring the frequency score for out-of-school activities. Results are shown in Table 6.

Similar to the results of in-school activities and stress, parental education, age, and gender predicted levels of stress as revealed in step 1 (FCha (3, 500) = 10.84, p < .001). Frequency of out-of-school activities, however, did not statistically significantly predict stress (FCha (1, 499) = 1.84, p > .05). Further, the curvilinear effect for frequency of out-of-school activities included in step 3 was not statistically significant (FCha (1, 498) = .49, p > .05).

e) If there is a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then is stress level a possible mediator in the link between extracurricular activities and achievement?

Due to the fact that frequency of in-school and out-of-school activities were not significant predictors of stress, it was not possible to test if stress was a mediator between activity involvement and academic achievement in the regression model.
Table 6

*Regression of Frequency of Out-of-school Activities on Daily Hassles*

<table>
<thead>
<tr>
<th>Step</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<td>B</td>
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<tr>
<td>1</td>
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<tr>
<td></td>
<td>Age        .11**</td>
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<td>.11**</td>
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<td></td>
<td>Gender     .15***</td>
<td>.15***</td>
<td>.15***</td>
</tr>
<tr>
<td>2</td>
<td>Frequency of out-of-school activities</td>
<td>-.03</td>
<td>-.02</td>
</tr>
<tr>
<td>3</td>
<td>Frequency of out-of-school curvilinear</td>
<td>.03</td>
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<td>$R^2$</td>
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<tr>
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<td>$R^2$ Cha</td>
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</tbody>
</table>

Notes: *** p < .001, ** p < .01, * p < .05.
CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

This study explored youth involvement in extracurricular activities and its relation to academic achievement and stress. The main objective of this study was to better understand the relation of extracurricular activities to academic achievement for youth in grades 5 and 7 and to explore the possibility of stress operating as a mediator between extracurricular activities and academic achievement. Statistical analyses were used to analyze secondary data received for students in grades 5 and 7 in a southern Ontario community.

In this chapter I will discuss the following (a) the findings of the present study and interpret these findings in relation to the research questions and corresponding hypotheses and relate them to past literature; (b) the implications of the current findings for practice and future research; and (c) the conclusions drawn from the current findings.

Main Findings and Support for Hypotheses

Question 1: *How are students in grades 5 and 7 spending their time both inside and outside of school?*

In light of past research (Hofferth & Jankuniene, 2001), it was hypothesized that students in grades 5 and 7 would report involvement in extracurricular activities both inside and outside of school. The results of this study found support for that hypothesis. Students were involved in extracurricular activities both inside and outside of school at fairly equal but low frequencies, with a mean of approximately once a month for both in-school and out-of-school activities.

The finding of low frequencies in the current study is an area of interest for future research. Specifically, it is important to determine whether such involvement rates are
the norm for students in grades 5 and 7, or whether the low levels of involvement are due to a lack of opportunities available to this age group, a lack of time to become involved due to the demands of school, or simply a lack of interest to become involved.

There was a statistically significant effect for parental education for both in-school and out-of-school activities. Parental education was associated with higher levels of participation in both in- and out-of-school activities. As organizers for extracurricular activities often require parents to supply money and transportation, children who have parents with higher education levels (and presumably higher incomes) are more likely to enroll in these activities. This finding is of particular importance for policy makers and educators, as it is important to consider the students who have parents with low SES levels and are not involved in high levels of extracurricular activities. Knowing the benefits of involvement in both in-school and out-of-school activities, emphasizes the importance of ensuring such opportunities are made available to all students.

Question 2: Is there a relation between involvement in extracurricular activities and academic achievement for both inside and outside of school activities? Is this relation both linear and non-linear (curvilinear) in nature?

Past research has indicated a positive relation between extracurricular activities and school achievement (Camp, 1990; Cooper et al., 1999; Eccles & Barber, 1999; Gerber, 1996; Jordan & Nettles Murray, 2000), such that both in- and out-of-school activities are related to higher grade point averages (Eccles & Barber, 1999; Jordan & Nettles Murray, 2000). The present study also found that both in-school and out-of-school activities predicted academic achievement, even after controlling for age, gender, and parental education.
Such findings support past research by Jordan and Nettles Murray (2000), which indicated that, for grade 12 students, out-of-school activities were associated with positive engagement in school. Brown and Evans (2002) also found that outside school activities were significantly related to greater school connection among secondary students. Similarly, Eccles and Barber's (1999) results of 10th and 12th graders revealed that students who participated in sports activities, performing arts, and school activities, including academic clubs, had a better than expected grade point average in grade 12, compared to their average in grade 10. Importantly, the current study found similar results with a different population than secondary students, specifically with students in grades 5 and 7. This finding may support the suggestion that providing students in grades 5 and 7 with opportunities for extracurricular activities in clubs and sports may be beneficial, and in fact, may foster a greater connection and commitment to school. However, it may also suggest that higher achieving students are more likely to be involved in in-school and out-of-school activities. Within the scope of the current study and the concurrent nature of the study, it is difficult to pinpoint specifically the direction of the effect.

The hypothesis that a curvilinear relation would exist between extracurricular activities and achievement, however, was only supported in the current study for out-of-school activities. For out-of-school activities, only moderate levels of involvement were associated with higher grades in comparison to low and high levels of involvement. It is important to note however, that the proportion of variance in academic achievement accounted for by the out-of-school activities was small. Clearly, many other factors that are beyond the focus of this study play a role in the prediction of academic achievement.
Powell et al. (2002) report similar curvilinear findings among a sample of students in grade 1. Students' participation in activities at moderate levels was positively related to their grades. However, children's participation in activities at higher levels was associated with lower grades. Cooper et al. (1999) also found that there was evidence of a curvilinear relation between engagement in extracurricular activities and academic achievement. Specifically, high levels of involvement and low levels of involvement were associated with lower achievement than moderate extracurricular involvement (Cooper et al.).

The statistically significant curvilinear relation for out-of-school activities and achievement supports the hypothesis that out-of-school activities may not foster a commitment or identification to school model (Gerber, 1996). More specifically, it is possible that out-of-school activities may take time away from academic responsibilities at school, or simply undermine identification and commitment to school. It is also possible that children who are not doing well in school turn to outside activities in compensation. Such outside activities may allow students to exemplify their strengths and pursue activities in which they feel positive about compared to their academic pursuits at school.

In addition, the curvilinear relation may be more likely for out-of-school activities as these activities may not be related to school tasks. In-school activities likely relate to school by focusing on themes present in the school environment, such as student council or yearbook, or relate to learning activities promoted within the school, such as sports or clubs like chess or recycling. In-school activities, therefore, may have the potential for
contributing to the students’ sense of commitment to school that out-of-school activities cannot.

It is also possible that there is a greater time commitment necessary for out-of-school activities. Students may need to miss school to attend out-of-school activities like recitals, tournaments or specific practices. This time missed from school may hinder academic success as key concepts may be missed or homework is done while in a rush to attend an out-of-school activity. It is not likely that such time constraints are a problem when attending in-school activities or that time is missed from school.

The lack of a statistically significant curvilinear relation between extracurricular activities and achievement for in-school activities refutes the results of Cooper et al.’s (1999) study, which revealed that higher levels of involvement in extracurricular activities was associated with lower test scores than moderate levels of involvement. As mentioned, this finding supports the connection and commitment to school model as students’ involvement in in-school activities was related positively to grades (Marsh & Kleitman, 2002). In addition, a potential explanation of this finding in the current study is that perhaps only certain students in grades 5 and 7 are chosen or have opportunities to become involved in such in-school activities like sports or clubs (McNeal, 1998). Unlike high school, elementary schools have limited opportunities to become involved, and most activities are offered during lunch, which may limit involvement among students. Perhaps due to a restriction in the opportunities to participate, students within the current study who participate in in-school activities, may not be participating at higher or lower levels, therefore, curvilinear findings are not likely to occur.
Similar to high school, many in-school activities involve students trying out for a team and students may also have to meet minimum grades to participate. Such policies may limit the opportunities for students in grades 5 and 7 to become involved as such teams are often made up of senior students in their last year of elementary school (grade 8). Therefore, the population investigated within the current study may not have been able to participate in such in-school activities, impacting the likelihood of finding a curvilinear relation among in-school activities. In addition, faculties within elementary schools are smaller than most high schools, and, therefore, the faculty may not be able to offer a variety of sports or clubs that interest students within this age group.

Frequency of in-school activities also statistically significantly predicted academic achievement in the current study. This was a positive linear relation, such that higher frequency of activities was related to higher levels of achievement. Again, however, it is important to note that the proportion of variance in academic achievement accounted for by the in-school activities was small.

Question 3: Is there a relation between involvement in extracurricular activities and stress level for both inside and outside of school activities? Is this relation both linear and non-linear (curvilinear) in nature?

The hypothesis that there would be a relation between involvement in extracurricular activities and stress level for both in-school and out-of-school activities was not supported. Further, the hypothesis that a curvilinear relation between extracurricular activities and stress would exist was not supported. These findings suggest that involvement in extracurricular activities was not significantly related to increases in stress for this young population. It may be that this sample of students in
grades 5 and 7 do not feel stress in relation to extracurricular activities. Stress for this age group may not be associated by time constraints or daily schedules as it is for many high school students or adults. Students in grades 5 and 7 may need time to organize their day effectively when juggling both activities and academics, yet they may not regard this as stressful. In fact, they may rely on others around them, such as their parents, to support such concerns, therefore, alleviating any personal stress.

Interestingly however, daily hassles were correlated with academic achievement, whereby increased daily hassles was associated with lower academic achievement. This particular finding is valuable and may be an area of interest for future research. In particular, it would be interesting to explore specifically what type of daily hassles impact youth in Grades 5 and 7, and how they may be associated with lower academic achievement. In addition, understanding what strategies youth may need to cope with such daily hassles to ensure that academic achievement is not hindered is important.

**Question 4:** If there is a curvilinear relation between extracurricular activities and achievement, as well as between extracurricular activities and stress, then is stress level a possible mediator in the link between extracurricular activities and achievement?

Since stress was not a predictor of the frequency of in-school or out-of-school activities, it was not possible to test stress as a mediator. Therefore, our hypothesis that stress acts as a mediator in the link between extracurricular activities and achievement was not supported. Possible rationales for this finding are offered within this chapter under implications of the current study.
Implications of the Current Findings

The current study offers valuable information for researchers, parents, and educators with regard to how students in grades 5 and 7 are spending their time inside and outside of school. Youth within this age group in this study reported being involved in sports and clubs both inside and outside of school, on average, approximately once a month. Importantly, the current study offered evidence of a relation between in-school and out-of-school activities and academic achievement. This finding suggests that more opportunities to experience extracurricular activities both inside and outside of school may be beneficial for youth in grades 5 and 7. In addition, the finding that parental education is correlated to involvement in extracurricular activities is of great importance. It is imperative that extracurricular activities be made available to all students, including students whose parents have lower education levels.

Although critics (Elkind, 2001) have argued that extracurricular activities may harm academic success, this argument was not supported for the most part in the current study. Evidence of the curvilinear relation for out-of-school activities and academic achievement in the current study supports the notion that too much or too little involvement in out-of-school activities can be detrimental to a student's academic success; however, some involvement appears to be positive.

These results support the Ontario education document on guidance and career education titled *Choices into Action* (Ministry of Education & Training, 1999). Within this program, students complete an annual education plan, whereby they learn about a variety of skills needed to be a successful lifelong learner in society, such as the skills necessary for getting along with others both inside and outside of school and for
assessing their achievements to set future goals. All of the skills taught within this program aim to assist students to strive toward their career choices, while developing their personal understanding of themselves as responsible citizens. The results of the current study are valuable to educators as they indicate that developing students' awareness of the importance of in-school and out-of-school clubs or sport involvement may be beneficial. As Larson (2000) argues, when youth experience elements of initiative they are able to take charge of their future and their own lives. Larson argues that involvement in extracurricular activities fosters initiative, as students develop intrinsic motivation and are challenged to concentrate and perform. Encouraging students to develop an awareness of their in-school and out-of-school interests, while encouraging participation in such activities, may, in fact, enhance academic success. As the current study supports the hypothesis that both in-school and out-of-school activities are related to academic achievement, perhaps such a relation is fostered through intrinsic motivation and the concentration that students learn. Assisting parents and educators in understanding the value in such activities for youth may facilitate their self-worth and intrinsic motivation which is needed for life long success.

The result indicating a statistically significant relation between in-school extracurricular activities and achievement is particularly of value to educators. Specifically, educators are concerned with enhancing achievement for students, and understanding the relation between extracurricular activities and achievement is encouraging for educators. Educators use this knowledge to develop more opportunities for in-school extracurricular activities, and more importantly, to make such activities accessible to all students, including students from homes with parents who have lower
education levels. In addition, providing such opportunities in elementary school is of particular importance, knowing that involvement begins at an early age. For educators, this may mean offering greater flexibility for students to become involved, such as a greater emphasis on intramural sports or clubs (e.g., a walking club or chess club). Ensuring that greater opportunities for involvement are made available may enhance the achievement of students in elementary school.

The examination of in-school extracurricular activities for elementary students is an area requiring further research. In particular, research is needed to investigate the type of in-school extracurricular activities available to students in grades 5 and 7. In Gerber’s (1996) study of extracurricular activities, involvement in 21 school-related activities, such as yearbook, science club, and newspaper were measured among grade 8 students. It is important to offer a variety of activities and to encourage faculties to provide a number of in-school activities to ensure availability to all students and to capture the range of possible student interests. Although some schools may not be able to provide a diverse set of activities, it is imperative that schools are encouraged to offer as many as possible.

It is also important to investigate which students are chosen to participate or are allowed to participate and, importantly, if all students have equal access to join. Previous research indicates that some schools follow a no pass/no play policy, meaning students who are not passing academically are not permitted to play in any extracurricular activities (Gerber, 1996; McNeal, 1998). For in-school activities, if students are not able to keep up with their daily work or homework or are having difficulty in other areas of the school environment (e.g., poor behaviour on the playground), they might be removed
from the in-school activity. If such policies are in place in elementary schools, then opportunities for some students may be lost. Involvement in extracurricular activities may, in fact, enhance a commitment to school even for students who are displaying difficulties academically.

In addition, it is unlikely that such policies would be in place in out-of-school activities. Moreover, not all students meet the standards set for them by the education system; however, these students may be working very hard. Penalizing these students when they are working hard or when they may be faced with learning exceptionalities that do not allow them to meet the standards set, may not be the best approach. Perhaps such students need direction on how to manage their time wisely, or need additional accommodations to their learning program, and require encouragement and praise to feel success in both the realm of academics and extracurricular activities.

In addition, there may be a limited amount of time for students to become involved in in-school activities throughout the day. There may only be a few times such activities are offered within the elementary school timetable. Some activities may take place before or after school, in addition to the lunch hour. However, in rural areas where students take a bus to and from school, the only opportunity for extracurricular activities may be the lunch hour. This puts time constraints on the faculty to provide such activities and is often placed on top of other duties and responsibilities. Educators may need to rely on volunteers, high school co-op students, or university students to assist in offering these programs.

The result indicating a statistically significant relation between out-of-school extracurricular activities and achievement is particularly of value to parents. Specifically,
parents may question if their child should be involved in out-of-school activities if they fear the activities may hinder academic success. The current study informs parents that moderate involvement in out-of-school activities is related positively to academic achievement for students. This information may alleviate parent concerns about involvement in out-of-school activities. In particular, this information suggests that student involvement may be beneficial, and also encourages parents to have their children become involved as there may be academic benefits.

As noted earlier, stress was hypothesized to act as a mediator in the link between extracurricular activities and achievement. This hypothesis was not supported as the current study found no relation between involvement in extracurricular activities and stress. A possible reason for this finding may be due to youth within this study reporting relatively low levels of involvement in extracurricular activities. Stress related to involvement in extracurricular activities, therefore, may not really be an issue for them. In contrast, perhaps youth find such activities motivating and do not see such activities as stressful. This hypothesis would support Larson’s (2000) view that extracurricular activities may develop intrinsic motivation and concentration among youth. Such motivation and concentration may assist youth in remaining at the task for long periods of time.

It is important to consider other potential explanations for the curvilinear relation between out-of-school extracurricular activities and achievement, if stress is not the link. For example, the amount of time available or differences in individual personalities may be potential explanations. For example, the ability to balance a daily schedule is critical, and youth in grades 5 and 7 may still struggle with time management skills. This
inability to organize their time wisely may mean students leave little time to study adequately or to complete their homework effectively. Time taken away from doing homework or studying may lead to poor achievement if students are highly involved in extracurricular activities. In addition, high levels of out-of-school activities may force students to miss school due to recitals or tournaments, which may hinder academic success.

On the other hand, some students may be able to cope with more activities and may enjoy being "on the go" and active, in addition to being able to include adequate time for studying and homework. These students then may be able to cope with both the pressures of extracurricular activities and academic demands. Finally, some parents and educators may support and assist youth involved in extracurricular activities in ways that this study was unable to detect. For example, future research may need to investigate how involved parents and educators are in assisting students to deal with the demands of extracurricular activities and academics. Students who receive regular support from parents in the form of time management or assistance with homework, or a teacher who offers additional time for assignments due to a students' involvement in activities, may offer the student the positive support needed to excel in both areas.

Finally, a great deal of past research has focused on students' involvement in activities in industrialized societies, such as the population in the current study. Previous research has indicated that youth as young as 5 years old are involved in extracurricular activities (Hofferth & Jankuniene, 2001). Interestingly, studies that investigate time spent on sports, arts, or similar organizations in non-industrial societies appear to be limited (Larson & Verma, 1999). The lives of children and adolescents living in non-
industrial societies, however, are different in many ways compared to children and adolescents living in industrialized societies. One major difference is that children in industrialized populations attend school all day and then may complete chores that parents have assigned at home, in addition to participating in other youth activities (Larson & Verma). In contrast, children in non-industrial populations, where children do not attend school, spend time doing work for the family, a necessity for survival (Larson & Verma). Larson and Verma note that children in non-industrial societies permitted to attend school spend additional time doing chores depending on the cultural attitudes of the family. Students in non-industrialized societies who attend school and participate in extracurricular activities is a potential area for future research. Cross-cultural research examining such populations closely may be valuable.

**Limitations of the Current Study**

The present study is not without limitations. A self-report measure was used to gather the data for this study. There is a concern of honesty and self-presentation on behalf of the participants when dealing with self-report measures. Due to the fact that the issue of risk-taking behaviour and identifying oneself personally are delicate topics for youth, participants may have wanted to be viewed in a positive light by the researchers and this may have influenced their answers on the questionnaire. Such a limitation is difficult to avoid; however, the survey design incorporates several procedural controls for common method biases suggested by Podsakoff, MacKenzie, Lee, and Podsakoff (2003). To control for social desirability biases, participants were assured that their responses would remain confidential, they were to answer honestly, and there were no right or
...
wrong answers. Participants were also informed about the purpose of the study to encourage honesty in responses.

The current study also controlled for consistency motifs (i.e., the tendency of participants to try to maintain consistency in their responses) within survey designs (Podsakoff et al., 2003). Bias in responses to the survey were reduced by ensuring that measurement of predictors and criterion were separated temporally and psychologically, as the questions pertaining to the variables included in this study were interspersed throughout the larger survey. Participants would not have been able to easily determine the predictor and criterion, as the total survey was far more comprehensive than the portion used for the current study.

To control for common method bias, scale items in the survey were carefully designed (Podsakoff et al., 2003). Research assistants defined ambiguous terms and clarified unfamiliar terms within the survey. In addition, assistants were available to answer any questions participants had while they completed the survey. Survey questions were also simple, and specific and avoided the use of complicated syntax. To reduce acquiescence bias (participants' tendency to agree or disagree with items independent of their content), scales were labeled with text, not numerically.

In addition, a limitation of the current study is that testing must be identified as a threat to internal validity, as the survey used by YLC-CURA was 2 hours long. Some students found the survey too long, which may have resulted in boredom on behalf of the participants. In fact, some participants did not complete the survey. An important limitation of the current study also is the generalizability of the results. Specifically, the current study measured only extracurricular activities involving sports and clubs.
Therefore, the generalizability of the results is to these particular types of extracurricular activities. There are a number of other extracurricular activities available to students but they were not within the scope of the current study. Future research is needed to investigate other areas of extracurricular activities both inside and outside of school including hobbies, volunteering, music lessons and church involvement. Research also is needed to compare whether sports and clubs relate to academic achievement in the same way. The present study combined the two measures but exploring unique effects for each type of activity also is necessary. In addition, findings may not generalize to students in other geographic regions, including those regions with differing ethnic and/or demographic mixes.

A limitation of the present study also was that some of the measures, such as marks and daily hassles, had limited range in response scores. Although the multiple regression technique is still appropriate in this case, particularly with the large sample size included in the present study, given the potential biases of self-reports, future work should include other perspectives and sources of information including reports from parents, friends, and school records. Finally, the current study was not a longitudinal study as all of the measures were reported at the same time. It is important to note that, before definitive conclusions can be made about the relation of activities and achievement, it is necessary to follow students over time in a longitudinal study. In addition, as the results are correlational it is not possible to ascertain whether providing opportunities for extracurricular activities will enhance achievement for all students, as perhaps academically successful students are simply more likely to engage in extracurricular activities. As Bergin (1992) notes in a study among high school students
investigating the relation of leisure activities and achievement, due to the correlational design of the study, there are limitations to interpreting the data. In particular, Bergin notes that a causal relation is not clear between participation in leisure activities and higher achievement. It is possible that participation and achievement are simply the result of intellectually curious students choosing academic leisure activities with content that transfers to their school achievement tasks (p. 236). Longitudinal designs in which changes or patterns can be observed over time would allow for a deeper understanding of the relation among extracurricular activities, achievement, and stress. More specifically, measuring the consistency of extracurricular involvement over time is important in understanding the possible benefits of participation for youth (Mahoney et al., 2003).

**Conclusions of the Study**

Overall, the results of the present study revealed a statistically significant relation between in-school and out-of-school extracurricular activities and academic achievement for early adolescents. In addition, there was evidence to support a curvilinear relation between out-of-school extracurricular activities and academic achievement. There was no evidence, however, of a relation between involvement in extracurricular activities and stress.

The results of the study offer direction for future research, in particular to investigate potential explanations for the curvilinear relation between extracurricular activities and academic achievement. In addition, investigating why such relations were not associated with in-school activities and academics is important. Investigating specifically what is taking place within schools with regard to extracurricular activities, and which students are involved, should be a goal of future research among youth in
grades 5 and 7. Longitudinal studies also are needed, to specifically examine whether academically successful students seek out extracurricular activities or whether extracurricular activities impact on academic achievement.

Finally, the results of the current study are important for educators, parents, and policy makers. Educators need to be aware of how to foster a student’s development within both in-school and out-of-school activities. In addition, educators and parents may need to teach students how to manage their time effectively and how to cope with the workload of both extracurricular activities and academic life. Importantly, encouraging a balance of out-of-school activities whereby youth are also able to handle the demands of school is important for parents. Parents need to be reminded that youth can benefit from involvement in extracurricular activities at moderate levels. Finally, policy makers may need to develop additional extracurricular programs within schools and communities to ensure equal opportunities for all students. Looking carefully at each community and the options available to youth within clubs and sports is valuable to their growth and development and important to their academic success as well.
References


Appendix A

YLC-CURA Questionnaire

PART A | Let’s begin with some information about you

1. How old are you?
O 9 or younger   O 10   O 11   O 12   O 13   O 14

2. Are you male or female?
O Female   O Male

3. Were you born in Canada?
O Yes   O No → If No, how long have you been living in Canada? __________

PART D | Fill in the circle that best describes what you like to with your free time.

G. How often in the LAST MONTH have you done the following?

<table>
<thead>
<tr>
<th>Every Day</th>
<th>Several Times a Week</th>
<th>Once a Week</th>
<th>Once or Twice A Month</th>
<th>Never</th>
</tr>
</thead>
</table>
9. Played organized sports outside of school   ....O....   ....O....   ....O....   ....O....   .... O....

H. How often in the LAST MONTH have you done the following?

<table>
<thead>
<tr>
<th>Every Day</th>
<th>Several Times a Week</th>
<th>Once a Week</th>
<th>Once or Twice A Month</th>
<th>Never</th>
</tr>
</thead>
</table>
6. Went to school clubs (e.g., music, student council)   ....O....   ....O....   ....O....   ....O....   .... O....
8. Went to clubs outside of school   ....O....   ....O....   ....O....   ....O....   .... O....
9. Played school sports   ....O....   ....O....   ....O....   ....O....   .... O....

PART K | Fill in the answer that best describes you.

1. What marks do you usually get in school?
O   O   O   O   O   O   O
A+   A   B   C   D   Less than D
(90%-100%) (80%-89%) (70%-79%) (60%-69%) (50%-59%) (Below 50%)
**PART U**

The following questions are about your MOTHER or stepmother (female guardian) that you live with the MOST. If you do NOT have contact with your mother/stepmother (or female guardian) please skip to Part V

1. What is the highest level of education your MOTHER/STEPMOTHER (female guardian) completed?
   - O Did not finish high school
   - O Finished high school
   - O Some college, university, or apprenticeship program
   - O Completed a college/apprenticeship diploma (e.g., electrician) and/or technical diploma (i.e., graphic design, hair dressing)
   - O Completed a university degree
   - O Still going to school
   - O Don’t know

**PART V**

The following questions are about your FATHER or stepfather (male guardian) that you live with the MOST. If you do NOT have contact with your father/stepfather (or male guardian) please skip to Part W

1. What is the highest level of education your FATHER/STEPFATHER (male guardian) completed?
   - O Did not finish high school
   - O Finished high school
   - O Some college, university, or apprenticeship program
   - O Completed a college/apprenticeship diploma (e.g., electrician) and/or technical diploma (i.e., graphic design, hair dressing)
   - O Completed a university degree
   - O Still going to school
   - O Don’t know

**PART W**

Below is a list of things that commonly both students. Please indicate how often each one bothers you.

<table>
<thead>
<tr>
<th></th>
<th>Almost never bothers me</th>
<th>Sometimes bothers me</th>
<th>Often bothers me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classroom is too noisy</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>2. Not having enough time</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>3. Not having enough money</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>4. Deciding what to wear</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>5. Getting up in the morning</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>6. My weight</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>7. Teacher I do not get along with</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>8. Having homework every day</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>9. Not enough close friends</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
<tr>
<td>10. Not enough time to talk with friends</td>
<td>O...</td>
<td>O...</td>
<td>O...</td>
</tr>
</tbody>
</table>
**PART X**

Below is another list of things that commonly bother students. Please indicate how often each one bothers you.

<table>
<thead>
<tr>
<th></th>
<th>Almost never bothers me</th>
<th>Sometimes bothers me</th>
<th>Often bothers me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Problems with classmates</td>
<td>….O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>2. Problems with friends</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>3. Problems with family</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>4. Being lonely</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>5. Others’ opinions of me</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>6. Not enough sleep</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>7. Taking tests</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>8. Household chores</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
<tr>
<td>9. How I look</td>
<td>…O….</td>
<td>…O….</td>
<td>…O….</td>
</tr>
</tbody>
</table>
Appendix B

YLC-CURA Personal Acceptance Letter

February 22, 2005

Jennifer McLaren Gibbons
Faculty of Education
Brock University

Dear Jennifer:

I am pleased to inform you that the CURA Research Review Committee has approved your proposal to access data from the CURA survey for your master's thesis. Please note that all data analysis questions are the responsibility of your supervisor.

Please contact Michael Busseri (ext. 4798), the YLC-CURA Research Associate, to set up a time to meet to go over procedures for accessing the data.

Please note that all written material using YLC-CURA data must have the following statement included:

"The results and views expressed in this document are those of the authors and do not necessarily represent those of the Youth Lifestyle Choices: Community University Research Alliance."

Also, we require a copy of your thesis when completed. Please submit this to Michael Busseri at the YLC-CURA, BRIYS House.

I wish you all the best in completing your thesis.

Sincerely,

[Signature]

Heather Chalmers, Ph.D.
Chair, CURA Research Review Committee
Co-Director, YLC-CURA

cc. T. Willoughby
File: 2005-004