Grade 11 & 12 students' perceptions of parental involvement: Implications for student academic motivation

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ABSTRACT

There are many variables that impact a student's level of academic motivation. Understanding and enhancing student motivation is an important factor of academic success (Hoang, 2007). Currently, in North America, it is becoming increasingly difficult to achieve a high standard of living and receive quality employment without some level of post-secondary education (Anisef & Sweet, 2005).Therefore, how academically motivated a student is at the high school level may significantly impact their future employment and career options. For the purpose of the present study, parental involvement levels in both student academics and extracurricular were examined as possible variables impacting level of student academic motivation. 124 grade 11 and 12 public high school participants completed a series of questionnaires which were designed to measure level of parental involvement in academics, parental involvement in extracurricular, and level of student academic involvement. Categories of highly-involved, moderately-involved, and minimally-involved parenting were determined based on participant scores from the questionnaires. Analysis revealed that increased student academic motivation scores were significantly associated with increased levels of parental involvement. Hierarchical multiple regression analysis also revealed that parental academic motivation was a significant predictor of student academic motivation over and above what was accounted for by demographic information (i.e. time spent on homework, grade average, gender). Furthermore, extracurricular parental involvement was determined to be a significant predictor of student academic involvement over and above the variance accounted for by demographic information as well as parental academic involvement.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

CHAPTER 1

INTRODUCTION

Research supports the belief that parent variables help to facilitate the development of a young person's motivation. Findings also emphasize the importance of investigating separate types of parental involvement because not all types help to facilitate motivation (Ginsburg and Bornstein, 1993). According to Gonzalez-DeHass, Williams and Holbein (2005):

> "When parents show an interest and enthusiasm for what their children are learning, they provide a support system at home that buttresses the child's academic learning and reinforces the value of schooling. By providing such emotional support, parents establish a foundation for socializing children's motivation to learn" (p.111).

Motivation in academics is important throughout a young person's life and therefore adolescent academic motivation is essential to understand. It is reasonable to assume that part of what keeps adolescents interested in their education is how well they are able to perform. Level of performance is largely the result of a student's desire to accomplish goals within their school and classrooms (Fraser-Thomas & Deakin, 2007). Without motivation it would be particularly difficult to raise the level of performance, to develop interest, and to find enjoyment (Martin, 2010). Therefore, understanding and enhancing student motivation is an important factor of academic success (Hoang, 2007). The degree to which parents involve themselves in their adolescent's life could be a factor effecting motivation to achieve academically in adolescence.

The period of physical and psychological development from the onset of puberty to maturity, adolescence can be a difficult developmental process for many (Blakemore, 2008). It marks a time of exploring ones individuality and independence from parents. Adolescence can be an extremely exciting time that is associated with dating, getting a drivers licence, attending high

school, playing sports, spending time with friends, getting a part-time job, going to unsupervised parties and events, etc. It is also a time in which exposure and opportunities to indulge in risky behaviours such as drinking, smoking, drugging, partying and sex is an inevitable occurrence that is glorified in media (Escobar-Chaves, Tortolero, Markham, Low, Eitel, & Thickstun, 2005). Take all of these changes and exciting distractions and couple them with a developing body and brain and it can easily be seen why adolescence can become such a chaotic period for many; even before factoring in variables such as broken homes, poverty, abuse and mental health.

With everything that comes with adolescence, maintaining an interest in academics can become difficult. This is not a recent trend, with Coleman (1959) describing the difficulty, from an educator perspective, of working with an adolescent culture that shows little interest in education but instead focuses their attention on cars, dates, sports, popular music, and other matters unrelated to school. In an era in which a university bachelor degree or college diploma is often seen as the new minimal standard for a career, losing interest in academics for today's adolescence can have long term detrimental consequences (Anisef & Sweet, 2005). This is particularly true in Canada which has one of the highest rates of postsecondary attainment in the world (Lambert, Zeman, Allen, & Bussier, 2004). Due to the high rate of postsecondary attainment, those who lack motivation or the ability to continue to pursue academics after high school are at an extreme disadvantage when it comes to competing for employment.

Identity crisis was described by Erikson (1968) as the principle challenge facing adolescence. The challenge within identity crisis has to do with weighing one's abilities, interests, and childhood influences, then using that information to consider potential futures and make important decisions regarding love and work. Although this would seemingly still remain true of today's adolescence, Arnett (2007) contends that the identity crisis now takes place

predominately in early adulthood. Therefore, many of the traditional challenges facing adolescents are now being extended into early adulthood when most people are entering post-secondary institutions and full-time work. The increased pressure to attend post-secondary institutions and the limited career options for high school graduates has helped maintain and accentuate these challenges. Although not all scholars agree, many have asserted that this time of early adulthood is a time of terror, trauma, exceptional difficulty, and unhappiness (Bynner, 2005; Bouth & Couter, 2009; Twenge, 2006). Central to the challenges faced in early adulthood is the increased requirement for educated workers. It can be easily assumed, with the limited career opportunities for high school graduates, that early adulthood is especially difficult for those who experienced a lack of motivation in academics during adolescents.

The above outlines the immense pressure and change that adolescents are faced with. Moreover, it helps emphasizes the importance of keeping adolescents engaged in academics. Not only does a lack of motivation for academics affect adolescents' ability to prioritize while attending high school, it also greatly affects their future opportunities as adults. Therefore it is imperative to understand the factors that are responsible for both increasing and decreasing adolescent academic motivation. By identifying and making these factors aware, steps can be taken to implement proven strategies while avoiding harmful ones.

Among the many possible factors influencing academic motivation is the factor of parenting. The style of parenting that an adolescent is subjected to may have great implications for how academically motivated they are. In particular, within each parental style, parental involvement may very well influence the degree to which students find academics enjoyable or at least something that they value and are motivated to achieve. Perhaps even the presence and involvement of a parent in any aspect of an adolescent's life has the ability to positively

influence their academic motivation. Gonzalez-DeHass, Willems, and Holbein, (2005), speculate that parental involvement may boost students' perceived control and competence, offer a sense of security and connectedness, and help students to internalize educational values.

Purpose of the Study

The purpose of this study is to build upon current literature by providing further support for parents to adopt an authoritative or moderately involved approach to parenting. The current study also aims to shed further light on the influence of highly-involved and minimally-involved parenting on grade 11 and 12 student academic motivation. Finally, it is the hope of this study to separate extracurricular involvement from academic involvement to determine if parent involvement in extracurricular activity will impact academic motivation in students. It is predicted that parents who exert high levels of involvement, and parents who exert low levels of involvement, will be positively correlated with lower scores on a scale of motivation as measured by The Motivation to Achieve Academically Questionnaire (MAAQ; Waugh, 2002). Explorations of variations in student demographics in relation to level of parental involvement will also be explored.

Organization of Thesis

Included in Chapter II will be a literature review which focuses on the parent child relationship in adolescents, types of parental involvement and parental styles, parental involvement in both academics and extracurricular, understanding motivation, and a review of the most relevant research. The methodology and results chapters will follow and finally the thesis will conclude with the discussion chapter.

Definitions

Motivation

- Motivation may be thought of as considerations that compel one to undertake a task, and determine the direction, intensity, and persistence of specific task-related behaviors (Buckworth, Lee, Regan, Schneider, & DiClemente, 2007)

Parental Involvement

- Parent involvement reflects the extent to which parents are present and interject themselves into the lives of their children (Gonzalez & Wolters, 2006).

Parental Style

- "A constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviors are expressed. These behaviours include both the specific, goal-directed behaviours through which parents perform their parental duties and non-goal-directed parental behaviours, such as gestures, changes in tone of voice, or spontaneous expression of emotion" (Darling and Steinberg, 1993, p. 488).

Adolescence

- "Adolescence is characterized by social change, including heightened self-consciousness, increased importance and complexity of peer relationships and an improved understanding of others" (Blakemore, 2008, p. 267).
- The onset of Adolescents is generally considered to occur around the same time that a child begins to enter into puberty. The exact ages of adolescents varies depending on the

individual but generally is considered to occur between the ages of 13 and 19 (Shaffer & Kipp, 2010).

Extracurricular Activity

- "Activities that are voluntary (i.e. not required for school) and involve some structure, that is, where students' participation occurs within a system involving constraints, rules, and goals" (Larson, 2000, p. 174).

Academic Activity

- For the purpose of this study, academic activity refers to any required and elective course work in which a student performs in order to receive a grade.

CHAPTER 2

REVIEW OF THE LITERATURE

The importance of education in today's society is immense. To foster an early interest in academics, and maintain it throughout a child's life, will inevitable set them up for success. A role researchers can take is to help identify the most optimal strategies for fostering success. To help understand how parental involvement may influence adolescent academic motivation the following considerations will be reviewed in this chapter; an initial assessment of the parent-adolescent relationship during this developmental stage, types of parental style and involvement, theoretical understanding of motivation, potential influences of parental involvement in extracurricular activity, and a review of the most relevant literature.

When taking into account, parenting of adolescents, a consideration of the developing parent-child relationship must be made. As a child develops into adolescence, many changes are taking place: not just for the child, but for the parent as well. An increase in parent-child conflict can often be expected in early adolescence due to teenager's striving for independence (Edgar-Smith & Wozniak, 2010). It can also be expected that parents are reaching middle age and have to reconsider their own commitments (Steinberg & Silk, 2002). For example, Parents become aware that their children are getting older and that they will soon be moving out and having to establish their own lives. Therefore, it is common that the adolescent begins to press for more independence while the parent is promoting more togetherness (Berk & Shanker, 2006). This is where the source of conflict is often found in the parent-adolescent relationship. Despite these changes, the importance of positively involved parents' does not change from childhood to adolescents. In time, with positively involved parents who engage in appropriate autonomy

granting, this relationship will most likely resolve as both parties adapt to and compromise to the above changes (Berk & Shanker, 2006).

Parent involvement reflects the extent to which parents are present and interject themselves into the lives of their children (Gonzalez & Wolters, 2006). By becoming involved, parents can play an important role in helping their adolescent children acquire or strengthen motivation that promotes physical and mental health and overall well-being (Terzian & Mbwana, 2009). It has been found that parent involvement in school directly impacts student success (Harris & Goodall, 2008; O'Bryan, Braddock, & Dawkins, 2009) by improving grade outcomes (Broh, 2002) and reducing the risk of student drop out (Carpenter & Ramirez, 2007). For the intention of this study, level of parental involvement has been split into three categories; highly-involved, minimally-involved and moderately-involved.

Types of Parental Involvement

Although parental involvement may be considered an aspect of parental style, it is beneficial to understand what style of parenting is associated with what level of involvement. Baumrind (1967) began her work on parenting styles when she studied the differences in self control, independence, and self-confidence in contrast to parental behaviour for 100 preschool children. The results of this study formed Baumrind's well-known tripartite model which included authoritarian, authoritative, and permissive parenting styles. These three styles and their defining characteristics help to distinguish which style parallels with which of the categories of parental involvement; highly-involved, moderately-involved, or minimally-involved.

Authoritarian/Highly-involved Parenting

The authoritarian parent is typically characterized as being critical of their child's performance. Hoang (2007) suggests that authoritarian style parenting is generally a more

involved style of parenting. These parents are obedience-oriented and expect their rules to be followed without question (Baumrind, 1971; Santrock, 2003; Enten & Golan, 2007). Overall this likely applies tremendous pressure onto their child as a student. They apply this pressure, often in the interest of excellence and success (Leff & Hoyle, 1997). These parents are likely to interject themselves into all facets of their child's life which they feel are important. According to Steinberg, Lamborn, and Dornbusch (1992), authoritarian parenting may account for the eventual lower academic motivation of their children. Thus, this type of parenting style would likely include highly-involved parenting.

Permissive/Minimally-involved Parenting

On the other extreme, the minimally-involved parent is typically characterized as having little involvement in their child's education or extracurricular activities. Minimal-involvement is a characteristic of permissive parents who have also been described as being lenient and tolerant of the impulses of their children and adolescents, rarely demand mature behaviour, and allow considerable self-regulation (Baumrind, 1971; Cripps & Zyromski, 2009). Research has shown that permissive style families tend to have high school students who do less well than high school students from authoritative style families in terms of grades (Dornbusch, Ritter, and Leiderman, 1987).

Authoritative/Moderately Involved Parenting

Between the parental involvement extremes mentioned above is the moderately-involved parent. A number of studies with children and adolescents indicate that parenting styles and practices are related to students' academic motivational beliefs (e.g., Aunola, Stattin, & Nurmi, 2000; Leung & Kwan, 1998). Whether parental involvement directly effects motivation or not, a moderately involved or authoritative parent has been shown to positively influence students

experience, performance, and achievement. Fulton and Turner (2008) indicated that parental warmth predicts academic outcomes for both males and females and that parental warmth is characterised by responsiveness and involvement. Parents who are moderately involved with their child's education help set them up for success by focusing on the enjoyment aspect of school and by allowing for a give and take relationship (Cauffman, 2006). They are supportive, acknowledge successes, show empathetic understanding, and reinforce other positive qualities (Cripps & Zyromski, 2009). It is by taking this approach that parents influence their children to perceive education positively, to overcome obstacles, and to feel proud of their performance and accomplishments (Areepattamannil, 2010). By providing such emotional support, parents establish a foundation for socializing children's motivation to learn (Gonzalez-Dehass et al., 2005).

While authoritative parenting or moderate parental involvement seems to aid academic success, both minimally-involved/permissive parents and, at the opposite extreme, highly-involved/authoritarian parents may play a disruptive role (Cripps & Zyromski, 2009). For instance, Wuerth, Lee, and Alfermann (2004) found that higher levels of parental praise and understanding result in increased enjoyment. Adolescents who described their parents as treating them warmly, democratically, and firmly were more likely than their peers to develop positive attitudes toward and beliefs about their achievement (Silva, Dorso, Azhar, & Renk, 2007). On the other hand, studies have indicated negative effects with regard to highly-involved and minimally-involved parenting. It has been found that increased anxiety and burnout are associated with authoritarian parenting (Vallerand, Fortier, & Guay, 1997), whereas adolescent students, who reported having parents who were conceived as having a permissive style, were found to be less mastery oriented (Hoang, 2007).

Understanding Motivation

In order to reduce the risk of confusing what a motivation is, a theoretical understanding is important. The underlying reasons we strive toward a particular behaviour or goal is usually considered a motivation. Motivation may be thought of as considerations that compel one to undertake a task, and determine the direction, intensity, and persistence of specific task-related behaviors (Buckworth, Lee, Regan, Schneider, & DiClemente, 2007). To understand this further, I present two examples of different levels of motivation. First, if a person is having a craving for ice-cream, they become motivated toward purchasing and consuming ice-cream. Second, if one is dissatisfied with their weight, they become motivated to lose it. The difference between the examples is that it is much more likely that dissatisfaction with weight would illicit more intense and persistent motivation, whereas the ice-cream craving may only briefly be intense and motivation will likely last a brief amount of time. With this example, it can easily be seen that motivations can vary drastically from one situation to the next.

The motivation occurring in education is often referred to as achievement motivation. Achievement goal theory has been considered the dominant perspective for investigating students' achievement motivation and related academic outcomes (Pintrich & Schunk, 2002). Achievement goals are defined as situationally specific orientations that refer to the reasons students are pursuing achievement tasks, and that affect how students experience and perform these tasks (Régner, Loose, & Dumas, 2009). Therefore, student motivation is an important factor to consider when academic success is measured. Variables such as time spent on homework, school retention, and educational aspirations are all indicative of how much students' value education and how motivated they are to succeed academically (Gonzalez-DeHass et al., 2005). Research has suggested that parenting has much to do with the development of students'

motivation to do well academically (Aunola, Stattin, & Nurmi, 2000; Leung & Kwan, 1998; Seyfried & Ick-Joong, 2002; Silva, Dorso, Azhar, & Renk, 2007).

A motivation's direction, intensity, and persistence also needs to be evaluated. To help explain what influences these aspects of motivation and what role parental involvement might play, Self-determination theory is presented.

Self-determination Theory

Self-determination Theory (SDT) looks directly at types of motivation. Perhaps the best example for adapting parental involvement, SDT allows parental involvement to be easily seen as a likely factor of student motivation. SDT considers basic needs as important for determining motivation. SDT emphasizes that a complete understanding of goal-directed behaviour, psychological development, and well-being, cannot be achieved without considering the needs that contribute to the psychological processes that direct people's goal pursuits (Deci & Ryan, 2000). To address these needs, this theory attempts to look at events that cultivate and sustain intrinsic motivation (Hagger & Chatzisarants, 2005). The internal factors which direct motivation are considered to be intrinsic motivation. Part of what determines intrinsic motivation is dependent on extrinsic reward and how it is perceived (Hagger & Chatzisarants, 2005). For example, when external rewards and controlling feedback are associated with performance, intrinsic motivation tends to be undermined. Therefore, a struggling student who has received criticism in the place of support and who has been promised a car for meeting a top grade is likely to have their intrinsic motivation undermined. On the other hand, when rewards and competition are presented so as to give informational feedback on personal success, intrinsic motivation is promoted (Deci & Ryan, 2000).

Parental involvement could be considered an external reward or motivation, and therefore would perceivable effect a child's intrinsic motivation. For example, research has shown that parents who are more *autonomy supported* as opposed to controlling, illicit in their children greater intrinsic motivation (Grolnick, Ryan, & Deci, 1997). Just like a controlling parent, by being highly-involved, parents may disrupt intrinsic motivation by taking away from personal goals. Therefore the goals of the student become extrinsically based on the expectations of the parent, compromising autonomy. The effects of minimally-involved parenting may best be determined by explaining the effects of parents who are moderately involved. Those parents who are moderately involved are likely to be supportive, and understanding of their child's experiences. Therefore, they give informational feedback on personal success, and promote intrinsic motivation. If moderately involved parents can yield effects that promote intrinsic motivation, then students with minimally-involved parents are at a disadvantage and would likely need to find other social relationships to promote intrinsic motivation.

Leff and Hoyle (1994) claim that parental involvement is such a powerful influence that its effects may last for many years and may enhance children's participation and performance in many different areas. SDT allows us to see how parental involvement can play a role that influences student motivation. Moreover, it provides a deeper understanding of what is meant by motivation, and what causes motivation. If Leff and Hoyle are accurate then it is possible that parental involvement in the academic aspect of a student's life will have the potential to positively influence all other aspects. It also means that parental involvement in other aspects of a child's life could positively affect student academic motivation.

Influence of Parental Involvement in Extracurricular Activities

A study conducted by Hawkins and Mulkey (2005) offer evidence that athletic participation of eighth graders can and often does have a positive impact on student motivation and engagement. Therefore it is possible that if parental involvement is present in extracurricular activity but not academia, we may still see benefits for academic motivation. O'Bryan et al. (2007) state that student athletic participation may both directly and indirectly create positive academic outcomes through increased parental involvement. Another study conducted by Gonzalez-Peinda, Carlos-Nunez, and Gonzalez-Pumariega (2002), which looked at the relationship of different aspects of parental involvement and student motivation, found a positive relationship between involvement in athletic events and adolescent motivation outcomes. If the above findings can be generalized to all extracurricular activities with all students, it can be recommended to parents, that, they find an aspect of their child's life that they can be involved in as a means to increase academic motivation. This is especially significant for parents of lower social economic status (SES), lower educational attainment, and visual minority populations who may find it more difficult to become involved in schools (Harold & O'Donnell, 2008). In the case of extracurricular activities, particularly school-based extracurricular activities, parents who become involved may inevitably become more involved with academia (O'Bryan et al., 2007) and therefore help further increase student motivation.

Most Relevant Literature Compared and Contrasted

To date, there has been an increasing amount of research regarding parental involvement in academics. However, "student motivation as an academic outcome of parental involvement has only recently been explored" (Gonzalaz et al., 2005, p. 100). Therefore, there has been a limited amount of research conducted in this specific area. That being said, the existing body of

research assists by indicating the importance of this subject as well as provides evidence, support and suggestions for the current research. The following articles are presented in order to provide support and also to compare and contrast with the current study.

Influences of Parental Involvement on Student Achievement

A study conducted by Steinberg, Lamborn, Dornbusch, and Darling (1992), was designed to investigate the impact of aspects of authoritative parenting, such as parental involvement and parental encouragement, on student achievement. To test their hypothesis that authoritative style parents would have adolescents with higher achievement, the authors used a sample of 6400 American 14-18 year-olds. Results of the study indicated that greater school performance and stronger school engagement were found for adolescents with authoritative parents (Steinberg et al., 1992). In particular, results indicated that the positive effects of authoritative parenting on adolescent achievement were specifically influenced by authoritative parental involvement (Steinberg et al., 1992).

The above study helps to provide evidence and rational for the current study. In particular, the above indicates that authoritative style parenting, specifically authoritative style parental involvement, positively impacts adolescent achievement. It also indicates that any parental involvement other than authoritative may yield less desirable results for adolescent achievement. Similarly, the current study hypothesizes that an authoritative or moderately involved parent will yield further positive results for adolescent academic outcomes. The difference between the two studies lies in which outcomes are being measured. The current study is interested in the cognition that is likely to impact adolescent academic achievement; adolescence academic motivation.

Examining motivation as opposed to academic achievement is justified for a few reasons. A study conducted by Grolnick, Ryan, and Deci (1991) found that academic motivational variables predicted children's academic achievement. Therefore, measuring motivation still enables the current study to compare and contrast with the study conduct by Steinberg et al. (1992) as the two variables (academic achievement and academic motivation) are correlated. As a result of examining motivation, the current study will not be interested in how well students are doing academically, but more so in how well they *want* to do. It is the hope that this will be more reliable in cases where adolescents may struggle academically, due to a learning disability or extraneous circumstances such as depression, poverty, work, etc. That being said, the current research takes the Steinberg et al. (1992) study a step-farther by also investigating the academic outcomes of adolescents subjected to the different types of parenting styles.

In terms of the methodology in which Steinberg et al. (1992) incorporated, the measures used for detecting authoritative parenting appear to be consistent with the literature which outlines the characteristics of authoritative parenting (as indicated by Baumrind, 1967). Breaking the authoritative parenting style down, the authors used three dimensions of measurement; acceptance/involvement, strictness/supervision, and psychological autonomy (Steinberg et al., 1992). To meet criteria for the authoritative style, individual adolescent scores were compared to the sample median of all three dimensions. The following indicates how the individuals were scored:

- If all three scores of an individual were ABOVE the median, than their family was credited as having an **"authoritative"** style and given a score of 3:
- IF all were BELOW the median, then the individual's family was deemed **"nonauthoritative"** and received a score of 1; and

- If two scores were ABOVE the median, the family was said to be **"somewhat authoritative"** and received a score of 2 (Steinberg et al., 1992).

Although the study does well to characterize and measure an authoritative style of parenting, it is limited in describing what parenting practices are characteristic of a nonauthoriative style. As a result, the authors would not be able to distinguish if a specific parenting style is responsible for negative or reduced outcomes.

Another aspect of the methodology, as outlined by Steinberg et al. (1992), which may be seen as a limitation, was in regard to the aspects of parental involvement that were measured. In order to measure parental involvement in school, researchers such as Steinberg et al. (1992) and others (Izzo, Weissberg, Kasprow, & Fendrich, 1999; Hoang, 2007) have prepared questions inquiring about a parent's involvement in school sports and other extracurricular activities. Although it is likely that authoritative style parents would be consistently involved in all areas of their adolescent's lives, school sports and extracurricular activities are not essential to academics.

A study conducted by Marchant, Paulson, and Rothlisberg (2001) raised the possibility that parental involvement in alternative environments verses participation at school, may differentially relate to student motivation. Consequently, extracurricular activity and sport constitutes a distinguishable factor for assessing student motivational outcomes. Perhaps more importantly, this study was not designed to account for parenting styles beyond the academic setting. Therefore the study would not be able to account for parents who may be authoritatively involved in extracurricular activities but not in academics.

Although the limitations of the Steinberg et al. (1992) study are apparent, it also provides support for the current study. Keeping in mind that academic achievement and academic motivation are positively correlated (Meece, Anderman, & Anderman, 2006), Steinberg et al.

(1992) provides evidence that those parents, who are moderately or authoritatively involved in their adolescents' academics, have a positive impact on achievement. Thus, adolescents whose parents are not authoritative are predicted to have reduced levels of academic achievement. The challenge for the current study will be identifying the "non-authoritative" types of involvement, so that an understanding of their impacts can be determined. The current study will also want to separate parental academic involvement from parental extracurricular involvement as a separate factor for influencing academic motivation in adolescents.

Impact of Parental Style and Parental Involvement on Adolescent Academic Motivation

Perhaps the most closely related study, Hoang (2007), looked specifically at the relationships between parenting and adolescent motivation. The purpose of the study was to establish how different types of parenting practices impact motivational outcomes for adolescents. In particular Hoang looked at parental style and parental involvement impact on student motivation (Hoang, 2007). Hoang selected 140 California public high school students to conduct the study upon. Participants ranged in age from 14 to 17 years old and were all registered in an Algebra I course. Questionnaires of perceived parental style, perceived parental involvement, goal orientation, and autonomy were used for measurements.

In consideration of motivation, Hoang (2007) took a theoretical approach by considering goal theories of orientation and autonomy. The results of Hoang's (2007) study indicated that parents who were perceived to be more authoritative, had the tendency to adopt a mastery goal orientation. Results also showed that parents, who were perceived to be more authoritarian or permissive, tended to have adolescents who adopted a greater performance approach orientation (Hoang, 2007). Furthermore, parental involvement was correlated with a performance orientation as well as a performance avoidance orientation.

The differences between a mastery approach, performance goal approach, and a performance avoidance approach, have to do with their purpose and how they affect motivation. A student who is mastery goal oriented wants to learn for the sake of learning, and become proficient in a topic to the best of their ability (Ames, 1992). This orientation effects and helps to increase intrinsic motivation. A student who is performance goal oriented is more concerned about outcome then about learning retention. They are likely to become preoccupied with the external indicators of success such as grades (Ames, 1992). Performance avoidant orientation describes those who achieve only out of fear of consequence such as making parents upset or appearing unintelligent amongst peers. Both performance goal and performance avoidant orientations have two effects on intrinsic motivation; if a student performs well, intrinsic motivation is increased, but doing poorly will decrease intrinsic motivation (Ames, 1992).

Using a goal orientation model, Hoang's (2007) results do not necessarily indicate that one type of parenting style is superior to another in relation to level of academic motivation. Goal theory suggests that although the potential for decreased motivation exists for performance orientation, both performance and mastery goal orientations can increase intrinsic motivation. Therefore, an argument cannot be made that indicates authoritative parenting will produce superiorly motivated students. Hoang's study just suggests that students will be motivated in alternative ways, and that a mastery orientation is generally preferred to a performance orientation as there is less risk of reduced motivation and errors being attributed to failure (Gonzalaz-Dehass, et al, 2005). That being said, these results could still be considered a motivational advantage for students with authoritative parenting which is consistent with the majority of the current literature (Steinburg et al., 1992; Izzo et al., 1999; Gonzalez-Dehass et al., 2005). Again, Hoang's study provides evidence for the hypothesis of the current study in that

there is at least a motivational advantage for adolescents with authoritative or moderately involved parenting.

Hoang's (2007) results suggest that students reporting more personally involved parents also reported a more mastery goal orientation. However, taking the three aspects of parental involvement that Hoang (2007) measured (cognitive, personal, and behavioural parental involvement) together; results also indicate that increased levels of parental involvement are associated with performance approach and avoidant goal orientations. This finding suggests that the more parents involve themselves, the more students will try to achieve out of fear of obtaining a poor grade, achieve because they do not want to disappoint their parents, achieve as they desire a good grade, or achieve because they do not want to feel inadequate (Ames, 1992). Although, this result would initially seem to contradict the current research, which suggests that a moderate level of involvement provides the best influence for adolescent academic motivation, it actually provides support. In Hoang's (2007) study, no attempt was made to distinguish parental involvement characteristics associated with each of the styles of parenting. Instead, the study examined parental involvement as an independent factor from parental style. Results, therefore, only indicate that higher involvement results in lower motivation which is similar to the current study's hypothesis.

Consistent with Hoang's results, the current study proposes that highly-involved parental involvement, characteristic of an authoritarian parental style, will result in less favourable motivation outcomes for adolescents. However, because Hoang does not indicate results regarding the absence of involvement, the results appear misleading as they suggest a one dimensional direction; the more involved parents become the less motivated adolescence will be. It is difficult to determine if the parental involvement measures were appropriate for determining

a lack of parental involvement in Hoang's study. The current study, hypothesizes that too much involvement will likely yield undesirable motivation in students and also hypothesizes that not enough involvement will likely yield undesirable motivation in students. Therefore, a moderate level of involvement, which is characteristic of an authoritative parenting style, is believed to be the most optimal level for greater academic motivational outcomes.

Hoang's (2007) study provides much support for the current research. In particular, Hoang distinguishes between the different types of parental style and studies how each affects adolescent motivation. This provides support for the current research which will also use differences in parental style to predict adolescent motivational outcomes. A notable difference from Hoang's research is that the current study determines that there is a level of parental involvement characteristic of each of the parenting styles.

Another area of support that Hoang's (2007) study provides is that results indicate that the best motivational outcomes were predicted by an authoritative parental style, as opposed to both authoritarian and permissive styles. Moreover, Hoang's work provided significant support for the current study's hypothesis that too much parental involvement will have less favourable motivation outcome in adolescence. Although results did not indicate the same affect for the absence of involvement, it is possible that measurements used were not appropriate for detecting this relationship. It is also possible that a more diverse range of parental involvement activities could be used and analyzed independently to uncover divergent relationships with student motivation (Gonzalez et al., 2002). Beyond providing support, Hoang has produced a significant study that stresses the importance of research in this area, as well as offers many useful suggestions for future research.

The above articles help to support, present a template for comparison, and provide suggestions for future research. By comparing and contrasting the current study with the above, many notable similarities and differences can be made. The process helps to appreciate what has been attempted previously and the similarities and differences of the current study. From this comparison it can be determined that the current study will attempt to build upon previous results and broaden what has only recently been explored; the relationship between parental involvement and adolescent academic motivation.

Rational For Research

This review of the current research helps to illustrate and elucidate key definitions and theories that relate to motivation and parental involvement. Moreover, this review outlines relevant research that has provided an understanding of relationships between parental involvement and adolescent academic motivation. Gonzalez-DeHass et al. (2005), suggest that continued investigation into the relationship between parental involvement and motivational constructs will strengthen the support for an already sound educational strategy. Hoang (2007) suggests that "parenting practices that influence or teach adaptive motivational and achievement outcomes are an aspect of a student's success that is in need of consideration" (p. 1). Hoang, indicates further that a parent who is too involved or not enough involved may lead to students who are less motivated. The current literature has demonstrated that further research into the understanding of the effects of parental involvement on student motivation is both important and warranted.

Research Questions

This study investigated the impact that academic and extracurricular parental involvement has on student academic motivation in order to answer the following questions:

1. Does level of parental academic involvement affect student academic motivation for grade 11 and 12 students?
2. Does level of parental extracurricular involvement affect student academic motivation for grade 11 and 12 students?
3. Can parental academic involvement and parental extracurricular involvement be used to predict level of student motivation? If so do they significantly account for variation over and above what is accounted for by demographic variables that significantly correlated with student academic motivation; such as student grade level, gender, and amount of time spent on homework?

CHAPTER 3

METHODOLOGY

In this chapter, the methods and procedures used to collect and analyze the data for this study are presented. This study examined extracurricular parental involvement, academic parental involvement, student academic motivation, and selected demographic factors. Analysis of variance and multiple regression analysis were utilized in cross-sectional research design.

Participants

A sample of 124 high school students, 16 years and older, from an urban community in Northern Saskatchewan volunteered to participate after receiving approval of the school division and the willingness of teachers to participate. Permission was provided for the researcher to collect data from one community public high school and approximately 10 grade 11 and 12 classrooms were entered. All students in each classroom agreed to participate with the exception of one student who came in late. Another participant was removed prior to analysis as their scores were determined to be outliers. It is also important to mention that many students were in more than one of the classrooms entered and therefore they did not repeat the study.

As this study used sequential multiple regression to examine the relations between parental academic involvement, parental extracurricular involvement, some demographic information, and student academic involvement, having 124 participants was necessary to exceed minimal power requirements and avoid making type II errors (Pedhazur & Schmelkin, 1991). From the demographic information collected, three variables were significantly correlated with the dependent variable. Therefore a total of five independent variables were used to perform the multiple regression. 124 participants exceeds Pedhazur and Schmelkin's (1991) suggested

minimum subject to predictor ratio of 30 people to 1 variable and significantly exceed Miller and Kunce's (1973) suggested minimum ratio of 10 people to 1 variable.

Materials

Each participant was asked to complete a questionnaire booklet that contained self-report measures of parental involvement, self-reported academic motivation, and demographic characteristics. The participants were asked to complete the questionnaires in consideration of their experiences as high school students. The self-report measures of parental involvement addressed both parental involvement in academics, as well as involvement in extracurricular activities. Participants were provided with a definition, and examples of what qualified as an extracurricular activity prior to completing the study.

Parental Involvement Questionnaire (academic). Students responded to a 22-item scale of parental involvement using a 5-point response scale ranging from 1 "strongly disagree" to 5 "strongly agree". The questionnaire, borrowed from Paulson and Sputa (1996), was developed based on a review of the parental involvement literature using subscales of values towards achievement (8 items), interest in schoolwork (9 items), and involvement in school functions (5 items). Internal consistency values, as measured using Cronbach alphas, ranged from .67 to .86 for adolescents' and parent's reports of parental involvement (Paulson & Sputa, 1996). Generally, alpha reliabilities above .70 are considered acceptable, while alpha reliabilities above .80 are considered good, and alpha reliabilities above .9 are considered excellent (George & Mallery, 2001). Therefore, Paulson and Sputa's questionnaire demonstrated reliability that was, in the very least, approaching acceptability and in some cases approached excellent. To assess evidence of construct validity, Paulson and Sputa correlated their questionnaire with existing measures of similar parenting dimensions (1996). They found highly significant correlations

between their parenting scales and similar scales from Children's Report of Parental Behaviour Inventory (CRBI; Schaefer, 1965) and the Family Environment Scales (FES; Moos & Moos, 1981) (Paulson & Sputa, 1996). A sample item of the school involvement portion of the scale is: "My parents usually go to parent-teacher conferences." Participants then responded by circling the number which represented the amount they agreed to the statement (refer to Appendix A).

Parental involvement Questionnaire (Extracurricular Activities). Participants were administered a number of questions concerning their parents' involvement in extracurricular activities using a 5 point scale ranging from "strongly agree" to "strongly disagree". The questions addressed were again borrowed and modified from Paulson and Sputa (1996) to reflect parental involvement in extracurricular activities as opposed to academia. Questions receiving the most attention were; how often parents watch activities, how much parents talk to their child about their activities, how much parents support activity involvement, how much parents contribute financially, how supportive they are regardless of activities outcome, and how much they attempt to make them feel better after disappointment in activities. Participants responded by circling the number which represented their level of concurrence to the questionnaire statements (refer to Appendix B). As the items were modified from Paulson and Sputa (1996), to relate to extracurricular activity, no internal consistency values were available a priori.

Student Academic Motivation Questionnaire. The Motivation to Achieve Academically Questionnaire (MAAQ; Waugh, 2002) was borrowed and modified to assess the academic motivation of the student participants. As was suggested by Lepper, Corpus, and Iyengar (2005), this motivational assessment tracks intrinsic, extrinsic, and internalized motivations simultaneously. This measure, developed to encompass leading theories of motivation, is a 48-item questionnaire that combines three main aspects of motivation; striving for excellence, desire

to learn, and personal incentive/reward. Although some of the 48 items were originally discarded during calculations due to the strict requirement of the Rasch model, the author contends that this was likely due to problems in wording. Therefore, on the recommendation of the author, all items which were originally discarded have had their wording changed. The MAAQ was used to measure students' actual motivation or what students actually do as they relate to motivation. This was modified from the original questionnaire which also measured what students' aim to do as they relate to motivation. Reliability of this 48 item scale was reported to be excellent at 0.928 (Waugh, 2002). However, there is no mention of reliability scores for the three individual aspects of the instrument. The items are said to have good content validity as they are derived from a conceptual framework based on previous research (Waugh, 2002). In this study, the response scale was modified from the original 4 point scale. Instead, responses were recorded on a 5-point Likert-type scale ranging from "in all or nearly all my subjects" to "in none or only one of my subjects" which was for the purpose of maintaining consistency across materials (Waugh, 2002) (Refer to Appendix C).

Demographics. A demographic information questionnaire asking participants their age, sex, family income, parents' level of education, extracurricular activities, ethnicity, academic average, and amount of time dedicated to extracurricular was administered (Refer to Appendix D). These particular demographics were used for exploratory purposes in terms of their relation to student academic motivation. Demographic information was also used to determine if students were living with parents or guardians. As only three participants were in the care of a guardian, they were removed from the study.

Design and Procedure

Initial steps were taken to obtain access to high schools in Saskatchewan. These steps first include an ethics submission and approval from the University of Saskatchewan Behavioural Research Ethics Board (BREB). Included in the ethics submission was a request for waiving parental consent as desired participants were 16 years and older. Instead, an "active" informed consent was received from participants while a "passive" informed consent was received from parents. To obtain passive consent from parents, a letter was sent home with students that inform parents of the research being conducted. Within the letter, parents were invited to contact the school if they did not wish for their child to participate. Participants, on the other hand, were required to review and sign a consent form before they were able to continue with the study.

This request was desired given the age of participants and due to concerns regarding the recruitment of a diverse participant pool. The minimal risk posed by the proposed research, and because regular classroom students at this age demographic possess the proper level of competence to make an informed decision to participate in this study, justified a request to waive parental consent. According to the Tri-Council Working Group on ethics (1997) the competence of adult and older children should be presumed unless there is reasonable evidence to the contrary. Furthermore, this request came in light of the concern that the sample would have become biased to include mostly participants who had moderately involved parents. Because the interest is in studying highly-involved, moderately involved, and minimally-involved parents, obtaining consent, especially from minimally-involved parents, would have proved to be difficult. A similar study conducted by Steinberg and colleagues (1992), in which the researchers were permitted to waive the parental consent requirement, found that 43% of high school

students' parents never participate in school programs. This finding may have not been possible had the researchers not gained permission to use a "passive" approach for parental consent.

Following approval from the BREB, contact was made with the School board research personnel to inquire about accessing students 16 and older for the purposes of this study. The urban school in Northern Saskatchewan was chosen as a means of convenience in terms of proximity to the researcher. The request to waive parental consent was again made with the school board. After receiving access from the school boards', arrangements were made with the high school principal and staff as to the scheduling of the study. Arrangements were also made with school personal in terms of delivering the research information letter to parents. This was done so that parents had a reasonable amount of time to contact the school if they did not wish for their child to participate in the study.

High school classrooms were the site for the data collection and times were arranged with school personnel for the researcher to administer study materials to participants. Participants were told that the researcher is conducting a study on the effects of parental involvement on student motivation. It was also clearly explained to all participants that participation is voluntary and that they could alternatively choose to work quietly. Questionnaire booklets which included a participant identification number were distributed. The booklet numbers were used for identification purposes in order to protect the identity of students who were asked not to include their names. The researcher then helped the participant go over the consent form before proceeding to complete the MAAQ. The consent form was collected upon completion and kept separately from the questionnaire booklet so that participants could not be identified by researchers. Following the MAAQ, participants filled out the parental involvement questionnaires. Finally the students completed the demographic information component of the

study. The demographic information component concluded the study and participants were provided with a debriefing letter which included researcher contact information, along with school counselor contact information, if they had any further questions or concerns.

Analysis

Preliminary Analysis

In order to ensure that the data set was accurate before analysis took place, data cleaning was implemented. Following the entrance of data into the SPSS data file, the file was compared to the original data collected from the materials booklets to ensure it was entered correctly. During this process data was checked for missing data, outliers, and problems with multicollinearity or singularity (Tabachnick & Fidell, 2007). In order to identify any issues with multicolinearity and singularity, pairwise plots and correlation values were analyzed. Also to ensure that the assumptions of normality, linearity, and homoscedasticity of residuals were being met, variables were plotted and the skewness and kurtosis was examined. Finally, as part of the preliminary analysis, correlational analysis was ran in order to determine relationships between all variables. Correlational analysis was utilized in order to determine which independent variables were significantly correlated with the dependent variable (student academic motivation).

ANOVA's

Between subjects ANOVA's were chosen to help determine variance between the different levels of parental involvement (highly-involved, minimally-involved, and moderately-involved) on student academic motivation. A between subjects ANOVA was run for both extracurricular parental involvement and academic parental involvement. The different levels of parental involvement were determined by utilizing the standard deviation of involvement scores.

Participants who scored one standard deviation above the mean of parental involvement scores were placed into the highly-involved category; participants who scored one standard deviation below the mean were placed in the minimally-involved category, while participants within 1 standard deviation above and below the mean were included in the moderate parental involvement category. This decision was made as the standard deviation provided an adequate number of participants for each category which reduced the risk of violating the homogeneity of variance assumption. Although there is no priori criteria as to the minimal number of participants in each category when performing an ANOVA, there is a risk of violating the homogeneity of variance assumption when group numbers are too small and/or unequal. The risk occurs in that if the group with the largest sample size has larger variances, then results tend to be conservative. On the other hand if the larger group has smaller variances in comparison to the smaller groups, results tend to be more liberal (Field, 2005).

Multiple Regression

Multiple regression was chosen for this study for its flexibility in examining real-world events that are not always possible to assess in a laboratory setting (Tabachnick & Fidell, 2007). The goal of a multiple regression analysis is to determine the relationship between a dependent variable (DV) and multiple independent variables (IV). Multiple regression creates an equation that allows the researcher to determine, or predict, the expected changes in the DV when changes in the IV's occur (Pedhauzer, 1982). For example, this study aimed to predict student academic motivation (DV) from changes in parental academic involvement and parental extracurricular involvement (IVs). Although any number of IVs may be responsible for influencing student academic motivation, the goal of multiple regression is to use the least amount of variables as possible. Because there may be many different variables at play, such as cognitive ability, that

are unaccounted for, strong relationships determined through multiple regression are not considered to be causal (Tabachnick & Fidell, 2007). Another potential limiting factor of multiple regression is the researcher bias involved in determining what variables will be included in the analysis. It is generally the researcher's interest which determines the variables that will be measured and included in the analysis.

Level of Statistical Significance and Power

For the purpose of the current study, a statistical significance level of 0.05 was chosen. Due to the exploratory nature of the current research a level of 0.05 is ideal. In a case in which a researcher was testing for the effectiveness of a treatment or drug a more conservative alpha level, such as 0.01, would likely be more appropriate. The current research is more interested in determining relationships between variables and therefore accuracy is not as imperative. With a more conservative level, certain important relationships may not be found to be significant. On the other hand, a more liberal level such as 0.10 may indicate significant relationships that are not actually important. Given that relationships determined through multiple regression are not causal to begin with, a more liberal level may be increasingly misleading when determining significant relationships (Field, 2005).

Implications

There have been few studies which have compared these two forms of information. Parental level of involvement is enormously important in a student's experience in education and likely effects motivation. Motivation is one of the critical cognitive variables contributing to students' interest in, enjoyment of, and performance in school (Martin, 2010). Therefore a clear understanding of the influences of academic motivation may provide insight into poor student

performance, student burn out, or even student dropout (Vallerand et al., 1997). It is important to know if parental involvement is a factor involved with student motivation so that it can be made aware of, and so that steps can be taken to reduce negative outcomes.

CHAPTER 4

RESULTS

In the first section of this chapter a description of participant characteristics as well as demographic information is presented. Secondly, results of correlation analysis in regards to the relationship between the independent variables and the dependent (student academic motivation) are discussed while other noteworthy correlations are included in table 4.3. The third part of the chapter details the results that are related to the following research questions:

1. Does level of parental academic involvement affect student academic motivation for grade 11 and 12 students?
2. Does level of parental extracurricular involvement affect student academic motivation for grade 11 and 12 students?
3. Can parental academic involvement and parental extracurricular involvement be used to predict level of student motivation? If so do they significantly account for variation over and above what is accounted for by variables that significantly correlated with student academic motivation; such as student grade level, gender, and amount of time spent on homework?

Participant Characteristics

Descriptive statistics for the participants in this study can be found in Tables 4.1 and 4.2. Of the 124 public grade 11 & 12 high school students whom participated in this study, 41.1% were male and 58.9% were female. The ages of the participants ranged from 16 to 19 years. In terms of ethnicity, 66.9% were white, 17.7% were first nations, 8.1% were metis, 2.4% were black, 0.8% were Asian, and 4% identified themselves as other. Most of the participants

Table 4.1

Descriptive Statistics for Continuous Variables

Variable	N	M	SD	Min Value	Max Value
Student Academic Motivation	123	168.67	29.73	74	219
Parental Academic Involvement	123	82.60	11.52	40	108
Parental Extracur. Involvement	123	79.31	15.22	37	107

Note: N=number; M= Mean; SD = Standard Deviation; Possible range of scores for the Student Academic Motivation scale was 45 to 225; Possible range of scores for the Parental Academic Involvement scale was 22 to 110; Possible range of scores for the Parental Extracurricular Involvement scale was 22 to 110.

Table 4.2
Frequencies and Percentages for Categorical Variables

Variable	N	Percentage
Gender		
Male	51	41.5
Female	72	58.5
Ethnicity		
Caucasian	82	66.9
First Nations	22	17.7
Metis	10	8.1
Black	3	2.4
Asian	1	.8
Other	5	4
Age		
16	16	13
17	53	43.1
18	50	40.7
19	4	3.3
Grade Average		
Below 50	3	2.4
50-60	8	6.5
60-70	18	14.6
70-80	27	22
80 and higher	67	54.5
Homework Per Week		
Less than 1 hour	35	28.5
1-2 hours	40	32.5
3-4 hours	29	23.6
5-6 hours	14	11.4
7-8 hours	4	3.3
More than 8 hours	1	.8

indicated that English was their first language (96%) while 4% indicated that English was not their first language. Just over a quarter (28.5%) of participants indicated that they did less than an hour of homework per week, 68.5% indicated they did between 1 and 6 hours of homework per week, while only 4.1% indicated that they did more than 6 hours of homework per week. Also, it should be noted that over half of the participants in this study indicated they had an 80% or higher grade average, while only 2.4% of students indicated a failing grade of below 50%. It is also important to consider that a proportion of the participants in the study would have likely been from rural communities.

Correlational Analysis

Correlational analyses were performed to determine if there were any statistically significant relationships between the dependent variable student academic motivation and the independent variables (e.g.; see Table 4.3). A statistically significant positive correlation was found between student academic motivation and parental academic involvement, $r_{(123)} = .44$, $p < .05$. A statistically significant positive correlation was also found between student academic motivation and parental extracurricular involvement, $r_{(123)} = .49$, $p < .05$. As for demographic information that was collected, three demographic variables were significantly correlated with the dependent variable, student academic motivation. A statistically significant positive correlation was found between student academic motivation and gender, $r_{(123)} = .31$, $p < .05$. A statistically significant correlation was found between student academic motivation and grade average, $r_{(123)} = .61$, $p < .05$. Finally, a statistically significant positive correlation was found between student academic motivation and amount of time spent on homework per week, $r_{(123)} = .53$, $p < .05$. Other notable correlations can be observed in table 4.3.

Table 4.3

Correlation Matrix – Student academic motivation, gender, grade average, amount of time spend doing homework, parental academic involvement, parental extracurricular involvement.

Variables	1	2	3	4	5	6
1. Student Academic Motivation	1.00	.305**	.607**	.528**	.444**	.494**
2. Gender		1.00	.294**	.329**	.175	.055
3. Grade Average			1.00	.446**	.396**	.344**
4. Amount of time spent doing homework				1.00	.371**	.302**
5. Parental academic involvement					1.00	.604**
6. Parental extracurricular Involvement						1.00

Note. * Correlation is statistically significant at the 0.05 level (2-tailed).
** Correlation is statistically significant at the 0.01 level (2-tailed).

Between Subjects ANOVA's

As was discussed in the methodology chapter, this research was interested in determining differences in student motivation based upon their level of parental involvement in both the academic and extracurricular realms. In order to determine if any differences existed, the parental involvement scores, for both parental academic and extracurricular involvement, were divided into three categories (highly-involved, moderately-involved, and under involved) based on standard deviation. Participants who scored one standard deviation above the mean of parental involvement scores were placed into the highly-involved category; participants who scored one standard deviation below the mean were placed in the minimally-involved category, while participants within 1 standard deviation above and below the mean were included in the moderate parental involvement category. Table 4.4, illustrates the academic motivation descriptive and frequency information which was determined for each of the three categories of involvement. To examine the impact of the different levels of parental involvement on student motivation, a between-subjects ANOVA was used to identify any significant differences (Refer to Table 4.1 for descriptive information). Significant differences were explored with Tukey post-hoc follow-up tests. Alpha was set to .05 for all tests.

Parental Academic Involvement

Level of parental academic involvement was determined by totaling participant scores on a parental academic involvement questionnaire. Using the standard deviation of scores, categories of highly-involved, moderately involved, and minimally-involved parent academic involvement were determined. There was a significant effect of the levels of parental academic

Table 4.4
Descriptive Statistics for parental involvement categories

Variable	N	M	SD	Min Value	Max Value
Parental Academic Involvement					
Highly-involved	17	186.06	25.33	106	219
Moderately-involved	83	169.22	27.63	74	218
Minimally-involved	23	153.04	33.57	75	207
Parental Extracur. Involvement					
Highly-involved	15	191.00	17.32	170	219
Moderately-involved	94	169.55	26.72	74	217
Minimally-involved	14	137.50	35.82	75	196

Note: N=number; M= Mean; SD = Standard Deviation

involvement on student academic motivation $F_{(2, 118)} = 6.62$, $p < .05$, $\eta^2 = .10$. Follow-up Tukey post hoc comparisons indicated that there was a significant difference between the highly-involved group (M = 186.06, SD = 25.33) and the minimally-involved group (M = 153.04, SD = 33.57), with the minimally-involved group resulting in less academically motivated participants. There was also a significant difference between the moderately involved group (M = 169.22, SD = 27.63) and the minimally-involved group, again with the minimally-involved group resulting in lower academically motivated participants.

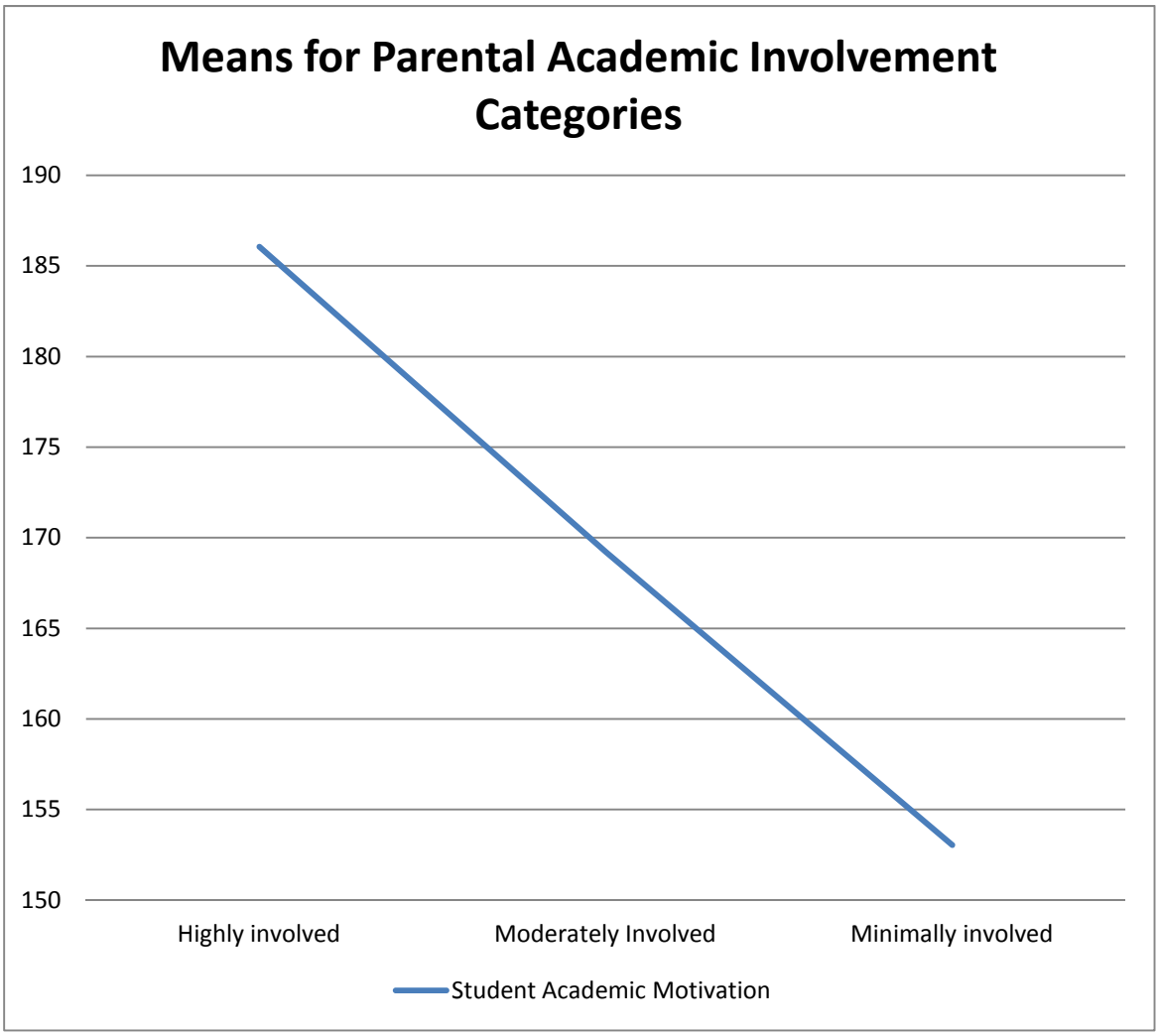
The above analysis indicated that there was a difference between levels of parental academic involvement and student academic motivation. These results indicate that both the highly-involved and moderately-involved groups resulted in participants who had greater motivation than the minimally-involved group. However, results were not able to conclude any differences between the highly-involved and moderately-involved groups. Figure 4.1, is an example of how results varied between groups.

Parental Extracurricular Involvement

Level of parental extracurricular involvement was determined by totaling participant scores on a parental extracurricular involvement questionnaire. Using the standard deviation of scores, categories of highly-involved, moderately-involved, and minimally-involved parent extracurricular involvement were determined. There was a significant effect of the levels of parental extracurricular involvement on student academic motivation $F_{(2, 118)} = 14.54$, $p < .05$, $\eta^2 = .20$. Follow-up tukey post hoc comparisons indicated that there was a significant difference between the highly-involved group ($M = 191$, $SD = 17.32$) and both the moderately-involved group ($M = 169.55$, $SD = 26.72$) and the minimally-involved group ($M = 137.5$, $SD = 35.82$),

Figure 4.1

Means for Parental Academic Involvement Categories; Highly-involved, Moderately-involved, and Minimally-involved.



with the highly-involved group resulting in the highest level of student academic motivation. There was also a significant difference between the moderately-involved group and the minimally-involved group, again with the minimally-involved group resulting in lower academically motivated participants.

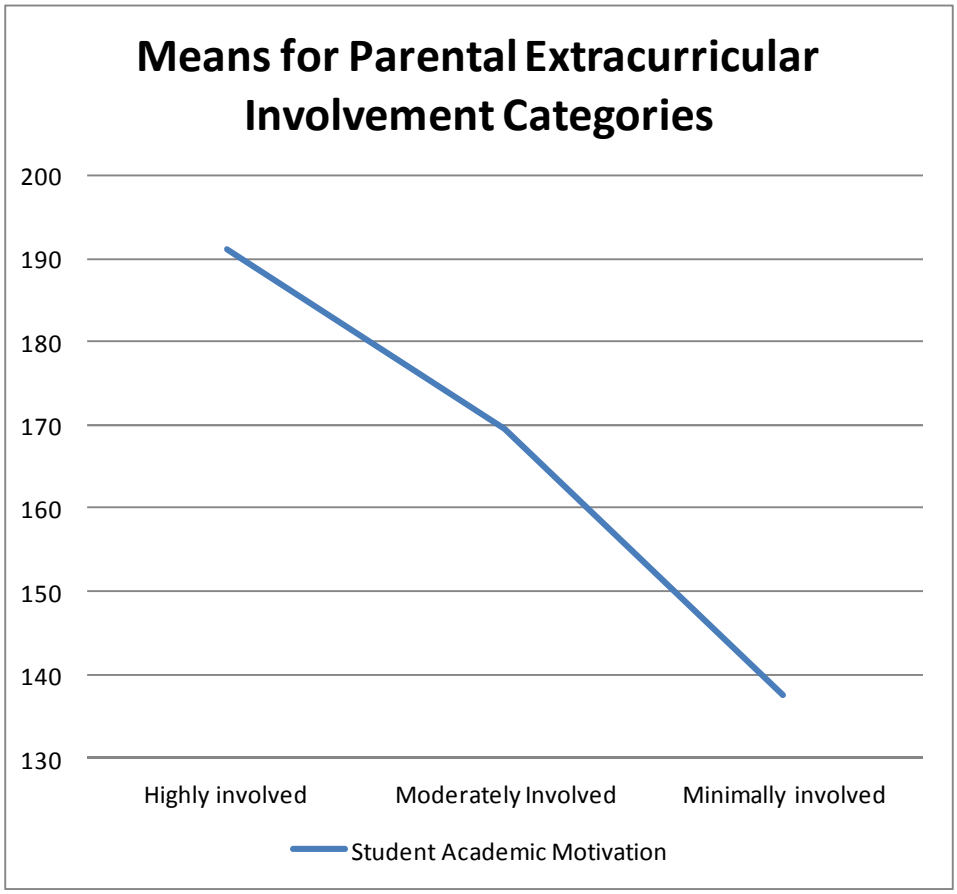
The above analysis indicated that there was a difference between levels of parental extracurricular involvement and student academic motivation. These results indicate that both the highly-involved and moderately-involved groups resulted in participants who had greater motivation than the minimally-involved group. Results also indicate that the highly-involved group yielded more superior scores for student academic motivation than did the moderately-involved group (figure 4.2).

Hierarchical Multiple Regression

A hierarchical multiple regression was used to predict level of student academic motivation from demographic information, level of parental academic involvement, and level of parental extracurricular involvement. Multiple regression analysis was conducted by dividing the independent variables into three separate models. The first model included all demographic information that was shown to be correlated with student academic motivation; gender, grade average, and amount of time spent on homework each week. The second model included parental academic involvement scores while the third model included parental extracurricular involvement scores. One of the requirements of running multiple regression analysis is that independent variables that are categorical can only have two categories (Field, 2006). The independent variable, time spent on homework, originally had six categories. However, it was initially reduced to five when the fifth category was altered in order to absorb the one participant

Figure 4.2

Means for Parental Extracurricular Involvement Categories; Highly-involved, Moderately-involved, and Minimally-involved.



who selected the sixth category. Moreover, a between subject's ANOVA and follow-up tukey post hoc comparisons revealed that there was only a significant difference for student academic motivation between participants who indicated less than an hour spent on homework with each of the other categories (table 4.5). Therefore, for the purpose of meeting assumptions for multiple regression, the categories were reduced to only two; less than one hour spent on homework per week and greater than one hour spent on homework.

As grade average also had more than two categories, all of which varied significantly from each other, dummy coding was required. Dummy coding is a way of representing categories of people using only 0's and 1's (Field, 2005). This process will always leave one less category when transformation occurs as the remaining categories will all be determined in relation to either a control category or the category which is most often selected by participants. For example, participants had five categories to choose from for grade average and after dummy coding, four categories remained. The fifth category became the benchmark for which each of the remaining categories is compared (Field, 2006). In accordance with Field (2006), as there was no control category for grade average, the category that was selected most often by participants was chosen. This meant that the category of 80% or higher was compared with all other grade average categories.

The purpose of utilizing the hierarchical analysis in this study was to first determine how much predictability parental academic involvement can have on student academic motivation over and above other likely factors effecting student motivation (i.e. gender, grade average, and amount of time spent on homework). It was also important for this research to determine if parental extracurricular involvement could have an impact over and above academic

Table 4.5

Post-hoc comparisons and correlations between time spent on homework per week

Variables	1	2	3	4	5
1. Less than 1 hour	.000**	.000**	.000**	.000**	.000**
2. 1 to 2 hours		1.00	.628	.489	.123
3. 3 to 4 hours			1.00	.988	.473
4. 5 to 6 hours				1.00	.740
5. 7 or greater					1.00

Note. * Correlation is statistically significant at the 0.05 level (2-tailed).
** Correlation is statistically significant at the 0.01 level (2-tailed).
- A category of eight hours or greater was included as an option for participants. However due to only one participant selecting eight hours or greater a new category of seven hours or greater was created.

involvement alone. Scatter plots and histograms were used to analyze and determine that the assumptions of multiple regression had been met.

Results of the hierarchical multiple regressions indicated that all three models entered were significant (Table 4.6). The first model which included demographic information was found to be statistically significant, $F_{(6,116)} = 17.46$, $p < .05$, $R^2 = .48$. Gender was not identified as a significant predictor in this first model. However, both the grade average and amount of time spent doing homework were found to be significant predictors ($p < .05$) of student academic motivation. Specifically, all categories of grade average in their relation to the majority of participants who selected an 80% average or higher were significant predictors; 80% or higher versus 50% or lower ($\beta = -.334$); 80% or higher versus 50 to 60% ($\beta = -.255$); 80% or higher versus 60 to 70% ($\beta = -.258$); 80% or higher versus 70 to 80% ($\beta = -.229$). In other words a lower score on the student academic motivation scale can be predicted for participants indicating they have less than an 80% average. Furthermore, with the exception of the 50% to 60% and 60% to 70% categories, the results generally indicate that academic motivation is predicted to increase as grade average increases. Amount of time spent on homework per week was also found to be a significant predictor of student academic motivation ($\beta = .299$). This reveals that those who spent at least one hour on homework each week were predicted to score significantly higher on the student academic motivation scale, while those who spent less than an hour were predicted to have significantly lower academic motivation.

The second model that was entered into the hierarchical regression was parental academic involvement. The second model was also found to be significant, $F_{(7,115)} = 17.06$, $p < .05$, $R^2 = .51$. The second model was able to account for a greater degree of variance over and above the first model in terms of being able to predict student academic motivation, $\Delta F_{(1, 115)} = 8.17$, $p <$

0.05, ΔR2 = .035. All significant predictors ($p < .05$) from the first model remained for the second (refer to table 4.6). New to the second model was parental academic motivation which was also a significant predictor ($\beta = .213$). This suggests that participants who indicated higher levels of parental academic involvement significantly predicted higher scores of academic motivation; over and above what was accounted for by the first model (grade average and amount of time spent on homework).

The third model, which entered parental extracurricular involvement as a predictor of academic motivation, was also statistically significant, $F_{(8, 114)} = 17.65$, $p < .05$, $R^2 = .55$. The third model was also able to account for a greater degree of variance over and above the first and second models, $\Delta F_{(1, 114)} = 11.20$, $p < 0.05$, $\Delta R2 = .044$. Again the significant predictors ($p < .05$) from the first model continued to be significant in the third (refer to table 4.6). Also a significant predictor of student academic involvement in the third model, was extracurricular parental involvement ($\beta = .269$). However, parental academic involvement was no longer a significant predictor of student motivation in this third model. Results therefore indicate that parental extracurricular involvement is a significant predictor of student academic motivation over and above grade average, time spent on homework, and parental academic involvement. However, results also indicate that parental academic involvement is no longer a variable that is able to predict student motivation when extracurricular involvement is accounted for. The R^2value ($R^2 = .52$) of the third model indicates that all the variables that were entered in the third model predict over 50% of the variability in the level of student academic motivation. The regression equation for the model:

> School academic motivation = 102.478 + (-52.902 if less than 50%; or -22.781 if 50% to 60%; or -19.089 if 60% to 70%; or -18.518 if 70% to 80%) + (14.476 if greater than 1 hour of homework per week) + (.527 *

parental extracurricular involvement). Remaining variables in the equation included 80% average or greater versus 50% or less (t = -3.997, $p < .05$); 80% average or greater versus 50% to 60% (t = -2.668, $p < .05$); 80% average or greater versus 60% to 70% (t = -3.308, $p < .05$); 80% average or greater versus 70% to 80% (t = -3.756, $p < .05$); amount of time per week on homework (t = 2.836, $p < .05$), and parental extracurricular involvement (t = 3.346, $p < .05$).

Using the above equation, a student who has a 75% average, who spends 2 hours a week on homework, and who has a parental extracurricular involvement level of 75 would be predicted to have a motivation level of 137.961. The value of 137.961 falls below one standard deviation of the mean academic motivation level of 168.67. As a means to increase the above student's academic motivation, an increased level of parental extracurricular involvement may be recommended. If the level of parental extracurricular involvement is increased to 90, this same student would now be predicted to have a motivation score of 145.866; which would then place them in the average range for student academic motivation.

Table 4.6

Hierarchical multiple regression analysis: Predicting student academic motivation from parental involvement.

Variable	B	SE B	β
Model 1			
80% vs 50% or less	-65.360	13.856	-.340**
80% vs 50-60%	-32.208	8.789	-.268**
80% vs 60-70%	-23.610	6.101	-.281**
80% vs 70-80%	-17.815	5.284	-.248**
less than 1 hourvs more than 1 hour	19.680	5.322	.299**
Gender	3.078	4.612	.051
Model 2			
80% vs 50% or less	-57.203	13.746	-.297**
80% vs 50-60%	-25.141	8.880	-.209**
80% vs 60-70%	-20.983	5.992	-.250**
80% vs 70-80%	-18.938	5.143	-.264**
less than 1 hourvs more than 1 hour	16.356	5.294	.249**
Gender	3.682	4.481	.061
Parental Academic Involvement	.554	.194	.213**
Model 3			
80% vs 50% or less	-52.902	13.327	-.275**
80% vs 50-60%	-22.781	8.540	-.189**
80% vs 60-70%	-19.089	5.771	-.227**
80% vs 70-80%	-18.518	4.930	-.258**
less than 1 hourvs more than 1 hour.	14.476	5.105	.220**
Gender	5.649	4.334	.094
Parental Academic Involvement	.176	.217	.068
Parental Extracurricular Involvement	.527	.157	.269**

Note. * Correlation is statistically significant at the 0.05 level (2-tailed).
** Correlation is statistically significant at the 0.01 level (2-tailed).

CHAPTER 5

Discussion

In the first section of this chapter, the importance of understanding student academic motivation in current North American society is considered. The influence of parental involvement as a factor effecting student academic motivation is also explored within this first section. Secondly, this chapter will discuss and interpret the findings of the current research and how these findings relate or add to existing research. The third section of this chapter will identify the limitations of the current study as well as provide recommendations for future research. This chapter will then conclude with a discussion regarding the implications of the current research.

The intention of this research was to provide further evidence towards identifying parental involvement as a significant factor effecting student academic motivation. Currently there is limited research looking specifically at how different levels of parental involvement effect student academic motivation. Furthermore, the separation of extracurricular parental involvement as a unique factor distinguishable from academic parental involvement has not been considered in previous research. Observing the effects of different levels of parental involvement also permitted the current research to garner evidence that might suggest optimal levels of involvement. The intention of determining this optimal level was to provide a rationale for implementing strategies to encourage parents to become more involved in their adolescents' lives and serve as an additional means to increase their children's academic motivation. Having increased academic motivation is important in that it helps foster academic achievement and opens up several more opportunities for adolescents as they move into adulthood (Stoeber & Rambow, 2007).

In comparison to international standards, the level of educational attainment in Canada is remarkably high; over 50% of adult Canadians have achieved at least a post-secondary certificate (Boothby & Drewes, 2004). Not only has the emphasis on entering higher education to receive employment increased in Canada, so has the gap between educated employees and non-educated employees in terms of wage. Lemieux (2006) argues that a trend has occurred since the 80's where the emphasis on extended education began to take priority and subsequently inequality of wages has emerged. Given the above trends, the Canadian work force is extremely competitive and it places anyone with less than a post-secondary education at a disadvantage (Anisef & Sweet, 2005). It has been shown in previous studies that adolescents who have less academic motivation have lowered academic achievement (Fortier, et al.,1995; Martin, 2010).Therefore, students with less academic achievement would be less likely then motivated students to qualify and attend post-secondary level education.

Level of parental involvement as an influence of student academic motivation is an important area to consider. Previous research has shown that parental style or involvement influences student academic motivation (Hoang 2007; Steinberg, Lamborn, & Dornbusch, 1992). When a parent is actively engaged in their child's education, particularly during adolescence, there is evidence to suggest that this will contribute to increased levels of academic motivation (Henderson & Mapp, 2002). Therefore it is reasonable to assume, that parents who are involved academically will influence their children differently than those who have minimal or no involvement. Moreover, this current study aimed to determine if parents who placed too high a priority on education in terms of becoming highly-involved, will also have differential effects on students' academic motivation. Finally, as many parents may find it easier to relate to, take interest, and become involved in extracurricular activities, this study aimed to show that parental

involvement in activities outside of academics can also be an impactful variable effecting student academic motivation positively.

Discussion of Findings

For each of the questions that the current research was interested in pursuing, certain statistical methods were utilized. Initially correlation analysis was utilized in order to identify the independent variables that were most likely to affect student academic motivation. With the independent variables revealed, two main analyses were performed.

Levels of parental involvement in relation to academic motivation

In order to determine differences between highly-involved, minimally-involved, and moderately-involved parenting in terms of student academic motivation, between subjects ANOVA's were performed. ANOVA's were performed for both academic parental involvement and extracurricular parental involvement. Results indicated that there were significant differences between the groups in both academic and extracurricular involvement. Parents who were highly-involved and parents, who were moderately-involved in academics, were determined to have adolescent students who were more academically motivated than parents who were minimally-involved. However, results failed to reveal any significant differences in level of motivation between the highly-involved and moderately-involved levels of academic involvement. Similarly to parental academic involvement, parents who were in the highly-involved and moderately-involved categories of extracurricular involvement, had adolescents students who were more academically motivated than minimally-involved parents. However,

results also indicated that parents who were highly-involved in extracurricular activities had students with greater academic motivation than parents with moderate involvement.

In both cases, results revealed that those participants, who indicated lower scores for their parents on the involvement scales, also scored lower on the academic motivation scales. This result is consistent with the hypothesis of this study and also with the results of previous research. As Dornbusch, Ritter, & Leiderman (1987) found, permissive parents, who are noted for showing lower levels of involvement, tend to have high school students who do less well in school. The results therefore suggest that parents who do not take interest in either their adolescent child's academics or extracurricular activities are likely to have less academically motivated children. Adolescent children, who have minimally-involved parents, may then also be at risk to achieve less academically and may be less likely to continue into post-secondary education, due to a lack of motivation.

On the other hand, in contrast to the original hypothesis, the current study found that parents who were deemed to be highly-involved academically had adolescents with the same level of motivation as parents who were moderately involved. Moreover, parents who were deemed to be highly-involved in extracurricular activities were found to have adolescent students with greater academic motivation than the moderately-involved parents. The current study had hypothesized that highly-involved parenting would result in less academic motivation for adolescents than moderately-involved parenting. The current hypothesis was reasonably supported by Hoang (2007) who found that adolescent students who had authoritarian type parenting, which is a style known for being extremely involved, had a less desirable form of motivation than authoritative type parenting. However, as Hoang measured for authoritarian

style parenting, there may have existed additional criteria beyond parental involvement that influenced outcomes. The inability of the current study to find that highly-involved parenting results in less desirable motivation outcomes for students will be discussed further in the limitations section of this chapter. It is possible that the population studied, as well as the methods for determining the categories of parental involvement, may have impacted the ability to detect the above hypothesis.

Student Academic Motivation as Predicted by Parental Involvement

The between subjects ANOVA's were used to reveal the variations between the levels of parental involvement in both academics and extracurricular activities. However, in order to determine if parental levels of academic and extracurricular involvement are significant factors effecting student academic motivation, a hierarchical multiple regression was used. A three model hierarchical multiple regression was selected as the current research was interested in how much variance, above and beyond significantly correlated demographic variables, academic and extracurricular parental involvement accounted for.

The results of the hierarchical multiple regression revealed that all three models in the regression were significant. In other words, each model was a significant predictor of student academic motivation. More specifically, certain independent variables in each model accounted for the significance. Included in each model and proving to be a significant predictor in each, was amount of time participants spent on homework and grade average. In the second model, academic parental involvement was a significant predictor of student academic motivation over and above amount of time spent on homework and grade average. In the third model, extracurricular parental involvement was a significant predictor of student academic motivation

over and above what was accounted for by the demographic variables and academic parental involvement.

Grade average and amount of time spent on homework

The grade average that participants indicated they had achieved, as well as the amount of time they spent on homework each week were revealed as significant predictors of student academic motivation in each of the three hierarchical regression models. In total, just less than 50% of the variance in student academic motivation is accounted for by the above variables. In regards to grade average, participants had five categories to choose from; 80% or above, 70% to 80%, 60-70%, 50-60%, and 50% or lower. As most participants indicated a grade of 80% or higher, this score was used as the benchmark for all other categories to be compared when entered into the regression. As a result the grade average categories are negative predictors of student academic motivation. This is due to the fact that participants who indicated a grade less than 80% were less motivated than those scoring equal to or above 80%. Therefore, achieving less than 80% predicts lower scores of student academic motivation than scoring above 80%. The regression also reveals that in general, the lower one's grade average is, the lower their level of academic motivation is predicted to be. This is consistent with previous research which found academic motivation to be positively correlated with increased academic achievement (Fortier, Callerand, & Guay, 1995).

Amount of time spent on homework was another independent variable that was a significant predictor of student academic motivation. Originally, there were six categories for participants to choose from to indicate the amount of time they spend on homework each week; less than one hour, one to two hours, three to four hours, five to six hours, seven to eight hours, and eight or more hours. However, a between subjects ANOVA revealed that there were no

significant differences between categories; except that each category above one hour varied significantly from the below one hour category in regards to student academic motivation. Therefore, the original six categories were transformed into two categories; less than one hour and greater than one hour. Results indicated that amount of time spent on homework was positively correlated with student academic motivation. In other words, students who spend at least one hour a week on homework are predicted to have higher academic motivation than those spending less than one hour. Similarly, Xu (2008) found that students who reported higher levels of homework had increased motivational orientation toward homework.

Parental academic involvement

Parental academic involvement was entered into the second model in the hierarchical multiple regression. Results revealed that parental academic involvement positively predicted student academic motivation over and above what was accounted for by grade average and amount of time spent on homework. The second model therefore indicates that greater parental academic involvement predicts higher student academic motivation even after accounting for the above demographic variables. This finding is consistent with a number of studies which reveal that parental style and parental involvement can influence student success (Eccles & Harrold, 1993; Hoang, 2007; Steinberg, et al., 1992; Gonzalaz et al., 2005). With the inclusion of parental academic involvement as a predictor of student academic motivation, 51% of the variance observed in student academic motivation scores were accounted for; which is approximately 3% greater than the first model.

Parental extracurricular involvement

The third and final model in the hierarchical multiple regression included parental extracurricular involvement. Results of the regression concluded that parental extracurricular

involvement was also a positive predictor of student academic motivation even after accounting for all variables included in the second model; parental academic involvement, grade average, time spent on homework. Therefore, results indicated that increased parental extracurricular involvement predicts higher student academic motivation. Moreover, the results imply that parental extracurricular involvement can replace the predictability that parental academic involvement has on student academic motivation. This result is implied as parental academic involvement was no longer a significant predictor of student academic involvement when parental extracurricular involvement was added. In other words, parental extracurricular can not only be just as effective as parental academic involvement in terms of its ability to predict student motivation, it also is a slightly stronger predictor.

The above findings supported many of the hypotheses of the current research as well as much of the related literature. For example, as consistent with the hypothesis and previous research (Hoang, 2007; Steinburg, Lamborn, & Dornbusch, 1992), parental involvement was shown to be a factor effecting student academic involvement. In particular, the above findings indicate that parental involvement in both academics and extracurricular are positive predictors of student academic motivation. Moreover, the current findings reveal that extracurricular involvement is a significant alternative factor that can be used to predict academic motivation. However, despite findings supporting the hypothesis that moderately involved parenting would result in higher academic motivation than minimally-involved parenting, they were unable to support the hypothesis that highly-involved parenting would result in less motivated students than moderately involved parenting. Recently there has been increased research into highly-involved or “helicopter type parenting” which is a style of parenting that is known for placing high academic expectations of success on children, adolescents, and, more increasingly, young

adults while promoting prolonged financial, social, and life skill dependence (Hunt, 2008). The current research was unable to provide evidence that this type of parenting style is detrimental to student academic motivation compared to a moderate-involvement style of parenting. Although not all hypotheses of the current research were supported, there are certain limitations to consider which may have had an influence on the ability of the current research to have detected such trends.

Limitations

The present study attempted to examine the impact of parental involvement on student academic motivation, but it has not done so without limitations. For this reason the current research should be interpreted with caution and with limitations in mind. To begin, participants in the current research were adolescents, all of whom attended the same high-school in Saskatchewan. As the data was only collected from a single high school, the ability of this particular study to be generalized to greater populations is rather limited. Furthermore, participants in this study were in grades 11 and 12 and therefore the ability for the above research to be generalized to include all high school students or all adolescence in urban communities is limited. Future research could help improve the generalizability of the current research by expanding the number of participants, grades, and schools that the data is collected from.

A greater number of participants could help determine a more reliable highly-involved category of parenting as there would be a greater number of participants who deviate significantly from the mean. Moreover, diversity of participants could be found by collecting data from different types of schools, such as inner-city public schools, rural schools, private schools, etc. For example, it is likely that higher numbers of adolescence in inner-city school

settings would have minimally-involved parenting, while adolescence in private school settings would have greater instances of highly-involved type parenting. Goldring and Phillips (2008) found that part of what motivates parents to put their children in private schools is that they feel parental involvement is more accepted and promoted. On the other hand, Jennings (1992) claims that, students in inner-city schools are vastly underrepresented in terms of parental involvement.

Another limitation to consider in the current literature has to do with the materials that were utilized for the study. Although the questionnaires that were used were borrowed from previous researchers, the questionnaires were also modified in order to suit the needs of the current research. For example, the academic motivation questionnaire which was borrowed from Waugh (2002) was modified in a couple of ways. In particular, as suggested by Waugh (2002) some of the questions were altered in order for them to be more clearly understood by adolescent participants. Furthermore, participants were only required to answer questions regarding their current motivation rather than also rating their ideal level of motivation. Given that materials were altered slightly from their original form and that they have been utilized for the first time, reliability may have been affected. However, given that materials were only slightly altered and the meaning of each individual question was maintained, content validity should have remained from the original questionnaires. Future research could improve the reliability of the above materials by repeating the study with a different population and determine if similar results occur.

Finally, there exists a limitation which may relate to the inability of the current study to reveal that highly-involved parenting is less desirable than moderately involved in terms of student academic motivation. Given that the materials used to measure parental involvement were continuous variables, the parental involvement categories were determined by using

standard deviations. If parental involvement scores were one standard deviation above the mean they were placed in the highly-involved category, while one standard deviation below was determined to be minimally-involved. Given the above method used to form the parental involvement categories, it is possible that some participants included in the highly-involved and minimally-involved categories could have actually had moderately involved parents. Therefore, the highly-involved category that was determined in the current study may not accurately take account of the impact that truly highly-involved parenting has on student academic motivation. An alternative method to determine the different categories of parental involvement may have also been to separate groups by creating a top, middle and bottom 33%. However, the difficulty of not accurately accounting for each group would remain. By making equal groups based on percentages, there would also exist a risk of blending moderately involved parents with other categories and therefore make it less likely to find differences between groups.

The above method of determining categories was necessary as the materials measuring for parental involvement were not designed to determine categories and a similar study, which attempted to separate categories of parental involvement in a similar fashion, could not be found. Standard deviations were used as a means to define the parental involvement groups as they provided a way to separate the participants' based on parental involvement scores. Moreover, using standard deviations provided enough participants in each group to meet criteria for analysis. If a similar study were available for comparison, it may have been possible to determine if the categories could be formed based on the same methods; which would help increase reliability.

Ideally future research would be able to utilize or create materials that are better equipped to determine what qualifies as highly-involved, minimally-involved, and moderately involved

parenting. Having measures which have the ability to accurately determine categories of parental involvement based on specific criteria, as indicated by participants, would help create more reliable comparisons between groups. It would also improve validity as the criteria that are used to determine levels of involvement could be compared with the current or similar studies to determine if materials use similar content to illicit responses. However, as it may be difficult to create such a valid and reliable questionnaire with the limited research that currently exists in this area. Another suggestion for future research would be to increase the number of participants in the study and the diversity of the population. As the current research only recruited participants from one public high school, both the number and diversity of students was limited.

The above limitations are important to consider when interpreting the results of the current study. Not only do they help illustrate the short comings of the current study, they also help to highlight gaps in current literature and guide future research. With the above limitations in mind, the findings of the current research reveal important information regarding the effects of parental involvement on student academic motivation.

Implications of Research

As evidence for its importance, a great deal of research has examined the factors effecting student academic motivation. Ryan, Stiller, and Lynch (1994) researched and were able to demonstrate that academic motivation was predicted by the relationships that are represented between students with their friends, teachers, and parents. Nicholls, Cheung, Lauer, and Patashnick (1989) suggested that individual difference dimensions of ego orientation (desire for superiority) and task orientation (desire for understanding) were factors to consider when measuring for student academic motivation. Other studies have observed that self-efficacy, self-

concept, academic achievement, parental warmth, and teacher behaviour are also among factors that affect student academic motivation (Gonida, Leondari, 2011; Fortier, Callerand, & Guay, 1995; Fulton, & Turner, 2008; Skinner & Belmont, 1993). The current study further provided evidence that grade average and amount of time spent on homework are factors which affect academic motivation.

Contributing to the vast amount of research that has examined student academic motivation is the importance academic motivation plays in setting children and adolescence up for future success. Simply put, level of academic motivation, in a world that is continually placing greater importance upon education, is in need of understanding. In particular, understanding what factors contribute or influence student academic motivation is an important step in developing strategies to increase student motivation.

Parental Academic Involvement

Only recently has research begun to explore parenting style, and particularly parental level of involvement as a factor affecting level of student academic motivation. The current research helps to build upon previous research which has revealed factors that affect academic success. Henderson and Mapp's (2002) literature review revealed that parent involvement, regardless of income or cultural background, is related to higher grades, better results on standardized tests, increased attendance, improved social skills, positive behaviour in school, and continued education past high school. Although the current study was unable to determine that highly-involved parenting reduces student academic motivation, it clearly adds to the literature that has found minimally-involved or permissive type parenting to be a disadvantage for student achievement and success. Parents who are at least moderately involved, as perceived by their

adolescent grade 11 and 12 children, can significantly help increase student academic motivation.

The above findings help to illustrate the importance of parental involvement in adolescent academics. Therefore any efforts which can be made to assist parents in becoming more involved in their adolescent child's academics would be a positive strategy for fostering academic motivation. As Crozier and Davies (2007) suggest, parents may feel as though their child's school does not provide them with enough opportunities to become involved. This is particularly true during high school, when the responsibility of education becomes increasingly placed on the student. As this transition of responsibility occurs between parent and child, a decrease in academic awareness and involvement occurs (Furger, 2006). Contributing to this trend, in many cases, is that parents entrust the school with their child's education (Cozier & Davies, 2007). However, the challenge to education systems is to provide strategies and implement practices which help to inform parents of the importance of their involvement and provide them with opportunity to get involved.

One example of how a school was able to assist in fostering increased levels of parental involvement comes from Suzanne B. Elementary school in Sacramento, California. As reported by Furger (2006), this elementary school aimed to change the relationships that had been occurring between teaching staff and parents, as both parties were acting against each other rather than working together. An initiative was then set out that saw the development of a program in which teachers would visit the homes of their students twice a year to discuss with parents their child's progress and academic aspirations. Moreover, to aid in relating to parents of various ethnic origins, teachers were sometimes paired with translators. This initiative likely helped to counter a general inclination of parents to rely on the school to reach out and request

their involvement (Cozier & Davies, 2007). As a result of the above program, Suzanne B. Elementary school noted significant decreases in student suspensions, increased academic achievement, and far more parent initiated involvement. This example suggests schools take a stronger approach to reaching out to parents for their involvement. Although this example is from an elementary school, the same approach could be adapted for high schools which are generally not as affective at fostering parental involvement (LaBahn, 1995).

Extracurricular involvement

The current research has not only built upon previous research it has also explored new territory. To this researcher's knowledge, there are no current studies which have observed extracurricular parental involvement as a factor, after accounting for the influence of academic parental involvement, which influences student academic motivation. To date, most studies measuring for parental academic involvement have included extracurricular involvement as a criterion within the measurement. The current study, on the other hand, separated extracurricular involvement as an additional factor affecting student academic motivation.

By separating extracurricular involvement from academic involvement the current research was able to reveal that parental extracurricular involvement positively predicts student academic motivation above and beyond what is predicted by parental academic involvement. Adolescent involvement in extracurricular activities has previously been associated with higher academic grades, greater expressed liking of school during high school years, and an increased likelihood of college attendance (Barber, Eccles, & Stone, 2001). The current study suggests that academic motivation may also be a factor that is increased by adolescent involvement in extracurricular activities. The role that parental involvement plays may be related to previous research that has determined that parental involvement in extracurricular activities helps

reinforce and maintain adolescent interest and persistence in activities (Anderson, Funk, Elliott, & Smith, 2003).

The results of the current study suggest that extracurricular involvement can replace what is predicted by academic involvement in terms of academic motivation. In other words, parents do not necessarily need to become involved in their adolescent's academics to help aid in their academic motivation; they just need to be involved in some type of extracurricular activity that their child participates in such as a sport or a performing art. This illustrates the importance of parents becoming involved in their adolescent's lives and how involvement can aid academic motivation even when the activity they are involving themselves in are unrelated to education. The above findings also help provide a solution for parents who may find it difficult to become involved in their child's academics. For example, many parents may have had negative personal experiences in school, they may have dropped out at an early age, they may have time constraints, or they may be dealing with cultural barriers which limit their ability or comfort level to become involved in academics (Finders & Lewis, 1994). For these parents, they may influence their adolescent's academic motivation simply by becoming involved in and supporting their child's participation in a sport such as soccer or performing arts such as music. The amount of ways that a parent can show interest and support for their adolescent while helping to increase academic motivation is limitless.

Conclusion

Adolescent academic motivation remains an important factor to consider in determining the likelihood of prolonged academic success. It is clear that post-secondary education is a qualification that is frequently increasing in demand in all realms of the Canadian workforce. Therefore, understanding such things as student academic motivation is important to help

determine the best strategies for aiding adolescents in maintaining interest and involvement in education. In an effort to help understand which factors influence academic motivation, the current study revealed that parental involvement in both academics and extracurricular activities were positive predictors. Perhaps most interesting, the current research determined that extracurricular involvement not only is a stronger predictor of academic motivation, but it also suggests that extracurricular involvement can be used in place of academic involvement as a means to predict student academic motivation. Moreover, in determining different levels of parental involvement, the current study was able to provide evidence that minimally-involved parenting result in adolescent students who are less motivated than parents who are either moderately or highly-involved.

Inherent in the methods for determining the above findings were limitations. Namely, a relatively small population in terms of number and diversity, as well as strategies for determining categories of parental involvement may have contributed to the current studies inability to determine that highly-involved parenting would predict lower score of academic motivation in comparison to the moderately-involved group. It is suggested that future research increase population size and diversity so that the ability to recruit participants who are truly subjected to highly-involved parenting can occur. Although these limitations should be considered when interpreting the results of this study, the findings support and add to current research.

Similar to previous studies, the current study outlines the importance of parental involvement and how it relates to academic success. Specifically, findings suggest that increased levels of parental involvement help to improve levels of academic motivation in adolescent students. Therefore, educational systems and future research needs to consider strategies which foster increased levels of parental involvement, specifically targeting minimally-involved

parents. One way to do this, as is also suggested by the current research, is by encouraging parents to become involved in extracurricular activities.

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Appendix A - Parenting Measures

Academic Parental Involvement Questionnaire

Using the scale below, indicate the number which best describes your (MOTHER/FATHER/GUARDIAN) from 1 Very Unlike to 5 Very Like for each item. Only fill in the columns that apply to you.

VeryUnLike	More Unlikethan Like	Neither Likenor Unlike	More Likethan Unlike	VeryLike
1	2	3	4	5

Example: If both parents are involved

	My Mother	My Father	My Guardian	
	5	2		Is a tall person

Example: If single parent (Just fill in the column for that parent and leave others blank)

	My Mother	My Father	My Guardian	
		2		Is a tall person

Example: If Guardian (Circle Guardian and only fill in for the first column)

	My Mother	My Father	My Guardian	
			3	Is a tall person

	My Mother	My Father	My Guardian	
1				Tries to get me to do my best on everything I do.
2				Thinks that education is a very important part of adolescence.
3				Usually goes to parent-teacher conferences
4				Usually sets high standards for me
5				Seldom looks at my tests and papers from school
6				Is not interested in the grades that I get
7				Is not involved in school programs for parents
8				Sometimes volunteers to work at my school
9				Thinks homework is a very important part of school
10				Encourages me to try harder when I get poor grades
11				Usually does not go to school functions
12				Makes sure that I have done my homework
13				Usually knows the grades I get
14				Thinks I should go to college or university
15				Feels that hard work is very important
16				Does not think that they should help me with my homework
17				Has high aspirations for my future
18				Offers help when I get poor grades
19				Helps me with homework when I ask
20				Thinks that getting ahead in life is very important
21				Does not think I should be concerned about what kind of career I may have
22				Usually goes to activities in which I am involved at school

Appendix B - Parenting Measures

Extracurricular Parental Involvement Questionnaire

Using the scale below, indicate the number which best describes your (MOTHER/FATHER/GUARDIAN) from 1 Very Unlike to 5 Very Like for each item. Only fill in the columns that apply to you.

Very UnLike	More Unlike than Like	Neither Like nor Unlike	More Like than Unlike	Very Like
1	2	3	4	5

Example: If both parents are involved

	My Mother	My Father	My Guardian	
	5	2		Is a tall person

Example: If single parent (Just fill in the column for that parent and leave others blank)

	My Mother	My Father	My Guardian	
		2		Is a tall person

Example: If Guardian (Circle Guardian and only fill in for the first column)

	My Mother	My Father	My Guardian	
			3	Is a tall person

	My Mother	My Father	My Guardian	
1				Watches all my extracurricular activities
2				Thinks that extracurricular activity is very important
3				Usually supports my involvement in extracurricular activities
4				Usually sets high extracurricular standards for me
5				Seldom compares my ability to my peers
6				Does not really care if I win or lose as long as I have fun
7				Is not involved in my extracurricular planning
8				Sometimes volunteers to help out with my extracurricular activities (i.e. fundraising, driving, etc).
9				Thinks practice is a very important part of my extracurricular activities
10				Encourages me to try harder when I don't perform my best
11				Usually goes to my extracurricular activities.
12				Makes sure that I practice
13				Usually knows how well I am doing in my activity
14				Is willing to contribute financially so that I can be involved in the activities I most enjoy.
15				Feels that hard work in extracurricular activity is important
16				does not encourage me to practice my activity
17				Has high aspirations for my future in my extracurricular activity
18				Offers help when I have difficulty with my extracurricular activity
19				Usually helps me with my extracurricular activity when I ask
20				Does not think I should be concerned about what level I perform at
21				Usually tries to make me feel better when I do not do well
22				Often talks to others about how I am doing in my extracurricular activity

Appendix C

Motivation to Achieve Academically Questionnaire

Using the scale below, indicate the number which best describes yourself from 1 Very Unlike to 5 Very Like for each item.

Very UnLike	More Unlike than Like	Neither Like nor Unlike	More Like than Unlike	Very Like
1	2	3	4	5

Sub-Scale: Striving for Excellence

_____ 1. I Do my best to reach the academic standards that I set for myself.
_____2. I Evaluate my performance against the academic standards that I set myself.
_____3. I Set myself the highest standards in academic work which I believe I can achieve.

Goals
_____4. I try different strategies to achieve my academic goals when I have difficulties.
_____5. I set myself realistic but challenging academic goals.
_____6. I set the highest academic goals which I can achieve.
_____7. When I have difficulties in reaching my goals, I make a renewed effort to ensure I achieve my goals.

Tasks
_____8. I seek some average academic tasks in which I think I can succeed.
_____9. I seek some difficult academic tasks in which I believe I can succeed.
_____10. I seek some difficult academic tasks which I might be able to do.
_____11. I seek some easy academic tasks in which I am strongly likely to succeed.
_____12. I seek some easy academic tasks which I might be able to do.

Effort
_____13. I make strong demands on myself to achieve in academic work.
_____14. When I am given an academic task or assignment, I make a strong effort to find the right answers.
_____15. I write and re-write my academic assignments in order to achieve.
_____16. I prepare myself to achieve as high as I can in my academic assignments.
_____17. I make a strong effort to achieve as high as I can in academic work.

Values
_____18. When I have conflicts about time to be spent on school work, I re-think my values (social, parental, dates versus achievement).
_____19. I value achievement in academic work.

Ability
_____20. I have confidence in my academic ability to achieve the best that is possible with my ability. DN

_____21. I have positive feedback from my teachers on my ability in academic work.
_____22. I have positive feedback from at least one peer on my ability in academic work
_____23. Have positive feedback from at least one parent (or guardian) on my ability in academic work.

Sub-Scale: Desire to learn

Interest

_____24. I show interest in a number of academic topics.
_____25. I read widely on a number of academic topics.
_____26. I think about solving problems, with which others have difficulty, because I'm interested.
_____27. I display curiosity about the world and 'how it works'.
_____28. I behave conscientiously in my academic work.

Learning from others

_____29. I participate in class discussions to improve my understanding in academic matters.
_____30. I ask questions of others to improve my understanding in academic matters.
_____31. I learn from others with more knowledge than I have.
_____32. I aim to learn from an expert in at least one academic area.
_____33. I try to pay attention to my teachers in order to learn as much as I can.

Responsibility for learning

_____34. I take personal responsibility for my academic learning.
_____35. I plan to seek out information when necessary and take steps to master it.

Sub-Scale: Personal Incentives

Extrinsic Rewards

_____36. I try to achieve academically because I like the rewards it brings to me.
_____37. I try to achieve academically because I like the status it brings to me.
_____38. I try to achieve academically because I like the competition with others that it brings.

Intrinsic Rewards

_____39. I like the interaction with peers in solving problems in academic work.
_____40. I Try to achieve academically because I like the challenges it brings.
_____41. I like the intellectual challenge of academic work.
_____42. I like the curiosity of academic work.

Social Rewards

_____43. I like the social relationships involved in academic work.
_____44. I have fun with others while involved in academic work.
_____45. I bring honor to my family by succeeding in academic work.

_____

Appendix D

Demographics

The following questions are your own demographics

Your gender: Male_____ Female_____

Your age: _____

Is English your first language? Yes No

If not, how many years have you been speaking English? _____

Extracurricular Activities that you're involved in: _____

Ethnicity:

Caucasian ☐ First Nations☐ Inuit☐ Asian☐ Black☐ Indo☐

Other ☐ : Please Specify

Grade Average:

Below 50 ☐ 50-60 ☐ 60-70 ☐ 70-80 ☐ 80 and up ☐

Family Income (based on your best guess):

Low Income ☐ average Income ☐ High Income ☐

How much time, on average, do you spend on school work outside of school each week?

Less than 1hour ☐ 1-2hours ☐ 3-4hours ☐ 5-6hours ☐ 7-8hours ☐

more than 8hours ☐

What is the highest level of education your **mother** has obtained?

Elementary School☐ Middle School☐ High School☐ Apprenticeship☐

Technical/Trade Diploma ☐ Technical/Trade Degree☐ Undergraduate Degree☐

Professional Degree (L.L.B., M.D.)☐ Masters Degree☐ PhD☐

Other ☐: Please specify_____

What is the highest level of education your **father** has obtained?

Elementary School☐ Middle School☐ High School☐ Apprenticeship☐

Technical/Trade Diploma ☐ Technical/Trade Degree☐ Undergraduate Degree☐

Professional Degree (L.L.B., M.D.)☐ Masters Degree☐ PhD☐

Other ☐: Please specify_____