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Parental Communication Style And Adolescent Intrapersonal Variables: Associations With Academic Achievement

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PARENTAL COMMUNICATION STYLE AND ADOLESCENT INTRAPERSONAL VARIABLES: ASSOCIATIONS WITH ACADEMIC ACHIEVEMENT

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DEDICATION

This project is dedicated to my family – my parents, Shahid and Farzana Ali, my uncle, Majid Ali, and my brother, Fida Ali. I could not have accomplished this task without your continuous support.

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CHAPTER 1 INTRODUCTION

There is ample theory and research on factors that influence children's development. Children's academic achievement is one of those critical areas of development, as academic achievement in grade school has been shown to be related to a host of other positive outcomes. This includes high academic achievement in college (Noble & Sawyer, 2004), stronger attachment to one's school (Suldo, Shafer, & Riley, 2008), and greater life satisfaction (Gilman & Huebner, 2006). The focus of the current study is on a set of carefully selected variables proposed in order to explain successful academic achievement in high school-aged youth.

Theoretically, according to Bronfenbrenner's (1994) ecological model of human development, individuals are influenced by various systems that help shape their development. The systems are ordered from those influences that are most proximal to an individual to those that have the least direct influence on the individual. At the core of this model is the individual him/herself and his /her own intrapersonal factors such as personality, temperament, emotion, cognition, etc. The nearest external system is an individual's microsystem and is composed of those interactions and influences that an individual experiences most closely. The model continues outward progressively to larger societal customs and expectations. The focus of the current study, however, is on intrapersonal and microsystem level predictors with specific respect to academic skill development.

Microsystem Predictor: Parental Communication Style

In Bronfenbrenner's system, the microsystem is the most proximal external influence on development and includes parents, peers, teachers, schools, etc. (Bronfenbrenner, 1994). Researchers have consistently shown that parental behaviors influence children's development overall and, more specifically, influence children's academic development (e.g., Fuligni, 1997;

Porumbu & Necsoi, 2013). Parenting styles have been studied most heavily, with studies consistently demonstrating a strong correlation with children's academics (e.g., Paulson, 1994; Porumbu & Necsoi, 2013; Spera, 2006). Parenting style is typically conceptualized as occurring through parent-child negotiation of such issues as curfew, responsibilities, privileges, parent control, nurture, etc., and on two dimensions, demandingness and responsiveness (Baumrind, 1991). After several decades of research, it is clear that authoritative parenting is the most associated with higher academic achievement and some prominent scholars suggest that this construct does not need further investigation (Steinberg, 2014).

Parent-child interactions have been identified as an important area of influence for individuals (Bulanda & Majumdar, 2009); therefore, studying this interaction and its influence on children's development is warranted. According to a review of articles pertaining to parental involvement in homework by Hoover-Dempsy, Battiato, Walker, and Jones, (2001), much research has shown that parent involvement leads to academic success. However, these authors also acknowledged that more research should be done in regards to specific processes that influence academic achievement. Because research has shown that a particular parenting style can have a positive influence on academic achievement, the same analysis may be applied in order to better understand which parental communication style is most beneficial in promoting academic achievement. Verbal communication patterns between children/adolescents and their parents is an important part of that.

Indeed, a specific model exists that helps to describe and quantify parental communication. Much research has been conducted about communication styles (e.g., McLeod, Rush, & Friederich, 1968-1969). The Family Communication Patterns model was developed by (McLeod & Chaffee, 1972) in order to assess children's interaction with news media. This model

included two dimensions: socio-orientation and concept orientation. According to the Family Communication Patterns Model (Ritchie, 1991; Austin, 1993), having a "socio-orientation" when communicating is linked to parents wanting a harmonious attitude in the home. Parents who have a "concept orientation" are inclined to encourage communication and view it as a way to resolve conflict. Ritchie (1991) also found that these parents had differing goals that they wished to achieve through communication. Parents who employed a socio-orientation were inclined to push for control while those who had a concept-orientation were likely to show support for their children. Ritchie (1988) revised these dimensions of socio-orientation and concept orientation into the dimensions of conversation and conformity orientation. The new instrument was labeled the Revised Family Communication Patterns (RFCP) instrument. This overt communication between parents and their adolescents is of primary focus in the current study and is referred to hereafter as "parental communication style".

Intrapersonal Predictors of Achievement

Besides factors within one's microsystem such as parental communication styles, factors within an individual have also been found to have a strong influence on one's behavior. Those selected for inclusion in this study are believed to be important variables to examine in combination with parent-adolescent communication. They are goal orientation, future orientation, competence, locus of control, and autonomy support. These are reviewed next.

Goal orientation. Youth goal orientation is an important variable to study, as having a particular goal orientation has been shown to be related to positive outcomes (Dweck, 1986). The three goal orientations identified by Elliot and Church (1997) are mastery, performance-approach, and performance-avoidance. Mastery orientation is defined as seeking to develop one's competence and task mastery. Performance-approach is conceptualized as striving toward

positive judgments of competency. Lastly, performance-avoidance is conceptualized as seeking to avoid negative judgments of one's competence.

It appears that goal orientation is related to internal drives. According to Elliot and Church (1997), mastery goals are linked to motivation to achieve and high expectancies of competency. Performance-approach goal orientation is linked to motivation to achieve, fear of failure, and high expectancies of competency when approaching a task. Performance-avoidance on the other hand is related to expectancies of low competence and fear of failure (Elliot & Church, 1997).

Consequentially, because of its influence on internal processes, goal orientation has also been shown to influence behavior patterns (Dweck, 1986). In contrast to those with performance goals, Dweck (1986) found that those individuals who had learning (mastery) goals increased their competence on challenging tasks, viewed intelligence as changeable, and had the tendency to increase their effort as a task became difficult. Those described as having performance goals seek favorable judgments from others, view intelligence as unchangeable, view their performance on tasks as reflections of their abilities, and therefore avoid challenges. Furthermore, Elliot and Church (1997) found that goal orientation influences behavior proximally while motivation does so distally. This close relationship to behavior may indicate a need to more deeply study the construct of goal orientation and its relationship to student achievement.

Future orientation. Besides goal orientation, factors such as one's perspective of the future have also been found to influence one's academic achievement. Zimbardo and Boyd (1999) developed the Zimbardo Time Perspective Inventory (ZPTI) as a method of assessing one's outlook as being past, present, or future oriented. According to Zimbardo and Boyd (1999),

those who have a high score on the future construct of this inventory have the tendency to be focused on achievement and plan ahead while those who score low on this construct show impulsivity and lack of focus. The authors' research showed that those who are future oriented are also more likely to avoid risk-taking behaviors, are more likely to engage in planning for the future, and are more likely to take steps toward achieving their goals (Zimbardo & Boyd, 1999).

Having a future time perspective (FTP) has been shown to be correlated to higher academic achievement (de Bilde, Vansteenkiste, & Lens, 2011; de Volder & Lens, 1982). First year college students who had a FTP orientation were more likely to process information gained through their studies at a meaningful level (Horstmanshof & Zimitat, 2007). In contrast, those who were low on the FTP construct had high levels of procrastination (Jackson, Fritch, Nagasaka, & Poppe, 2003). FTP has also been shown to motivate students across cultures (Anddriessen, Lens, & Phalet, 2004). Overall, research suggests that having a FTP is correlated with greater and more meaningful academic achievement. Overall, because research has shown that this is an important construct and because most of the current research on parental communication style and adolescents' goal and future orientation has been conducted with college-age students (e.g., Horstmanshof & Zimitat, 2007; Jackson, Fritch, Nagasaka, & Poppe, 2003), these variables are included in the current study of high-school aged students.

Competence, locus of control, and autonomy support. According to Self Determination Theory, three factors appear to influence behavior. These are the need for competence, relatedness, and autonomy (Deci & Ryan, 1985). However, it was found that relatedness may play a more distal role in motivation (Deci & Ryan, 2000). The variables of competence, control understanding (children's understanding of who or what controls significant outcomes; also known as "locus of control"), and autonomy support have been associated with

academic achievement. (Grolnick, 1990; Grolnick & Ryan, 1987; Grolnick, Ryan, & Deci, 1991; Ryan & Grolnick, 1989). According to Grolnick, Ryan, and Deci (1991), these three variables not only predicted achievement but also mediated the process of the influence of parental involvement on achievement positively. Based on this research, all three variables, along with the other aforementioned variables, will be included in this study in order to understand their roles in academic achievement. These three variables are less included in research and considered exploratory in this study.

Competence. Overall, research indicates that one's beliefs about competence are positively related to achievement as illustrated in a review by Wigfield and Eccles (2002). More specifically, one's belief about competence has been found to be a predictor for elementary student math achievement (Freiberger, Steinmayr, & Spinath, 2012) and was found to be related to grades in a sample of students in 7^{th} – 9^{th} grade (Meece, Wigfield, & Eccles, 1990). A study by Greene, Miller, Crows, Duke, and Akey (2004) found that self-efficacy, defined as the level of confidence one has about being able to successfully learn in one's class, positively predicted high school students' grades.

Locus of control. A wealth of research has been conducted on locus of control. It appears that the majority of studies have shown that having an internal locus is positively related to areas such as academic achievement (e.g., Gilmor, 1978). According to Celik, Cetin, and Tutkun (2015), adolescents' academic achievement was more positively influenced by an adult being supportive when they had an external locus of control. Therefore, it may be important to explore whether adolescents' locus of control is a stronger predictor of achievement than parental communication patterns.

Autonomy support. According to Hafen, Allen, Mikami, Gregory, Hamre, and Pianta (2012), autonomy among high school students at the start of a course was related with students increasing their engagement levels as the course progressed. Therefore, it can be inferred that such students' academic achievement is likely to increase as well (Hafen et al., 2012). Autonomy support was also found to be related to perceived school performance. Here, perceived school performance was defined as the student's conceptualization of what their teacher thought of their grades as compared to other students in their class (Jeno & Diseth, 2014).

Hope. According to Snyder et al. (1997) and Snyder (2002) hope can be broken down into the components of pathways and agency. The pathways component is one's beliefs about his or her capabilities to devise ways to complete tasks as well as to adjust those routes as needed. The agency component is defined as one's belief about one's ability to initiate and maintain ways to achieve certain objectives. This component includes one's motivation, persistence, and perception of one's ability to accomplish a task (Snyder, 2002). It was found that children who rated themselves as having higher levels of hope also linked themselves to positive outcomes, positive feelings about oneself, and as less depressed (Snyder et al., 1997). Higher levels of hope were also found to be related to higher academic achievement.

Limitations of Past Research and Purpose of the Current Study

The variables outlined in this literature review have been shown to individually influence achievement. A major aim of the proposed study was to assess the interactions between these variables and their combined association with student achievement. Previous studies have been limited to primarily white, middle-class, and samples other than students in high school. More economic and ethnic diversity was targeted in the current study, as well as inclusion of a high school-aged group.

The specific research questions are:

1. Do the intrapersonal factors significantly explain variance in achievement?
2. How well is parental communication style associated with academic achievement?
3. Does parental communication style explain variance in academic achievement above and beyond that of the intrapersonal factors?

Significance of the Study

It was expected that conversation orientation, as well as adolescent perception of the variables of mastery orientation, future orientation, higher competence, internal locus of control, greater autonomy support, and hope would each be associated with higher achievement and that intrapersonal variables will explain achievement above and beyond the parental communication style variables. This was hypothesized to be significant in helping to expand the literature on these intrapersonal variables by including a more varied sample, and the information gleaned about the relative strength of contribution of these predictors would be used to inform intervention efforts with high school aged adolescents.

CHAPTER 2 REVIEW OF LITERATURE

Microsystem Predictor

An individual is surrounded by various systems that play a key role in his or her development. Simmel (1950) described different intersecting systems and how an individual's actions were restricted by his or her links to other people including both individuals and groups. Bronfenbrenner (1979) was among those who built upon Simmel's model. According to Bronfenbrenner, there are several systems that compose one's environment. These systems include the micro-system, the meso-system, the exo-system, and the macro-system (Bronfenbrenner, 1976).

According to Bronfenbrenner (1976, 1994), the microsystem is a setting in which the people within these settings engage in particular activities, for certain periods of time. Also, when in these settings, individuals have particular roles. This system is described as one in which an individual's development is initiated and maintained. This development is said to depend upon the composition and content of the system. It is the system that is most proximal to an individual.

Moving outward from the microsystem is the meso-system. The meso-system is described as a system, which is comprised of the interactions between the different settings that an individual is in while at a particular point in his or her life. An example of this would be the connection between the school system and the family (Bronfenbrenner, 1994). The meso-system has been described as "a system of microsystems." (Bronfenbrenner, 1994, p. 40).

The next system is the exo-system. It is defined as a continuation of the meso-system and contains the defined social frameworks, which influence the most proximal social settings that an individual is in (Bronfenbrenner, 1979). An example of an exo- system is a child being

influenced by his or her parent's workplace (Bronfenbrenner, 1994). It is a system (of two or more settings) in which the individual is not directly contained in at least one of the settings (e.g. parent's workplace), yet is still influenced by this outside setting (Bronfenbrenner, 1994).

The last and largest system of this model is the macro-system. It encompasses broad social influences such as one's culture. It can include the political, legal, and educational systems that surround an individual (Bronfenbrenner, 1976). According to Bronfenbrenner (1994), this system embodies "the particular belief systems, bodies of knowledge, material resources, customs, life-styles, opportunity structures, hazards, and life course options that are embedded in each of these broader systems" (Bronfenbrenner, 1994, p. 40).

Many studies have shown that family systems have a strong influence on individual development (e.g. Bronfenbrenner, 1986). The focus of this study will be on the microsystem as it is the nearest to the individual and therefore has the most direct influence on an individual. In particular, this study will focus upon the family unit, and more specifically, upon parent-child interactions.

General parenting styles. Parents are seen as one of, if not the, strongest and earliest influencers of children. There exists a great body of research on parenting styles and their relationship to children's behavior. This research indicates that parent interactions with their children can be categorized into various styles, which are correlated with certain behaviors of children.

Parenting styles are often categorized into the broad categories of positive parenting and negative parenting. Parents who utilize positive parenting styles often are characterized as those who display positive affect towards children, are responsive to their child's needs, place appropriate demands, and are not overly controlling. Parents who utilize a negative parenting

style are often characterized as harsh, either over or under demanding, and as over or under controlling. Research has shown that negative parenting practices may influence children's behavior in a detrimental manner while positive parenting styles have been shown to be related to adaptive behavior.

Even at an early age, parental behavior can influence children's development. A study by Landry, Smith, and Swank (2006) found that among infants born at a very low birth weight, those infants whose mothers displayed greater responsiveness showed more growth in "social, emotional, communication skills, and cognitive competence" when assessed later on in life. A study by Gulley, Oppenheimer, and Hankin (2013) found that children who experienced negative parenting styles were more likely to pay attention to angry faces and display social anxiety. Here, a child may learn to expect negative behavior from others in social situations and also may seek out angry faces because of anxiety. This seeking out of and locating angry faces may then, in turn, increase a child's anxiety.

Another study found that children whose mothers exhibited controlling behavior, such as not allowing their children make decisions on their own, had difficulty with engaging in autonomous behavior. These children agreed with statements such as "I need other people to help me get by" (Creveling, Varella, Weems, & Corey 2010, p. 442). Furthermore, research has shown that children with various personality types can respond differently to controlling behavior.

Research has shown that children respond differently to different parenting styles based on individual characteristics such as temperament. Van den Akker, Asscher, Shiner, and Prinzie (2013) found that children of parents who used an overactive parenting style displayed different types of behavior depending upon their own temperament. For example, children who displayed

under-controlling behavior were at greater risk for displaying externalizing problems, while children who displayed over-controlling behavior were at risk for experiencing internalizing problems. In this study, overactive parenting was defined as parenting which involved using harsh methods of discipline such as yelling or hitting children.

It is understood that parents may be undergoing certain stressors of their own throughout their lives. However, parents' interactions with their children can have a great impact on their children's development despite the presence of these stressors. According to a study by Rohrer, Cicchetti, Rogosch, Toth, and Maughan (2011), children whose mothers displayed negativity during problem solving tasks had an overall low score on a measure that assessed the child's concept of false belief. This study found that although depressed and non-depressed mothers were used in the sample, this diagnosis alone did not influence outcomes for these children. The mothers' negative interaction or lack of negative interaction was shown to influence their children. This may indicate that maternal interactions with children can influence their cognitive development significantly and may indicate a need for mothers to be cognizant of their style of interacting with their children.

As negative parenting practices can lead to adverse outcomes for children, studies have shown that positive parenting practices can lead to positive outcomes for children. For instance, children whose parents were trained in providing positive behavior supports to their children showed higher academic achievement (Brennan, Shelleby, Gardner, Dishion, & Wilson, 2013). The sample of parents and children in this study were considered to be "high-risk" due to low socio-economic status. This study indicates that using interventions that encourage positive parenting can act as a protective factor for children from high-risk populations. In fact, this

intervention was shown to have a positive relationship to these children's academic performance five years after the intervention had ended.

Besides influencing children's behavior outside of the home as well as when completing tasks independently, positive parenting practices can also influence children within the family. Milevsky, Schlechter, and Machlev (2011) found that adolescents in grades 9-11 who reported a maternal or paternal coaching style reported more warmth towards their siblings than those who did not report this style. A "coaching" style of parenting was defined as children agreeing with statements such as my parents "give advice" or "explain my siblings feelings." This may indicate that exercising the appropriate amount of control can lead to positive relationships within the family. Another study found that children of parents who used cooperative parenting styles displayed high levels of prosocial behavior when compared to children of parents who did not use this type of parenting style (Scrimgeour, Blandon, Stifter & Buss, 2013).

Researchers have delved deeper into parenting styles and sought to answer why parents may use certain styles. For example, a study found that children of mothers who attribute a child's behavior to internal characteristics and use ineffective discipline techniques displayed more conduct behaviors initially and increased in these behaviors over time (Snyder, Cramer, Afrank, & Patterson, 2005). It may be that parents who attribute behavior to internal characteristics of the child resort to harsh discipline techniques, which in turn leads to conduct behaviors by the child.

It may be that parents who see parenting as a means to control their children internally employ methods of parenting such as psychological control. However, this has been shown to have detrimental consequences for children. A study by Rogers, Buchanan, Winchell (2003) found that parents who exhibited higher levels of psychological control exhibited more

internalizing behavior. This may be because exercising such control over children inhibits the child's ability to make decisions on his or her own and therefore provokes anxiety in situations when he or she may have to do so.

Baumrind's parenting styles. Parenting styles can be more narrowly categorized than just "positive" and "negative". One of the most well known categorizations in research are those of Diana Baumrind. Baumrind categorizes parenting into three styles: authoritarian, authoritative, and permissive. Authoritarian parenting is characterized as harsh and overly controlling. The authoritarian parent will typically use punitive methods to control the child and does not allow for a dialogue between the parent and child when demands are placed (Baumrind, 1966).

Authoritative parenting is characterized as having appropriate levels of control but also displaying warmth toward the child. This type of parenting allows for the child to develop autonomy. Permissive parenting is characterized as displaying low levels of control and as passive. A permissive parent is described as one who makes little demands of the child, is accepting of the child's demands. Therefore, the child perceives the parent as an entity that the child may look to primarily for resources rather than as an authority figure (Baumrind, 1966). Overall, research has repeatedly indicated that authoritative parenting has shown to be related to positive development in American youth whereas permissive parenting and authoritarian parenting have been shown to be detrimental to development (e.g. Bugental & Grusec, 2006).

A study found that children who had experienced a traumatic brain injury at ages 3-7 and whose parents practiced authoritarian parenting style had more difficulty with executive functioning skills 12-18 months after a traumatic brain injury (Potter, Wade, Stevens, Yeates, & Taylor, 2011). This may indicate that parents who are overly controlling do not allow children to

exercise these skills and therefore inhibit the growth of these skills. Another study found that authoritarian parenting style was correlated with depersonalization and anxiety among adolescents in high school (Wolfradt, Hempel, & Miles, 2003). Again indicating that over-controlling behavior leads to internalizing behavior among adolescents.

Even among at-risk populations, authoritarian parenting has been shown to have a negative impact. A study conducted with juvenile offenders found that adolescents (ages 14-18), whose parents were described as having an authoritative style were more prosocial, did better academically, and were less likely to have internalized distress and externalizing problems (Steinberg, Blatt-Eisengart & Cauffman, 2006). Therefore, having an authoritative parenting style can act as a protective factor for high-risk adolescent populations.

Adolescents whose parents utilized an authoritative parenting scored higher on well-being assessments than those adolescents whose parents did not utilize this style of parenting (Milevsky, Schlechter, Klem, & Kehl, 2008). This study also found that adolescents with no permissive parent or only a permissive mother scored lower on this measurement than those adolescents whose parents did not use this style of parenting. This study highlights the need for a balance in parenting styles. It may indicate that having the appropriate amount of parental control over adolescent behavior (i.e. having an authoritative parenting style) leads to a child's healthy development of self-esteem. In her own research, Baumrind found that authoritative parenting style was the best style for protecting adolescents form drug use (Baumrind, 1991).

Studies have continued to support Baumrind's research on the relationship between negative outcomes for children and permissive parenting. A study found that permissive parenting practiced by a parent of the same gender as the child had an influence on the children's cognitive control processes. This negative impact on one's control was related to increased use

of alcohol in college-age individuals (Patock-Peckham & Morgan-Lopez, 2006). Therefore, this may indicate that when parents do not set appropriate boundaries for their children, this may result in their children engaging in risky behaviors.

Adolescence. Developmentally, adolescence is viewed as a time where children seek autonomy and spend more time with their peers as opposed to with their parents. This is also a time when individuals enter the formal-operational thinking stage. According to Piaget, individuals enter this stage of thinking at about 11 years of age and stay in this stage until about the time that they are 15 years old (Miller, 2011). During this period of development, adolescent thinking transcends the concrete operational thinking stage of "what is" and moves to the formal operational thinking stage of "what could be" (Miller, 2011, p. 56). During this stage of cognitive development, adolescents begin to reason in a "logical, abstract, and hypothetical" manner (Miller, 2011, p. 57). At this stage, adolescents are able to reason abstractly about ideas. This ability to reason abstractly may cause the adolescent to begin to question his or her parents' rules. The adolescent may now engage in more discussion about his or her independence and seek to make more decisions independently.

Much research has focused on the influence of parenting styles in children's early years, as these years seem to be critical in children's development. Adolescence is often viewed as a time where parental influence lessens and peer influence increases. Therefore, it may be inferred that parent's do not have as much influence on adolescent behavior. However, research has indicated otherwise.

From a social-emotional perspective, adolescents are, according to Erikson, entering the "Identity versus Repudiation" stage. According to Erikson's theory of development, adolescents are struggling with tying in their various roles into a single identity. When success is not reached

in doing so, the adolescent is in "identity diffusion." (Miller, 2011, p.154). According to Marcia (2002), positive identity development occurs when individuals undergo a pattern of Moratorium – Achievement – Moratorium - Achievement or "MAMA" cycles. Moratorium is described as a state where one is undergoing an identity crisis and has not made a commitment. If an individual has made a commitment at this stage, it is not clearly defined. Achievement occurs when an individual has gone through a crisis and has made a commitment (Miller, 2011). Because adolescents are going through MAMA cycles, parents may need to pay attention to their interactions with their children and, in a broader sense, to their parenting styles so that their adolescents may achieve a healthy identity.

Since studies have shown that not only do parents influence adolescent development, parenting styles, by extension, also impact outcomes for adolescents. Meadows (2007) found that parental support during adolescence was a protective factor against delinquency and depression among adolescents. Authoritative parenting has also been shown to influence adolescents in a variety of realms of their identity development. For instance, a study by Putnick, Bornstein, Hendricks, Painter, and Suwalsky (2009) found that adolescents with parents who displayed qualities of authoritative parenting had a high score in at least one measure of self-concept. This study also found that adolescents with parents who used a high level of psychological control showed that they had a lower self-concept in terms of academics and behavior conduct. Adolescents of parents who utilized a permissive parenting style were more likely to have a lower self-concept in regards to their behavior in this study. Another study among high-school students found that authoritarian parenting style is correlated with depersonalization and anxiety (Wolfradt, Hempel, & Miles, 2003).

Because adolescence is such a critical and tumultuous time in an individual's life, studying the influences of the variables listed in this study will be valuable in order to better understand their impact upon adolescent behavior.

Parental communication style. The Family Communication Patterns (FCP) model was first developed by (McLeod & Chaffee, 1972). This model included two dimensions of communication (socio-orientation and concept orientation). The socio-orientation style is one that is utilized for promoting harmony in the home while the concept orientation style is one that is utilized in order to encourage discussion of ideas. Ritchie (1988) argued for the reinterpretation of the family communication patterns model in order to redefine the interpretation of conformity and conversation orientation. Ritchie (1988) argued that socio-orientation is a method of promoting conformity while concept orientation is used to promote autonomy. Ritchie defined conformity as a one-sided way of communicating in which the parents dictate values and perceptions. Autonomy is likely to be achieved when there is open discussion between parent and child and when parents promote using discussion for the child to build his or her own values and perceptions.

Ritchie used Kohn's theory to guide his explanation of this interpretation. He stated that parents who feel that conformity is an important quality to have (due to their own experiences) are likely to cultivate this quality in their own children by using their power over them. This is done to promote harmony in the home. On the other hand, parents who view autonomy as important (based on their own experience) will cultivate this quality in their children by promoting discussion and thereby promote their children's development of their own ideas and interpretations. This is done at the risk of the child's developing views, which are different from those of their parents.

Research has supported this theory. Fujioka and Austin (2002) found that certain communication styles were better at mediating the influence of messages communicated through TV. The authors also explored the variables of positive and negative mediation in this study. In this study, positive mediation was defined as parents agreeing with the message on TV, whereas negative mediation was defined as parents expressing views contrary to the messages. The authors found that parents who had a socio-orientation were likely to use positive mediation (approval of messages). Parents who had a concept orientation used both negative mediation (opposition to messages) and positive mediation. These parents also engaged their children in discussions regarding what they were viewing. The authors also found that positive mediation led children to be accepting of persuasive messages on T.V. These findings may indicate a need for parents to be cognizant of their communication styles. This study illustrates how parental communication style can influence not only outcomes for children but, also other factors related to parental communication as well such as the type of mediation (positive or negative) parents used. Parental communication style has been found to vary across different groups of individuals.

FCP has been found to vary across socio-economic status. Prior to the development of the FCP framework, Chaffee, McLeod, & Atkin (1971) found that a "pluralistic" communication style (one that challenges ideas without worry of conflict) may be less likely to be found in families of lower socio-economic status. However, these authors acknowledged that most of their other studies have been conducted with middle-class populations. Therefore, it may be useful to further study these communication patterns with populations with a lower socio-economic status in order to assess if this finding is replicated.

Studies have also explored communication styles in cultures other than those found in the United States. Rousta, Bayat, and Nia (2014) conducted a study in Iran and found that those students whose parents used a "dialogue" orientation (defined as a style that allowed children to freely express their views) were more successful academically than those students whose parents used a "conformity" orientation (defined as a style that stressed holding the same values as parents). A cross-cultural comparison between American and Japanese families found differences in communication style based on culture (Shearman & Dumlao, 2008).

Therefore, it may be benefiting to study other cultures within the United States in order to enhance this cross-cultural understanding. It is important to assess how parental communication is perceived by youth since this is the target population of this study. Furthermore, it will be important to assess how youth perceive their parents' communication style and how this style influences students' achievement as well as goal orientation. This information may therefore provide parents with insight into how their children perceive their communication style as well as indicate if these parents may benefit from changing their current style of parenting.

Intrapersonal Predictors of Achievement

Goal orientation. According to Dweck (1986), adaptive patterns are defined as those that are oriented toward establishing, maintaining, and gaining goals. These patterns are also challenging and valuable to an individual. Maladaptive patterns are essentially those that fail to achieve these aims. Bandura and Dweck (as cited in Dweck & Leggett, 1988), expanded these categories of maladaptive and adaptive patterns into the goal orientations of learning and mastery. According to Bandura and Dweck (as cited in Dweck & Leggett, 1988), those with learning and performance goals seek different outcomes from tasks. Those with learning (mastery) goals seek out tasks that are challenging despite their perception of their ability as

being low or high. Children with learning goals and performance goals valued effort and ability differently also. Children with mastery goals were more likely than those with performance goals to indicate that they were “bored” or “disappointed” when tasks required low effort in order to achieve mastery of tasks.

Elliot and Harackiewicz (1996) further divided the performance goal orientations into “performance-approach” and “performance-avoidance” orientations. The authors argued that although this distinction of performance goals was made by Dweck and Elliott (1983) as well as by Nicholls (1984), there was a shift away from this framework in later years. These authors conceptualized performance-approach and mastery orientation as based on self-regulation in order to attain normative understanding or mastery of a task. Performance-avoidance is also based on utilizing self-regulation, but is focused on avoiding failure. According to the results of this study, those with a performance-avoidance approach were found to have less intrinsic motivation than those with mastery or performance-approach orientations (Elliot & Harackiewicz, 1996).

According to Dweck and Leggett (1988), the various goal orientations are guided by differing cognitions, affect, and behaviors. For example, those with a performance goal orientation will view the results of their efforts as a reflection of their ability. Diener and Dweck (1978, 1980) observed that individuals with this type of orientation experienced feelings of anxiety and depression when faced with failure. They are likely to avoid challenging tasks (Dweck & Leggett, 1988). Those with a mastery orientation are likely to be concerned with increasing their mastery of tasks and are also likely to think of ways to change their approach to situations when faced with failure. Those with a mastery orientation have been found to have an increase in positive affect in the face of failure, as they were now required to increase effort.

This is viewed as a motivating event for these individuals. In terms of behavior, those with mastery goals are likely to seek out challenging tasks (Dweck & Leggett, 1988).

Future orientation. According to de Bilde, Vansteenkiste, and Lens (2011), Future Time Perspective (FTP) can be viewed through Self Determination Theory (SDT). Self-Determination theory is based on a continuum of autonomy starting from a lack of motivation and moving next to external regulation. After external regulation is introjected regulation, next is identified regulation, next is integrated regulation, and lastly on this continuum is intrinsic motivation. A lack of motivation may exist due to a lack of self-efficacy or failure to discern value in the task at hand (Ryan & Deci, 2000). Moving down the continuum, external regulation exists when one is motivated by an entity outside of the task at hand. Introjected regulation is said to occur when one is motivated by conflict within one's self. Identified regulation was defined as one finding the reason for his or her performing a behavior as valuable. Next, on this continuum is integrated regulation, which occurs when one is able to connect the value of the task at hand to another internal value that one holds. Intrinsic motivation exists when one is not motivated by external rewards or by possible future outcomes and enjoys engaging in an activity despite the lack of such rewards.

De Bilde, Vansteenkiste, and Lens (2011) found that having a strong FTP was related to self-regulated learning tactics. These individuals also processed material at a more meaningful level. It was also found that FTP had a positive relationship to identified regulation and was not related to external regulation. A study by Bembenutty and Karabenick (1998) offers one explanation as to why having a FTP is related to higher academic achievement. These authors found that students who were able to delay gratification performed better academically than those who were not able to delay gratification.

Because of this link to self-regulation, FTP has been shown to be correlated with positive outcomes. A study by Ferrari, Nota, and Soresi (2010) found that FTP in adolescents was positively related to academic achievement and negatively related to indecisiveness about one's career. The authors also found that time perspective was not related to socio-economic status. Overall, it appears that having a future time perspective is positively related to adaptive behavior.

Competence. According to Self-Determination Theory, competence and autonomy are inherent needs that individuals have (Hoang, 2007). Therefore, it can be implied that individuals will strive to have these needs met. One's perceived competence has been shown to have a significant impact on one's academic achievement. According to Crombie (2005), one's competence beliefs were predictive of one's achievement in math. According to Calsyn and Kenny (1977), self-concept is influenced by grades. Here, students' view of others' evaluation of their ability influences self-concept that then influences achievement. According to Bandura (1996), academic self-concept acts as a motivating force for academic achievement.

According to Marsh and Yeung (1998), there are strong correlations between academic self-concept, student grades, and subsequent selection of courses. Osyerman, Terry, and Bybee (2002) found that students who received an academic intervention in order to improve their concept of possible-selves had higher school involvement. This intervention involved youth engaging in structured social activities. Overall, it appears that one's perceived competence has an influence upon one's academic achievement.

Locus of control. According to Grolnick, Ryan, and Deci (1991), control understanding is defined as "the degree to which children indicate that they understand who or what is responsible for their important school outcomes" (Grolnick, Ryan, & Deci, 1991, p. 509). This concept is therefore similar to that of the widely studied concept of locus of control. Locus of

control is conceptualized as a continuum of internal and external control. Those on the extreme end of internal control believe that events occur due to characteristics inherent within themselves. Those on the external locus of control believe that events are controlled by outside forces (e.g. Rotter, 1966). These individuals believe that consequences of their actions are due to factors such as fate or luck.

According to Rotter (1966), locus of control is based on different theoretical models. Social Learning Theory is one such model. This theory is built on the foundation that when one's actions are reinforced for a certain behavior, one will expect that action to elicit the same reinforcement subsequently. An individual's understanding of a consequence as occurring because of his or her own behavior will lead the individual to expect reinforcement for behaviors, whereas non-reinforcement will lead the individual to not have such an expectancy. These expectancies can then be generalized to other situations. (Rotter, 1966).

Overall, it appears that having an internal locus of control is more adaptive than having an external locus of control (e.g. Phares, 1976). Specifically, having an external locus of control has been linked to characteristics such as emotional disturbance (Finch, and Mahoney, 1976). Other studies have shown that having an internal locus of control is related to higher achievement i.e. higher grades and higher self-efficacy (Nowicki and Roundtree, 1971; Wood and Bandura, 1989).

It appears that a relationship exists between children's locus of control and their parents' behavior. For example, internal locus of control was related to parent behavior that was more nurturing, validation, as well as to behavior that was not rejecting (Katkovsky, Crandall, and Good, 1967). Overall, it appears that one's understanding of control is related to various adaptive behaviors, including achievement, as well as with parenting styles.

Autonomy support. According to Ryan and Connell (1989), autonomy is defined as an individual choosing to initiate his or her actions. According to Grolnick, Ryan, and Deci (1991, p. 509), the degree of autonomy is dependent upon the "extent to which the initiation and regulation of an action emanates from within." It is defined as a person in power taking the perspective of the other person and providing that person with the opportunity to make an informed decision and using the least amount of coercion to do so.

Some of the earliest studies of autonomy support have been conducted in the medical setting. According to a study by Williams, Deci, and Ryan (1995), when patients perceived health-care providers as providing more autonomy, they were able to maintain more weight-loss over a 23-month period. Other studies have shown positive relationships between autonomy support and patients' health status at follow-up appointments (e.g. Kaplan, Greenfield, Ware, 1989). This research has since been extended to the relationship between autonomy support and academic achievement.

The process of internalization is described as one in which one's integration of values and other elements of the environment into one's belief system. Higher autonomy has been linked to positive outcomes for students such as improved learning of concepts (Grolnick & Ryan, 1987), higher ratings by teachers of student's competence (Grolnick, Ryan, & Deci, 1991), more enjoyment of school, and stronger ability to cope with failure (Grolnick & Ryan, 1989).

Hope. Studies have shown that higher levels of hope have been linked to positive outcomes for both adults as well as children (e.g. Kliewer & Lewis, 1995). The model developed by Snyder et al. (1997) is based upon the idea that children are goal-directed and therefore higher levels of hope is linked to positive outcomes. Furthermore, children who have higher levels of hope have been found to show greater levels of perseverance in the face of stressors such as

physical illness (Snyder et al., 1997). The concept of hope can be understood by assessing the constructs of pathways and agency via children's self-reports (Snyder et al., 1997). According to Snyder, Shorey, Cheavens, Pulvers, Adams, and Wilklund (2002), higher levels of hope were related to higher academic achievement levels. The authors also found that there was a greater likelihood that students with higher levels of hope would graduate from college and that these students were less likely to be asked to leave college due to poor grades (Snyder et al., 2002). Gilman, Dooley, and Florell (2006) found that higher levels of hope were related to higher GPAs among adolescents.

Summary

It appears that the variables discussed above all influence behavior and, more importantly, achievement related behaviors. Because of the impact that these factors have shown to have, it was deemed important to explore their influence with each other as well as with student achievement. Furthermore, it was also thought to be important to study these variables in combinations in order to discern which factors may function as protective factors that can shield students in these formative adolescent years. These results were expected to improve our understanding of how these factors promote academic achievement.

CHAPTER 3 METHOD

Participants

The participants in this study were recruited from high schools in the Midwest. Students were in grades 9-12.

Measures

Demographics. Students completed a short demographic survey regarding their grade, gender, ethnicity, and home language. It was found that out of the total 226 students that completed the surveys for this study, 150 (66.4%) were male and 72 were female (31.9%). Data was missing for four of the participants. In terms of ethnicity, eight students (3.5%) reported that they identified as Caucasian, 113 (50%) reported identifying as African American, 59 (26.1%) reported identifying as Arab American, 10 (4.4%) reported that they identified as Asian American, 6 (2.7%) reported identifying as Hispanic American, and 30 (13.3%) participants reported as being "Other." In terms of grades, 51 students (22.6%) were in ninth grade, 64 (28.3%) were in tenth grade, 65 (28.8%) were in eleventh grade, and 45 (19.9%) were in twelfth grade. One student did not report his or her grade level. Lastly, socio-economic status was determined by students answering whether or not their lunch was paid for by their school. Out of the 216 students that responded on this item, 63 (27.9%) reported that their lunch was not paid for, while 153 (67.7%) reported that their lunch was paid for.

Academic achievement. Students were asked to report their overall grades as well as their most recent grades (A, B, C, D, or F) in their core academic classes (English/Language Arts, science, social studies, math). In regards to their overall grades, students were asked "Which statement best describes your overall grades?" They then were asked to respond using

the following choices: “Mostly As,” “Mostly As and Bs,” “Mostly Bs,” Mostly Bs and Cs,” “Mostly Cs,” “Mostly Cs and Ds,” “Mostly Ds,” “Mostly Ds and Fs,” or “Mostly Fs.”

Parental communication style. Parental communication style was measured using the Revised Family Communication Patterns Instrument (Children’s Version) (Ritchie, 1988). This measure was originally created by McLeod and Chafee (1972). This measure contains items that assess two types of communication patterns: conversation orientation and conformity orientation. The revised version of this scale was proposed in 1988 by Ritchie because of theoretical inaccuracies with the original version. For example, the FCP scale was devised under the assumption that all family members agreed on the type of communication style that was used. However, according to Ritchie and Fitzpatrick (1990) this was found to be inaccurate. It was found that family members had different perceptions of communication style. This finding also adds to this the justification for assessing family communication style through the perception of children. Furthermore, it had been assumed that a conformity orientation style (referred to as socio-orientation style at the time) was linked to a more cooperative atmosphere in the home. However, it was found that a conversation orientation was linked with perceived support from parents whereas a conformity orientation was viewed as a means of parental control (Ritchie, 1991).

According to Ritchie (1991) and Austin (1993), the conversation-orientation measures parents level of encouragement for their children to communicate and to question the status quo. This measure contains 26 items that students will answer using a 5-point likert scale (e.g. 1= strongly disagree, 3 = undecided, 5 = strongly agree). An example statement from this scale is “My parents encourage me to challenge their ideas and beliefs.” The conformity-orientation

construct measures parents' level of wanting to maintain harmony in the home. A sample statement from the inventory is "In our home, my parents usually have the last word."

The RFCP instrument has also been shown to be a reliable and valid measure. According to Ritchie and Fitzpatrick (1990), on a sample of students in the 7^{th}, 9^{th}, and 11^{th} grades, the test-retest reliability coefficient for the RFCP scale ranged from .80 to .82 for the conformity orientation and from .64 to .81 for the conversation orientation. The scales also show high internal consistency as measured by Cronbach's alpha. This ranged from .76 to .83 on the conformity dimension and from .84 to .88 on the conversation dimension (Ritchie & Fitzpatrick, 1990). A study by Segrin and Fitzpatrick (1991) found that conformity orientation was positively correlated with avoidance of conflict ($\beta = 0.21$, $p < 0.05$) and expressing negative feelings ($\beta = 0.36$, $p < 0.01$). Conversation orientation was found to be negatively related with conflict avoidance ($\beta = 0.31$, $p < 0.01$) and positively related to seeking of social support ($\beta = 0.41$, $p < 0.01$). Previous studies have grouped families into four types based on ratings on these two dimensions (i.e. pluralistic, protective, consensual, and laissez-faire). However, for the purposes of this study, only the constructs of conversation and conformity orientation were of interest and were used.

Goal orientation. The Achievement Goal Questionnaire is designed to measure one's goal orientation. According to Elliot and Church (1997) there are three orientations used to measure achievement goals: performance-approach goal, performance-avoidance goal, and mastery goal. Students responded to a total of 18 questions about themselves across the three subscales. The performance-approach goal construct measures achieving competence relative to the norm. A sample item from this construct is "I am striving to demonstrate my ability relative to others in this class." The performance-avoidance goal construct measures avoiding

competence below the norm. This construct includes statements such as "I worry about the possibility of getting a bad grade in this class." The mastery goal orientation measures ones' seeking mastery of a certain area. An example of an item is "I want to learn as much as possible from this class."

All items are answered on a 7-point likert scale (1= not at all true of me, 7 = very true of me). Each of the three achievement goal areas showed a Cronbach's α level of .77 or above (Elliot & Church, 1997). A factor analysis showed that all of the items from the three areas loaded above .40 on their primary factor (Elliot & Church, 1997). For the purposes of this study, some of the wording of this questionnaire was modified. For example, the phrases "in this class/course" were changed to "in my academic classes." The word "psychology" was changed to "all my academic classes." The word TA (teaching assistant) was removed. These changes were made in order to make these statements relevant to the individuals were given this questionnaire and in order to obtain a broader understanding of students' goals across all of their academic classes. These three orientations were found to be highly correlated with each other (α =.93). Therefore, a single total score for goal orientation was used for this study.

Future orientation. According to Time Perspective Theory, one's time orientation has been shown to influence behavior. Students' perceptions of their future orientation was measured by the future scale of the Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999). This inventory is designed to measure one's expectations related to a time period. This measure contains items such as "many opportunities await me in the future" and "I expect that I will set many new goals in the future." These statements are rated on a 5-point likert scale (1= very uncharacteristic to 5 = very characteristic). Beta coefficients from a multiple regression analysis showed that future time perspective is related to internal motivation, which in turn, has been

shown to be related to academic achievement. The Future Time Perspective Scale has shown to have internal reliability with a Cronbach's alpha level of .60 (Keough, Zimbardo, & Boyd, 1999). Other studies have found that this measure has test retest reliability ranging from .73 to .83 (Keough, 1993; Jourdan, 1993). Exploratory and confirmatory factor analysis showed that almost all of the items on the Time Perspective Inventory loaded above .30 on the factors they were expected to load on, which includes the future factor (Zimbardo & Boyd, 1999).

It appeared that two of the items on this scale were not conducive to the aims of this study as students' broad perception of the future was sought to be measured. Therefore, the following items were removed: "September seems very near" and "August seems like a long way off." These items seemed to restrict one's thinking about the future to a certain time period.

Competence. The Self-Perception Scale for Adolescents (Harter, 1988, 2012) has been shown to be a valid and reliable measure. The Scholastic Competence subscale of this measure was used in this study. It is a measure of one's perceived competence as related to schoolwork. Items from this measure include such statements as "Some teenagers feel like they are just as smart as others their age but, other teenagers aren't so sure and wonder if they are as smart" and "Some teenagers do very well at their class work but, other teenagers don't do very well at their class work." These statements are separated so that one statement is on the left side and the other is on the right side of a line. The ratings of "really true for me" or "sort of true for me" precede each statement. For example, the statement "some teenagers feel like they are just as smart as others their age" would be on the left side of a line and "other teenagers aren't so sure and wonder if they are as smart" would be on the right side of the same line. These ratings are scored on a scale of 1 to 4, where 1 is the lowest rating of competency and 4 is the highest.

This subscale was found to have an internal consistency, as measured by Cronbach's alpha, ranging from .77-.91 (Harter, 2012). Exploratory factor analysis using oblique rotation showed that loadings ranged from 0.47 – 0.81 on the Scholastic Competence Scale (Harter, 2012). Although this scale was determined to be one that was appropriate for this study's sample, it did not appear that students' were able to understand the questionnaire's format. Students often marked both boxes after the statements of this measure when they were required to only mark one box. Therefore, the data from this questionnaire was not utilized in this study.

Locus of control. The Nowicki-Strickland Locus of Control Scale for Children has been found to a reliable measure for high-school aged students (Nowicki & Strickland, 1976). This measure contains items such as "Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?" and "Do you feel that the best way to handle most problem is just not to think about them?" These items are answered in a "yes" or "no" format. Shepard, Fitch, Owen, and Marshall (2006) found a test-retest reliability of .75 for a group of 12 to 15 year olds. This measure has also been found to be valid. A factor analysis was conducted by Wolf, Skov, Hunter, and Berenson (1982) with a sample of 10 to 17 year old bi-racial students. In this study, the three factors that the items loaded onto, with a loading of greater than or equal to .30, were related to the three dimensions (e.g., helplessness, achievement, luck) identified by Nowicki (1976).

Autonomy support. Williams and Deci (1996) derived the Learning Climate Questionnaire (LCQ) from the Health-Care Climate Questionnaire, which assesses one's perceived autonomy support by healthcare providers (Williams, Grow, Freedman, Ryan, & Deci, 1996). The LCQ is a measure of the amount of support one perceives from teachers. This measure contains items such as "I feel understood by my instructor" and "I am able to be open

with my instructor during class." These items are rated on a 7-point likert scale (1 = strongly disagree, 4 = neutral, 7 = strongly agree). The internal reliability of the scale was $\alpha = 0.96$ (Williams & Deci, 1996). This high internal consistency was again shown across two time periods (T1 $\alpha = 0.93$, T2 $\alpha = 0.94$) in a study by Black and Deci (2000). Also, principal component factor analysis revealed that the LCQ produced a single factor, autonomy support, with an eigenvalue of 7.9, which explained 52.7% of the variance (Black & Deci, 2000).

Hope. The Children's Hope Scale was developed in order to assess children's level of hope (Snyder et al., 1997). This scale originally contained 12 items. However, when the authors of the scale conducted a two factor solution, this showed that six items had weak loadings on the agency and pathways factors. These items were removed from the scale. When the analysis was conducted again without these factors, it showed that the items intended to measure agency loaded on this factor with loadings ranging from .64 to .85. These items had loadings of .09 to .21 on the pathways factor. It also showed that items expected to measure pathways loaded on this factor with loadings ranging of .52 to .85. These items had loadings of .02 to .41 on the agency factor. Furthermore, it was found that the agency factor accounted for 32.5% of the variance and the pathways factor accounted for 25.9% of the variance. Pre and post tests revealed that the two factors were positively correlated with one another with r =.52 in the pre-test and r =.61 in the post test. The Chronbach alphas for this scale ranged from .72 to .86 (Snyder et al., 1997). Due to a clerical error, one item was excluded from the Children's Hope Scale for this particular study. This item was "I am doing just as well as other kids my age."

Procedure

After obtaining approval from Wayne State University's Institutional Review Board, parents of students were asked to sign a waiver of consent form if they did not wish to have their

students participate in their study. These forms were sent to parents via first-class mail. Afterwards, assent was solicited from students whose parents did not sign the consent form. Students were provided with an information sheet regarding this study. The principal investigator visited the students' classes and explained the purpose of the study and provided instructions about how to fill out the measures. It took students about 30-45 minutes to fill out the measures for this study.

The students who agreed to participate were given the measures assessing parental communication style, goal orientation, orientation to the future, perception of competence, locus of control, autonomy support, and hope. Students were offered small rewards, such as candy, for their participation. Those who choose not to participate were given the opportunity to engage in an alternative activity.

Data Analysis

Data was gathered from the paper and pencil surveys that the participants filled out. This was then entered into SPSS by the investigator in order to run analysis. An alpha of 0.05 was used in order to determine statistical significance. Table 1 (below) displays the research questions, hypotheses, variables, and statistical analyses that will be used.

Table 1

Research Questions

Research Question 1: How well do the intrapersonal factors explain variance in academic achievement?		
Research Hypothesis	Variables	Statistical Analysis
H1: The intrapersonal factors (goal orientation, future orientation, locus of control, autonomy support, hope) will explain a statistically significant amount of variance student achievement.	<u>Predictor variables</u> Intrapersonal factors (Step 1): • Goal Orientation • Future Orientation • Locus of Control • Autonomy Support • Hope <u>Criterion variable</u> • Student achievement	Hierarchical Linear Regression Analysis
Research Question 2: How well is parental communication style associated with academic achievement?		
Research Hypothesis	Variables	Statistical Analysis
H2: Parental communication style will explain a statistically significant amount of variance in student achievement.	<u>Predictor variables</u> Microsystem factor (Step 1): • Parental Communication Style <u>Criterion variable</u> • Student Achievement	Hierarchical Linear Regression Analysis

Research Question 3: Does parental communication style explain variance in academic achievement above and beyond that of the intrapersonal factors?		
Research Hypothesis	Variables	Statistical Analysis
H3: Parental communication style will explain more variance in student achievement than a combination of the intrapersonal factors (goal orientation, future orientation, locus of control, autonomy support, hope).	<u>Predictor variable</u> Intrapersonal factors (Step 1): • Goal Orientation • Future Orientation • Locus of Control • Autonomy Support • Hope Microsystem factor (Step 2): • Parental Communication Style <u>Criterion variable</u> • Student achievement	Hierarchical Linear Regression Analysis

CHAPTER 4 RESULTS

The purpose of this study was to investigate the unique and combined contributions of a) intrapersonal factors – locus of control, autonomy support, goal orientation, future orientation, and hope and b) parental communication style at the microsystem level in understanding the variance in adolescent academic achievement. The sample distribution was normal. Missing data was handled by mean substitution. An alpha level of 0.05 was used to determine statistical significance.

First, preliminary analyses were run using Analysis of Variance (ANOVA) to determine whether there were significant differences in all study variables between demographic subgroups. Specifically, all variables were tested for differences by school, ethnicity, gender, socio-economic status (SES), and grade. There were school and ethnicity differences in both the dependent measure (academic achievement) and several predictor variables, and therefore all analyses were run controlling for both school and ethnicity. Gender and grade differences only appeared on the parental communication style measure and thus gender and grade were entered as control variables along with school and ethnicity in analyses involving parental communication style. Similarly, SES only needed to be controlled for when the future orientation scale was involved in analyses. Descriptive statistics and internal consistency coefficients are presented in Table 2. A correlation matrix, which displays the interactions between all variables, is shown in Table 3.

Table 2

Descriptive Statistics and Cronbach's Alphas - Survey Aggregate Scores

					Range	
Variables	Missing	α	Mean	*SD*	Min	Max
Academic Achievement	4	n/a	6.63	1.83	1.00	9.00
Parent Communication Style	1	.81	2.93	.54	1.31	4.27
Performance Approach Goal Orientation	0	.90	4.94	1.55	1.00	7.00
Performance Avoidance Goal Orientation	0	.78	4.71	1.41	1.00	7.00
Mastery Goal Orientation	0	.91	5.15	1.44	1.00	7.00
Future Orientation	1	.70	3.35	.43	2.42	4.58
Locus of Control	3	.68	61.50	5.50	40.00	80.00
Autonomy Support	2	.91	4.38	1.13	1.13	7.00
Hope	1	.84	3.88	1.08	1.00	6.00

Table 3

Intercorrelation Matrix - All Study Variables

	1	2	3	4	5	6
1. Academic Achievement	-	-	-	-	-	-
2. Locus of Control	-.08	-	-	-	-	-
3. Parental Communication Style	.22**	.02	-	-	-	-
4. Autonomy Support	-.03	.08	.18**	-	-	-
5. Hope	.18**	.09	.08	.36**	-	-
6. Goal Orientation Total	.25**	.06	.13	.26**	.37**	-
7. Future Orientation	-.03	.19**	.09	.33**	.21**	.23**

*$p < .05$; **$p<.01$

Research Question 1: How well do the intrapersonal factors explain variance in academic achievement and which variables are the strongest predictors of higher achievement?

To determine which intrapersonal factors were the strongest predictors of academic achievement, a hierarchical regression analysis was run. Variables entered at step one were school, ethnicity, and socio-economic status. The model was significant at step one (Adjusted R^2= .17, F = 15.19, df = 3, 206, p < .001), indicating that these variables accounted for 17% of the variance in academic achievement. In examining the contribution of demographic variables, an analysis of standardized beta weights indicated that the variable found to be most significant within the model was school (β = -4.32, t = -6.55, p < .001). See Table 4.

The variables of goal orientation, future orientation, locus of control, autonomy support, and hope were entered at step two. The model was significant at step two (Adjusted R^2= .25, F = 9.46, df = 8, 206, p < .001), indicating that these variables accounted for 8% of the variance when examining academic achievement, significantly above and beyond that accounted for at step one (Adjusted R^2 change = .08, p < .001). In examining the role of intrapersonal variables, an analysis of standardized beta weights indicated that variables found to be significant within the model were school (β = -.43, t = -6.68, p < .001), ethnicity (β = -.13, t = -2.04, p < .05), and goal orientation (β = .25, t = 3.65, p < .001). See Table 4.

Table 4

Hierarchical Linear Regression Analysis – Intrapersonal Factors on Academic Achievement

Predictor	Adj. R^2	F	df	p	B	SE B	β****	t
Step 1	.17	15.19	3, 206	< .001				
Step 2	.25	9.46	8, 206	< .001				
Step 1								
Constant					9.48	.59		15.97***
School					-1.60	.24	-4.32	-6.55***
Ethnicity					-.12	.07	-.11	-1.67
SES					.01	.26	.00	.04
Step 2								
Constant					9.24	1.51		6.11***
School					-1.58	.24	-.43	-6.68***
Ethnicity					-.14	.07	-.13	-2.04*
SES					-.07	.26	-.02	-.26
Goal Orientation					.36	.10	.25	3.65***
Future Orientation					-.00	.31	.00	-.00
Locus of Control					-.03	.02	-.08	-1.34
Autonomy Support					-.11	.11	-.07	-.97
Hope					.21	.12	.13	1.86

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

Research Question 2: How well is parental communication style associated with academic achievement?

In examining the degree to which parental communication style is associated with academic achievement, a hierarchical linear regression analysis was run. Variables entered at step one were school, ethnicity, gender, and grade. The model was significant at step one (Adjusted R^2= .18, F = 12.95, df = 4, 216, p < .001), indicating that these variables accounted for 18% of the variance in academic achievement. In examining the role of demographic variables, an analysis of standardized beta weights indicated that the variable found to be most significant within the model was school (β = -.49, t = -6.64, p < .001). See Table 5.

Parental communication style was entered at step two. The model was significant at step two (Adjusted R^2= .21, F = 12.63, df= 5, 216, p < .001), indicating that parental communication style accounted for 3% of the variance when examining academic achievement, significantly above and beyond that accounted for at step one (Adjusted R^2 change = .03, p < .01). In examining the role of parental communication style, an analysis of standardized beta weights indicated that variables found to be the main contributors within the model were school (β = -.49, t = -6.85, p < .001), grade (β = .15, t = 2.03, p < .05), and parental communication style (β = .19, t = 3.06, p < .01). See Table 5.

Table 5

Hierarchical Linear Regression Analysis – Microsystem Predictor on Academic Achievement

Predictor	Adj. R^2	F	df	p	B	SE B	β****	t
Step 1	.18	12.95	4, 216	< .001				
Step 2	.21	12.63	5, 216	< .001				
Step 1								
Constant					7.59	1.24		6.15***
School					-1.76	.27	-.49	-6.64***
Ethnicity					-.07	.07	-.06	-.95
Gender					.07	.25	.02	.27
Grade					.18	.12	.12	1.50
Step 2								
Constant					5.26	1.43		3.67***
School					-1.78	.26	-.49	-6.85***
Ethnicity					-.06	.07	-.05	-.82
Gender					-.04	.24	-.01	-.18
Grade					.25	.12	.15	2.03*
Parental Communication Style					.62	.20	.19	3.06**

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

Research Question 3: Does parental communication style explain variance in academic achievement above and beyond that of the intrapersonal factors?

In order to determine whether parental communication style explains variance in academic achievement beyond that which was explained by the intrapersonal variables, a hierarchical regression analysis was run. Variables entered at step one were school, ethnicity, socio-economic status, grade, and gender. The model was significant at step one. (Adjusted R^2=.16, F = 8.81, df = 5, 204, $p < .001$). In examining the role of these demographic variables, an analysis of standardized beta weights indicated that the variable found to be significant within the model was school (β = -.47, t = -5.83, $p < .001$). See Table 6.

Goal orientation, future orientation, locus of control, autonomy support, and hope were entered at step two. The model was significant at step two (Adjusted R^2= .26, F = 7.99, df= 10, 204, $p < .001$). This indicates that these variables accounted for 10% of the variance in academic achievement significantly beyond that accounted for at step one (Adjusted R^2 change= .10, $p < .001$). In examining the role of intrapersonal variables, an analysis of standardized beta weights indicated that variables found to be significant within the model were school (β = -.47, t = -6.12, $p < .001$) and goal orientation (β = .28, t = 4.03, $p < .001$). See Table 6.

Parental communication style was entered at step three. This model was significant at step three (Adjusted R^2= .28, F = 8.17, df= 11, 204, $p < .001$). This indicates that parental communication style accounted for 2% of the variance when examining academic achievement significantly beyond that accounted for at step two (Adjusted R^2 change= .02, $p < .001$). In examining the contribution of parental communication style, an analysis of standardized beta weights indicated that variables found to be significant within this model were school (β = -.48, t = -6.25, $p < .001$), grade (β = .15, t = 1.99, $p < .05$), goal orientation (β = .27, t = 3.95, $p < .001$),

autonomy support (β = -.16, t = -2.28, p < .05), and parental communication style (β = .17, t = 2.71, p < .01). See Table 6.

Table 6

Hierarchical Linear Regression Analysis – Intrapersonal Factors and Microsystem Predictor on Academic Achievement

Predictor	Adj. R^2	F	df	p	B	SE B	β****	t
Step 1	.16	8.81	5, 204	< .001				
Step 2	.26	7.99	10, 204	< .001				
Step 3	.28	8.17	11, 204	< .001				
Step 1								
Constant					7.78	1.39		5.59***
School					-1.69	.29	-.47	-5.83***
Ethnicity					-.08	.07	-.07	-1.03
SES					.07	.27	.02	.26
Grade					.15	.13	.09	1.12
Gender					.08	.26	.02	.32
Step 2								
Constant					7.30	1.86		3.92***
School					-1.72	.28	-.47	-6.12***
Ethnicity					-.08	.07	-.08	-1.20
SES					-.00	.25	.00	-.00
Grade					.18	.13	.11	1.45
Gender					-.06	.25	-.02	-.24
Goal Orientation					.39	.10	.28	4.03***
Future Orientation					.10	.31	.02	.33

Predictor	Adj. R^2	F	df	p	B	SE B	β****	t
Locus of Control					-.03	.02	-.09	-1.39
Autonomy Support					-.21	.11	-.13	-1.89
Hope					.22	.11	.13	1.92
Step 3								
Constant					5.49	2.0		2.81**
School					-1.73	.28	-.47	-6.25***
Ethnicity					-.07	.07	-.07	-1.07
SES					-.01	.25	-.00	-.04
Grade					.25	.13	.15	1.99*
Gender					.15	.25	-.04	-.62
Goal Orientation					.38	.10	.27	3.95***
Future Orientation					.08	.31	.02	.27
Locus of Control					-.03	.02	-.09	-1.45
Autonomy Support					-.26	.11	-.16	-2.28*
Hope					.21	.11	.13	1.87
Parental Communication Style					.55	.20	.17	2.71**

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

CHAPTER 5 DISCUSSION

Adolescence is a time of many developmental changes and increasing demands in one's life (e.g., Miller, 2011). One such change is the increased demand for completing academic coursework and facing significant amount of pressure to attain high levels of academic achievement. This is especially the case when students reach high school because of the long term ramifications of high school performance for career options. There are many factors that contribute to one's level of academic achievement at the microsystem level as well as at the intrapersonal level. According to Bronfenbrenner (1994), an individual is influenced by various factors within him or herself as well as by external factors such as parents and teachers. In line with this research regarding external influences, a plethora of studies have shown that parenting styles contribute significantly to one's academic achievement (e.g., Paulson, 1994; Porumbu & Necsoi, 2013; Spera, 2006). Because several studies have explored the broad construct of parenting style, the overarching aim of the current study was to delve deeper into this construct by examining a more specific parenting construct of parental communication style. Indeed, one of the main themes in the findings was that parental communication style was a contributor to academic achievement across all analyses where it was entered. The results of these analyses will be discussed in turn below.

First, however, it was hypothesized that select intrapersonal variables of goal orientation, future orientation, locus of control, autonomy support, and hope would make a clear and significant contribution to the variance in academic achievement. However, the variables made a small contribution by accounting for variance 8% above and beyond the demographic variables of the study. Specifically, goal orientation was shown to be the most significant when a hierarchical linear regression analysis was run. Previous studies have shown that goal orientation

has a closer relationship to behavior than other internal drives such as motivation (Elliot & Church, 1997). Previous studies have also shown that having a particular goal orientation is linked to positive results such as higher intrinsic motivation, increasing one's competence on tasks, and increasing effort when a task became difficult (Dweck, 1986; Elliot & Harackiewicz, 1996). Because goal orientation was found to be significant, this may be an area of focus for future research.

On the contrary, the intrapersonal variables of future orientation, locus of control, autonomy support, and hope, despite being expected to, did not evidence a significant contribution to the variance in academic achievement. Hierarchical linear regression analysis showed that these variables were not significant in predicting academic achievement above and beyond demographic variables. This may be because of differences between previous studies and the current study. One such difference is the conceptualization of academic achievement. For instance, when studying future orientation, outcome variables studied were academic self-regulation and self-regulated learning as opposed to student grades, which the current study utilized (e.g. De Bilde, Vansteenkiste, & Lens, 2011). Previous studies have also been conducted with college-age students (e.g., Horstmanshof & Zimitat, 2007; Jackson, Fritch, Nagasaka, & Poppe, 2003) while the present study was conducted with high-school age students. Because of the developmental differences (e.g., thinking stage, social-emotional stage) between these populations, this may have contributed to a difference in responses overall between this study and previous studies.

It was also surprising that locus of control did not significantly contribute to the model. According to Grolnick, Ryan, and Deci (1991), locus of control, among other variables, predicted achievement and also mediated the influence of parental involvement on achievement

in a positive manner. Therefore, its lack of contribution in the current analyses is inexplicable at this point. Perhaps this has something to do with measurement or sample specifics, but future research will have to keep measuring these associations in order to develop an overall consensus across multiple studies and therefore to confirm this finding. Furthermore, it may be more crucial to study this mediating role with adolescents, such as the ones in this sample, since this a time period in one's life that is often characterized by seeking independence from parents. This seeking of independence may then impact one's locus of control as this construct is based upon one's view of external control (e.g., parental) and internal control.

Another difference between this study and previous research may be the importance students place on academic achievement. For example, the variable of hope has been tied to factors such as persistence and positive feelings about oneself as well as to academic achievement (Snyder et al., 1997). It could then be inferred that the samples in previous research conceptualized high academic achievement as a positive outcome that is associated with positive interpersonal factors (e.g., hope), whereas the sample in this study may not have made this association. This could then explain why these factors did not show a significant relationship with academic achievement for this particular sample.

The results of this study also showed that autonomy support became significant when parental communication style was added to the hierarchical linear regression model. Ritchie (1988) argued that a conversation orientation is one that promotes autonomy. Therefore, it may be that children who perceived this style of parental communication were then likely to better perceive as well as elicit more autonomy support from teachers. This may be because students who are accustomed to this support from parents are more likely to be able to understand when autonomy support is given as well as behave in a way that is likely to prompt autonomy support

from teachers. Furthermore, research shows that autonomy support contributes to academic success. Specifically, higher levels of perceived autonomy are linked to more positive outcomes such as improved learning of concepts (Grolnick & Ryan, 1987), higher ratings of competence by teachers (Grolnick, Ryan, & Deci, 1991), and a better ability to cope with failure (Grolnick & Ryan, 1989). It may then be inferred, based upon these results, that parental communication may be linked to students' utilization of perceived support from teachers in order to thrive academically.

Finally, at the last step of the analyses, parental communication style was entered, as it was hypothesized that it would contribute to achievement above and beyond all other variables. Past research makes it clear that parental communication style is associated with achievement, but the purpose of this study was to determine how much more it contributed to academic achievement when the other carefully selected variables were entered first. It was found that parental communication made a small (2%), but statistically significant, contribution to the variance in academic achievement beyond the intrapersonal variables. Research has indeed consistently shown that parenting styles play a strong role in behavior and that authoritative parenting is linked to positive development in American youth. Permissive and authoritarian parenting styles, on the other hand, have been linked to negative outcomes (e.g., Bugental & Grusec, 2006). In terms of parental communication style, studies have shown that children of parents who employed a conversation orientation were more successful academically than those whose parents used a conformity orientation (Rousta, Bayat, & Nia, 2014). This finding about communication style was confirmed by this study.

Although the findings of this study indicate that parental communication style explained a small proportion of academic achievement, this proportion of variance was nonetheless

statistically significant. Therefore, this study adds to research on parental communication style as well as indicates that this is an important construct. Examining the specific construct of parental communication style, as opposed to the more commonly measured, broad construct of parenting style, lends more insight into what parenting variables matter most. Parenting style, in general, may be somewhat amorphous and it may be difficult for parents to understand how to tangibly make impactful changes within this broad construct. Communication style, however, may be a more specific, and easily observable, set of behaviors in which parents would be able to make more immediate changes. There are many direct implications of this and these findings regarding parental communication style can be used to guide interventions. For example, it may be beneficial for schools to consider these findings when planning their social curricula. Schools may find ways to assess parental communication style through means such as parent focus groups and then provide feedback to parents regarding their communication style.

Although demographic variables were not of specific interest in the research questions, and thus were simply controlled for statistically in the primary analyses, these variables did contribute to academic achievement and there are several interesting observations that can be made. Results showed that demographic variables explained 17% of the variance in academic achievement when entered prior to the intrapersonal variables. These variables explained 18% of the variance in academic achievement when entered prior to parental communication style and 16% of the variance, again, when entered before both the intrapersonal variables of this study and parental communication style.

School, ethnicity, and grade were associated with academic achievement. Ethnicity was shown to be significant when intrapersonal variables were studied. Grade was shown to be significant when parental communication style was entered into the analyses. It may be

beneficial to deconstruct the factors associated with demographic variables. Schools in this study were divided based upon geographic location into two different groups. Because there was a difference between schools, it may be inferred that there are differences in populations based upon socio-economic status or family structure. Since the variables of ethnicity and grade also showed significance, further exploration of these variables may show which groups were more likely to have higher academic achievement. After such exploration, these groups may be surveyed further in order to understand what specific variables may be associated with higher academic achievement within these groups. When these specific factors are found, students may then be selected for interventions within the school setting in order to strengthen factors that contributed to high academic achievement. Again, these were not of focus in the current study but clearly are statistically important if these various demographics are the focus of the work.

Limitations and Directions for Future Research

This study must be interpreted considering several limitations. Future studies could focus on exploring if there is another variable that moderates the intrapersonal variables in predicting variance in academic achievement. This may help to explain why the variables of future orientation, locus of control, autonomy support, and hope did not make as strong of a contribution as expected. For example, it is possible that the factor of self-reporting, which was not considered in this study, makes a significant contribution. There may be other variables as well that made contributions, such as self-efficacy, prior academic achievement level, peer influence, one's overall relationship to his or her school, and highest level of education achieved by parents. These can be strategically included in future research.

Also, all data for this study was self-reported. However, this may not have been the most accurate way to collect data for student academic achievement. This reporting depended upon

whether or not students had recently checked their grades in their academic classes. Students also had to rely upon their memory in order to report their grades. This was because it was not feasible for students to ask all of their teachers for their grades or to check their grades while completing these surveys. This reliance upon memory may also have caused some inaccuracy in reporting. In future research, students' grade point averages may be obtained through their school in order to ensure accuracy of this data.

Similarly, students may not have had many opportunities for self-reflection prior to completing the surveys used for this research and, therefore, may need to be prompted to engage in thoughtful self-reflection prior to completing surveys. Perhaps, as a methodological issue, it would be helpful if they had conversations about these constructs and had thought about them in advance. This is always a risk in self-report research, especially with adolescents. However, researchers commonly rely on the adolescents' overt perceptions as fully capturing their "experiences." Another area that may need exploration prior to beginning research with students is to assess what value academic achievement holds in one's life. Prior research shows that the independent variables of this study are associated with positive outcomes; however, researchers should explore whether academic achievement is indeed perceived as a positive outcome that students are striving toward before conducting research that considers this as a positive outcome. This is something that, in hindsight, should/could have been included in the current study, and it may have played a notable role.

Although the scales utilized for this study were deemed appropriate for this particular sample, the different subcategories of the scale measuring goal orientation was unable to be used. This was because it was not anticipated that the sample size of students would yield strong relationships with the various subgroups. The construct of goal orientation is divided into the

categories of mastery, performance-approach, and performance-avoidance. Research has shown that having a mastery orientation is linked with more favorable outcomes (Elliot & Church, 1997; Dweck & Leggett, 1988). Since this study was able to expand upon previous research and show that an association exists between high school students and goal orientation, future research could further explore this finding by assessing if having a mastery orientation predicts higher academic achievement than having a performance-based orientation with a sample of students that are in high school.

Lastly, some items were deleted from the scales used in this study, which may explain why some results may not be in line with the results of past research. Specifically, it appeared that two of the items on the Future Time Perspective Scale were not conducive to the aims of this study as students' broad perception of the future was sought to be measured. Therefore, the following items were removed: "September seems very near" and "August seems like a long way off." These items seemed to restrict one's thinking about the future to a certain time period. Due to a clerical error, one item was excluded from the Children's Hope Scale for this particular study. This item was "I am doing just as well as other kids my age." Another limitation of this study was that the items on the Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1976) showed to have a low internal consistency ($\alpha = .68$). This may indicate that the items were not highly reflective of one's locus of control for this particular sample.

Conclusions and Implications

Despite limitations, this study contributes to literature on parental communication style and its link to academic achievement. This study showed that a relationship exists between academic achievement and parental communication style. Specifically, results showed that

having a conversation orientation is associated with higher academic outcomes. Furthermore, this study also expanded the demographics of prior work by utilizing a sample of high school students rather than college age students. Goal orientation emerged as the strongest intrapersonal variable. Besides expanding the literature on the aforementioned intrapersonal variables, this study also improves understanding of the importance of certain demographic variables. Specifically, school, ethnicity, and grade were associated with academic achievement. Therefore, it may be important to consider these variables when planning academic and social-emotional curricula in order to tailor educational materials to fit the needs of various groups of students. Schools may benefit from assessing if students have an understanding of goal orientation and then provide education for students who may not have this understanding.

Parents may need to make more of an effort to overtly explain to their children, as they communicate with them, when they are allowing them to have freedom to discuss openly. Parents and children may also need to have an open dialogue about how their style of communication is perceived by their children. This may show a need for parents to change their style of communication or for children to adjust their perception of their parents' communication style. These discussions may also lead families to seek further assistance from mental health professionals if needed. This could be accomplished by offering parents training via individual or group therapy focused around how to employ a conversation orientation. This training may take place at a center, which offers mental health services, or in a more public setting such as a school or library.

Furthermore, this study shows that the intrapersonal variables of goal orientation and autonomy support are conducive to students achieving higher grades in high school. Interestingly, this study showed that the addition of parental communication style as a variable

increased the significance of autonomy support in this study. It could then be inferred that parental communication style and autonomy support from teachers together have a positive relationship with academic achievement. This may imply that these constructs need to be studied more closely and interventions need to focus on building autonomy support in school. Schools could make a conscious effort to ensure that teachers are providing this support to students. If needed, teachers could be provided with professional development opportunities in order to support them in learning *how* to provide this support to students. Teachers may also need to overtly inform students about how they are supporting their autonomy within the school, thereby allowing students to understand clearly when this support is being given to them, what it means, and how to utilize and respond to it.

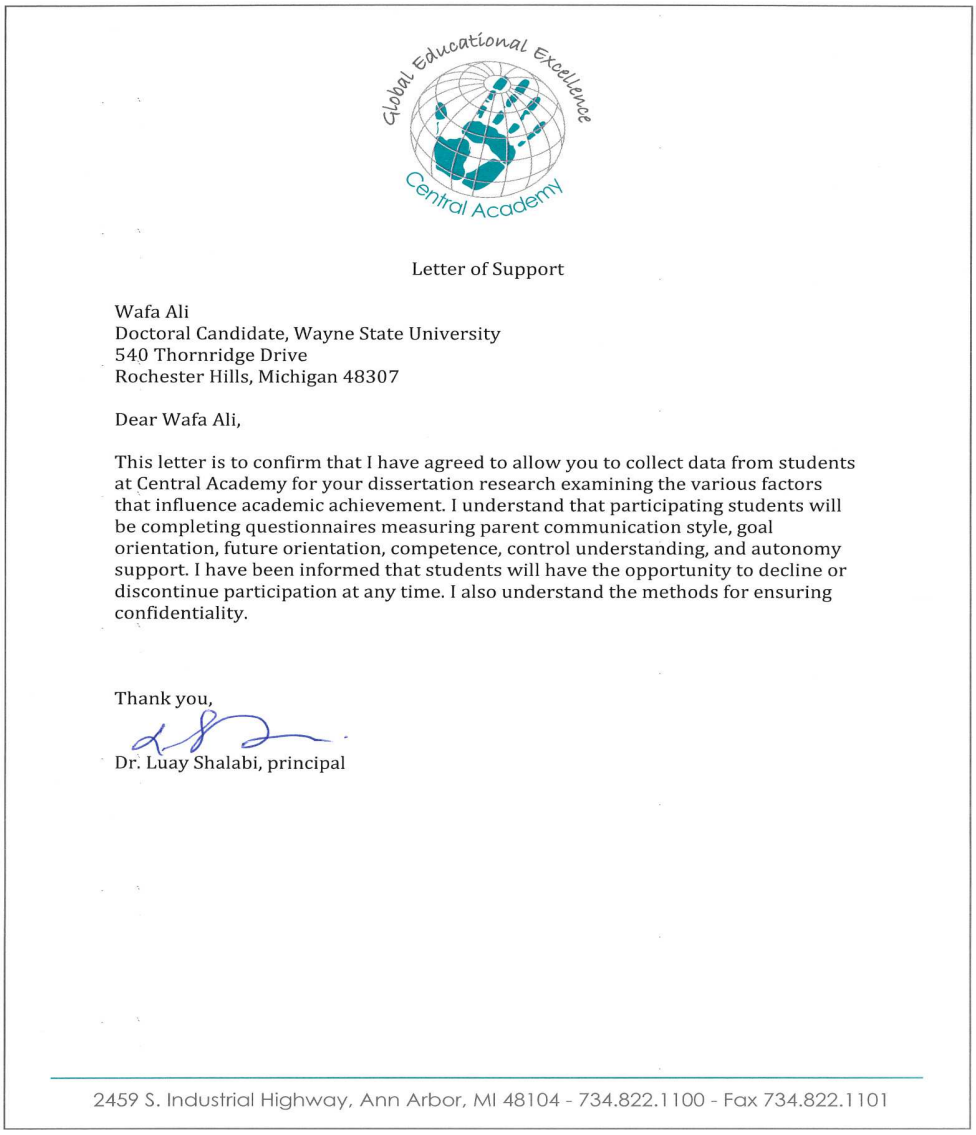
Parental communication style is also an important factor that could be explored with students in high school health classes in order to provide students with self-awareness about how they perceive their parents' communication style. At the same time, information could be disseminated to parents via methods such as e-mail, school websites, or during parent-teacher conferences about the different styles of communication as well as information stating that a conversation orientation is most conducive to high academic achievement. Teachers and parents may also be encouraged to strengthen their relationships now in order to produce more positive academic outcomes. Mental health professionals such as school psychologists and social workers may play an active role in facilitating this interaction between parents and school staff as well as providing interventions to parents and students who may need additional support building healthy styles of communication. This communication may in turn also strengthen the overall link between school and home. Beyond the school setting, parental communication style could

also be emphasized by mental health professionals who are working with parents and adolescents.

Taken together, there are many findings in the study that confirm prior research, which should bolster the current research regarding youth and parents. Results also contribute additional information about goal orientation and autonomy support that should help to inform education policy and practice. Perhaps the greatest finding is that we need to continue the quest to help parents understand the power of their role in impacting children's academic achievement. In this vein, we also need to continue the quest to help our schools have better impact on our youth and families. Our schools are seeking such information in order to do provide students and their families with the best academic and social-emotional education. Findings such as these both confirm and help increase understanding of how we can improve our efforts.

APPENDIX A

Letter of Support from Central Academy



Global Educational Excellence
Central Academy

Letter of Support

Wafa Ali
Doctoral Candidate, Wayne State University
540 Thornridge Drive
Rochester Hills, Michigan 48307

Dear Wafa Ali,

This letter is to confirm that I have agreed to allow you to collect data from students at Central Academy for your dissertation research examining the various factors that influence academic achievement. I understand that participating students will be completing questionnaires measuring parent communication style, goal orientation, future orientation, competence, control understanding, and autonomy support. I have been informed that students will have the opportunity to decline or discontinue participation at any time. I also understand the methods for ensuring confidentiality.

Thank you,

Dr. Luay Shalabi, principal

2459 S. Industrial Highway, Ann Arbor, MI 48104 - 734.822.1100 - Fax 734.822.1101

APPENDIX B

Letter of Support from Jalen Rose Leadership Academy

Letter of Support

attn.: Wafa Ali
Doctoral Candidate, Wayne State University
540 Thornridge Drive
Rochester Hills, Michigan 48307

Dear Wafa Ali,

This letter is to confirm that I have agreed to allow you to collect data from students at Jalen Rose Leadership Academy for your dissertation research examining the various factors that influence academic achievement.

I understand that participating students will be completing questionnaires measuring parent communication style, goal orientation, future orientation, competence, control understanding, and autonomy support. I have been informed that students will have the opportunity to decline or discontinue participation at any time. I also understand the methods for ensuring confidentiality.

Best,

7/6/17

Ryan R. Bueckendorf
Dean of Scholars
Jalen Rose Leadership Academy

APPENDIX C

Letter of Support from Voyageur College Preparatory High School

Voyageur College Prep
4366 Military Street
Detroit, MI 48201

Letter of Support

Wafa Ali
Doctoral Candidate, Wayne State University

540 Thornridge Drive
Rochester Hills, Michigan 48307

Dear Wafa Ali,

This letter is to confirm that I have agreed to allow you to collect data from students at Voyageur College Preparatory High School for your dissertation research examining the various factors that influence academic achievement. I understand that participating students will be completing questionnaires measuring parent communication style, goal orientation, future orientation, competence, control understanding, and autonomy support. I have been informed that students will have the opportunity to decline or discontinue participation at any time. I also understand the methods for ensuring confidentiality.

Sincerely,

Jeffrey Maxwell
School Principal

Jenn L Wilk
Dean of Culture

APPENDIX D

Letter of Support from Detroit Delta Preparatory Academy

Letter of Support

Wafa Ali
Doctoral Candidate, Wayne State University
540 Thornridge Drive
Rochester Hills, Michigan 48307

Dear Wafa Ali,

This letter is to confirm that I have agreed to allow you to collect data from students at Detroit Delta Preparatory Academy for your dissertation research examining the various factors that influence academic achievement. I understand that participating students will be completing questionnaires measuring parent communication style, goal orientation, future orientation, competence, control understanding, and autonomy support. I have been informed that students will have the opportunity to decline or discontinue participation at any time. I also understand the methods for ensuring confidentiality.

Sincerely

Amina Allen
Assistant Principal of Academics
Detroit Delta Preparatory Academy of Social Justice

APPENDIX E

Parent Supplemental Information Letter with "Decline to Participate" Option

Title of Study: Adolescent Perceptions of Self and Others, Academic Achievement, and Future Goals

Researcher's Name: Wafa Ali, M.A.
Faculty Mentor: Dr. Cheryl Somers
Address: 345 College of Education
Detroit, MI 48202
Phone: 313-577-1670

Purpose:
You are being asked to allow your child to be in a research study at their school that is being conducted by Ph.D. candidate Wafa Ali in the department of Educational Psychology at Wayne State University in order to explore teens perceptions of their goal orientation, future orientation, level of hope, sense of competence, autonomy, control, and family communication as well as their achievement. Your child has been selected, because he or she attends Fitzgerald High School, and is between 13 to 18 years of age. It is expected that about 500 students will participate in this study.

Study Procedures:
If you decide to allow your child to take part in the study, your child will be asked to participate in a brief study lasting about 30 minutes. He or she will complete questionnaires of the above noted topics. Your child has the option of not answering some of the questions in the study, may decline participate, or withdraw from the study entirely, even after deciding to participate.

- Your child will be in the study for one 30 minute survey, which will take place in his or her class for one day.
- Copies of the study questions are held by the primary investigator (Wafa Ali) and the supervising professor and may be reviewed by the parents upon request.

Benefits:
As a participant in this research study, there may be no direct benefit for your child; however, information from this study may benefit other people now or in the future.

Risks:
There are very minimal, to no known risks, (e.g. potential for possible psychological distress), for the child when they are answering questions about such topics as their perceptions of themselves and feelings/perceptions about their level of support from parents and teachers. Students will be guaranteed that their participation is voluntary and that they may discontinue participating in the study at any time. Students will be guaranteed by the principal investigator that whether they participated in the study or if they chose not to participate for any reason, it will not influence their relationships with individuals at Wayne State or with their parents, peers, teachers or any other adult employees of the school. Students will also be guaranteed that all of their responses, should they choose to participate in the study, will be kept completely confidential.

Costs:
There are no costs to you or your child to participate in this study.

Compensation:
For taking part in this research study, your child will receive a piece of candy of his or her choosing.

Confidentiality:
All information collected about your child during the course of this study will be kept confidential to the extent permitted by law. All information collected about your child during the course of this study will be kept without any identifiers. Thus, the data are anonymous. There is no way to trace any survey back to a particular student.

Voluntary Participation /Withdrawal:
Your child's participation in this study is voluntary. He/she may withdraw at any time. You are free to withdraw your child at any time. Your decision about enrolling your child in the study will not change any present or future relationships with Wayne State University or its affiliates, your child's school, your child's teacher, your child's grades or other services you or your child are entitled to receive. If you do not contact the principal investigator within a 2-week period, to state that you do not give permission for your child to participate in research, your child will be enrolled into the research. You may contact the Principal Investigator, Wafa Ali. You may reply by returning the tear off sheet below, call the Principal Investigator (248-202-4169), or e-mail (wafa.ali@wayne.edu).

Questions:
If you have any questions about this study now or in the future, you may contact Wafa Ali at the following phone number: (248) 202-4169. If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call (313) 577-1628 to ask questions or voice concerns or complaints. You may also contact the faculty mentor at 313-577-1670.

If you do not wish to have your child participant in the study, you may fill out the form and return it to your child's teacher.

I do not allow my child _____to participate in this research study.

Name

_____
Printed Name of Parent

_____ _____
Signature of Parent Date

APPENDIX F

Administration Script

Good morning/afternoon class,

My name is Wafa Ali and I am a doctoral student at Wayne State University.
Today you will have the opportunity to participate in a survey about how different factors such as parent and teacher support are related to academic achievement and achievement-related behaviors. The survey will ask a number of questions, and should only take about 30 minutes.

A form was mailed to your home that explained this to your parents also. Your parents have had the option to not have you participate. You do not have to complete the surveys if you do not want to. You can stop the survey at any time. Your completion of the survey will not affect the way are treated by any staff member or myself.

Please be sure to read both pages of the information sheet we give you. If you choose to be in the study, please pick up a survey from this envelope (marked "blank surveys"). Bring the survey back to your desk and fill it out. Please keep your answers covered with a piece of paper as you go, so no one can see your answers. Keep your eyes on your own survey. Please check to make sure you've answered all questions on the survey. Please remember this is not a test and it will not be graded. It does not have an impact on your grades or school work whatsoever. It is just important that you are very honest. Please do not put your name on any of the surveys. Each packet is uniquely coded with a number that identifies the data only, not you as a person. The surveys are completely anonymous, so **no one** will ever know what answers you give.

Please raise your hand if you need help at any time. When you are done with the survey, bring it back up to me, and place it in this envelope (marked "finished surveys"). You can then take a piece of candy, even if you did not complete the entire survey. You will be given a piece of candy for your participation. If you are not participating, you can complete course work as regularly scheduled.

It is very important that you do not discuss the survey or your answers with other students or staff. If you have any questions, please tell an adult at school.

Thank you very much.

APPENDIX G

Documentation of Adolescent Assent Form
(Ages 13-17)

Title: Influence of Perceptions of Self and Others on Academic Achievement
Study Investigator: Wafa Ali

Why am I here?
This is a research study. Only people who choose to take part are included in research studies. You are being asked to take part in this study because you are a student attending Fitzgerald High School, and are between the ages of 13 years to 18 years. Please take time to make your decision. Be sure to ask questions about anything you don't understand.

Why are they doing this study?
This study is being done to find out what factors influence students' academic achievement. This study is designed to assess how different ideas about oneself and others around you may influence your academic achievement.

What will happen to me?
You will be provided the opportunity to complete a short survey that will ask questions about how you view your parents' communication style, what you seek to do when you approach a learning task, how you view the future, how you view yourself, as well as how much control you feel you have over certain situations and how supported you feel by your teachers. You will also be asked about your current academic achievement.

How long will I be in the study?
You will be in the study for just this one-time survey, which is expected to take about 30 minutes to complete.

Will the study help me?
In taking part in the study, you may gain insight about your parents, teachers, as well as your own behavior and personal feelings. This study may also help other people in the future by providing important information about which factors within a student, and in a student's life, lead to academic achievement.

Will anything bad happen to me?
There are no known risks at this time to participation in this study.

Will I get paid to be in the study?
For taking part in this research study, you will receive a piece of candy of your choosing.

Do my parents or guardians know about this? (If applicable)
This study information has been given to your parents or guardian, and they were given the opportunity to decline your participation. You can talk this over with them before you decide whether you wish to participate. However, nobody will ever be allowed to see your answers.

What about confidentiality?
This study is completely anonymous. You will ***not*** write your name on the survey, so none of the information you provide can be linked back to you. We will keep your records private unless we are required by law to share any information. The law only says that we have to tell someone if you might hurt yourself or someone else.

What if I have any questions?
For questions about the study please call Wafa Ali at (248) 202-4169. If you have questions or concerns about your rights as a research participant, the Chair of the Institutional Review Board can be contacted at (313) 577-1628.

Do I have to be in the study?
You don't have to be in this study if you don't want to or you can stop being in the study at any time. Please discuss your decision with your parents and researcher. No one will be angry if you decide to stop being in the study.

APPENDIX H

Demographics

1. What grade are you in?

a. 9th b. 10th c. 11th d. 12th

2. What is your gender?

a. Male b. Female

3. What is your ethnicity?

_____ African American _____ Hispanic-American/Latino-Latina

_____ Caucasian _____ Asian/Pacific Islander

_____ American Indian ____ Other: _____

4. What grades do you get most often?

a. Mostly As b. Mostly As and Bs c. Mostly Bs d. Mostly Bs and Cs e. Mostly Cs

f. Mostly Cs and Ds g. Ds h. Mostly Ds and Fs i. Mostly Fs

5. Please circle your most recent grades in each of the following classes:

a. English/Language Arts:	A	B	C	D	F
b. Math:	A	B	C	D	F
c. Science:	A	B	C	D	F
d. Social Studies:	A	B	C	D	F

Achievement Goal Questionnaire **(Elliot & Church, 1997).**
Please rate these statements using the scale below. The phrase "academic classes" refers to your English/Language Arts, Math, Science, and Social Studies classes.

	Not at all true of me			**Neutral**			**Very true of me**
1. It is important to me to do better than the other students.	1	2	3	4	5	6	7
2. My goal in this class is to get a better grade than most of the students.	1	2	3	4	5	6	7
3. I am striving to demonstrate my ability relative to others in my academic classes.	1	2	3	4	5	6	7
4. I am motivated by the thought of outperforming my peers.	1	2	3	4	5	6	7
5. It is important to me to do well compared to others in my academic classes.	1	2	3	4	5	6	7
6. I want to do well in my academic classes to show my ability to my family, friends, advisors, or others.	1	2	3	4	5	6	7
7. I often think to myself, "What if I do badly in my academic classes?"	1	2	3	4	5	6	7
8. I worry about the possibility of getting a bad grade in my academic classes.	1	2	3	4	5	6	7
9. My fear of performing poorly in my academic classes is often what motivates me.	1	2	3	4	5	6	7
10. I just want to avoid doing poorly in my academic classes.	1	2	3	4	5	6	7

11. I'm afraid that if I ask my instructor a "dumb question, they might not think I'm very smart.	1	2	3	4	5	6	7
12. My goal for my academic classes is to avoid performing poorly.	1	2	3	4	5	6	7
13. I want to learn as much as possible from my academic classes	1	2	3	4	5	6	7
14. It is important for me to understand the content of my academic classes as thoroughly as possible.	1	2	3	4	5	6	7
15. I hope to have gained a broader and deeper knowledge of my academic classes when I am done with them.	1	2	3	4	5	6	7
16. I desire to completely master the material presented in my academic classes.	1	2	3	4	5	6	7
17. In my academic classes, I prefer course material that arouses my curiosity, even if it is difficult to learn.	1	2	3	4	5	6	7
18. In my academic classes, I prefer course material that really challenges me so I can learn new things.	1	2	3	4	5	6	7

The Revised Family Communication Patterns Instrument (Children's Version) **(Ritchie, 1988).**

Please use the following scale to rate the statements below.

	Strongly Disagree		**Undecided**		**Strongly Agree**
1. In our family, we often talk about topics like politics and religion where some persons disagree with others.	1	2	3	4	5
2. My parents often say something like "Every member of the family should have some say in family decisions."	1	2	3	4	5
3. My parents often ask my opinion when the family is talking about something	1	2	3	4	5
4. My parents encourage me to challenge their ideas and beliefs.	1	2	3	4	5
5. My parents often say something like "You should always look at both sides of an issue."	1	2	3	4	5
6. I usually tell my parents what I am thinking about things.	1	2	3	4	5
7. I can tell my parents almost anything.	1	2	3	4	5

8. In our family, we often talk about our feelings and emotions.	1	2	3	4	5
9. My parents and I often have long, relaxed conversations about nothing in particular.	1	2	3	4	5
10. I really enjoy talking with my parents, even when we disagree.	1	2	3	4	5
11. My parents encourage me to express my feelings.	1	2	3	4	5
12. My parents tend to be very open about their emotions.	1	2	3	4	5
13. We often talk as a family about things we have done during the day.	1	2	3	4	5
14. In our family, we often talk about our plans and hopes for the future.	1	2	3	4	5
15. My parents like to hear my opinion, even when I don't agree with them.	1	2	3	4	5

16. When anything really important is involved, my parents expect me to obey without question.	1	2	3	4	5
17. In our home, my parents usually have the last word.	1	2	3	4	5
18. My parents feel that it is important to be the boss.	1	2	3	4	5
19. My parents sometimes become irritated with my views if they are different from theirs.	1	2	3	4	5
20. If my parents don't approve of it, they don't want to know about it.	1	2	3	4	5
21. When I am at home, I am expected to obey my parents' rules.	1	2	3	4	5
22. My parents often say things like "You'll know better when you grow up."	1	2	3	4	5

23. My parents often say things like "My ideas are right and you should not question them."	1	2	3	4	5
24. My parents often say things like "A child should not argue with adults."	1	2	3	4	5
25. My parents often say things like "There are some things that just shouldn't be talked about."	1	2	3	4	5
26. My parents often say things like "You should give in on arguments rather than risk making people mad."	1	2	3	4	5

Future Time Perspective Scale (Husman & Shell, 2008).
Please use the following scale to rate the statements below.

	1 Strongly Disagree	2	3	4	5 Strongly Agree
1. I find it hard to get things done without a deadline.					
2. I need to feel rushed before I can really get going.					
3. I always seem to be doing things at the last moment.					
4. August seems like a long way off.					
5. It often seems like the semester will never end.					
6. Half a year seems like a long time to me.					
7. In general, six months seems like a very short period of time.					

8. September seems very near.					
9. Given the choice, it is better to get something you want in the future than something you want today.					
10. Immediate pleasure is more important than what might happen in the future.					
11. It is better to be considered a success at the end of one's life than to be considered a success today.					
12. The most important thing in life is how one feels in the long run.					

13. It is more important to save for the future than to buy what one wants today.					
14. Long range goals are more important than short range goals.					
15. What happens in the long run is more important than how one feels right now.					
16. I don't think much about the future.					
17. I have been thinking a lot about what I am going to do in the future.					
18. It's really no use worrying about the future.					

19. What one does today will have little impact on what happens ten years from now.					
20. What will happen in the future is an important consideration in deciding what action to take now.					
21. I don't like to plan for the future.					
22. It's not really important to have future goals for where one wants to be in five or ten years.					
23. One shouldn't think too much about the future.					
24. Planning for the future is a waste of time.					

25. It is important to have goals for where one wants to be in five or ten years.					
26. One should be taking steps today to help realize future goals.					
27. What might happen in the long run should not be a big consideration in making decisions now.					

Scholastic Competence Scale (Harter, 1988, 2012).
What Am I Like?

Really true for me	Sort of true for me				Sort of true for me	Really true for me
1. ☐	☐	Some teenagers feel like they are just as smart as others their age	BUT	Other teenagers aren't so sure and wonder if they are as smart	☐	☐
2. ☐	☐	Some teenagers are pretty slow in finishing their school work	BUT	Other teenagers can do their school work quickly	☐	☐
3. ☐	☐	Some teenagers do very well at their class work	BUT	Other teenagers *don't* do very well at their class work	☐	☐
4. ☐	☐	Some teenagers have trouble figuring out the answers in school	BUT	Other teenagers almost always can figure out the answers	☐	☐
5. ☐	☐	Some teenagers feel that they are pretty intelligent	BUT	Other teenagers question whether they are intelligent	☐	☐

Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1976).

Please circle either "Yes" or "No" to the following statements.

1. Do you believe that most problems will solve themselves if you just don't fool with them? Yes No

2. Do you believe that you can stop yourself from catching a cold? Yes No

3. Are some kids just born lucky? Yes No

4. Most of the time do you feel that getting good grades means a great deal to you? Yes No

5. Are you often blames for things that just aren't your fault? Yes No

6. Do you believe that if somebody studies hard enough he or she can pass any subject? Yes No

7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway? Yes No

8. Do you feel that of things start out well in the morning that it's going to be a good day no matter what you do? Yes No

9. Do you feel that most of the time parents listen to what their children have to say? Yes No

10. Do you believe that wishing can make good things happen? Yes No

11. When you get punished does it usually seem it's for no good reason at all? Yes No

12. Most of the time do you find it hard to a friend's (mind) opinion? Yes No

13. Do you think that cheering more than luck helps a team to win? Yes No

14. Do you feel that it's nearly impossible to change your parents mind about anything? Yes No

15. Do you believe that your parents should allow you to make most of your decisions? Yes No

16. Do you feel that when you do something wrong there's very little you can do to make it right? Yes No

17. Do you believe that most kids are just born good at sports? Yes No

18. Are most of the other kids your age stronger than you are? Yes No

19. Do you feel that one of the best ways to handle most problems is just not to think about them? Yes No

20. Do you feel that you have a lot of choice in deciding who your friends are? Yes No

21. If you find a four leaf clover do you believe that it might bring you good luck? Yes No

22. Do you often feel that whether you do your homework has much to do with what kind of grades you get? Yes No

23. Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her? Yes No

24. Have you ever had a good luck charm? Yes No

25. Do you believe that whether or not people like you depends on how you act? Yes No

26. Will your parents usually help you if you ask them to? Yes No

27. Have you felt that when people were mean to you it was usually for no reason at all? Yes No

28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today? Yes No

29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them? Yes No

30. Do you think that kids can get their own way if they just keep trying? Yes No

31. Most of the time do you find it useless to try to get your own way at home? Yes No

32. Do you feel that when good things happen they happen because of hard work? Yes No

33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters? Yes No

34. Do you feel that it's easy to get friends to do what you want them to? Yes No

35. Do you usually feel that you have little to say about what you get to eat at home? Yes No

36. Do you feel that when someone doesn't like you there is little you can do about it? Yes No

37. Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are? Yes No

38. Are you the kind of person who believes planning ahead makes things turn out better? Yes No

39. Most of the time, do you feel that you have little to say about what your family decides to do? Yes No

40. Do you think it's better to be smart than to be lucky? Yes No

Learning Climate Questionnaire (Williams & Deci, 1996).

This questionnaire contains items that are related to your experience with your instructor in this class. Instructors have different styles in dealing with students, and we would like to know more about how you have felt about your encounters with your instructor. Your responses are confidential. Please be honest and candid.

	Strongly Disagree			**Neutral**			**Strongly Agree**
1. I feel that my instructor provides me choices and options.	1	2	3	4	5	6	7
2. I feel understood by my instructor.	1	2	3	4	5	6	7
3. I am able to be open with my instructor during class.	1	2	3	4	5	6	7
4. My instructor conveyed confidence in my ability to do well in the course.	1	2	3	4	5	6	7
5. I feel that my instructor accepts me.	1	2	3	4	5	6	7
6. My instructor made sure I really understood the goals of the course and what I need to do.	1	2	3	4	5	6	7

7. My instructor encourages me to ask questions.	1	2	3	4	5	6	7
8. I feel a lot of trust in my instructor.	1	2	3	4	5	6	7
9. My instructor answers my questions fully and carefully.	1	2	3	4	5	6	7
10. My instructor listens to how I would like to do things.	1	2	3	4	5	6	7
11. My instructor handles people's emotions very well.	1	2	3	4	5	6	7
12. I feel that my instructor cares about me as a person.	1	2	3	4	5	6	7
13. I don't feel very good about the way my instructor talks to me.	1	2	3	4	5	6	7
14. My instructor tries to understand how I see things before suggesting a new way to do things.	1	2	3	4	5	6	7
15. I feel able to share my feelings with my instructor.	1	2	3	4	5	6	7

Children's Hope Scale (Snyder, 1997)

Place a check inside the box that describes you the best.

	None of the time	**A little of the time**	**Some of the time**	**A lot of the time**	**Most of the time**	**All of the time**
1. I think I am doing pretty well.	**None of the time**	**A little of the time**	**Some of the time**	**A lot of the time**	**Most of the time**	**All of the time**
2. I can think of many ways to get the things in my life that are most important to me.	**None of the time**	**A little of the time**	**Some of the time**	**A lot of the time**	**Most of the time**	**All of the time**
3. When I have a problem, I can come up with lots of ways to solve it.	**None of the time**	**A little of the time**	**Some of the time**	**A lot of the time**	**Most of the time**	**All of the time**
4. I think the things I have done in the past will help me in the future.	**None of the time**	**A little of the time**	**Some of the time**	**A lot of the time**	**Most of the time**	**All of the time**
5. Even when others want to quit, I know I can find ways to solve the problem.	**None of the time**	**A little of the time**	**Some of the time**	**A lot of the time**	**Most of the time**	**All of the time**

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ABSTRACT

PARENTAL COMMUNICATION STYLE AND ADOLESCENT INTRAPERSONAL VARIABLES: ASSOCIATIONS WITH ACADEMIC ACHIEVEMENT

by

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Advisor: Dr. Cheryl Somers

Major: Educational Psychology

Degree: Doctor of Philosophy

The current study was an exploration of the role of the microsystem predictor of parental communication style as well as various intrapersonal factors on academic achievement. Previous research has not extensively explored the variable of parental communication style nor has it extensively studied the influence of this combination of variables on high school student's academic achievement. Participants in this study were 226 high school students. The students were from schools in the mid-west. Goal orientation, parental communication style, and autonomy support emerged as factors, which significantly explained variance in student academic achievement. The demographic variables of school, ethnicity, and grade also emerged as factors, which did so. These findings are discussed, along with their implications.

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