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Adolescent Adjustment in Affluent Communities: The Role of Goal Orientation and Motivational Climate

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LOYOLA UNIVERSITY CHICAGO

ADOLESCENT ADJUSTMENT IN AFFLUENT COMMUNITIES: THE ROLE
OF GOAL ORIENTATION AND MOTIVATIONAL CLIMATE

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

PROGRAM IN CLINICAL PSYCHOLOGY

BY

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CHICAGO, IL

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ABSTRACT

The goal of the present study was to evaluate potential sources of affluent adolescents' adjustment problems (i.e., depressive symptoms, anxiety, substance use, and life satisfaction). Specifically, two mediational models were proposed to evaluate how (1) parental 'goal orientation' and (2) adolescents' perceptions of 'motivational climate' in school lead to adolescent 'goal orientation' and subsequent adjustment among adolescents from affluent communities. Participants were recruited from 10th grades at three schools (suburbs of Chicago, New York, Boston) located in communities where the median annual income is at least \$100,000 and at least 30% of parents had a graduate degree. Participants and their parents completed measures of goal orientation (ego and task), motivational climate (performance and mastery), depression symptoms, anxiety, substance use, and life satisfaction. It was hypothesized that adolescents would experience the highest levels of adjustment difficulties (i.e., more depressive symptoms, anxiety, and substance use, and lower levels of life satisfaction) when both they and their parents foster 'ego orientations' and the motivational climate in school is perceived to be a 'performance climate.'

Results indicated that adolescent task orientation was significantly related to fewer depressive symptoms, less anxiety, and higher life satisfaction, while ego orientation was not significantly related to any of the adjustment variables. Parent task orientation was significantly related to higher adolescent life satisfaction, but no other

relations between parent goal orientation and adolescent adjustment were found. School mastery climate was significantly associated with fewer depressive symptoms, less anxiety, and higher life satisfaction. Performance climate was significantly related to more depressive symptoms, increased anxiety, and marginally lower life satisfaction. Mediation analyses revealed that adolescent task orientation significantly mediated the relations between (1) perceived mastery climate and adolescent depressive symptoms and (2) perceived mastery climate and adolescent life satisfaction. Moderated mediation analyses revealed that adolescent task orientation mediated the relation between perceived mastery climate and adolescent anxiety for females, but not for males. Possible explanations of and implications for these relationships are discussed.

CHAPTER ONE

INTRODUCTION

A significant amount of research has been conducted in the past century on the risk and protective factors that influence adolescent adjustment. Beginning in the mid-1900s, researchers began to realize that the majority of theories in child development were based primarily on research conducted with middle class Caucasian subjects (Luthar & Sexton, 2004). This realization led to a shift in focus from the middle class to the economically disadvantaged and ethnic minority children. After decades of additional research, it became clear that this group of children faces a unique set of risks when compared with the white middle class.

Although researchers now understand more about the differences between the middle class and lower socioeconomic status (SES) populations, few have examined the upper end of the socioeconomic spectrum. Until fairly recently, researchers believed that children living in affluent families were no different than those from the middle-class majority (Luthar, 2003). The “privileged” status of affluent children was considered to be harmless or even advantageous (Luthar & Sexton, 2004). Only in the last ten years have researchers begun to acknowledge that adolescents from affluent families are vulnerable to a unique set of adjustment problems. Specifically, recent studies have found that affluent youth report more symptoms of anxiety, depression, and substance use than normative samples and their inner-city counterparts (Luthar & Lantendresse, 2005a).

Other research has shown that the adjustment disturbances thought to be a product of affluent communities do not dissipate in later years—in fact, many of them worsen over time (D’Avanzo, Hites, & Luthar, 2001). More research is needed to examine the factors that contribute to these elevated levels of adjustment difficulties in affluent youth.

The current study proposes two mediation models (see Figures 1 and 2) to evaluate the factors and processes that may contribute to adjustment problems in affluent adolescents. Specifically, the contributions of parental goal orientation, adolescent goal orientation and motivational climate will be evaluated. 'Goal orientation' (i.e., how people define success) is typically characterized two ways: (1) task orientation and (2) ego orientation. Task-oriented individuals aim to learn and improve, while ego-oriented individuals strive to become superior to others. Motivational climate (i.e., external evaluations of success) is also typically characterized in two ways: (1) mastery climate (i.e., encouragement to learn; analogous to task) or a performance climate (pressure to achieve; analogous to ego). In a mastery climate, individuals are encouraged to make personal progress and gains in self mastery while, in a performance climate, individuals are encouraged to compete and outperform others.

In this study, the proposed models examine the role of goal orientation (i.e., ego and task) and motivational climate (i.e., performance and mastery) to explain why this population may experience elevated levels of distress. Previous research suggests that adolescent adjustment is diminished when parents endorse an ego (vs. task) orientation (Ablard & Parker, 1997). I propose that the relation between parents' goal orientation and adolescent adjustment (i.e. depressive symptoms, anxiety, substance use, and life satisfaction) is mediated by adolescents' goal orientation. We also propose that the

relation between school motivational climate and adolescent adjustment is also mediated by adolescent goal orientation. Furthermore, we will test these two models separately for males and females to examine whether these mediational models are appropriate for both genders.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Adjustment Problems in Adolescents

Adolescence has been identified by numerous researchers as a time period of significant transition and adjustment. Specifically, symptoms of anxiety and depression escalate during adolescence (Graber, 2004). Approximately 8% of adolescents experience a major depressive disorder (Phares, 2003; Kazdin, 1994) and about 15% of adolescents experience at least one depressive episode (Apter et al., 2005). Studies have also shown a positive correlation between age and number of depressive symptoms between the ages of 13 and 18 (Duggal, Carlson, Srouf, & Egeland, 2001; Schraedley, Gotlib, & Hayward, 1999). Furthermore, as many as one in five adolescents suffer from depression by the end of high school (Lewinsohn, Hops, Roberts, & Seeley, 1993).

Anxiety disorders are also common in adolescence, and tend to impede normal daily functioning (Ollendick & Hirshfeld-Becker, 2002). Prevalence rates of anxiety disorders in adolescents ranges from 5.7% to 17.7% (Cohen et al., 1993; Costello et al., 2003; Gergusson et al., 1993). Researchers have also found that the move into adolescence is marked by an increase in panic and generalized anxiety disorders (Costello et al., 2003). Furthermore, over 10% of 15 year olds meet criteria for an anxiety disorder (McGee et al., 1990).

In addition to being a stage which involves increased levels of internalizing symptoms, adolescence is a time period during which youth are at a greater risk for experimentation with illegal substances (Chassin et al., 2004). Researchers have shown that most adolescents experience their first intoxication between the 7th and 10th grades (Johnston, O'Malley, & Bachman, 2000). Additionally, more than half of adolescents admit to using some illegal drug (most commonly marijuana) by the end of 12th grade (Johnston, O'Malley, & Bachman, 2002). This is cause for concern, especially since the vast majority of 10th graders say it is easy to get cigarettes (81%), alcohol (86%), and marijuana (73%; Johnston et al., 2005). Together, these studies indicate that adolescence is a time of significant risk for both internalizing problems (i.e., anxiety and depression) and substance use (i.e., alcohol, marijuana).

Researchers agree that adolescence is period of significant adjustment, however they have also found that males and females respond differently to this transition. Female adolescents are twice as likely to develop depressive episodes and disorders as adolescent males, with an increased risk developing during adolescence (APA, 2000). While there is no difference in the rates of depression between boys and girls before the age of 13, girls are twice as likely as boys to be depressed by the age of 16 (Hankin & Abramson, 2001; 1999). Females are also significantly more likely to develop anxiety disorders. Women are diagnosed with generalized anxiety disorder twice as often as men (Comer, 2007) and the prevalence of specific phobias, social phobias, and panic disorder is higher in females than in males (Kessler et al., 2005). Regarding externalizing behaviors, males are more delinquent and use drugs more frequently than females (e.g. Hser, Huang, Teruga, & Anglin, 2004). Furthermore, adolescent males ages 14-18 report more frequent alcohol

and narcotics use than do females (Svenssoon, 2003). Collectively, results of these studies indicate that, while female adolescents tend to develop more internalizing symptoms (i.e. depression, anxiety), male adolescents tend to develop more externalizing symptoms (i.e. substance use) during the transition from childhood to adolescence.

Adjustment Problems in Affluent Adolescents

Affluence is generally defined in the existing literature as a median annual family income of roughly \$125,000 (Luthar & Latedresse, 2005b). Contrary to common opinion, high SES does not necessarily decrease the risk of mental illness (Csikszentmihalyi, 1999). Recent studies have indicated that adjustment disturbances are particularly prevalent in affluent youth (Csikszentmihalyi & Schneider, 2000; Blum et al., 2000; Luthar & D'Avanzo, 1999). Specifically, anxiety, depression, and substance use are prevalent at elevated levels in affluent communities. Luthar and D'Avanzo (1999) examined the rates of internalizing symptoms in low-income, urban, minority children as compared with suburban, Caucasian children who were not affluent, but were of considerably higher SES. Data from this study revealed that suburban youth reported experiencing significantly higher levels of maladjustment, including anxiety, depression, and substance use, than normative samples and their inner-city counterparts (Luthar & D'Avanzo, 1999).

Researchers have come to realize that affluent, suburban adolescents are more likely to become depressed and use illegal substances than their lower income counterparts (Luthar & D'Avanzo, 1999; Way, Strauber, Nakkula, & London, 1994). While a strong positive association between depressive symptoms and substance use is evident in suburban populations, no such association exists in urban communities.

Furthermore, studies indicate that suburban adolescents report greater levels of substance use than do urban students (Way et al., 1994). SES is thought to play a major role in the significantly different levels of depressive symptoms and substance use in adolescents (Siegel & Ehrlich, 1989). Researchers also suggest that adolescents from different cultures or SES communities use illegal substances for different reasons. While urban adolescents indicate peer pressure to have fun as their reason for using drugs, affluent adolescents report using substances as a way to cope with problems and escape distress (Way et al., 1994). These studies have indicated that there is something unique about the culture of affluence which increases the likelihood that adolescents will experience internalizing symptoms and subsequently use illegal substances. However, the contributing factors that lead to these adjustment problems have yet to be identified.

Despite their privileged status, affluent adolescents not only experience higher levels of adjustment problems, but are also less satisfied with their lives. In one longitudinal study of 1,000 American adolescents, researchers found a significant inverse relationship between the reported happiness of adolescents and (1) the affluence of the community in which teens lived, (2) their parents' level of education, and (3) their parents' occupational status (Csikszentmihalyi & Schneider, 2001). Life satisfaction is defined as a global assessment or cognitive judgment of an individual's quality of life (Shin & Johnson, 1978). Few studies have examined the potential sources of low life satisfaction in this population.

Due to the limited research on the adjustment problems of affluent youth, only a few studies have examined gender differences in depressive symptoms, anxiety, substance use, and satisfaction with life in this population. In one study, Ansary and

Luthar (2009) found that males reported significantly more marijuana use than females. In addition, males reported high cigarette use and both males and females reported high alcohol use. While the use of harder drugs was not examined, cigarettes, alcohol, and marijuana are considered to be precursors to more serious illicit drugs (Kandel, 2002). Main effects for gender were also found for internalizing symptoms. As is consistent with the general population, females scored higher than males on measures of depression, physiological anxiety, and worry-based anxiety (Ansary & Luthar, 2009). These results suggest that similar gender patterns of internalizing and externalizing symptoms are found among both middle-class and affluent youth. In sum, gender differences in adjustment variables (i.e., depression symptoms, anxiety, and substance use) will be examined. In addition, the current study will aim to explore the effects of the individual, parental, and school contexts on various forms of affluent adolescents' adjustment by testing the proposed mediational models.

The Role of Contexts

Researchers have been studying how different contexts interact with individuals to shape their development for decades. It is important to understand contextual influences so that we may truly appreciate how these contexts impact development and adjustment. The Ecological Systems Theory (Bronfenbrenner, 1979) suggests that development reflects the influence of several environmental systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. These systems include social roles and interpersonal relations (e.g. relationships between individuals and their parents, peers, or teachers), connections between different contexts or microsystems (e.g. relations between school experiences and family experiences), paths through which individuals are

influenced indirectly through others, and the culture in which individuals live (e.g. SES). Each of these systems or environments influence individuals and help shape psychological development. Researchers have come to view them as part of the life course from childhood through adulthood.

Bronfenbrenner's (1979) ecological theory emphasizes the importance of environmental factors and the major role they play in development. Despite ample research, some mechanisms through which contextual experiences affect the development of psychopathology remain unclear. In the present study, we recognize the importance of contextual factors and aim to examine multiple levels of influence on adolescent adjustment. The type of people and environments youth are exposed to has the potential to significantly impact the course of adolescent development and adjustment. In the current study we examine the influence and interplay of multiple contexts (individual, parents, and school environment) on adjustment outcomes (i.e., depressive symptoms, anxiety, substance use, and satisfaction with life).

The culture of the current population of interest provides a unique environment which impacts the individual, parental, and school contexts. This "culture of affluence" is an important influence that has been somewhat neglected in the study of adolescent development. Affluent environments engender specific cultural norms that are dissimilar to those of the lower and middle classes. In particular, affluent communities hold a distinct view of the meaning of achievement and success. Parents of adolescents in this culture value and emphasize upward mobility, prestige, affluence, and professional success (Luthar & Sexton, 2004). This type of pressure is a unique aspect of the culture

of affluence that is believed to have a significant impact on adolescent goal orientation and subsequent adjustment.

Adolescent Goal Orientation

According to goal orientation theory, achievement or success is often established through the demonstration of some ability (Nicholls, 1984). Ability can be determined in two ways: (1) improvement relative to individual capacity or self-progress (i.e. task orientation), or (2) ability relative to other individuals (i.e. ego orientation; Nicholls, 1984). While an adolescent may utilize both ego and task orientations to evaluate their achievements, one orientation is generally endorsed more frequently than the other (Roberts, 2001).

For task-oriented adolescents, the goal is to learn, self-improve, and exceed personal records (Nicholls, 1984). They believe that mastery comes with increased effort, personal progress is the end goal, and gains in self-mastery alone are enough to indicate achievement. For ego-oriented adolescents, success is based on the ability or achievements of others (Nicholls, 1984). They employ a socially-evaluative perspective and believe that any personal gains must be superior to the achievements of others in order to be considered successful. These individuals are interpersonally competitive, engage in social comparison, and are sensitive to public evaluation (Reinboth & Duda, 2006). Any accomplishment is compared with the achievement of some reference group before being labeled a success.

Similar to goal orientation theory, Dweck's (2007) mindset theory describes two specific approaches to learning that help explain why some students thrive while others struggle in high-pressure academic settings. According to this theory, a *fixed mindset*

involves believing that individual qualities (e.g. intelligence, personality) are set in stone while *growth mindset* is based on the belief that individual qualities are cultivated through efforts and experiences (Dweck, 2007). People with fixed mindsets feel an urgency to succeed because success indicates that their fixed traits are better than those of other people. Furthermore, individuals with a fixed mindset abide by three specific rules: (1) look smart at all times and at all costs, (2) intelligence should come naturally without effort, and (3) hide mistakes and conceal deficiencies. (C.S. Dweck, presentation, May 2, 2011). This theory suggests that mindset influences an individual's beliefs about learning and success, which subsequently affects the effort they put forth. Dweck's (2007) fixed mindset is similar to ego orientation while growth mindset is akin to task orientation. While mindset theory and goal orientation theory are not identical, they share similar ideas about effort, mistakes, and success in an academic setting.

Research suggests that gender may play a part in the development of goal orientation (Duda, 1993), however, findings regarding gender differences have been inconsistent. Li and colleagues (1996) found significant gender differences with respect to ego orientation (i.e. males scored higher than females), but no gender differences in task orientation. Hanrahan and Biddle (2002) found that females scored significantly higher in task orientation than males, but found no gender differences in ego orientation. Murica et al. (2008), however, found that males scored higher on ego orientation than females, especially when asked about punishment for errors, unequal recognition of team members, and rivalry among team members. Hanrahan and Cerin (2009) found that athletes competing in individual sports had higher ego orientation than those competing in team sports, and that females generally scored higher in task orientation than males.

Due to the varying findings, this study will examine gender differences in adolescent goal orientation within an affluent sample.

Adolescent Goal Orientation and Adolescent Adjustment

The relation between goal orientation (i.e. ego and task) and adolescent adjustment has been studied predominantly in the field of sports psychology. Ego orientation has been associated with numerous maladaptive behaviors, including ineffective functioning during games/competitions, maladaptive attitudes about effort and ability, inconsistent effort, higher levels of performance anxiety, reduced persistence or withdrawal in the face of failure, decreased intrinsic motivation, and a willingness to use deception in order to win (Newton & Duda, 1993, 2005; Roberts, 2001, 2006; Roberts, Treasure, & Conroy, 2007). Task orientation, however, has been linked with numerous adaptive behaviors. One study found an association between task orientation, reduced performance anxiety, and increased enjoyment of sports (Duda, 1993). Compared with students and athletes who are ego-oriented, those with task orientations report more feelings of competence, greater enjoyment of their activity, higher intrinsic motivation and effort, exertion of consistent effort, persistence in the face of setbacks, and sustained improvement and performance (Ames, 1992; Kavussanu & Roberts, 1996; Duda & Ntoumanis, 2005). Furthermore, in a meta-analysis, Ntoumanis and Biddle (1999) found task orientation to be highly correlated with positive affect (e.g enjoyment, interest, satisfaction, happiness, confidence) and negatively correlated with negative affect.

Though achievement pressure has been cited as a potential antecedent of adolescent adjustment problems in affluent adolescents (Luther & Latendresse, 2005a), the source of this pressure has not been fully explained. The type of goal orientation that

an adolescent endorses regarding how one attains success in an academic setting may be one potential source (Duda & Nicholls, 1992). Studies have found that satisfaction with schoolwork correlates with task orientation, but not ego orientation (Duda & Nicholls, 1992; Nicholls, Patashnick, & Nolen, 1985; Nicholls, Cheung, Lauer, & Patashnick, 1989; Thorkildsen, 1988;). Therefore students who aim to improve and use personal progress as a measure of achievement may be more fulfilled by their accomplishments than those who view their progress in the context of others' achievements. These findings suggest that task-oriented individuals may be better adjusted and more highly satisfied with their lives than those who are ego oriented.

Recently, researchers have begun to examine the gender differences in adjustment difficulties due to achievement motivation. In one study, Hibbard and Buhrmester (2010) explored the associations between competitiveness and adjustment in high school seniors. They found that for females, competing to win (ego orientation) was associated with greater depressive symptoms and loneliness, and fewer and less close friendships. While competing to win was linked to both internalizing and externalizing problems for females, it was mainly related to externalizing problems for males. Investigators also found that competing to excel (task orientation) was associated with higher self-esteem and less depression for both males and females.

In sum, the literature suggests an important connection between adolescent goal orientation and subsequent adjustment. Ego orientation is associated with negative adjustment while task orientation is associated with positive adjustment. Furthermore, task orientation may be linked with higher satisfaction with life. More research is needed to probe the nature of these relations and how they may be affected by other more distal

contextual factors, including parental goal orientation and school motivational climate. The current study suggests that adolescent goal orientation is a mediator of parental and school-based contextual factors (see Figures 1 and 2). In addition, gender differences in adjustment variables (i.e., depressive symptoms, anxiety, and substance use) will be examined. Furthermore, we will explore the effects of the individual, parental, and school contexts on various forms of affluent adolescents' adjustment by testing the proposed mediational models.

Parental Goal Orientation

While goal orientation is more often discussed as an individual or internal set of beliefs, it is common for parents to have goals for their children. Some parents push their children to attain high levels of achievement (i.e., ego-oriented) while others encourage their children to do their best and focus on development (i.e., task-oriented; Ames, 1992; Maehr, 2001; Gonida, et al., 2007). Affluent parents have often been accused of pressuring their academically talented children to achieve high levels of success. Stereotypically, these parents are critical of mistakes, focus extensively on performance outcomes of achievement, and insist that their children attain top grades, test scores, and enroll in the most prestigious colleges (Ablard & Parker, 1997). Because adolescent goal orientations are significantly related to those of their parents (Duda & Hom, 1993), affluent parents' goals for their children may be problematic.

The literature clearly demonstrates that parents have goals for their children and that these goals likely influence the development of adolescent goal orientation, however, the question of whether parents have different goals for their sons and daughters has not been addressed. Some studies suggest that parents have different expectations for their

children based on gender. In a study examining parent perceptions and attributions for children's math achievement, parents credited their sons' successes more to talent and their daughters' successes more to effort (Yee & Eccles, 1988). In another study, researchers found that both mothers and fathers perceived sons' math aptitude as significantly higher than daughters' despite the similarity of the actual performance of boys and girls (Eccles, Adler, & Kaczala, 1982). Several other studies suggest that, in general, parents and teachers have higher educational expectancies for boys than for girls (e.g., Sears, Maccoby, & Levin, 1957). Therefore it is possible that parental goal orientation (ego and task) may vary by adolescent gender.

Parental Goal Orientation and Adolescent Adjustment

Pressure to achieve, whether internal or external, has been associated with adjustment disturbances in adolescents. Yet there is little research on the effects of parental goal orientation on child adjustment outcomes. Ablard and Parker (1997) examined parents' achievement goals for their children in relation to child perfectionism. Findings indicated that children of ego-oriented parents are significantly more likely to exhibit dysfunctional perfectionism than children of task-oriented parents. These children reported high concern about mistakes, doubts about actions, high parental expectations and parental criticism. These results indicate that parental goal orientation can lead to maladaptive child adjustment. More research, however, is needed to understand how parental goal orientation impacts adolescent adjustment. Specifically, in this study, I considered whether the relation between parental goal orientation and adolescent adjustment is mediated by adolescent goal orientation.

Influence of Parental Goal Orientation on Adolescent Goal Orientation

Parental pressure to achieve may shape the way in which adolescents view their own academic achievement, which is related to adjustment problems. In one study, researchers examined the impact of maternal goal orientation on their expectations of their children. Ego-oriented mothers judged 'getting good grades' and 'doing better than others' as more important than did task-oriented mothers, while task-oriented mothers placed more emphasis on their children's effort and active participation (Ames & Archer, 1987). Furthermore, ego-oriented mothers preferred their children to be described as 'smart and successful with little effort' while task-oriented mothers preferred their children to work hard and attributed their success to effort.

These studies indicate that mothers hold strong opinions about what constitutes 'success' in school learning. When parents discuss their expectations or comment on school performance, their goal orientation becomes apparent to their children. If children develop and internalize theories about learning based on their school experiences (Dweck, 2007), then it is likely that parents' goals and expectations are also important sources of influence (Ames & Archer, 1987). Regardless of whether children internalize their parents' goal orientations, it is likely those orientations have an impact on adolescents' view of academic achievement. While studies have shown that adolescents' perceived parental goal orientation is significantly correlated with adolescent goal orientation (e.g. Gonida, Kiosseoglou, & Voulala, 2007), no studies have examined the relation between actual parental goal orientation and adolescent goal orientation.

In sum, parents have goals for their children and those goals have been shown to have an important role in adolescent adjustment. Furthermore, not only does parental goal

orientation impact adolescent adjustment, but it also influences adolescent goal orientation. While gender differences have not been examined with regard to parental goal orientation, the literature suggests that parents may employ different goal orientations for their sons and daughters. More research is needed to explore this possible disparity. Gender differences in adjustment variables (i.e., depressive symptoms, anxiety, and substance use) were examined in this study. In addition, we will explore the effects of the individual, parental, and school contexts on various forms of affluent adolescents' adjustment by testing the proposed mediational models.

Motivational Climate

The external *motivational climate* of a particular setting can also be a significant factor in the development of an adolescent's goal orientation and adjustment problems. Although motivational climates can be expressed in many contexts (e.g. home, school, work, sports, etc.), the specific context of interest in this study is that of school, where adolescents spend the majority of their day. For example, a student may attend a school in which the students are encouraged to get all A's and compete for valedictorian honors. Conversely, a school may emphasize learning and improvement over "winning." Ames (1992) proposed that a motivational climate that is more ego-oriented be considered a *performance climate*, whereas a climate that is more task-oriented be considered a *mastery climate*. Similar to a task orientation, a mastery climate emphasizes learning, skill advancement, effort, and cooperation. Those who promote a mastery climate evaluate others based on individual progress and skill development. Performance mistakes are considered to be part of the learning process and individuals are encouraged to overcome difficulties and persevere. Conversely, similar to ego orientation, a

performance climate underscores social comparison, normative-based evaluation, and competition rather than cooperation (Bortoli, Bertollo, & Robazza, 2009). End accomplishments are valued more than improvement or effort, mistakes are condemned, and participants are criticized for errors or underperformance (Table 1). The tone of the motivational environment is set by significant individuals such as teachers, administrators, and classmates who may implicitly or explicitly endorse particular criteria for what constitutes success (Smith, Smoll, & Cumming, 2009).

Table 1. Comparing Goal Orientation (Ego and Task) with Motivational Climate (Performance and Mastery)

Corresponding goal orientation (GO) and motivational climate (MC) classifications	Description	Adjustment outcomes (as suggested by the literature)
Individual Context Ego (GO)	Winning, beating others, achievement, success, social comparison, interpersonal competition, superiority, mistakes are unacceptable	Negative
School Context Performance (MC)		
Individual Context Task (GO)	Learning, improvement, understanding, skill advancement, self-improvement, exceeding personal records, effort, cooperation, mistakes are part of the learning process	Positive
School Context Mastery (MC)		

As previously stated, the specific context of interest in this study is that of school, where adolescents spend the majority of their day. Ames (1992) suggested that classroom environments influence students' views on the importance of learning. This influence can change how students think about themselves, their academic work, and their peers, which

subsequently may shape their individual goal orientations. Despite all of the changes that occur during this period, adolescence is a time when youth solidify their behavioral orientations through their interpersonal relationships and social environments (Elliott, 1994). It is hypothesized that environments contribute to the crystallization of belief and behavior patterns (Bandura, 1982).

The concept of motivational climate is convoluted because it is somewhat dependant on each individual's experiences. While it may appear that each school emphasizes one type of climate, different individuals may have very different perspectives on what that climate is. It is possible for two students to attend the same school and have very different points of view regarding how performance- or mastery-oriented their school climate is. Therefore *perceived* motivational climate is a more valid and useful measure of the achievement pressures adolescents experience at school.

One possible source of the inconsistency among adolescents' perceptions of their motivational climate is gender. In a study of gender differences and motivational climate, Murica et al. (2008) found that adolescent males were more likely to report participating in a perceived performance climate activity than were females. Conversely, adolescent females were more likely to identify their motivational climate as mastery oriented. While males described their environments as involving punishment for errors, unequal recognition of team members, and rivalry among team members, females described their environments as forums for cooperative learning and having an emphasis on effort and improvement. While the research on gender differences in motivational climates is limited, the data suggest that males and females perceive their motivational climates differently.

Motivational Climate and Adolescent Adjustment

Like parental goal orientation, motivational climate may also have a significant effect on adolescent adjustment. Researchers have shown that a perceived mastery motivational climate is related to many positive psychological states (e.g. happy, joyful, purposeful, determined, committed, capable) and negatively associated with unpleasant states (e.g. depressed, sad, passive, unmotivated, disengaged, lonely, isolated). They also found performance motivational climates to be positively associated with most of the unpleasant states (Bortoli, Bertollo, & Robazza, 2009). In a study examining the link between motivational climate in a sports context and adjustment outcomes, a shift from a performance to a mastery motivational climate coincided with a decrease in maladaptive physical symptoms for university athletes (Reinboth & Duda, 2006). More recently, researchers examined the relation between motivational climates and correlates of disordered eating in female gymnasts and dancers (de Bruin, Bakker, & Oudejans, 2009). Results indicate that performance climates are related to correlates of disordered eating, such as more frequent dieting, more pathological weight control methods, greater perfectionism, and greater perception of peer pressure. Thus, performance climates are often described as maladaptive and can have detrimental effects on various adjustment outcomes.

Influence of Motivational Climate on Adolescent Goal Orientation

The development of an individual's goal orientation is believed to be influenced by their surrounding motivational climate. Some researchers suggest that the tone of a motivational climate leads individuals to experience analogous goal orientation states (i.e. mastery climates lead to task orientation, performance climates lead to ego orientation).

They suggest that, over time, these states will become dispositional, and an ego or task orientation will become solidified (Ames, 1992; Nicholls et al., 1989). Others, however, have suggested that goal orientation will change alongside a change in motivational climate (Smith, Smoll, & Cumming, 2009). Therefore, more research is needed to fully understand the relation between motivational climates and adolescents' goal orientation.

Recently, researchers have begun to examine links between motivational climate and individual goal orientation in sports activity contexts. Smith, Smoll, and Cumming (2009) examined whether it was possible to predict athletes' goal orientation from coach-initiated changes in motivational climate. Results revealed that the promotion and reinforcement of performance-oriented values by a coach fostered ego orientation in young athletes. Similarly, a mastery climate was associated with increases in task orientation and decreases in ego orientation. These findings support previous research indicating that mastery climates are associated with stronger task orientations and performance climates with stronger ego orientations (Duda, 2005; Roberts et al., 2007).

While the literature suggests that motivational climate influences individual goal orientation, it is unclear whether this influence is the same for males and females. For example, perhaps exposure to a performance climate is more strongly related to development of an ego orientation in males than it is in females. More research is needed to examine whether gender moderates the relation between motivational climate type and goal orientation.

Another possible level of influence is culture or community environment. Motivational climate may have a unique impact on adolescent goal orientation among affluent adolescents. Different cultures have very different ideas about what constitutes

success, therefore cultural environments play an important role in making certain behaviors more salient and socially acceptable than others (Maehr & Nicholls, 1980). When adults conceptualize the ideal child, their ideas are shaped by their culture's goals for child development (Harkness & Super, 1996). Affluent adolescents are raised in a culture that holds a distinct view of the meaning of achievement. Their motivational climate often places an inordinate amount of emphasis on upward mobility, prestige, affluence, and professional success (Luthar & Sexton, 2004). The level of motivation adolescents feel in any activity depends on what that activity means to them and those around them (Maehr, 1984). Affluent communities often value winning and being the best, which sets a performance climate and ultimately promotes an ego orientation. The climate encourages students to excel, take accelerated academic courses, participate in multiple extracurricular activities, enroll in Ivy League colleges, and go on to have highly prestigious careers. This type of pressure is a unique aspect of the culture of affluence that is believed to have a significant impact on adolescent goal orientation and subsequent adjustment.

In sum, motivational climate may play a major role in adolescent development and maintenance of goal orientation. Research also indicates that performance climates are associated with more adjustment difficulties than are mastery climates. In addition, some studies suggest that there are gender differences in the way in which motivational climate is perceived. More research is needed to explore the relations between motivational climate, adolescent goal orientation, and adjustment, and whether these relations vary by gender. Gender differences in adjustment variables (i.e., depressive symptoms, anxiety, and substance use) will be examined in the current study. In addition,

we will explore the effects of the individual, parental, and school contexts on various forms of affluent adolescents' adjustment by testing the proposed mediational models.

Aims of the Current Study

The first aim of this study is to test the two proposed mediational models (see Figures 1 and 2) to understand the relations between parental goal orientation, adolescent or individual goal orientation, and adolescent adjustment difficulties (i.e., depressive symptoms, anxiety, substance use, and low satisfaction with life), as well as the relation between school motivational climate, adolescent goal orientation, and adolescent adjustment. We will test these models separately to explore possible gender differences in study variables and see whether our model holds for both males and females. In both models, we will be examining whether adolescent goal orientation mediates the relation between a contextual factor (i.e., parental goal orientation and motivational climate) and adolescent adjustment outcomes. Specifically, the following questions will be examined in this study.

Question 1 and Hypothesis 1

Are there gender differences in parental goal orientation, adolescent goal orientation, and motivational climate? It is hypothesized that a different pattern of goal orientation and perceived motivational climate will emerge for male and female participants. It is also hypothesized that parental goal orientation will differ by adolescents' gender.

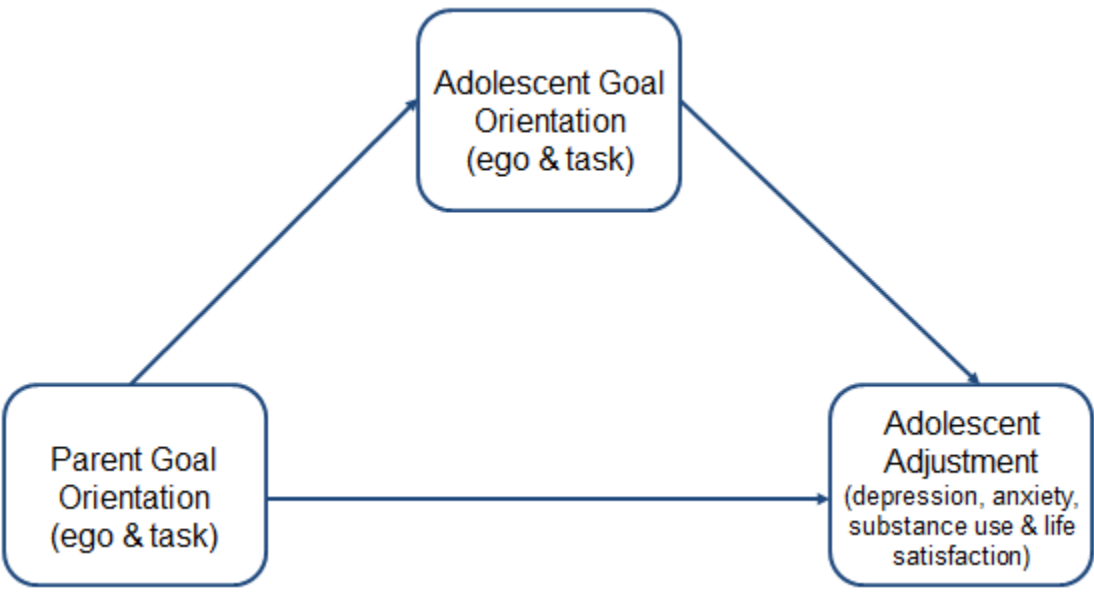


Figure 1. Proposed mediational model 1.

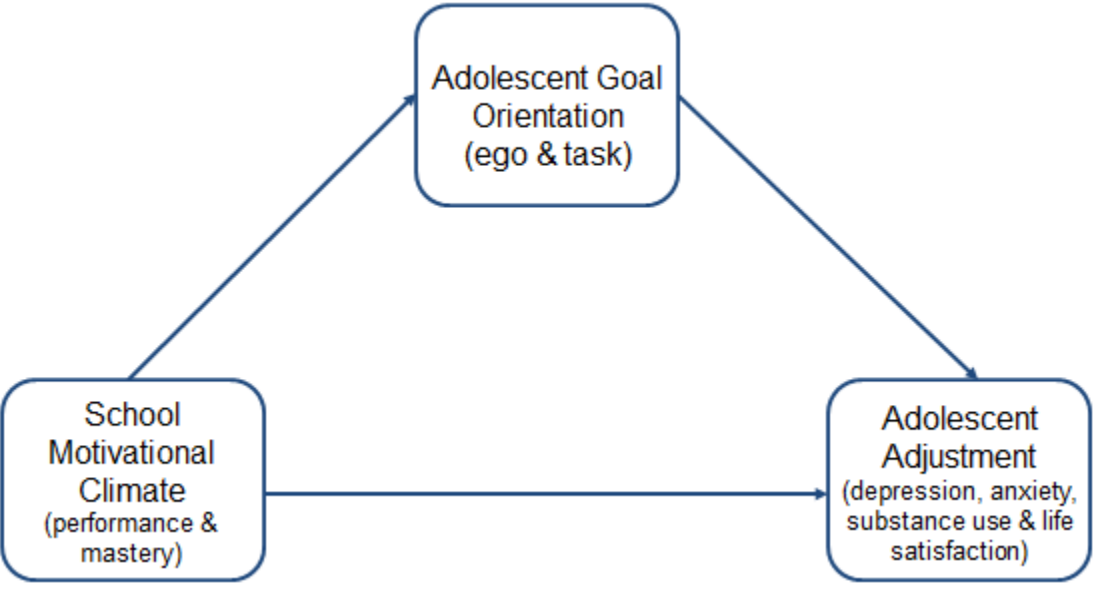


Figure 2. Proposed mediational model 2.

Question 2 and Hypothesis 2

What are the effects of parental goal orientation and adolescent goal orientation (ego and task) on adolescent adjustment (see Figure 3)? I hypothesized that parents and

adolescents who endorse higher levels of ego orientation will be associated with more adolescent adjustment difficulties, including increased depressive symptoms, anxiety, substance use, and lower life satisfaction. In contrast, parents/adolescents who endorse higher levels of task orientation will be associated with fewer adjustment difficulties and higher life satisfaction.



Figure 3. Main effect of parental goal orientation on adolescent adjustment.

Question 3 and Hypothesis 3

What is the effect of motivational climate (performance and mastery) on adolescent adjustment (see Figure 4)? It is hypothesized that schools that have higher levels of a performance climate will have adolescents with more adjustment difficulties, including increased depressive symptoms, anxiety, substance use, and lower life satisfaction. In contrast, schools that emphasize a mastery climate will have adolescents with fewer adjustment difficulties and a higher level of satisfaction with life.



Figure 4. Main effect of school motivational climate on adolescent adjustment.

Question 4 and Hypothesis 4

Does adolescent goal orientation (ego vs. task) mediate the relation between parental goal orientation and adolescent adjustment (see Figure 1)? It is hypothesized that parents who endorse higher levels of ego orientation will have adolescents who endorse higher levels of ego orientation, which will subsequently be associated with higher levels of adolescent maladjustment, including depressive symptoms, anxiety, substance use, and lower satisfaction with life. In contrast, parents who endorse higher levels of task orientation will have adolescents who endorse higher levels of task orientation, which will subsequently be associated with lower levels of adolescent maladjustment.

Question 5 and Hypothesis 5

Does adolescent goal orientation (ego vs. task) mediate the relation between school motivational climate and adolescent adjustment (see Figure 2)? It is hypothesized that higher levels of performance climate will be associated with higher levels of adolescent ego orientation, which will subsequently increase levels of maladjustment, including depressive symptoms, anxiety, substance use, and lower satisfaction with life. In contrast, higher levels of mastery climate will be associated with higher levels of adolescent task orientation, which will subsequently decrease levels of maladjustment.

Question 6 and Hypothesis 6

Do the two proposed mediational models hold for both males and females? While these are mainly exploratory analyses, previous research suggests that males and females may be affected differently by parent goal orientation and motivational climate. It is hypothesized that females who are highly ego-oriented and are exposed to a performance

climate will experiences more internalizing problems, including depressive symptoms, anxiety, and lower satisfaction with life.

CHAPTER THREE

METHOD

Participants

Participants included 123 (53 males) 10th grade students (Mean age = 15.54, $SD = 0.38$) from three affluent high schools in the Northeast and Midwest. Adolescents were 86% Caucasian, 3% African American, 2% Hispanic/Latino, and 9% Asian American. Fifteen percent of parents reported earning under \$100,000 per year, 65% between \$100,000 and \$500,000, 13% between \$500,000 and \$900,000, and 7% \$1,000,000 or more.

Of note, the current study considered only complete adolescent-parent dyads ($n = 88$) and thus used data from families that had both an adolescent and at least one parent complete the questionnaire. The analytic sample included 88 parent-child pairs. Thirty-five adolescents were male, 53 were female. The analytic sample was similar to the original sample in terms of demographics, including age ($M = 15.56$, $SD = 0.37$), ethnicity (i.e. 86% Caucasian, 5% African American, and 9% Asian American), and annual income (i.e. 15% under \$100,000 per year, 64% between \$100,000 and \$500,000, 14% between \$500,000 and \$900,000, and 7% \$1,000,000 or more). Eighty mothers and 28 fathers completed the parent survey. There were no significant differences between the analytic and original samples on measures of goal orientation, motivational climate, depressive symptoms, anxiety, or life satisfaction, $F(7, 204) = .26$, $p = .97$.

Participants were recruited during the Fall semester of 10th grade and inclusion criteria used to select affluent communities/schools to participate in this study were based on prior studies with this population (see Luthar & Latendresse, 2005b; Luthar & Goldstein, 2008; Luthar, Shoum, & Brown, 2006). First, schools were selected from schools in townships with 1) a median annual family income at or above \$100,000 and 2) 25% or more of adults with a graduate degree. This information about communities was obtained using census data provided by city-data.com. Further, participating families had to have one adolescent in 10th grade in one of the selected high schools. Of note, due to recruitment difficulties, the researchers altered inclusion criteria slightly to include an urban, private school in a Northwestern city that, due to being in an urban setting, is not in a township that fits the inclusion criteria. Thus, in the case of this school, the investigators obtained information about the school population and noted that the median family income of the school is over \$100,000 with 25% or more of parents with a graduate degree.

Procedure

Parents and adolescents were recruited from high schools from three affluent high schools in the Midwest and Northeast. Investigators contacted appropriate school personnel (i.e., information services, research coordinators, superintendent, principal) to discuss the aims and procedures of the current study and assess interest. If the school administrators expressed interest in participating in the study, the investigators discussed plans for dissemination of study information to parents and adolescents at that school including fliers and/or newsletter announcements. In addition, school personnel granted

permission to investigators to conduct in-person visits to each school to provide a brief description of the research and responsibilities of participation to 10th graders.

Also during the in-school visit, the investigators provided consent forms for the adolescents to bring home for their parents to sign. Adolescents were asked to bring the signed consent form back to school to place in a box provided by the researchers.

Adolescents were told that, regardless of whether their parents agree to participate, by bringing back the consent form, they would receive a small prize (i.e., healthy snack).

Adolescents were also notified that by taking the online survey, they were providing their consent to participate (i.e. the first page of the online survey was an assent form and adolescents have the option to decline). Parents also received an email from school personnel (see Recruitment Email for Parents) describing the study and alerting them to it. Once the investigator obtained the parental consent, links to the online survey were emailed to each parent/caregiver(s) and the adolescents separately. Of note, consent from only one parent was required for the family to participate, but both parents/caregivers were encouraged to participate if possible. Online materials instructed parents/caregivers and adolescents to complete their surveys alone in order to ensure confidentiality.

Follow-up emails were sent to those participants who had not completed study materials after approximately two weeks in order to ensure that parents and adolescents received the online links and to answer any questions or concerns.

Adolescents were reminded that all responses including the information they provide would be kept confidential and thus would not be shared with parents, teachers, activity leaders, law enforcement providers, or any other adults/children. Additionally, adolescents were instructed that they can skip questions that they do not feel comfortable

answering. Adolescents are reminded that they can withdraw from the study at any time and that withdrawing will have no effect on their academic standing. Further, adolescents are sent a separate link to the survey via their personal email accounts to ensure that their answers are kept confidential.

After the data collection, families in which one adolescents and up to one parents/caregiver completed the questionnaires were be entered in a raffle to win an iPad. Three iPADS in total (1 per school) were raffled. Further, once data was entered via the online questionnaires, data was de-identified and checked by trained graduate and undergraduate students.

Measures

Demographics

Parents were asked to indicate their age, ethnicity, marital status, whether their child is adopted, the number of people living in their home and each person's relationship to the participating child, their highest level of education, their current employment status, how many meals per week the family eats together, and their approximate annual income.

Goal Orientation

Parent and adolescent goal orientation was assessed using the Task and Ego in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992). The TEOSQ is a 16-item inventory comprised of two independent subscales (task and ego orientation) and measures individual differences in the tendency to be task or ego involved. There are 8 items on each subscale. There are two versions of this measure: the *academic goal orientation* version and the *sport goal orientation* version. When completing this

instrument, participants are asked to think generally about the times when they feel most successful in academics or sports. They then respond to the stem “I feel most successful when...” and indicate their agreement with items reflecting a task-oriented (e.g. “I learn a new skill” or “I work really hard) and ego-oriented (e.g. “I get the highest grade” or “I score the most points”) goal perspective. Responses are indicated on a Likert-type scale (1 = *strongly agree*, 5 = *strongly disagree*). A mean scale score (i.e. sum of responses/number of items) for task and ego orientation was calculated for each subject with a range of 1 (*low*) through 5 (*high*). In previous research (Duda, 1989b), the TEOSQ was found to have a stable factor structure and the two subscales have demonstrated high internal consistency and acceptable test—retest reliability. Cronbach’s alpha coefficients for the task and ego subscales are .87 and .92 respectively. This measure was also adapted for the purpose of administering it to parents (e.g. “I have the highest test scores” was changed to “My child has the highest test scores” for the parent version).

Motivational Climate

A modified version of the Perceived Motivational Climate in Sport Questionnaire (PMCSQ-2; Newton, Duda, & Yin, 2000) was used to assess adolescent perceived motivational climate. The PMCSQ-2 is a 21-item inventory comprised of two independent subscales assessing mastery and performance climates. Although developed to assess motivational climates in sports settings, we have modified this measure to assess motivational climate in an academic setting and in all organized activities, not solely in sports. For instance, the question “Players are ‘psyched’ when they do better than their teammates in a game” was changed to “Students are ‘psyched’ when they do better than their classmates on a test”.

The mastery climate subscale contains 11 items that reflect cooperative learning, effort/improvement, and importance of each individual's role. The performance climate subscale includes 10 items that capture intra-team rivalry, unequal recognition, and punishment for mistakes. Prior research suggests that both the performance and mastery subscales demonstrate acceptable internal consistency ($\alpha = .88$ and $.85$, respectively). Participants read the statements and responded to each item using a 5-point Likert scale ranging from 1 (not at all true) to 5 (very true). An example of a performance climate question is "The coach paid most attention to the best members of the team". An example of a mastery climate question is "The coach encourages us to learn new skills."

Adolescent Adjustment

Adolescents completed measures of depressive symptoms, anxiety, and substance use to assess psychological adjustment. They also completed a measure of life satisfaction to assess their general happiness and contentment.

Depression and anxiety. A measure combining the *Achenbach Youth Self Report-Depression scales* (YSR-D; Clarke et al., 1992) and *Anxiety scales* (YSR-A) was used to assess adolescent depression and anxiety. The *Achenbach Child Behavior Checklist-Depression scales* (CBCL-D) and *Anxiety scales* (CBCL-A) (Achenbach, 1991) was also used to assess adolescents' depressive and anxiety symptoms. Parents fill out the CBCL-A and adolescents fill out the YSR-A in order to assess parent-reported and self-reported adolescent depressive symptoms. The CBCL-A and YSR-A are 16 items from the 118-item CBCL and YSR measures (Achenbach, 1991), respectively. Participants read each statement and were instructed to rate whether it is not true (0), somewhat true (1), or very true (2). Examples of the statements include "cannot get

his/her mind off certain thoughts”, “too fearful or anxious”, and “fears he/she might think or do something bad.” In Kendall and colleagues’ (2007) examination of the psychometric properties of the CBCL-A, the measure was found to have high internal consistency and to adequately discriminate between youth (ages 7-14) with and without diagnosed anxiety disorders. Construct validity of the scale was supported by high correlations with other reliable anxiety measures (e.g., MASC, RCMAS). Additionally, the scale displayed sensitivity to treatment effects. As the authors did not develop an anxiety scale of the Youth Self-Report Scale, the same items identified as composing the CBCL-A scale were used to construct the YSR-A. Psychometric properties were examined in the current study to ensure good internal consistency.

Substance use. Adolescents filled out a frequency of drug use grid similar to that used in the Monitoring the Future Study Survey (Johnston, O’Malley, & Bachman, 1984) and studies conducted by Luthar and colleagues (i.e., Luthar & Goldstein, 2008). At each time point, adolescents reported on the frequency of their drug use (as well as use of tobacco and alcohol). Drug use was assessed using a 7-point scale (0 = *never*, 1 = *1–2 times*, 2 = *3–5 times*, 3 = *6–9 times*, 4 = *10–19 times*, 5 = *20–39 times*, and 6 = *40+ times*). The reliability and validity of this type of self-report have been documented (see www.monitoringthefuture.org). Following the approach in prior studies (Luthar & Becker, 2002; Luthar & D’Avanzo, 1999), the current study computed a composite substance use variable by adding the frequency ratings for each drug over the course of each calendar year. Scores on the continuous composite measure of substance use will range from 0-*no use of any substances over the course of the past year* to 18-*weekly to more than weekly use of all three substances over the course of the past year*. It has been

shown that creating a composite frequency score yields a reliable and valid index of global involvement in substance use (Needle, Su, & Lavee, 1989) and a number of researchers have utilized this strategy to create global measures of substance use among adolescents (e.g., see McMahon & Luthar, 2006).

Life satisfaction. The Satisfaction with Life Scale (SWLS) is a measure of life satisfaction developed by Diener and colleagues (Diener, Emmons, Larsen & Griffin, 1985). It does not assess satisfaction with life in any particular domain, rather satisfaction with life as a whole. The SWLS consists of 5-items (e.g. “In most ways, my life is close to ideal” and “If I could live my life over, I would change almost nothing”) that was completed by both the adolescents and their parents. Using a 1-7 scale, respondents will indicate their agreement with each statement (1= strongly disagree; 7 = strongly agree). The SWLS shows discriminant validity from other emotional well-being measures and good convergent validity with other assessments of subjective well-being. It also shows strong internal reliability ($\alpha = .87$), good temporal stability, and sufficient sensitivity to be valuable in detecting change in life satisfaction over periods of time.

CHAPTER FOUR

RESULTS

Data Preparation

After preparing the data, (e.g., examining outliers and missing data, calculating composites for study measures), preliminary descriptive analyses (means, standard deviations, and correlations) were run with all variables included in the proposed model. Means and standard deviations for all variables are presented by school and gender in Table 1. Correlations among all variables are displayed in Table 2. Some significant correlations exist between YSR and CBCL values, however the proportion of shared variance (i.e. effect size; r-squared) is rather small. The effect size between adolescent report of depression and parent report of depression is 0.15 which means that only 15% of the variance of either variable is shared with the other. The effect size between adolescent report of anxiety and parent report of anxiety is 0.17, indicating that only 17% of the variance of adolescent report is shared with parent report. Effect sizes ranging between 0.1 and 0.23 are considered to be small (Cohen, 1988; 1992), thus the significant correlations between these variables are deceiving, as they share little variance. Ample research indicates that there are significant discrepancies between parent and adolescent report of internalizing symptoms (e.g. Seiffge-Krenke & Kollmar, 1998; Handwerk, Larzelere, Soper, & Friman, 1999). Furthermore, research suggests that adolescents are

better reporters of internalizing symptoms and disorders than their parents (De Los Reyes & Kazdin, 2005). Due to this, only YSR scores were used in analyses.

All variables, except substance use, yielded a relatively normal distribution. Participant reports of substance use showed almost no variability and were extremely positively skewed (indicated no to minimal substance use). While the scale of the substance use measure ranges from 5-35, the student responses ranged from 5-14, with a mean of 5.83, a median of 5.00, and a standard deviation of 1.58. Due to lack of variability in this outcome variable and the ample literature suggesting these results are not a valid representation of substance use in this population (Luthar & D'Avanzo, 1999; Luthar & Latendresse, 2005a), substance use was not included in primary analyses.

In an effort to determine whether data from the three schools could be combined for the purpose of conducting the primary analyses, MANOVAs were run to examine for possible school differences in adjustment outcomes (i.e. depressive symptoms, anxiety, and life satisfaction). Specifically, four MANOVAs were conducted with school and (1) task orientation, (2) ego orientation, (3) mastery climate, and (4) performance climate on adjustment outcomes (i.e. depressive symptoms, anxiety, and life satisfaction). This particular design allows for the detection of any SchoolXGoal Orientation or SchoolXMotivational Climate interactions. The first MANOVA revealed a main effect of task orientation, $F(63, 117) = 1.62, p < .05$, but no main effect of school, $F(6, 76) = 1.38, p = .23$, and a non-significant TaskXSchool interaction, $F(75, 117) = .91, p = .67$. The second MANOVA revealed no main effect of ego orientation, $F(84, 93) = .70, p = .95$, no main effect of school, $F(6, 60) = .39, p = .88$, and a non-significant EgoXSchool interaction, $F(78, 93) = .85, p = .78$. The third MANOVA revealed no main effect of

mastery climate, $F(96, 84) = .83, p = .82$, no main effect of school, $F(6, 54) = .93, p = .48$, and a non-significant MasteryXSchool interaction, $F(75, 84) = .79, p = .86$. The final MANOVA revealed no main effect of performance climate, $F(96, 90) = 1.29, p = .12$, no main effect of school, $F(6, 58) = .84, p = .55$, and a non-significant PerformanceXSchool interaction, $F(69, 90) = .96, p = .58$. In sum, neither main effects of school nor interaction effects between goal orientation/motivational climate and school were found to be significantly associated with adjustment outcomes. In other words, the three schools do not differ on levels of goal orientation or motivational climate, nor do they differ on levels of adjustment problems. As a result of these analyses, it was determined that data from all three schools could be combined for the purpose of conducting the primary analyses.

Descriptive Statistics

Means and standard deviations for all variables are presented by school and gender in Table 1. Both ego and task orientation were measured on a scale that had a possible range of 8-40. Overall, the mean level of ego orientation ($m = 26.73$) was relatively low and the mean level of task orientation ($m = 32.53$) was relatively high. Performance climate was measured on a scale with a possible range of 10-50 and mastery climate was measured on a scale with a possible range of 11-55. Overall, the mean level of performance climate was relatively low ($m = 28.79$) and the mean level of mastery climate was relatively high ($m = 39.93$). In general, adolescents who participated in the current study were more task/mastery oriented than ego/performance oriented. Both depressive symptoms and anxiety were measured on a scale with a possible range of 0-32. Overall mean levels of depressive symptoms ($m = 8.33$) and anxiety ($m = 9.49$) were

both low. Life satisfaction, which was measured on a scale with a possible range of 5 to 35, was relatively high ($m = 24.05$). These descriptive statistics indicate that the sample examined in the present study was relatively well-adjusted (Table 2).

Correlations among all variables are presented in Table 3. Adolescent ego orientation was positively correlated with perceived performance climate, $p < .01$. Conversely, adolescent task orientation was positively correlated with perceived mastery climate, $p < .01$. In terms of adjustment outcomes, ego orientation was positively correlated with depressive symptoms, $p < .05$, and anxiety, $p < .05$. Task orientation was negatively correlated with depressive symptoms, $p < .01$, and positively correlated with life satisfaction, $p < .01$. Also of note, adolescent goal orientation was not significantly correlated with parental goal orientation.

Gender Differences

One-way ANOVAs indicated no gender differences in parental goal orientation, adolescent goal orientation, or motivational climate. Adolescent anxiety symptoms, however, differed significantly based on gender, $F(1, 87) = 5.81$, $p < .05$. Female participants ($M = 10.92$) reported significantly higher levels of anxiety than male participants ($M = 7.32$). No other significant gender differences were found.

Parent and Adolescent Goal Orientation and Adolescent Adjustment

Regression analyses were used to examine the effect of parental goal orientation (ego and task) on adolescent adjustment (see Figure 3). Parent task orientation was found to be significantly associated with adolescent satisfaction with life, $B = .54$, $\beta = .22$, $t(1, 86) = 1.99$, $p < .05$, indicating that parents who value learning and improvement more

Table 2. Descriptive Data on All Adolescent Variables Presented by School and Gender

	School 1			School 2			School 3			Overall				
	Girls (n = 16)		Boys (n = 8)		Girls (n = 19)		Boys (n = 18)		Girls (n = 18)		Boys (n = 11)		N = 90	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Depressive symptoms	9.30	6.68	10.00	4.04	8.71	5.71	7.78	5.94	8.39	4.63	4.29	2.72	8.33	5.43
Anxiety symptoms	8.96	7.48	12.22	8.04	11.86	8.15	7.95	6.73	10.56	5.49	3.23	3.05	9.49	7.08
Substance use	5.13	0.34	5.23	0.76	5.88	1.54	5.88	1.45	6.56	2.48	5.64	0.81	5.80	1.56
Satisfaction with life	25.05	6.03	19.29	6.87	24.94	6.42	25.00	8.12	23.58	6.77	24.82	5.51	24.05	6.72
Adolescent task goal orientation	32.63	5.27	28.39	8.13	33.71	4.04	31.70	5.35	33.35	7.10	33.54	4.84	32.53	5.73
Adolescent ego goal orientation	25.88	7.78	28.65	5.25	24.94	6.91	31.88	5.35	24.67	7.63	23.45	8.35	26.73	7.46
Mastery perceived motivational climate	40.63	7.81	42.61	5.29	36.71	6.81	37.67	7.59	43.67	7.89	41.27	3.10	39.93	7.32
Performance perceived motivational climate	26.25	8.11	30.86	5.81	30.12	8.12	33.94	7.72	25.66	7.22	24.29	6.61	28.79	8.06
Parent task goal orientation	36.02	2.78	35.00	3.65	38.76	1.65	38.00	2.37	37.27	2.99	38.04	2.53	37.40	2.78
Parent ego goal orientation	20.65	6.00	16.71	5.41	20.45	7.72	21.38	7.71	19.73	5.50	21.00	9.72	20.27	7.05

Table 3. Adolescent Variables

Adolescent Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Adolescent ego goal orientation	1.0	.05	.30**	-.16	.23*	.24*	.08	-.04	.15	.08	.13	.08
2. Adolescent task goal orientation	.05	1.0	-.09	.37**	-.27**	-.16	-.05	.25**	.16	.23*	-.05	.06
3. Perceived performance motivational climate	.30**	-.09	1.0	-.37**	.28**	.29**	-.09	-.20*	.03	.10	.01	-.06
4. Perceived mastery motivational climate	-.16	.37**	-.37**	1.0	-.38**	-.30**	-.07	.12*	-.06	-.05	-.08	.01
5. Depressive symptoms (adolescent report)	.23*	-.27**	.28**	-.38**	1.0	.78**	.11	-.51**	-.15	-.15	.39**	.28**
6. Anxiety symptoms (adolescent report)	.24**	-.16	.29**	-.30**	.78**	1.0	.12	-.46**	-.01	-.07	.37**	.42**
7. Substance use	.08	-.05	-.09	-.07	.11	.12	1.0	-.02	.08	-.18	-.04	-.06
8. Life satisfaction	-.04	.25**	-.20*	.12*	-.51**	-.46**	-.02	1.0	.14	.22	-.30**	-.25*
9. Parent ego goal orientation	.15	.16	.03	-.06	-.15	-.01	.08	.14	1.0	.15	-.10	.01
10. Parent task goal orientation	.08	.23*	.10	-.05	-.15	-.07	-.18	.22	.15	1.0	-.12	-.07
11. Depressive symptoms (parent report)	.13	-.05	.01	-.08	.39**	.37**	-.04	-.30**	-.10	-.12	1.0	.85**
12. Anxiety symptoms (parent report)	.08	.06	-.06	.01	.28**	.42**	-.06	-.25*	.01	-.07	.85**	1.0

Note. Correlations for females are presented above correlations for males.

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

(i.e. task orientation) have more satisfied children. No other relations between parental goal orientation and adolescent adjustment were found.

Regression analyses were also used to examine the effect of adolescent goal orientation (ego and task) on adolescent adjustment (see Figure 3). Adolescent task orientation was associated with fewer depressive symptoms ($b = -.42, \beta = -.43, t(1, 86) = -4.38, p < .001$), less anxiety ($b = -.35, \beta = -.27, t(1, 86) = 2.69, p < .01$), and higher levels of life satisfaction, ($b = .46, \beta = .38, t(1, 86) = 3.82, p < .001$). Adolescent ego orientation was not significantly related to depressive symptoms, anxiety, or satisfaction with life.

School Motivational Climate and Adolescent Adjustment

Regression analyses were used to examine the effect of motivational climate (performance and mastery) on adolescent adjustment (see Figure 4). Mastery climate was significantly related to adolescent depressive symptoms, $B = -.29, \beta = -.38, t(1, 86) = -3.83, p < .001$, anxiety, $B = -.27, \beta = -.27, t(1, 86) = -2.64, p < .01$, and life satisfaction, $B = .12, \beta = .21, t(1, 86) = 2.03, p < .05$. These results indicate that adolescents who perceived their school climate to be more cooperative and supportive (i.e., mastery-oriented) report fewer depressive symptoms, less anxiety, and greater life satisfaction. Performance climate also was significantly related to adolescent depressive symptoms, $B = .12, \beta = .28, t(1, 86) = 2.67, p < .01$, and anxiety, $B = .25, \beta = .28, t(1, 86) = 2.67, p < .01$, but was not significantly related to life satisfaction, $B = -.15, \beta = -.18, t(1, 86) = -1.72,$

$p = .09$. These results indicate that adolescents who perceived their school climate to be more competitive and aggressive (i.e., performance-oriented) also reported more depressive symptoms and anxiety.

Mediation Analyses

Of the numerous different approaches to mediation that have been developed, the causal steps approach (Baron and Kenny, 1986) and the Sobel test (Sobel, 1982, 1986) are the most widely used, but each are each flawed in their own ways. The causal steps method is among the lowest in power in examining mediational models (Fritz & MacKinnon, 2007; MacKinnon et al., 2002). The Sobel test utilizes the standard errors of pathways a and b to compute the product of the coefficients. Not only does the Sobel test require the analyst to decide how to estimate the standard errors (over which there is much controversy), but it also assumes that the sampling distribution of the indirect effect is normal. This is a major flaw because the sampling distribution of ab tends to be asymmetric, with a positive skewness and nonzero kurtosis (Bollen & Stine, 1990; Stone & Sobel, 1990).

In light of recent criticisms of the causal steps and Sobel test, a newer and more precise method known as bootstrapping is becoming a well accepted approach. Not only is this a more powerful technique, but it is also a more valid one for several reasons. First, inferences can be made based on estimates of the actual indirect effects themselves. Second, it makes no assumptions about the shape of the sampling distribution of the indirect effects. Finally, no estimates of standard error are needed. Thus, bootstrapping is considered to be the most valid and powerful method for examining indirect effects in mediation (Hayes, 2009).

The bootstrapping approach includes four main steps (Shrout & Bolger, 2002). First, the original sample n is used as a population reservoir to create a pseudo (bootstrap) sample of N people by randomly sampling observations with replacement from the original n . Next, for each bootstrap sample, a and b are estimated and the product of the path coefficients are recorded. The third step involves repeating Steps 1 and 2 for a total of k times (where $k = 5,000$ as recommended by Hayes, 2009). When complete, this procedure results in k estimates of the indirect effect, and the distribution of this indirect effect will function as an approximation of the sampling distribution of the indirect effect. Finally, the k estimates will be used to generate a percentile-based bootstrap confidence interval, for which the cut points exclude $(\alpha/2) \times 100\%$ of the values from each tail of the empirical distribution. If zero is not between the lower and upper bound, then it is acceptable to claim that the indirect effect is not zero (Hayes, 2009; Shrout & Bolger, 2002). The present study used bootstrapping to generate bias corrected (BC) confidence intervals (CI's, 95%), as they have been shown to produce better type I error rates and power compared to conventional CIs (Preacher, Rucker, & Hayes, 2007; Preacher & Hayes, 2008). All results are based on a bootstrapped sample of $n = 5,000$ as recommended by Hayes (Personal communication, May 13, 2011).

Twelve mediation models (Figures 5-16) were tested to determine (a) whether the relation between parental goal orientation and adolescent adjustment was mediated by adolescent goal orientation (Figures 5-10), and (b) whether the relation between school motivational climate and adolescent adjustment was mediated by adolescent goal orientation (Figure 11-16). Two of the twelve models tested (Figures 11 and 15) yielded

significant mediation effects. Results for the first significant model (i.e. mastery climate → task orientation → depressive sx's) revealed that zero was not contained within the lower and upper limits for depressive symptoms (BC lower = -.20, BC upper = -.02). This indicates that the relation between perceived mastery climate and adolescent depressive symptoms was mediated by adolescent task orientation (see Figure 17). Thus, adolescents who feel their school environment encourages personal progress and growth tend to define success as learning and improvement and, subsequently, report fewer depressive symptoms. The second significant mediational model (i.e. mastery climate → task orientation → life satisfaction) revealed that zero was not contained within the lower and upper limits for life satisfaction (BC lower = .03, BC upper = .26), indicating that the relation between perceived mastery climate and adolescent life satisfaction was mediated by adolescent task orientation (see Figure 18). That is, adolescents who feel their school environment encourages personal progress and growth tend to define success as learning and improvement and, subsequently, report being more satisfied with their lives. No other significant mediational relations were found (Figures 5-10, 12-14, and 16).

Moderated Mediation

All mediational models were tested for possible moderated mediation (i.e. moderated by gender). One moderated mediation model was found to be significant (see conceptual Figure 19). This model aimed to test whether the mediational influence of adolescent goal orientation on the relation between school motivational climate and adolescent adjustment would be moderated by gender. Bootstrapping methods previously described were utilized for moderated mediation analyses as well. Findings revealed that zero was not contained within the lower and upper limits for females (BC lower = -.25,

BC upper = -.004), but zero was contained within the lower and upper limits for males (BC lower = -.34, BC upper = .02) for anxiety. This indicates that the relation between mastery school climate and anxiety was mediated by adolescent task orientation for females, but not for males (see Figure 20). In other words, how adolescents view their school environment (motivational climate) and the way in which they personally define success (goal orientation) may affect anxiety levels differently for males and females. More specifically, task orientation may play a more important role in anxiety levels for females than it does for males. No other moderated mediational models were found to be significant.

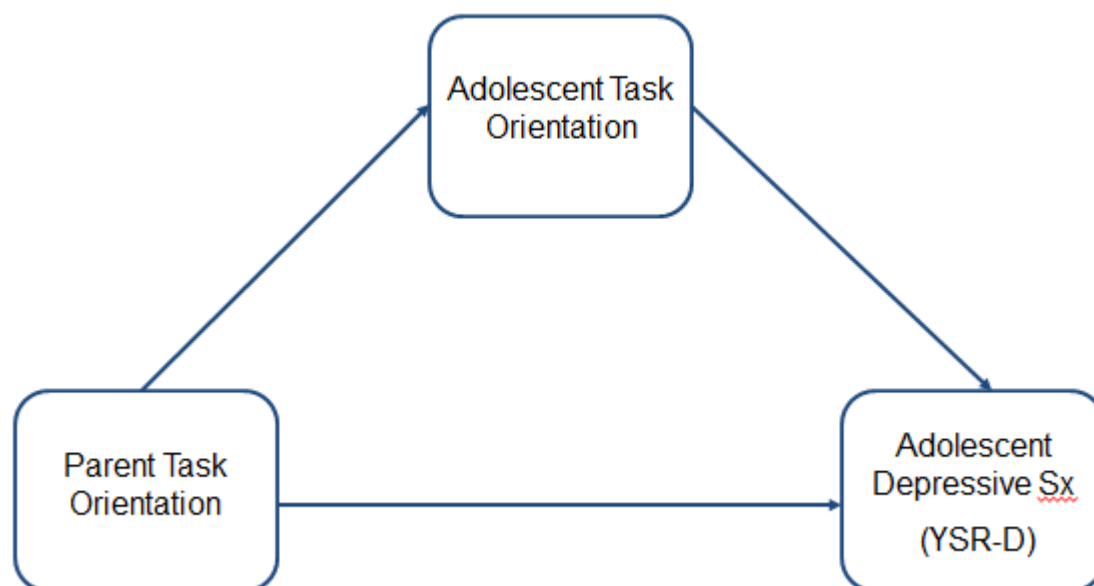


Figure 5. The relation between parent task orientation and depression, mediated by adolescent task orientation.

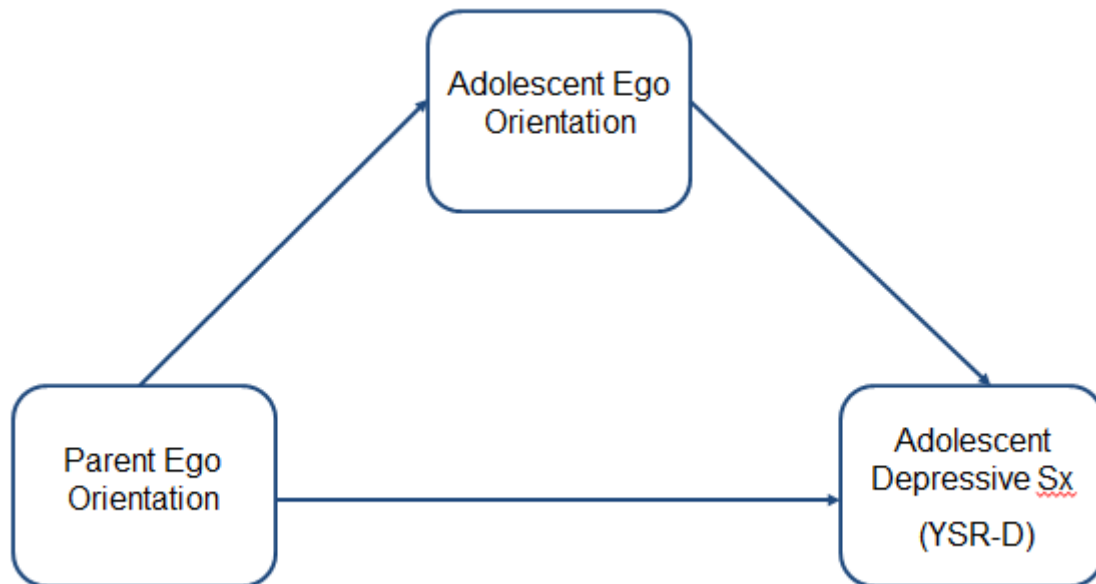


Figure 6. The relation between parent ego orientation and depression, mediated by adolescent ego orientation.

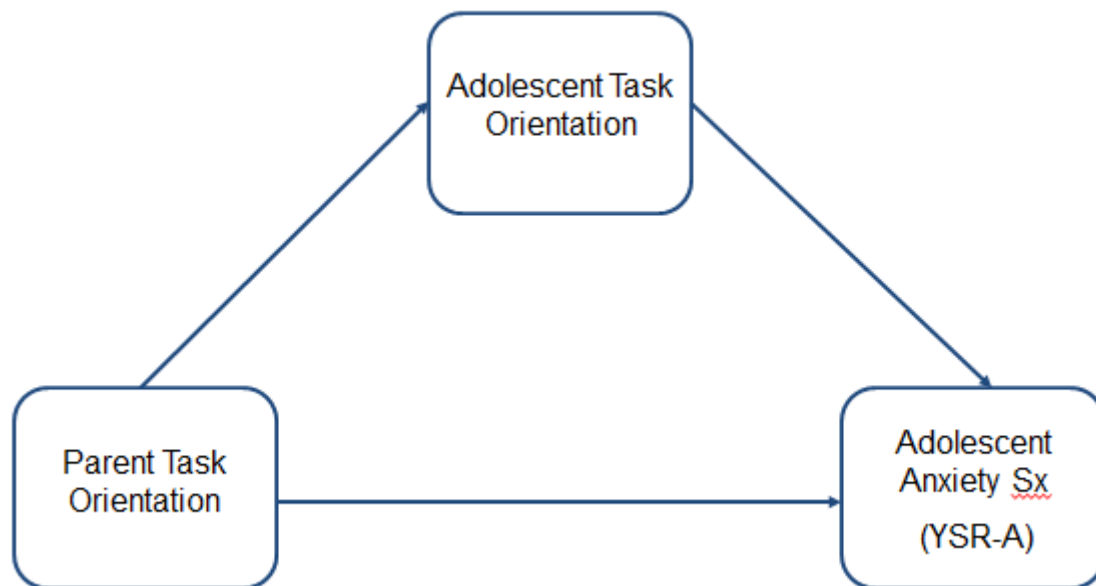


Figure 7. The relation between parent task orientation and anxiety, mediated by adolescent task orientation.

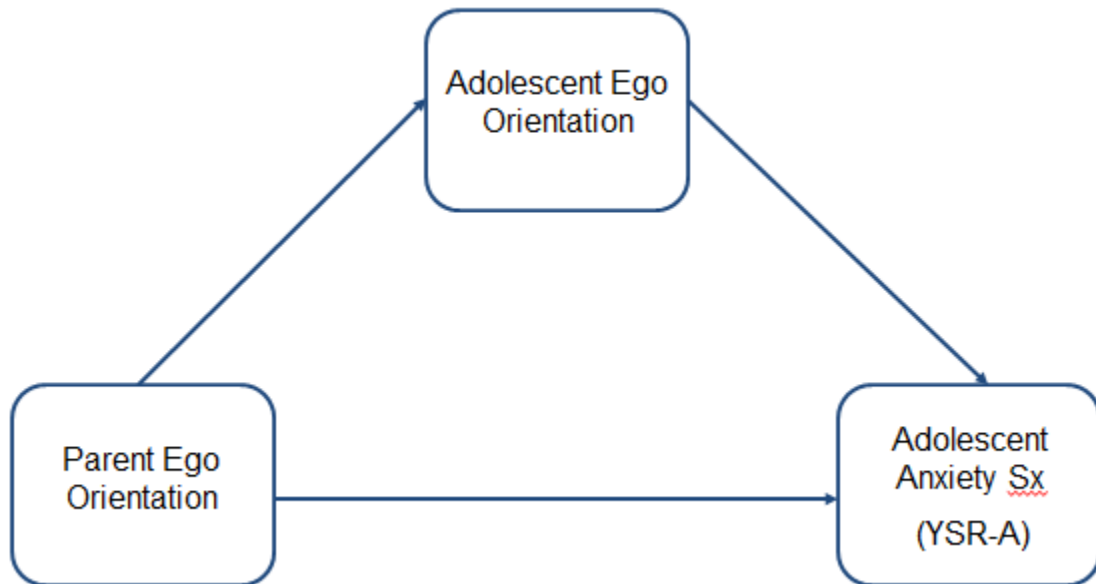


Figure 8. The relation between parent ego orientation and anxiety, mediated by adolescent ego orientation.

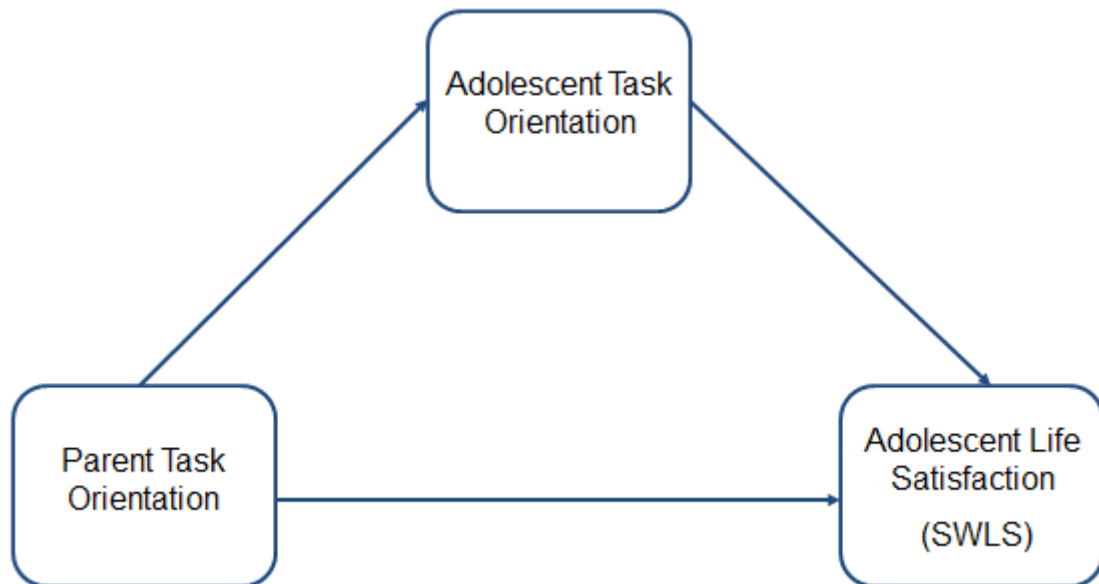


Figure 9. The relation between parent task orientation and life satisfaction, mediated by adolescent task orientation.

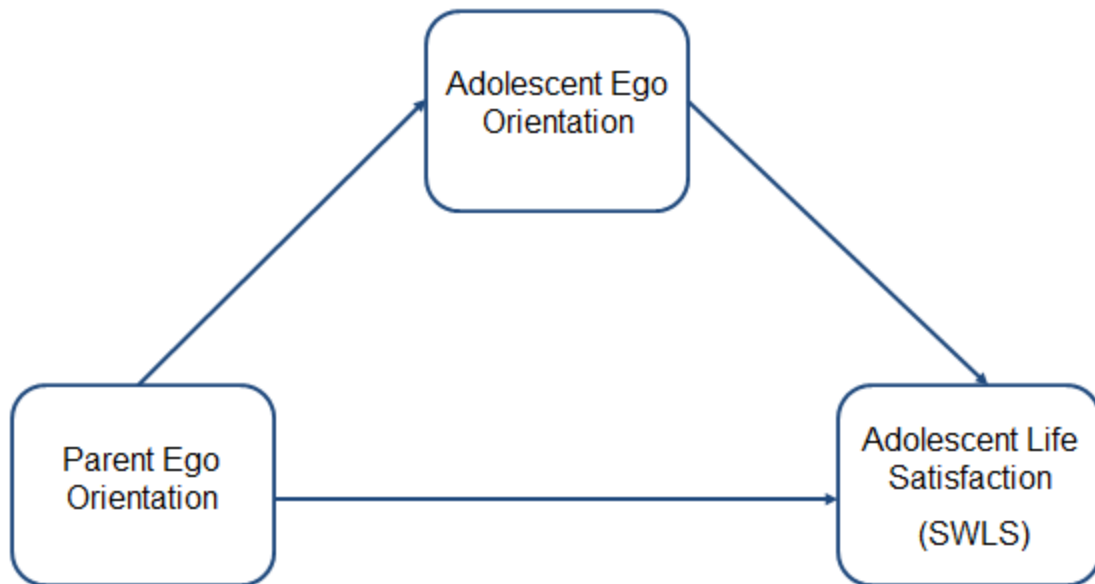


Figure 10. The relation between parent ego orientation and life satisfaction, mediated by adolescent ego orientation.

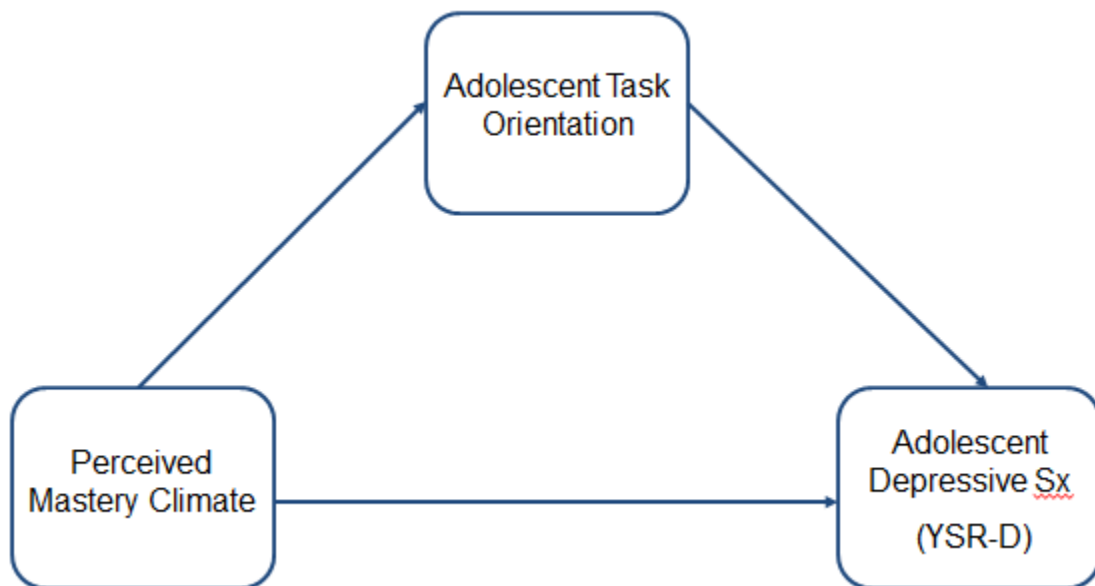


Figure 11. The relation between perceived mastery climate and depression, mediated by adolescent task orientation.

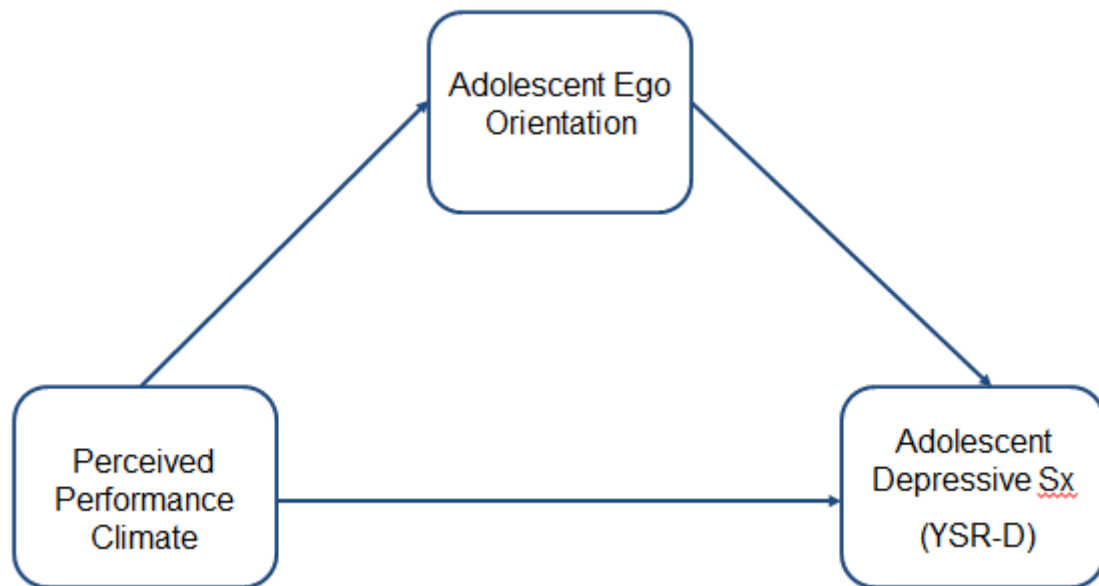


Figure 12. The relation between perceived performance climate and depression, mediated by adolescent ego orientation.

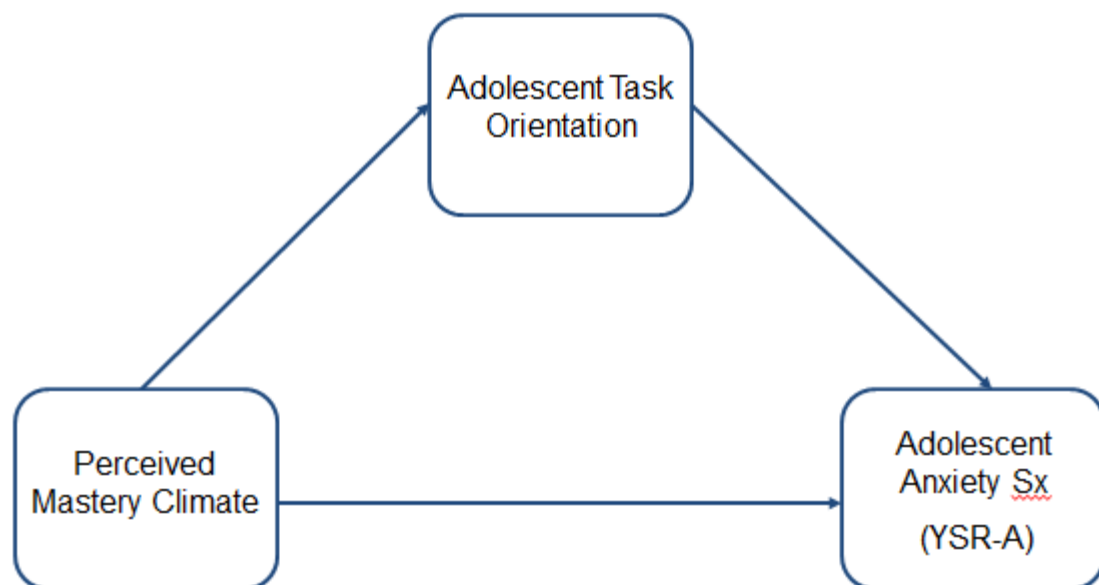


Figure 13. The relation between perceived mastery climate and anxiety, mediated by adolescent task orientation.

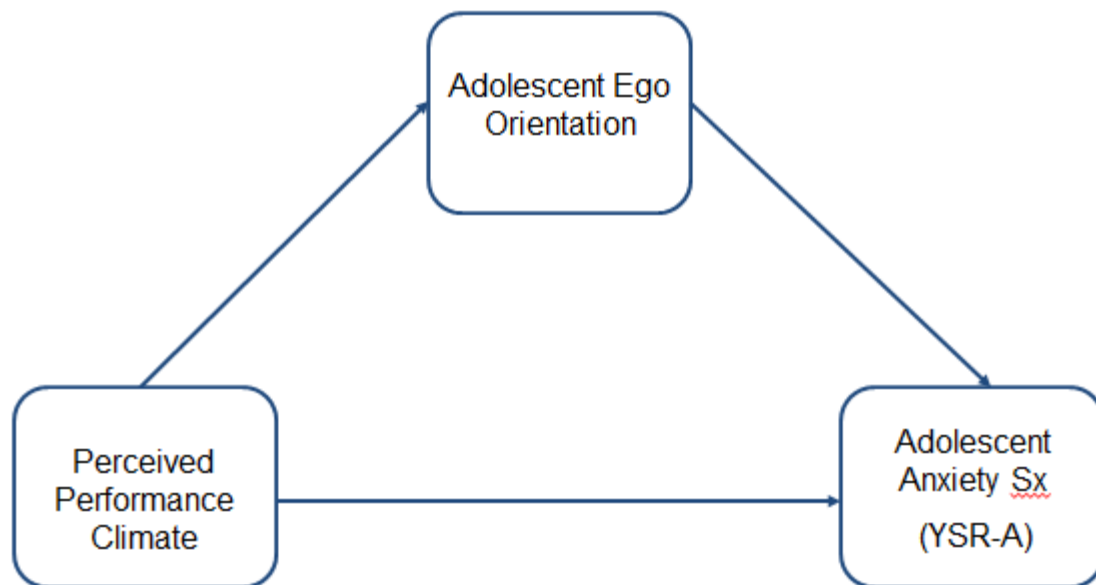


Figure 14. The relation between perceived performance climate and anxiety, mediated by adolescent ego orientation.

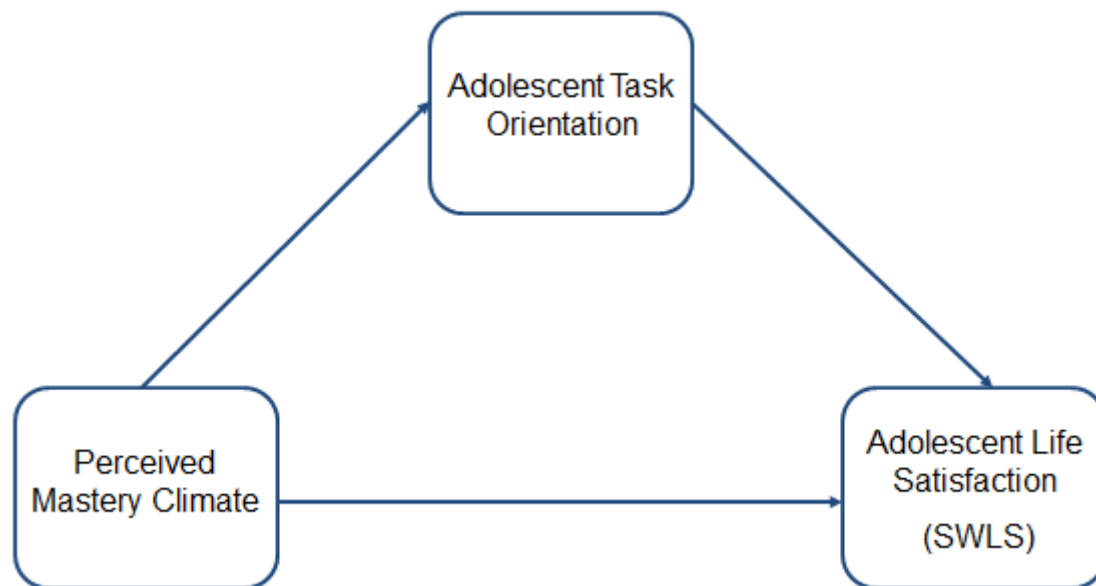


Figure 15. The relation between perceived mastery climate and life satisfaction, mediated by adolescent task orientation.

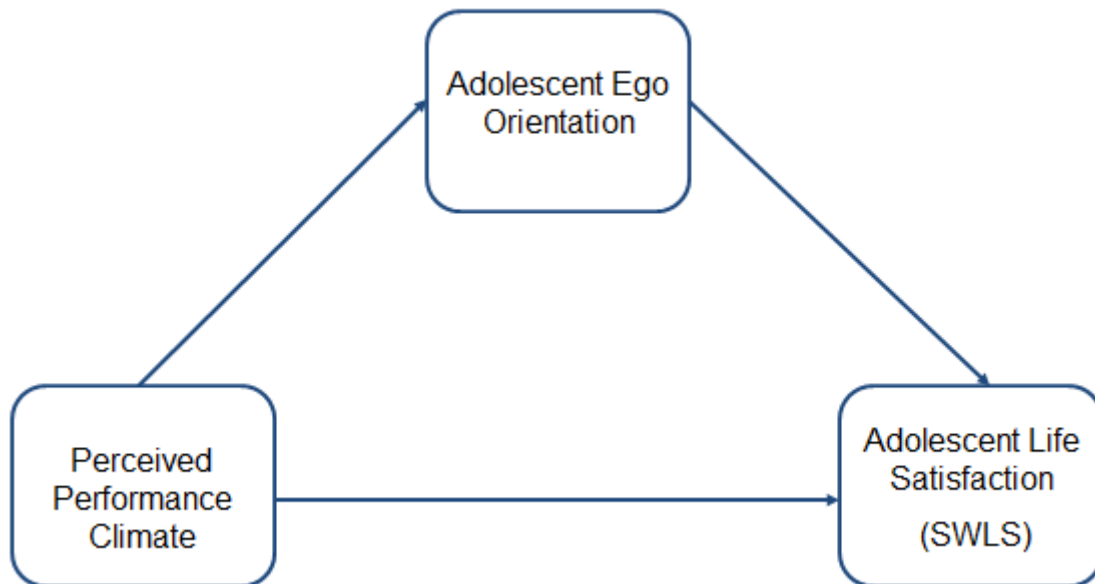


Figure 16. The relation between perceived performance climate and life satisfaction, mediated by adolescent ego orientation.

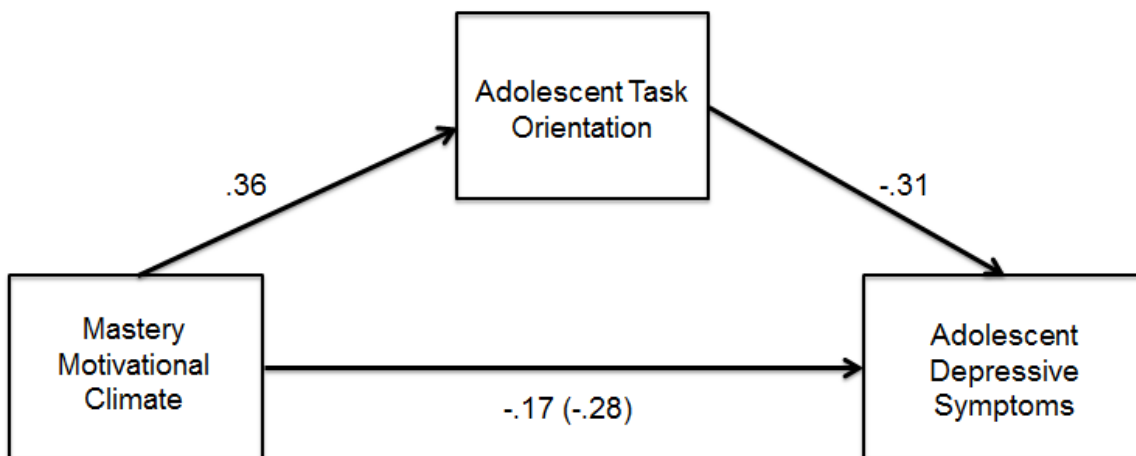


Figure 17. Unstandardized coefficients for simple mediation of adolescent task orientation in the relation between mastery school climate and depressive symptoms. The direct effect (controlling for adolescent task orientation) coefficient is located parenthetically in the figure.

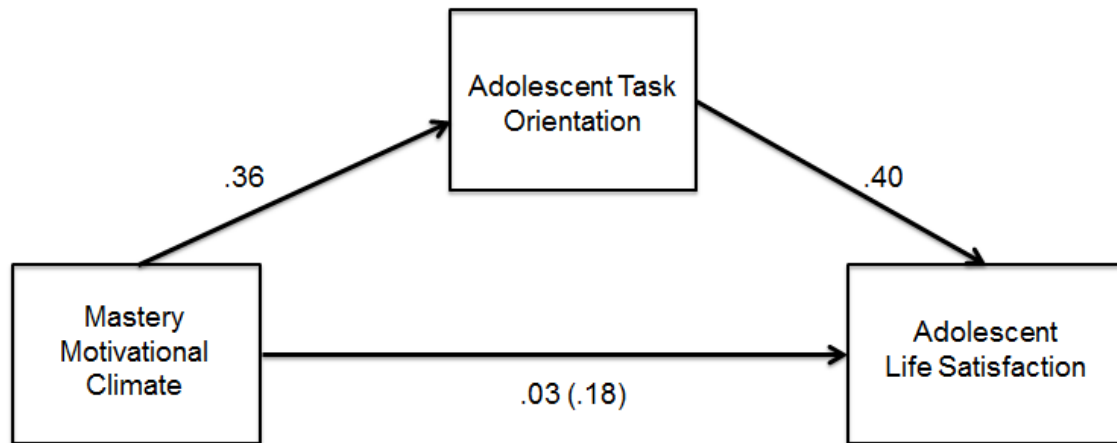


Figure 18. Unstandardized coefficients for simple mediation of adolescent task orientation in the relation between mastery school climate and satisfaction with life. The direct effect (controlling for adolescent task orientation) coefficient is located parenthetically in the figure.

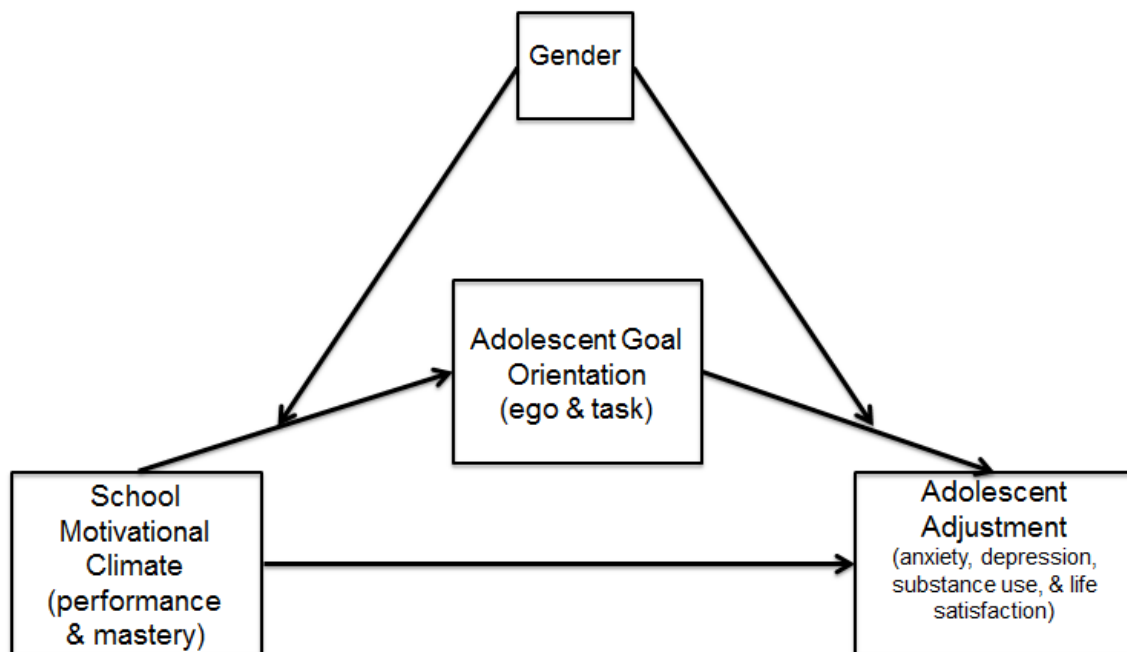


Figure 19. The relation between motivational climate and adolescent adjustment mediated by adolescent goal orientation and moderated by gender.

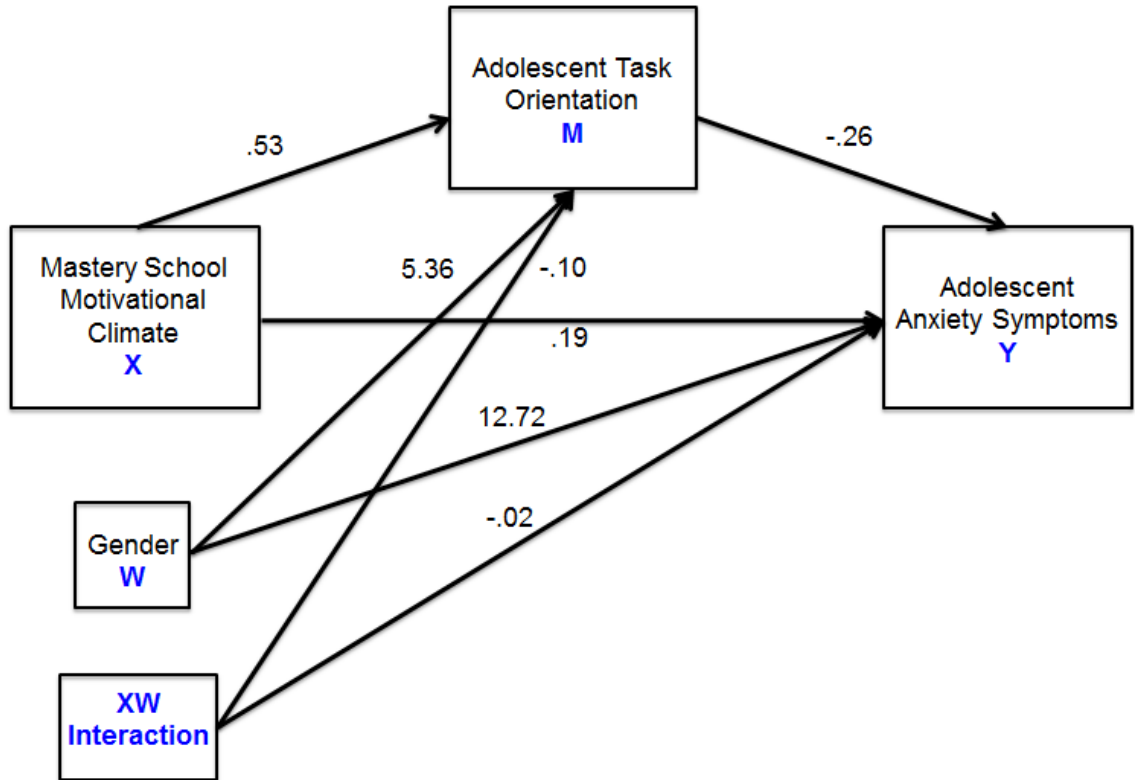


Figure 20. Unstandardized coefficients for moderated mediation of adolescent task orientation in the relation between mastery school climate and anxiety, by gender.

CHAPTER FIVE

DISCUSSION

Recent research suggests that affluent youth face a unique set of risks compared to their middle class and economically disadvantaged counterparts. As a result, these adolescents report more symptoms of anxiety and depression, and lower life satisfaction than normative samples (Csikszentmihalyi & Schneider, 2001; Luthar & Lantendresse, 2005a). The culture of affluence is thought to play an important role in the adjustment problems seen in affluent youth. In particular, affluent communities hold a distinct view of the meaning of achievement and success. Individuals in this culture value and emphasize upward mobility, prestige, affluence, and professional success (Luthar & Sexton, 2004). This type of pressure is a unique aspect of the culture of affluence that is believed to have a significant impact on adolescent adjustment.

The main goal of the present study was to better understand the pressures affluent adolescents face and how they are affected them. Achievement pressure has been cited as a potential antecedent of adjustment problems in affluent adolescents (Luthar & Latendresse, 2005a). The current study aimed to contribute to the growing body of research on affluent adolescent adjustment by examining individual pressure to be successful (i.e., goal orientation) and perceptions of environmental pressure to be successful (i.e., motivational climate). Furthermore, we investigated the relations between these individual/environmental pressures and adjustment outcomes (i.e. depressive

symptoms, anxiety, life satisfaction). This investigation contributes to the literature by utilizing progressive statistical techniques to examine the relevance of goal orientation and motivational climate for the culture of affluence.

After examining all results, three key themes emerged from this study. The first theme involves the important role of school environment (i.e. motivational climate) in achievement pressure and adjustment problems. In both significant mediation models and the only significant moderated mediation model, mastery school climate was the independent variable. While these significant findings could be due to chance, the pattern of findings suggests otherwise. The present investigation found that affluent adolescents who perceive their school environments to be supportive and non-competitive tend to define success as learning and improvement and, subsequently, report fewer depressive symptoms and greater life satisfaction. Due to the cross-sectional nature of this study, it is not clear whether adolescents are experiencing their environments differently (leading to distinct levels of adjustment problems) or whether the tone set by the environment is the driving factor. Furthermore, it is possible that these results are an artifact of a depressed or non-depressed individual. Adolescents may be viewing their environment through rose- or muddy-colored glasses. Perhaps the way individuals perceive their climate is driven by their underlying level of depression.

The second key theme of this study involves the impact of two specific definitions of success. The overall pattern of findings suggests that both individual views of success and environmental messages that encourage learning, cooperation, effort, and self-improvement (task orientation and mastery climate) are most strongly linked with healthy adolescent adjustment (i.e. fewer depressive symptoms, less anxiety, and greater life

satisfaction). While performance climate was found to be associated with more depressive symptoms, more anxiety, and marginally less life satisfaction, all other findings from this study reveal relations between either task orientation or mastery climate and adolescent adjustment. This pattern indicates that it is more important to promote healthy ideas of success than it is to discourage unhealthy ones. In other words, the absence of a competitive environment is not enough. Schools must also promote collaborative and supportive environments in order to see positive adjustment outcomes. In individual terms, it is not enough for adolescents to ignore competitive pressures, but they must also enjoy learning. Thus this pattern indicates that non-competitive definitions of success may be not only protective, but also most salient for adolescents in this population. Again, these data are cross-sectional. Therefore it is possible that task/mastery ideas lead to better adjustment, but it is also possible that adolescents who are better adjusted tend to hold more task and/or mastery views of success.

The third key theme of this study involves the impact of gender. Prior research indicates that affluent adolescents report significantly different levels of depression and anxiety (Ansary & Luthar, 2009). Furthermore, recent research suggests that there are gender differences in adolescent report of both goal orientation (Li et al., 1996; Hanrahan & Biddle, 2002) and motivational climate (Murica et al., 2008). While the present study did find gender differences in anxiety levels and one mediational model (mastery climate → task orientation → anxiety), the majority of results held constant for both males and females. The literature suggests that there are gender differences in depression, goal orientation, and motivational climate, yet our results lack these findings.

Gender results of the present study suggest that how affluent adolescents perceive their school environment (i.e. motivational climate) and the way in which they personally define success (i.e. goal orientation) affects anxiety levels differently for males and females. Specifically, the relation between motivational climate and anxiety is mediated by goal orientation for females but not for males. Given that male and female adolescents are known to differ in their report of anxiety levels, motivational climate, and goal orientation, this finding is consistent with previous research.

One possible explanation for this finding is that males experience significantly less anxiety than females, thus differences in their anxiety level are inconsequential and not measurable, regardless of their motivational climate. Also of note, gender was not found to moderate the relation between mastery climate and anxiety when ego orientation was the mediator. In other words, task-oriented females may have benefited more from a mastery climate than did ego-oriented females. One possible explanation for this finding is that ego-oriented girls need a stronger intervention than a mastery climate in order to see a measurable difference in their anxiety. It is possible that a mastery climate, which promotes task-oriented ideas, is enough to support and reinforce the values of task-oriented girls, but is not enough to make a difference in the views of ego-oriented girls. In sum, a mastery climate is possibly a protective factor against anxiety for task-oriented females, but may have no protective effects for ego-oriented females or for males. Due to the cross-sectional nature of these data, it is also possible that task-oriented individuals tend to perceive their climate as more mastery, thus accounting for the lower levels anxiety.

While the present study found interesting relations between adolescent goal orientation, perceived motivational climate, and adolescent adjustment, few links to parental goal orientation were found. It was hypothesized that the way in which parents define success for their children (i.e., parental goal orientation) would be associated with adolescent adjustment problems. Contrary to expectation, only one significant relation was found between parental goal orientation and adolescent adjustment problems: higher parent task orientation was associated with greater adolescent life satisfaction. Consistent with expectations, adolescent task orientation was associated with fewer depressive symptoms, less anxiety, and greater life satisfaction.

These findings may indicate that the way in which parents define success is linked only to their children's life satisfaction, while the way in which the adolescent personally defines success is linked to their depressive symptoms, anxiety, and life satisfaction. However, it is important to note that the link between parent goal orientation and adolescent adjustment was examined using two different reporters (parent and adolescent), while the link between adolescent goal orientation and adjustment was examined using only one reporter (adolescent). Therefore results may be driven by the individuals reporting rather than actual associations between these variables. Furthermore, these data are cross-sectional and therefore cannot determine directionality of findings. However it is possible that parent task orientation is somewhat protective. If replicated in a longitudinal study, this finding would be especially important given the population of participants. Researchers have suggested that affluent parents often pressure their academically talented children to achieve high levels of success, which subsequently leads to their unhappiness. While it is evident that intense parental pressure

to achieve leads to negative adjustment outcomes for adolescents (e.g. Ablard & Parker, 1997), few studies have examined the possible benefit of task-oriented parents. Perhaps youths with parents who promote ideas of learning, self-improvement, effort, and cooperation, lead happier and more satisfying lives. As most parents consider it important to promote happiness and healthy adjustment in their children, a longitudinal finding could have strong implications for one method of achieving that goal.

Limitations and Future Directions

This study is not without limitations. First, the data are cross-sectional and thus directionality of the findings cannot be determined. Future studies should examine these research questions with longitudinal data. In addition, the sample size of 88 adolescent-parent pairs (176 total participants) is relatively small. Future investigations should also include a larger sample size. Despite the apparent small sample used in the present study, research examining empirical estimates of sample size needed for .8 power (probability of finding significant results when they actually do exist) has shown that bootstrap analyses require a smaller sample size than the Sobel test and Baron and Kenny's (1986) tests (Fritz & Mackinnon, 2007). Furthermore, the bias-corrected bootstrap has consistently been shown to be the most powerful test across conditions, therefore requiring an even smaller sample size (Fritz & Mackinnon, 2007). Thus the current sample was likely large enough to detect significant effects.

As previously mentioned, a further limitation of this study concerns those who reported on each measure. Both significant mediational models included predictors, mediators, and outcome variables all reported by the same individual. Future studies should examine the relations between these variables using multiple reporters. Another

limitation of this study is that data were collected from three different schools across the country. While this aspect of the study makes the data more generalizable, it also raises questions about school differences. For example, School 3 is based on progressive educational philosophies which strongly promote a mastery climate. While no statistically significant school differences were found, students from School 3 reported slightly higher levels of mastery climate and task orientation than students from the other schools. Due to the characteristics of School 3, overall findings may have been distorted. While conducting individual analyses by school would provide more clarity on this issue, unfortunately the sample size was not large enough to do so. Future studies should investigate schools that deliberately promote a mastery climate and/or have a high percentage of task-oriented students to examine how they establish such an environment (e.g. pass/fail classes, no course requirements, no grades/class rank, etc). This information may help inform parent, teacher, and student intervention and/or prevention programs aimed at reducing adjustment problems in affluent communities.

A fourth limitation of this study involves the measurement of goal orientation and motivational climate. As described earlier, items measuring these concepts have a relatively high face value. If for whatever reason participants were unable or unwilling to admit their motivational beliefs to themselves, data may be compromised. Neither the creators of the TEOSQ (Duda & Nicholls, 1992) nor other researchers who have used this measure in their studies have commented on this issue.

As discussed earlier, participant reports of substance use produced almost no variability and were extremely positively skewed (indicated minimal to no substance use). The vast majority of participants indicated that they had never tried any illegal

substance (including alcohol), and only a handful of participants indicated that they had used a substance once. Ample research suggests that adolescence is a time period during which youth are at a great risk for experimentation with illegal substances, that most adolescents experience their first intoxication between the 7th and 10th grades, and that more than half of adolescents admit to using some illegal drug (most commonly marijuana) by the end of 12th grade (Chassin et al., 2004; Johnston, O'Malley, & Bachman, 2000; Johnston, O'Malley, & Bachman, 2002). Furthermore, research examining substance use in affluent youth indicates that this population reports significantly higher levels of substance use than normative samples and their inner-city counterparts (Luthar & D'Avanzo, 1999; Luthar & Latendresse, 2005a).

Given evidence suggesting that affluent adolescents are using illegal substances, why did the present data yield no variability in report of substance use? While adolescents were informed (both orally and in writing) that their responses to survey questions would not be associated with their names and would never be shared with parents, teachers, peers, or law enforcement, and a Certificate of Confidentiality from the United States Department of Health and Human Services (DHHS) was obtained, they may have been afraid of consequences for endorsing substance use questions. Another possible explanation for these findings concerns timing. The *Substance Use Grid* measure asks about use of different substances during the past 30 days (Johnston, O'Malley, & Bachman, 1984; Luthar & Goldstein, 2008). For a variety of reasons, it is possible that the month prior to survey administration was atypical for substance use.

Conclusion

Despite its limitations, the present study builds upon our understanding of the pressures affluent adolescents face and how they are affected by them. While researchers know more about the differences between the middle class and lower socioeconomic status (SES) populations, few have examined the upper end of the socioeconomic spectrum. Only in the last ten years have researchers begun to acknowledge that adolescents from affluent families are vulnerable to a unique set of pressures. The present study contributes to the body of research on affluent adolescent adjustment by examining individual pressure to be successful (i.e., goal orientation), perceptions of environmental pressure to be successful (i.e., motivational climate), and how these pressures are related to adjustment outcomes (i.e. depressive symptoms, anxiety, life satisfaction). Given that these results hold across all investigated schools in the different geographical regions, the findings should encourage further study of adjustment processes in affluent youth.

REFERENCES

- Ablard, K. E., & Parker, W. D. (1997). Parents' achievement goals and perfectionism in their academically talented children. *Journal of Youth and Adolescence*, 26(6), 651-667.
- Achenbach, T. (1991). *Child behavior checklist/4-18*. Burlington: University of Vermont.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Ames, C. (1992). Achievement goals, motivational climate, and motivational processes. *Motivation in Sport and Exercise*, 161, 176.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology*, 80(3), 260-267.
- Ansary, N. S., & Luthar, S. S. (2009). Distress and academic achievement among adolescents of affluence: A study of externalizing and internalizing problem behaviors and school performance. *Development and Psychopathology*, 21, 319-341.
- Apter, A., Kronenberg, S., & Brent, D. (2005). Turning darkness into light: A new landmark study on the treatment of adolescent depression, comments on the TADS study. *European Child and Adolescent Psychiatry*, 14, 113-116.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bollen, K. A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological Methodology*, 20, 115-140.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

- Blum, R., Beuhring, T., Shew, M., Bearinger, L., Sieving, R., & Resnick, M. (2000). The effects of race/ethnicity, income, and family structure on adolescent risk behaviors. *American Journal of Public Health, 90*(12), 1879.
- Bortoli, L., Bertollo, M., & Robazza, C. (2009). Dispositional goal orientations, motivational climate, and psychobiosocial states in youth sport. *Personality and Individual Differences, 47*(1), 18-24.
- Chassin, L., Hussong, A., Barrera, M., Molina, B. S. G., Trim, R., & Ritter, J. (Eds.). (2004). Adolescent substance use. *Handbook of adolescent psychology* (2nd ed.). Hoboken, NJ: John Wiley & Sons.
- Clarke, G. N., Lewinsohn, P. M., Hops, H., & Seeley, J. R. (1992). A self-and parent-report measure of adolescent depression: The child behavior checklist depression scale (CBCL-D). *Behavioral Assessment, 14*(3-4), 443-463.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155–159.
- Cohen, P., Cohen, J., & Brook, J. (1993). An epidemiological study of disorders in late childhood and adolescence—II, Persistence of disorders. *Journal of Childhood Psychology and Psychiatry, 34*, 869-877.
- Comer, R. J. (2007). *Abnormal psychology* (6th ed.). New York, NY: Worth Publishers.
- Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry, 60*, 837-844.
- Csikszentmihalyi, M. & Schneider, B. (2001). *Becoming an adult: how teenagers prepare for the world of work*. New York, NY: Basic Books.
- Csikszentmihalyi, M. (1999). If we are so rich, why aren't we happy? *American Psychologist, 54*, 821-827.
- Csikszentmihalyi, M., & Schneider, B. (2000). The costs and benefits of consuming. *Journal of Consumer Research, 27*(2), 267-272.
- D'Avanzo, K., Hites, S., & Luthar, S. S. (April, 2001). Psychopathology and competence in relation to substance use: Two-year cross-domain links among suburban youth. Presented at biennial meeting of the Society for Research on Child Development, Minneapolis, MN.

- De Bruin, A., Bakker, F. C., & Oudejans, R. R. D. (2009). Achievement goal theory and disordered eating: Relationships of disordered eating with goal orientations and motivational climate in female gymnasts and dancers. *Psychology of Sport and Exercise, 10*(1), 72-79.
- De Los Reyes, A. & Kazdin, A. E. (2005). Informant discrepancies in the assessment of childhood psychopathology: a critical review, theoretical framework and recommendations for further study. *Psychological Bulletin, 131*(4), 483-509.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75.
- Duda, J. L. (1989). Relationship between task and ego orientation and the perceived purpose of sport among high school athletes. *Journal of Sport and Exercise Psychology, 11*(3), 318-335.
- Duda, J. L., & Hom, H. L. (1993). Interdependencies between the perceived and self-reported goal orientations of young athletes and their parents. *Pediatric Exercise Science, 5*, 234-241.
- Duda, J. L., & Nicholls, J. G. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology, 84*(3), 290-299.
- Duda, J. L., & Ntoumanis, N. (2005). After-school sport for children: Implications of a task-involving motivational climate. In J. L. Mahoney, R. W. Larson, & J. S. Eccles (Eds.), *After school activities: Contexts of development* (pp. 311–330). Mahwah, NJ: Lawrence Erlbaum.
- Duggal, S., Carlson, E. A., Sroufe, L. A., & Egeland, B. (2001). Depressive symptomatology in childhood and adolescence. *Development and Psychopathology, 13*(1), 143-164.
- Dweck, C. S. (2007). *Mindset: The new psychology of success—how we can learn to fulfill our potential*. New York, NY: Ballantine Books.
- Eccles-Parsons, J., Adler, T. F., & Kaczala, C. M. (1982). Socialization of achievement attitudes and beliefs: Parental influences. *Child Development, 53*, 310-321.
- Elliot, A. J. (1994). Approach and avoidance achievement goals: An intrinsic motivation analysis. Unpublished doctoral dissertation, University of Wisconsin, Madison, WI.
- Fritz M. S., & MacKinnon D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*, 233–239.

- Gonida, E. N., Kiosseoglou, G., & Voulala, K. (2007). Perceptions of parent goals and their contribution to student achievement goal orientation and engagement in the classroom: Grade-level differences across adolescence. *European Journal of Psychology of Education, 22*, 23-39.
- Graber, J. A. (2004). Internalizing problems during adolescence. *Handbook of Adolescent Psychology, 2*, 587-626.
- Handwerk, M. L., Larzelere, R. E., Soper, S. H., & Friman, P. C. (1999). Parent and child discrepancies in reporting severity of problem behaviors in three out-of-home settings. *Psychological Assessment, 11*, 14-23.
- Hankin, B. L., & Abramson, L. Y. (2001). Development of gender differences in depression: An elaborated cognitive vulnerability-transactional stress theory. *Psychological Bulletin, 127*, 773-796.
- Hankin, B. L., Abramson, L. Y., & Angeli, N. (1999, November). *A prospective test of hopelessness theory: Predicting different depression and anxiety constructs*. Paper presented at the 14th Annual Meeting of Society for Research in Psychopathology, Montreal, Canada.
- Hanrahan, S. J., & Biddle, S. J. H. (2002). Measurement of achievement orientations: Psychometric measures, gender, and sport differences. *European Journal of Sport Sciences, 2*(5), 1-12.
- Hanrahan, S. J., & Cerin, E. (2009). Gender, level of participation, and type of sport: Differences in achievement goal orientation and attributional style. *Journal of Science and Medicine in Sport, 12*, 508-512.
- Harkness, S., & Super, C. M. (1996). *Parents' cultural belief systems: Their origins, expressions, and consequences*. New York, NY: Guilford.
- Hayes, A. F., 2009. Beyond Baron and Kenny: Statistical mediation in the new millennium. *Communication Monographs, 76*(4), 408-420.
- Hibbard, D. R., & Buhrmester, D. (2010). Competitiveness, gender, and adjustment among adolescents. *Sex Roles, 63*, 412-424.
- Hser, Y., Huang, Y., Teruga, C., & Anglin, M. D. (2004). Gender differences in treatment outcomes over a three-year period: A path model analysis. *Journal of Drug Issues, 34*(2), 419-440.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2003). Monitoring the future: National results on adolescent drug use: Overview of key findings. *Focus, 1*(2), 213.

- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. K. (2005). *Monitoring the Future national survey results on drug use, 1975–2000. Vol 2: College students and young adults ages 19–40* (NIH Publication 01-4925). Bethesda, MD: National Institute on Drug Abuse.
- Kandel, D. B. (2002). Examining the gateway hypothesis: Stages and pathways of drug involvement. In D. B. Kandel (Ed.), *Stages and pathways of drug involvement* (pp. 3-18). New York, NY: Cambridge University Press.
- Kavussanu, M., & Roberts, G. C. (1996). Motivation in physical activity contexts: The relationship of perceived motivational climate to intrinsic motivation and self-efficacy. *Journal of Sport and Exercise Psychology, 18*, 264-280.
- Kazdin, A. E. (1994). Methodology, design, and evaluation in psychotherapy. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change* (4th ed.). New York, NY: Wiley.
- Kendall, P. C., Puliafico, A. C., Barmish, A. J., Choudhury, M. S., Henin, A., & Treadwell, K. S. (2007). Assessing anxiety with the child behavior checklist and the teacher report form. *Journal of Anxiety Disorders, 21*(8), 1004-1015.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 593-602.
- Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., & Andrews, J. A. (1993). Adolescent psychopathology: I. prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology, 102*, 133-133.
- Li, F., Harmer, P., & Acock, A. (1996). The task and ego orientation in sport questionnaire: Construct equivalence and mean differences across gender. *Research Quarterly for Exercise and Sport, 68*, 228-238.
- Luthar, S. S. (2003). *Resilience and vulnerability: Adaptation in the context of childhood adversities*. Cambridge, UK: Cambridge University Press.
- Luthar, S. S. (2003). The culture of affluence: Psychological costs of material wealth. *Child Development, 74*(6), 1581-1593.
- Luthar, S. S., & Becker, B. E. (2002). Privileged but pressured? A study of affluent youth. *Child Development, 73*(5), 1593-1610.
- Luthar, S. S., & D'Avanzo, K. (1999). Contextual factors in substance use: A study of suburban and inner-city adolescents. *Development and Psychopathology, 11*(04), 845-867.

- Luthar, S. S., & Goldstein, A. S. (2008). Substance use and related behaviors among suburban late adolescents: The importance of perceived parent containment. *Development and Psychopathology, 20*(2), 591-614.
- Luthar, S. S., & Latendresse, S. J. (2005). Children of the affluent. *Current Directions in Psychological Science, 14*(1), 49.
- Luthar, S. S., & Latendresse, S. J. (2005). Comparable “risks” at the socioeconomic status extremes: Preadolescents' perceptions of parenting. *Development and Psychopathology, 17*(01), 207-230.
- Luthar, S. S., & Sexton, C. C. (2004). The high price of affluence. *Advances in Child Development and Behavior, 32*, 125–162.
- Luthar, S. S., Shoum, K. A., & Brown, P. J. (2006). Extracurricular involvement among affluent youth: A scapegoat for “ubiquitous achievement pressures”? *Developmental Psychology, 42*(3), 583-597.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7*, 83-104.
- Maehr, M. L. (2001). Goal theory is not dead-not yet anyway: A reflection on the special issue. *Educational Psychology Review, 13*, 177-185.
- Maehr, M. L., & Nicholls, J. G. (1980). Culture and achievement motivation: A second look. In N. Warren (Ed.), *Studies in cross-cultural psychology* (Vol. 2, pp. 221-267). New York, NY: Academic Press.
- McGee, R., Feehan, M., Williams, S., Partridge, F., Silva, P. A., & Kelly, J. (1990). DSM-III disorders in large samples of adolescent. *Journal of the American Academy of Child & Adolescent Psychiatry, 29*, 611-619.
- McMahon, T. J., & Luthar, S. S. (2006). Patterns and correlates of substance use among affluent, suburban high school students. *Journal of Clinical Child & Adolescent Psychology, 35*(1), 72-89.
- Murcia, J. A. M., Gimeno, E. C., & Coll, D. G. (2008). Relationships among goal orientations, motivational climate and flow in adolescent athletes: Differences by gender. *The Spanish Journal of Psychology, 11*, 181-191.
- Needle, R., Su, S., & Lavee, Y. (1989). A comparison of the empirical utility of three composite measures of adolescent overall drug involvement. *Addictive Behaviors, 14*(4), 429-441.

- Newton, M., & Duda, J. L. (1993). The relationship of task and ego orientation to performance-cognitive content, affect, and attributions in bowling. *Journal of Sport Behavior, 16*(4), 209-220.
- Newton, M., Duda, J. L., & Yin, Z. (2000). Examination of the psychometric properties of the perceived motivational climate in sport questionnaire-2 in a sample of female athletes. *Journal of Sports Sciences, 18*(4), 275-290.
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review, 91*, 328-346.
- Nicholls, J. G., Cheung, P. C., Lauer, J., & Patashnick, M. (1989). Individual differences in academic motivation: Perceived ability, goals, beliefs, and values. *Learning and Individual Differences, 1*, 63-84.
- Nicholls, J. G., Patashnick, M., & Nolen, S. B. (1985). Adolescents' theories of education. *Journal of Educational Psychology, 77*(6), 683-692.
- Ntoumanis, N., & Biddle, S. (1999). Affect and achievement goals in physical activity: A meta-analysis. *Scandinavian Journal of Medicine & Science in Sports, 9*, 315-332.
- Ollendick, T. H., & Hirshfeld-Becker, D. R. (2002). The developmental psychopathology of social anxiety disorder. *Biological Psychiatry, 51*(1), 44-58.
- Phares, V. (2003). *Understanding abnormal child psychology*. Hoboken, NJ: Wiley.
- Preacher, K. J., & Hayes, A. F. (2008a). Contemporary approaches to assessing mediation in communication research. In A. F. Hayes, M. D. Slater, & L. B. Snyder (Eds.), *The SAGE sourcebook of advanced data analyses methods for communication research* (pp. 13-54). Thousand Oaks, CA: Sage.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Assessing moderated mediation hypotheses: Theory, method, and prescriptions. *Multivariate Behavioral Research, 42*, 185-227.
- Reinboth, M., & Duda, J. L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise, 7*(3), 269-286.
- Roberts G. C., Treasure D. C., & Conroy D. E. (2007). Understanding the dynamics of motivation in sport and physical activity: an achievement goal interpretation. In G. T. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 3-30). Hoboken, NJ: Wiley.

- Roberts, G. C. (2001). Understanding the dynamics of motivation in physical activity: The influence of achievement goals on motivational processes. In Roberts, G. C. (Ed.), *Advances in Motivation in Sport and Exercise* (pp. 1–50). Champaign, IL: Human Kinetics.
- Roberts, G. C. (2006). Reflections on 25 years of achievement goal theory. In: F. Boen, B. De Cuyper, & J. Opdenacker (Eds.), *Current research topics in exercise and sport psychology in Europe* (pp. 91–105). Leuven, Belgium: Lannoo Campus.
- Schraedley, P. K., Gotlib, I. H., & Hayward, C. (1999). Gender differences in correlates of depressive symptoms in adolescents. *Journal of Adolescent Health, 25*, 98–108.
- Sears, R. R., Maccoby, E. E., & Levin, H. (1957). *Patterns of child rearing*. Oxford, England: Row, Peterson, and Co.
- Seiffge-Krene, I., & Kollmar, F. (1998). Discrepancies between mothers' and fathers' perceptions of sons' and daughters' problem behavior: A longitudinal analysis of parent-adolescent agreement on internalizing and externalizing Problem behavior. *Journal of Child Psychology and Psychiatry, 39*, 687-69.
- Seigel, R., & Ehrlich, A. (1989). A comparison of personality characteristics, family relationships, and dmg-taking behavior in low and high socioeconomic status adolescents who are dmg abusers. *Adolescence, 24*, 925-936.
- Shin, D. C. & Johnson D. M., (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research, 5*, 475-492.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*, 422–445.
- Smith, R. E., Smoll, F. L., & Cumming, S. P. (2009). Motivational climate and changes in young athletes' achievement goal orientations. *Motivation and Emotion, 33*(2), 173-183.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology 1982* (pp. 290-312). San Francisco, CA: Jossey-Bass.
- Sobel, M. E. (1986). Some new results direct effects and their standard errors in covariance structure analysis. In N. B. Tuma (Ed.) *Sociological methodology* (pp. 159-186). San Francisco, Jossey-Bass.

- Stone C. A., & Sobel M. E. (1990). The robustness of estimates of total indirect effects in covariance structure models estimated by maximum likelihood. *Psychometrika*, *55*, 337–352.
- Svensson, R. (2003). Gender differences in adolescent drug use: The impact of parental monitoring and peer deviance. *Youth & Society*, *34*, 300-329.
- Thorkildsen, T. (1988). Theories of education among academically precocious adolescents. *Contemporary Educational Psychology*, *13*, 323-330.
- Treasure, D. C., & Roberts, G. C. (1994). Cognitive and affective concomitants of task and ego goal orientations during the middle school years. *Journal of Sports and Exercise Psychology*, *16*, 15-28.
- Way, N., Stauber, H. Y., Nakkula, M. J., & London, P. (1994). Depression and substance use in two divergent high school cultures: A quantitative and qualitative analysis. *Journal of Youth and Adolescence*, *23*(3), 331-357.
- Yee, D. K., & Eccles, J. S. (1988). Parent perceptions and attributions of children's match achievement. *Sex Roles*, *19*, 317-333.

VITA

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