

CORRELATES OF ACADEMIC ACHIEVEMENT AMONG ADOLESCENTS: A REVIEW OF LITERATURE

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ABSTRACT

Academic achievement is one of the most extensively examined outcomes in educational research, reflecting not only the cognitive competence of students but also the interplay of demographic, familial, institutional, and psychological forces that shape learning across adolescence. This paper synthesizes empirical and theoretical literature on six correlates of academic achievement among adolescents: gender, family environment, parental education and socio-economic status, school environment, achievement motivation, self-efficacy, and life satisfaction. Across decades of research, findings on each of these correlates remain notably mixed. Some studies report a female advantage in academic achievement rooted in study habits and conscientiousness, others report a male advantage in specific domains such as science, and a substantial body of work finds no reliable gender difference at all. Similarly, while a supportive family environment, higher parental education, and a positive school climate are frequently linked to stronger achievement, several well-designed studies report negligible or even inverse associations, suggesting that these relationships are moderated by cultural context, developmental stage, and measurement approach. Achievement motivation and self-efficacy show more consistent positive associations with achievement, congruent with social-cognitive theory, although exceptions persist. Life satisfaction, meanwhile, appears to function as both a correlate and a possible consequence of academic success, with the strength of this relationship varying by sample and culture. The review concludes that academic achievement during adolescence is best understood as the product of interacting personal, familial, and institutional systems rather than any single determinant, and it outlines directions for future research that address the inconsistencies identified across studies.

Keywords: academic achievement, gender differences, family environment, parental education, school environment, achievement motivation, self-efficacy, life satisfaction, adolescents

1. INTRODUCTION

Academic achievement refers to the level of accomplishment or expertise attained by a student in a defined area of scholastic or academic work, and it is generally measured through continuous assessment within educational institutions. As a construct, academic achievement is broad, spanning multiple educational outcomes, and it is widely treated as a principal index of students' overall capacities and potential. It occupies a significant place in the study of education, learning processes, and the harmonious development of children. Because academic achievement is shaped by a range of interacting factors that determine relative success and failure among students, it is necessary to periodically revisit and synthesize the variables that are overtly or covertly associated with adolescents' academic achievement. Accordingly, this paper presents a focused review of the available literature on six variables consistently examined in relation to academic achievement: gender, family environment, parental education and socio-economic status, school environment, achievement motivation, self-efficacy, and life satisfaction.

2. GENDER AND ACADEMIC ACHIEVEMENT

Gender has been defined as “the range of physical, biological, mental and behavioural characteristics pertaining to and differentiating between masculinity and femininity” (Hiag, 2004). Within educational research, gender differences on various academic and psychological variables have long occupied a central place in discussions and investigations worldwide. The relationship between academic achievement and gender is a topic of particular concern for researchers and policymakers, because divergent patterns of achievement between male and female students carry implications for the future distribution of cognitive and occupational roles. This concern has prompted sustained interest among investigators in the field of educational testing.

A number of investigators have reported that male students outperform female students in academic and classroom-based tasks (Pandey & Ahmad, 2008; Udo & Udofia, 2014; Suwopoleme, Sababa & Filgona, 2016). Ekeh (2004) likewise found that male students display stronger performance in science subjects relative to their female counterparts. In contrast, other researchers have found female students to be superior in study skills (Leonard & Jiang, 1999) and to receive higher grades than male students, attributable to greater diligence and regularity in school attendance (Wariner & Steinberg, 1992). Unity and Igbudu (2015) similarly found that female students are more conscientious and exhibit stronger work ethics, along with superior language aptitude, essay composition, vocabulary, and command of language, which together contribute to stronger coursework outcomes. A substantial body of research has accordingly found girls to be superior to boys on measures of academic achievement (Eccles, 2002; Codjoe, 2007; Joshi & Srivastava, 2009; Kaur, 2013; Mimrot, 2016; Nnamani & Oyibe, 2016).

Between these two positions, a considerable number of investigators have reported no significant gender differences in academic achievement, instead supporting the view that boys and girls possess broadly equal potential to succeed academically (Herbert & Stipek, 2005; Udo & Udofia, 2006; Wambugu & Changeiywo, 2008; Udo, 2010, 2011; Lawrence, 2012; Gupta, Devi & Pasrija, 2012; Chandra & Azimuddin, 2013; Chetri, 2014; Gupta, 2014; Shafeeq & Tazeen, 2015; Lamidi, Oyelekan & Olorundare, 2015; Bala & Shaafiu, 2016). Taken together, the literature on gender and academic achievement remains genuinely divided, with roughly equal support for a male advantage, a female advantage, and no meaningful difference, suggesting that any gender effect is likely conditioned by subject area, cultural context, and the specific measure of achievement employed.

3. FAMILY ENVIRONMENT AND ACADEMIC ACHIEVEMENT

Family environment refers to the conditions and social circumstances that characterize family life. No two family environments are identical, since each family is composed of distinct individuals operating under distinct familial arrangements. As an intense and continuous source of influence on children, family environment can either enhance or impede academic achievement, and it exerts a marked influence on students' achievement levels (Hoover-Dempsey, Walker, Sandler, Whetsel & Closson, 2005). Researchers have repeatedly examined the dynamics linking family environment to academic achievement.

Atkinson and Feather (1966) observed that children raised in favourable home environments display a higher need for achievement, whereas unfavourable, negligent, and disorderly family environments can exert a deleterious effect on students' academic achievement (Christiansen & Herrera, 1975). According to Muola (2010), the home environment encompasses all the conditions, stimulations, and situations capable of influencing a child's

physical, cognitive, and affective development. Barbara (1982) argued that the initial experiences children encounter at home shape both their acquisition of skills and their subsequent level of academic achievement at school, underscoring the importance of raising children with care and unconditional love to instill trust, security, and optimism. Family conditions and values carry strong weight for children's cognitive development, and family environment consequently exerts a substantial influence on students' academic performance (Lchado, 1998).

Family environment can also be understood as a structure of interactions and associations among parents, children, and other family members. Bank, Dishion, Skinner and Patterson (1990) found that parents exert a prominent influence on the persistence and educational success of their children, and parental encouragement has shown a consistent, significant association with children's academic achievement (Dubois, Eitel & Felner, 1994). The influence of family practices on academic success appears to change across development, exerting its strongest effect during elementary schooling (Singh, Bickley, Trivette, Keith, Keith & Anderson, 1995); nevertheless, adolescents continue to require supervision and support from parents and teachers even as they seek greater autonomy amid the many concurrent changes of this developmental period. During adolescence, the parent-child relationship tends to shift in terms of time spent together and in the balance between dependency and shared responsibility, with parents continuing to play a central role in providing secure attachment. Parenting style is consistently linked to students' academic success: rejection and negligence from parents are associated with poorer academic achievement, whereas encouraging and attentive parenting (Eamon, 2005) and meaningful parental supervision (Sanders & Epstein, 2000) are positively associated with academic achievement and future success. Parental expectations, constant encouragement, and the promotion of learning opportunities at home are similarly linked to students' aspirations and achievement (Catsambis, 2001), and active parental involvement enhances students' perceived competence, school performance, and strength of achievement motivation. Several studies confirm a significant positive relationship between parental encouragement and academic success (Lakshmi & Arora, 2006; Codjoe, 2007), whereas lower parental expectations and diminished parental support are associated with weaker educational engagement and lower self-perceived academic ability (Vanlaar & Sidanius, 2001). Majoribanks (2005) found that the independence and conflict dimensions of the family environment scale predicted academic achievement, with girls scoring higher on cohesion and boys perceiving more conflict within the family; in contrast, Bansal (2016) reported no significant gender differences on the family environment scale, suggesting that boys and girls may perceive their family environment similarly.

Home conditions more broadly affect an individual's life outcomes (Ajila & Olutola, 2000) and play a vital role in students' overall development. Family involvement in literacy activities at home has been linked to students' academic success, particularly through early childhood literacy exposure. Goel (2004) identified home environment as an important factor for children's educational aspirations, finding that girls with high educational aspirations experienced greater nurturance at home than boys, who reported feeling more rejected. Mishra and Bamba (2012) found a significant positive relationship between children's perception of their family environment and their school and academic achievement; high academic achievers tend to be better adjusted and more independent than low achievers, who are more often characterized by maladjustment. Consistent with these findings, several investigators have reported a significant positive relationship between family environment and academic attainment (Daulta, 2008; Grewal, 2014; Jayanthi & Srinivasan, 2015), and

parental involvement has repeatedly been identified as a positive contributor to academic achievement (Kim, 2002; Ahuja & Goyal, 2005; Jeynes, 2007; Harris & Goodall, 2008; Adetayo & Kiadese, 2011).

Not all findings converge on a positive relationship, however. Christenson, Rounds and Gorney (1992) found that the parent-child relationship had no meaningful influence on academic achievement, possibly because parental and family involvement tends to decline during middle and high school as adolescents seek greater independence (Jessor, 1993). Mau (1997) similarly found that among Asian students, parental encouragement was negatively associated with achievement, while Okpala, Okpala and Smith (2001) and Koskei (2014) found no association between parental involvement and academic achievement. Halawah (2006) reported a significant but only modest relationship between family environment and academic achievement, and Muola (2010) found a significant positive relationship between parental occupation and achievement motivation but no significant relationship between parental encouragement and achievement motivation. Barmola (2013) and Shafeeq and Tazeen (2015) likewise reported no significant association between family environment and academic performance, possibly because adolescents place greater weight on their own study strategies than on parental experience, alongside generational differences between parents and children.

4. PARENTAL EDUCATION, SOCIO-ECONOMIC STATUS, AND ACADEMIC ACHIEVEMENT

Children of educated mothers tend to hold a more affirmative outlook on life and enjoy several advantages over children of less-educated mothers (Shaw, 1964). A mother's own academic success and educational qualification facilitate the transmission of knowledge to her children (Kellaghan, 1977), and educated parents generally hold higher expectations for their children's education, which promotes greater academic achievement (Alexander, Entwisle & Bedinger, 1994). Jubber (1990) similarly found that a mother's academic qualification has a prominent effect on children's educational accomplishments, with sixty percent of higher-performing children in his sample reporting educated mothers.

Desimone (1999) found that parental socio-economic status is significantly and positively related to parental involvement in a child's education, with more educated parents typically more involved than less-educated parents. Healthy parental involvement promotes educational accomplishment (Hoff, 2003; Hill & Craft, 2003; Barnard, 2004; Bower, 2011) by enhancing students' self-confidence, positive attitudes, and acquisition of new skills, a pattern corroborated by subsequent research (Farooq, Chaudhary, Shafiq & Berhanu, 2011; Vellymalay, 2012; Algaho & Algahi, 2015). Parental educational qualification is often treated as the most stable indicator of family socio-economic status, since it is typically fixed early in life and tends to remain constant thereafter (Sirin, 2005). Ermish and Francesconi (2002) established a significant association between paternal income and children's educational attainment, and Benner and Mistry (2007) found that parents of higher socio-economic status hold higher expectations for their children's educational careers, which in turn shapes both students' achievement and their own perceptions of academic success. Acharya and Shobhna (2009) and Karupa (2013) similarly reported that parental educational and occupational level is significantly associated with adolescents' achievement motivation, and multiple studies confirm that children of educated parents outperform children of uneducated parents (Devi & Kiran, 2002; Tavani & Losh, 2003; Muola, 2010; Sharma & Khatoon, 2011; Alokhan, Osakinle & Onijingin, 2013).

Parental education exerts a deep influence on children's academic accomplishments, as educated parents are better positioned to provide the cultural and social resources that further promote school success (Bourdieu, 1986). Consistent with this, Steinmayr, Dinger and Spinath (2012) found that educated parents motivate their children to excel academically to a greater extent than less-educated parents.

5. SCHOOL ENVIRONMENT AND ACADEMIC ACHIEVEMENT

School environment comprises both the physical and aesthetic setting of a school and its underlying psychosocial culture. Crosnoe, Monica and Glen (2004) describe it as “the general atmosphere of school.” School environment exerts a significant influence on students' learning and development, encompassing their social, emotional, and ethical growth. When schools and school authorities are supportive and caring, students become more actively engaged in school activities and are less likely to engage in anti-social behaviours such as substance abuse or violence. Academic achievement therefore depends substantially on the environment schools provide (Barry, 2005), with supportive schools fostering positive outcomes by promoting students' sense of connectedness and belonging. Sustained, attentive engagement in schooling is essential for students to acquire the knowledge and skills required for successful transitions into post-secondary education and academic careers (Wang & Eccles, 2012a, 2012b).

Students' positive involvement with school is influenced by the extent to which their psychological needs are met within the school setting (Connell & Wellborn, 1991; Deci & Ryan, 2000; Krapp, 2005), pointing to a significant relationship between teacher commitment and student achievement. Schools that provide stimulating and encouraging activities furnish students with information relevant to their sense of competence, their engagement with the school environment, and their self-sufficiency as learners, all of which support the development of personal and social identity (Connell & Wellborn, 1991); conversely, dissatisfaction of students' psychological needs at school is associated with reduced academic motivation, interest, engagement, and performance (Roeser, Eccles & Sameroff, 1998). When students perceive that teachers and peers care for and respect them, their confidence and belief in their own academic abilities is strengthened (Goodenow, 1993; Murdock & Miller, 2003), which in turn supports stronger academic performance. Skinner and Belmont (1993) found that lower-performing students require greater structure and support, which is best provided through clear, predictable teacher expectations and straightforward instructional strategies. Teachers who successfully connect with their students foster a positive academic self-concept and constructive school behaviour, whereas teachers who fail to provide clear structure and impose meaningless or uninteresting activities hinder students' positive development (Roeser, Eccles & Sameroff, 1998; Assor, Kaplan & Roth, 2002). Teacher characteristics have consistently been identified as strong determinants of students' overall performance in secondary schools (Adu & Olatundun, 2007), and student attitudes are correspondingly linked to teacher characteristics (Adesoji & Olatunbosun, 2008); teachers' experience and educational qualifications are considered prime predictors of student achievement (Adeyemi, 2010; Yala & Wanjohi, 2011).

Skinner and Belmont (1993) further found that students' need for competence is met when they understand how to achieve desired outcomes effectively, an understanding shaped by their positive engagement at school. The relationship between adolescents' psychological needs and their school environment exerts considerable influence on both motivation and school involvement (Alonso-Tapia & Pardo, 2006; Wigfield, Eccles, Davis-Kean, Roeser & Schiefele, 2006; Skinner, Furrer, Marchand & Kindermann, 2008), and students' involvement

in school activities depends substantially on the opportunities their teachers provide (Eccles & Wigfield, 2002). The Self-Determination and Stage-Environment Fit theories jointly propose that school engagement is best explained through the quality of students' interactions with their learning and academic activities (Skinner & Wellborn, 1994; Deci & Ryan, 2000; Eccles, 2004), with the effectiveness of school characteristics on engagement and motivation varying according to students' academic ability (Elliot, McGregor & Gable, 1999; Pintrich, 2000). Eccles (2007) similarly proposed that achievement-related choices such as school engagement are shaped by students' expectations for success and their subjective evaluation of their own academic work.

Exposure to an ideal learning environment is associated with higher academic achievement: Shamaki (2015) found significant performance differences between students taught in ideal versus dull learning environments, and high-performing schools tend to exhibit a more sympathetic, encouraging climate than low-performing schools (Makewa, Role, Role & Yegoh, 2011). The general climate of the school thus exerts significant influence on academic performance (Sunday, 2012; Orlu, 2013), and students' constructive perceptions of their school environment are linked to greater confidence in their academic self-concept (Vollmeyer & Rheinberg, 2000; Wigfield, Eccles, Schiefele, Roeser & Davis-Kean, 2006). Benipal and Singh (2014) reported a positive relationship between classroom environment and academic achievement among adolescents, with no significant gender differences, while Korir and Kipkemboi (2014) found that school environment and peer influence exert a strong effect on academic performance. Classroom characteristics such as class size, teacher-student relationships, peer interaction, and classroom norms significantly shape students' academic development (Koth, Bradshaw & Leaf, 2008), and Ndiwo, Raburu and Aloka (2016) found a significant positive association between students' reflective practice and academic achievement. Some gender-differentiated patterns have also emerged: Verma and Kumar (1999) found male students scoring higher on classroom environment and achievement, whereas girls reported higher levels of school engagement regardless of engagement type (Johnson, Crosnoe & Elder, 2001; Martin, 2004). Narad and Abdullah (2016) reported a significant positive association between the academic achievement of senior-secondary girls and both parental encouragement and school environment, while Kaur (2017) found that boys scored significantly higher on creative stimulation, acceptance, permissiveness, rejection, and control.

Overall, although school environment and teachers are widely regarded as important influences on academic achievement, other factors also shape students' perceptions, and some researchers have accordingly reported no significant relationship between school environment and academic achievement (Lawrence & Vimala, 2012).

6. ACHIEVEMENT MOTIVATION AND ACADEMIC ACHIEVEMENT

Achievement motivation refers to the strength of the competence beliefs an individual holds regarding success on a given task. Slavin (2006) described it as “what gets one going, keeps one going, and determines where one is to go,” framing it as an attitude oriented toward accomplishing something distinctive rather than achievement in itself. It represents an inner drive that shapes an individual's decisions and direction in pursuit of a desired goal, energizing and directing behaviour toward successful goal accomplishment (Gesinde, 2000). Within the Theory of Goal Setting and Task Performance, Locke and Latham (1990) proposed that more challenging goals stimulate greater motivation, such that higher motivation and compliance among students lead to higher academic accomplishment.

Atkinson (1957) demonstrated that students high in need for achievement show greater potential for success, particularly in self-directed situations, whereas students low in motivation display correspondingly lower achievement. Blank (1997) found that students high in academic motivation achieve more and experience fewer dropouts, and Sparrow (1998) linked motivational level to the structure of an individual's emotional engagement. Cassidy (2000) identified achievement motivation as an important factor in identity formation, and subsequent research has confirmed a positive relationship between achievement motivation and academic achievement, contributing to better organized educational engagement (Abouserie, 1995; Tella, 2007).

High mastery motivation is associated with higher achievement; in academic contexts, motivation is partly explained by students' competency and value beliefs, which appear more malleable than cognitive ability and thus represent a promising lever for improving learning and achievement (Spinath, Spinath, Harlaar & Plomin, 2006). Phillips and Lindsay (2006) argued that the development of high ability and high achievement depends particularly on intrinsic motivation, and Slavin (2006) noted that intrinsically motivated individuals engage in activities out of genuine interest and enjoyment, unlike extrinsically motivated individuals who act primarily for external reward.

The course a student pursues (Upadhya & Tiwari, 2009) and their level of competence (Steinmayr & Spinath, 2009) are both significantly associated with academic success, and individuals high in need for achievement outperform those with lower achievement orientation (Busato, Prins, Elshout & Hanaker, 2000). Academic success can be predicted from achievement motivation (Kolodziej, 2010), and low need for achievement is a primary predictor of poor academic performance (Muola, 2010); several studies confirm a significant positive relationship among motivation, achievement, and success more broadly (Kushman, Sieber & Harold, 2000; Broussard & Garrison, 2004; Sikhwari, 2014).

Early theorists such as Clark and McClelland (1953) emphasized a significant, positive relationship between achievement motivation and academic achievement, a finding replicated across numerous subsequent studies (Lekhi & Kaur, 1995; Ellakakumar & Elankathirselvan, 2001; Meijer & Wittenberg, 2004; Pandey, 2008; Umadevi, 2009; Awan, Noureen & Naz, 2011; Kaur, 2013; Chetri, 2014; Chawla, 2015; Alam, 2017). McEwan and Goldenberg (1999) and Martin and Liem (2010) likewise found achievement motivation to be an important predictor of students' task commitment and academic performance, and Gupta, Devi and Pasrija (2012) found that male and female adolescents with high achievement motivation outperformed peers with lower achievement motivation, a result corroborated by Kaur (2013).

Nonetheless, high motivation does not guarantee achievement, and achievement orientation does not simply replicate motivation (Keefe & Jenkins, 1993); accordingly, several studies have found no significant relationship between achievement motivation and academic achievement (Kalia & Kaur, 1990; Hernandez, 1998; Emmanuel, Adom, Josephine & Solomon, 2014). Onete, Edet, Udey and Ogbor (2012) similarly found that neither academic nor social achievement motivation significantly influenced students' academic achievement.

Personality factors and the strength of achievement motive are considered a primary explanation for gender differences in school achievement (Steinmayr & Spinath, 2008), rooted in differing patterns of socialization and cultural expectations for men and women, which sustain typical sex-role behaviours around motivation and achievement (Meece, Glienke & Burg, 2006). Some researchers have found men to display higher achievement orientation than women (Farmer, 1987; Awasthi, 2002; Adsul, Kamble & Sangli, 2008), and

males have scored higher than females on need for power and need for achievement in TAT-based measures, while females scored higher on need for affiliation (Schultheiss & Brunstein, 2001). Conversely, other researchers have found females higher on achievement motivation than males (Houtulainen & Schofield, 2003; Martin, 2004; Awan, Noureen & Naz, 2011; Shekhar & Devi, 2012; Badola, 2013; Sikhwari, 2014), while still others report no significant gender differences in achievement motive (Ahluwalia, 1985; Kaushik & Rani, 2005; Nagarathanamma & Rao, 2007; Adsul, Kamble & Sangli, 2008; Kaur, 2013; Chetri, 2014).

7. SELF-EFFICACY AND ACADEMIC ACHIEVEMENT

Self-efficacy is defined as “people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986). Wood and Bandura (1989) similarly described it as “belief in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands.” An individual's task preferences, the effort invested, and their persistence all depend on the strength of their self-efficacy beliefs (Bandura, 1977), which shape information processing and performance across a range of settings, including the quality of decision-making and academic success (Bandura, 1997). Perceived self-efficacy and demonstrated learning skills are necessary for high academic performance; Bandura (1989) showed that perceived self-efficacy enhances academic accomplishment both directly and indirectly, by affecting students' personal goals, and further demonstrated that poor performance often results not from a genuine lack of ability but from a lack of belief in one's own potential and capabilities.

According to Bandura (1986), students' need for competence depends on their belief in their own academic capabilities. Bandura and Schunk (1981), Bandura (1986), and Hackett and Betz (1989) found that self-efficacy beliefs influence the choice of and commitment to a task, the effort expended in performing it, and the resulting level of performance; academic self-efficacy shows a significant positive relationship with academic success (Bandura, 1989; Akomolafe, 2010).

Schunk (1991) found that cognitive skills, modelling, feedback, and goal-setting jointly influence self-efficacy beliefs, which in turn affect performance, and Multon, Brown and Lent (1991), in a meta-analysis of 39 self-efficacy studies, found a strong association between self-efficacy and performance among high school and college students, stronger than among younger students. According to Bandura (1993), “a student's belief in their capacity to regulate their own learning and master their academic activities can determine a student's aspirations, level of motivation, and academic achievement.” Self-efficacy shows a significant positive relationship with students' academic goals, satisfaction with obtained grades, and actual achievement (Zimmerman & Bandura, 1994), and Bandura, Barbaranelli, Caprara and Pastorelli (1996) found that a strong sense of perceived self-efficacy produces higher goal aspirations and firmer commitment toward those goals. Students with high self-efficacy are generally more successful in attaining their goals and consequently perform better academically, although Bandolas, Yates and Thorndike-Christ (1995) and Vancouver, Thompson, Tischner and Putka (2002) found no significant difference in task performance between high and low self-efficacy groups.

Bandura (1997) found that a lack of self-efficacious belief leads individuals to avoid higher education altogether, relative to self-efficacious peers, and Pajares (2000) similarly found that students with higher perceived self-efficacy achieve more academically, while less successful, less self-efficacious students tend to avoid tasks they perceive as too difficult. Students with higher academic self-efficacy also pursue broader career options and equip

themselves academically for a wider range of career choices, pursuing these choices with greater persistence (Bandura, Barbaranelli, Caprara & Pastorelli, 2001). Bandura (2002) argued that motivation is rooted in the core belief that one has the power to produce desired effects through one's own actions, without which there is little incentive to act or to persevere in the face of difficulty; Chen (2003) found that self-efficacy strongly influences mathematics performance, and Bandura and Locke (2003) found that individuals with high self-efficacy are more likely to set, and subsequently achieve, challenging goals.

Bryan, Glynn and Kittleson (2011) found that students' intrinsic motivation, self-efficacy beliefs, self-determination, and achievement are all interrelated, and Motlagh, Amrai, Yazdani, Abderahim and Souri (2011) found that academic achievement is strongly influenced by students' self-evaluation, self-direction, and self-regulation, with self-efficacy identified as an important contributing factor. Academic self-efficacy, academic motivation, and academic self-concept are among the main predictors of academic achievement (Akomolafe, Ogunmakin & Fasooto, 2013), a finding corroborated by Klassen, Krawchuk and Rajani (2011); self-assurance, self-capability beliefs, and a clear understanding of the purpose of learning also play a significant role in shaping educational success.

A positive, significant relationship between self-efficacy and academic achievement has been reported across numerous studies (Pintrich & De Groot, 1990; Pajares, 1996; Bandura, 1997; Zimmerman, 2000; Chemers, Hu & Garcia, 2001; Green, Miller, Croson, Duke & Akey, 2004; Sharma & Silberreisen, 2007; Shkullaku, 2013; Tenaw, 2013; Goulao, 2014). Perceived self-efficacy is often considered a stronger predictor of future achievement than past performance itself (Bandura, 1986; Chemers, Hu & Garcia, 2001), and a statistically significant relationship between self-efficacy and performance has been reported across multiple domains (Bates & Khasawneh, 2007; Taipjutorus, Hansen & Brown, 2012; Cascio, Botta & Anzaldi, 2013). By contrast, Jeffreys (1998) found that self-efficacy did not predict academic achievement among non-traditional associate degree nursing students, Zinta (2006) found no relationship between self-efficacy and performance and no gender difference in performance across self-efficacy levels in either rural or urban settings, and Reynold and Weigand (2010) reported similar null findings.

Findings on gender differences in self-efficacy are similarly mixed. Pintrich and De Groot (1990) and Shkullaku (2013) found males higher on self-efficacy than females, whereas Pajares (2002) and Kumar and Lal (2006) found females reporting greater confidence than their male counterparts. Other researchers, including Tenaw (2013), Husain (2014), and Goulao (2014), found no significant gender differences in self-efficacy.

8. LIFE SATISFACTION AND ACADEMIC ACHIEVEMENT

Life satisfaction is conceptualized as “a cognitive, global appraisal that people make when considering their level of contentment with their life as a whole” (Suldo & Huebner, 2006), and as “an individual's overall assessment of his life or some aspects of life” (Diener, Suh, Lucas & Smith, 1999). Global life satisfaction more specifically denotes “a general evaluation of the quality of an individual's life that is over and above judgements of specific domains, e.g. family, friends” (Huebner, 1991). Gilman, Huebner and Laughlin (2000) found that family exerts a strong influence on adolescents' overall life satisfaction, and Csikszentmihalyi and Hunter (2003) argued that a sense of optimism toward oneself is directly related to one's level of contentment and life satisfaction. Life satisfaction is higher when the gap between an individual's actual circumstances and their standard for a satisfactory life is smaller (Diener, Emmons, Larsen & Griffin, 1985), and it also depends on how individuals appraise their daily experiences, problems, challenges, and stressors

(McKnight, Huebner & Suldo, 2002), a construct especially useful for evaluating developmental outcomes such as internal and external behaviour (McKnight, Huebner & Suldo, 2002).

Huebner, Suldo, Smith and McKnight (2004) found a strong association between positive life satisfaction and a personal sense of control over daily life, and adolescents generally show a positive outlook toward their overall life satisfaction (Gilman & Huebner, 2006). McCullough, Huebner and Laughlin (2000) found that adolescents display moderately high life satisfaction during secondary education, although some studies have reported a decline in life satisfaction during adolescence (Goldbeck, Schmitz, Besier, Herschbach & Henrich, 2007). Lewis, Huebner, Malone and Valois (2011) found a significant positive association between students' cognitive engagement and their life satisfaction over time, while Antaramian and Huebner (2009) found that life satisfaction in the first year of study did not reliably predict life satisfaction in the second year.

Students who score higher on life satisfaction display a more positive and constructive approach toward their teachers and school in general (Gilman, Huebner & Laughlin, 2000; Gilman & Huebner, 2006), and researchers have reported a significant positive relationship between academic achievement and life satisfaction (Verkuyten & Thijs, 2002; Kirkcaldy, Furnham & Siefen, 2004; Suldo, Shaffer & Riley, 2008). Adolescents' overall life satisfaction shows a strong association with their satisfaction across family, friends, school, living environment, and self (Seligson, Huebner & Valois, 2003), and students with high life satisfaction are less likely to blame others or attribute unfavourable circumstances to external factors, compared to students with low life satisfaction (Suldo & Huebner, 2004).

A child's relationships with family, school, and friends can shape their school involvement and achievement in either a positive or negative direction (Furrer & Skinner, 2003; Anderson, Carnagey, Flanagan, Benjamin, Eubanks & Valentine, 2004; MacDonald & Marsh, 2004), and contented, satisfied individuals are more likely to achieve desirable life goals across domains such as marriage, peer relationships, health, and career (Lyubomirsky, King & Diener, 2005). Life satisfaction may act as a proxy for positive emotion, given the substantial overlap between the two constructs, and it has been reported as a significant predictor of several constructive life outcomes; Frisch, Clark, Rouse, Rudd, Paweleck and Greenstone (2005) found that GPA and life satisfaction, independently and jointly, predict school dropout one to three years in advance. Rode, Arthaud-Day, Mooney, Near, Baldwin, Bommer and Rubin (2005) likewise found overall life satisfaction to be a prominent determinant of academic achievement, although research specifically on adolescents' life satisfaction in relation to education remains comparatively limited (Suldo, Riley & Shaffer, 2006). Noddings (2003) argued that children's happiness should be regarded as a central aim of schooling, though research on children's and adolescents' happiness remains less extensive than research on adult happiness, particularly with respect to school contexts.

In today's society, where academic accomplishments and failures shape an individual's future career prospects (Kadison & DiGeronimo, 2004; Rana & Mahmood, 2010), students with higher life satisfaction tend to achieve higher GPAs than students with lower life satisfaction (Gilman & Huebner, 2006). Life satisfaction is also associated with students' perceptions of school-based support: youth reporting high life satisfaction are more likely to perceive that adults and peers support their academic endeavours (Nevin, Carr, Shevlin, Dooley & Breaden, 2005; Suldo & Huebner, 2006; Suldo & Shaffer, 2008), and their interpersonal relationships with peers and adults strengthen their achievement motivation (Hall-Lande, Eisenberg, Christenson & Neumark-Sztainer, 2007; Nelson & DeBacker, 2008). The culture

of a school and students' relationships with teachers and peer groups play a prominent role in shaping their happiness and general wellbeing.

Suldo, Shaffer and Riley (2008) found that students' subjective wellbeing is closely tied to their educational functioning, and Shirmohammadi, Micaeli and Zare (2010) identified life satisfaction as the strongest predictor of academic performance among the variables they examined; school performance accordingly shows a significant relationship with students' life satisfaction (Crowley, Hayslip & Hobdy, 2003; Desjardins, Zelenski & Coplan, 2008; Matejevic, Jovanovic & Jovanovic, 2014; Abdi, Yasavoli & Yasavoli, 2015), although Gilman and Huebner (2006) and Suldo and Shaffer (2008) reported only a moderate association between the two constructs.

By contrast, Huebner (1991) and Huebner and Alderman (1993) found no significant relationship between academic achievement and life satisfaction across numerous cross-sectional studies, and other researchers have likewise reported an insignificant association between the two (Bradley & Corwyn, 2004; Huebner, 1991; Malika, Nordin, Zakaria & Sirun, 2012; Huebner & Alderman, 1993). Bradley and Corwyn (2004) noted that this null relationship, while somewhat surprising, may reflect the role of interests and goals outside academics that adolescents commonly hold; educational attainment, though generally valued, is not equally prioritized by all students.

Although people broadly agree on the importance of variables such as good health and successful relationships for a good life, they may weight these variables quite differently, and cultural differences further shape life satisfaction. Collective societies emphasize group goals over individual interests, whereas individualist societies emphasize personal goals over group goals (Triandis, 1989), such that cultural diversity produces divergent evaluations of life satisfaction. Despite extensive research on adult life satisfaction, research on children's and adolescents' life satisfaction remains comparatively limited, in part because of the scarcity of age-appropriate measures of subjective wellbeing (Huebner, 1997).

On gender, males and females appear to report broadly equivalent levels of life satisfaction (Diener, Suh, Lucas & Smith, 1999), and several researchers have found no significant gender differences in life satisfaction (Huebner, 2004; Casas, Figuer, Gonzalez, Malo, Alsinet & Subarroca, 2007; Froh, Yurkewicz & Kashdan, 2009). Others, however, report higher life satisfaction among males (Dost, 2007; Goldbeck, Schmitz, Besier, Herschbach & Henrich, 2007), while Al-Attayah and Nasser (2013) found higher life satisfaction among females, and female students have also reported greater school satisfaction than male students (Epstein, 1981; Okun, Braver & Weir, 1990). Al-Attayah and Nasser (2013) suggested that boys are less satisfied with school than girls because they tend to develop less favourable relationships with classmates and place greater emphasis on independence, whereas girls give more weight to their relationships with others (Cross & Madson, 1997). Consistent with this, male students have reported more peer victimization than female students (Whitney & Smith, 1993; Smith & Shu, 2000), which may similarly reflect boys' emphasis on independence relative to girls' emphasis on relational connectedness.

The literature reviewed above shows that adolescents' academic achievement is embedded within a network of familial, institutional, and personality-based influences, including achievement motivation and self-efficacy, which together shape learning outcomes across development. A recurring pattern across all six domains reviewed here is inconsistency: for every study reporting a significant positive relationship between a given correlate and academic achievement, another reports a null or even inverse finding. This pattern is unlikely to reflect simple methodological noise. It more plausibly indicates that the relationships in

question are moderated by variables not always measured or reported, including students' developmental stage, the cultural and socio-economic context of the sample, the specific instruments used to operationalize each construct, and the subject domain in which achievement is assessed.

Two domains stand out as comparatively more consistent than the others: achievement motivation and self-efficacy. Both are grounded in social-cognitive theory, which offers a coherent mechanism, namely that beliefs about one's competence and the value of a goal shape the effort, persistence, and strategy a student applies to academic tasks, and this mechanism appears to generalize reasonably well across the studies reviewed. Gender differences, in contrast, appear to be the least consistent of all the correlates reviewed, with the literature offering nearly equal support for male advantage, female advantage, and no difference at all. This suggests that where gender differences in achievement do emerge, they are more likely to reflect socialization patterns, subject-specific stereotypes, or contextual factors specific to a given educational system than any general or biologically fixed difference in capability.

Family environment, parental education, and school environment share a similar pattern: a majority of studies find these variables positively associated with achievement, consistent with theoretical accounts emphasizing the role of parental involvement, resource transmission, and school climate in shaping student outcomes, yet a meaningful minority of well-designed studies find no such association, particularly once adolescents' developmental push toward autonomy is taken into account. Life satisfaction occupies a distinct position in this literature, functioning plausibly as both an antecedent and a consequence of academic achievement, and its relationship with achievement appears to be shaped substantially by cultural values regarding the place of academic success within a well-lived life.

CONCLUSION AND SUGGESTIONS

The literature reviewed above shows that adolescents' academic achievement is embedded within a network of familial, institutional, and personality-based influences, including achievement motivation and self-efficacy, which together shape learning outcomes across development. A recurring pattern across all six domains reviewed here is inconsistency: for every study reporting a significant positive relationship between a given correlate and academic achievement, another reports a null or even inverse finding. This pattern is unlikely to reflect simple methodological noise. It more plausibly indicates that the relationships in question are moderated by variables not always measured or reported, including students' developmental stage, the cultural and socio-economic context of the sample, the specific instruments used to operationalize each construct, and the subject domain in which achievement is assessed.

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This review indicates that academic achievement among adolescents cannot be attributed to any single determinant. Instead, it emerges from the interaction of family environment, parental education and socio-economic status, school environment, gender-related socialization, and the more individually rooted constructs of achievement motivation, self-efficacy, and life satisfaction. Any negligence on the part of family, school, teachers, or the broader environment supporting personality development may consequently carry a detrimental impact on students' academic progress.

Future research would benefit from several directions suggested by the inconsistencies identified in this review. First, studies should more consistently report and test for moderating variables, such as developmental stage, socio-economic context, and cultural setting, that may explain divergent findings across the literature. Second, greater use of longitudinal designs would help clarify the direction of relationships that are currently treated as correlational, particularly between academic achievement and life satisfaction. Third, cross-cultural replication of key findings, especially those concerning gender and family environment, would help determine which patterns generalize across educational systems and which are context specific. Finally, given the comparatively stronger and more consistent findings for achievement motivation and self-efficacy, intervention research that targets these malleable, social-cognitive beliefs may offer a more reliable route to improving academic outcomes than interventions aimed at less consistently supported correlates.

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