Factors Associated With Life Satisfaction in Adolescents: Implications for Families and Schools

Marilyn Price-Mitchell and Brett Clay

Abstract

Research shows a decline in U.S. adolescent mental health over several decades. It also suggests that higher levels of life satisfaction lead to better mental health outcomes in this population. The purpose of this study was to investigate correlations between adolescent life satisfaction and eight developmental attributes that can be fostered by families and educators—curiosity, creativity, empathy, integrity, resilience, resourcefulness, self-awareness, and sociability. Correlations were also examined for grade-point average (GPA), gender, and grade level. The study hypothesized that young people who rated themselves highly on the eight developmental attributes would also score higher in life satisfaction, regardless of GPA. Quantitative survey research was used to investigate the correlations between these constructs and life satisfaction in U.S. eighth and ninth graders (N = 602) attending public schools in two Midwestern states. Self-awareness, resilience, and resourcefulness were most highly correlated with life satisfaction. Moderately strong correlations were obtained for sociability, curiosity, and integrity. GPA and empathy were the lowest correlates of life satisfaction among measured factors. Adolescent males were almost twice as likely to report very high life satisfaction compared to their female counterparts. These findings should expand the goals of family–school partnerships beyond raising academic performance to insure that all children enjoy the relationships and relational experiences that help them attain life satisfaction and more positive mental health outcomes.

Key Words: positive youth development, adolescence, high school students, middle school students, teachers, parents, youth mentors, adolescent mental health, developmental equity

Introduction

For several decades, encouraging outcomes have been linked to social–emotional learning (SEL) curriculum in U.S. schools (Domitrovich et al., 2017; Durlak et al., 2011; Mahoney et al., 2020). However, during the same period, adolescents have shown a significant decline in mental health. Studies show the major effects of anxiety, depression, substance use, and other mental health issues on middle and high school students, often impairing academic performance, social relationships, and emotional well-being (McLeod et al., 2012; Twenge et al., 2019). Suicide, the third leading cause of death among 14- to 18-year-olds, surges among adolescent females and students of color, as do rates of suicidal ideation and attempts (Gaylor et al., 2021). While it is imperative to respond to mental health issues through early identification, school-based mental health services, and relational support (Atkins et al., 2010; García-Carrión et al., 2019), preventative developmental support from families and educators is also critical toward addressing mental health issues in American schools.

Research suggests that when adolescents have higher levels of life satisfaction, they have better mental health outcomes. This includes lower levels of depressive symptoms, anxiety, and social difficulties (Gilman & Huebner, 2006; Huebner et al., 2004). Life satisfaction is also key to positive outcomes in adulthood, such as higher earnings, improved physical health, and longevity (DeNeve et al., 2013; Willroth et al., 2020). It is vital, therefore, to identify developmental attributes most associated with life satisfaction during childhood and adolescence. Then, these attributes can be more purposefully fostered by the combined and systemic efforts of families, schools, and communities.

The purpose of this study is to explore the relationship between life satisfaction and eight developmental constructs—curiosity, creativity, empathy, integrity, resilience, resourcefulness, self-awareness, and sociability—to better understand linkages that can improve teen mental health and well-being. Using cross-sectional, quantitative survey research, we explored whether practicing behaviors related to these constructs in daily life correlates positively with life satisfaction in adolescence. Additionally, we examined the correlations between life satisfaction and three factors: (a) grade-point average (GPA), (b) gender, and (c) grade level.

Psychological well-being, an all-inclusive term that incorporates subjective well-being (Diener et al., 2017), refers to a "combination of feeling good as well as actually having meaning, good relationships, and accomplishment" (Seligman, 2011, p. 25). Su et al. (2014) proposed seven core dimensions of psychological well-being. The first of these is in the form of high life satisfaction, defined in the literature as "the degree to which a person evaluates the overall quality of his or her present life-as-a-whole positively" (Veenhoven, 2015, p. 6) based on both affective and cognitive information (Veenhoven, 2009). Life satisfaction is considered integral to well-being. Measuring life satisfaction is a reliable way of measuring subjective well-being (Diener et al., 2010; Veenhoven, 2012).

In general, the eight developmental constructs examined in this study are human attributes that emerge and develop over time, often woven through stages of development (Erikson, 1968). Unlike more stable personality traits, developmental attributes strengthen as they are nurtured by positive relationships and relational experiences (Cozolino, 2006). Research that expands our understanding of how specific developmental constructs improve adolescent life satisfaction is limited. This study bridges an important gap in the literature, draws on previous research, and uses established methods of measuring life satisfaction. Findings provide critical information for families, schools, and communities toward the goal of improving students' development, mental health, and well-being during their formative years.

Attributes That Promote Thriving and Well-Being

Researchers have identified a variety of human attributes related to human thriving, particularly those that can better equip individuals to serve self, others, and community—a core foundation of civil society (Lerner et al., 2003). Peterson and Seligman (2004), for instance, classified 26 character traits and six virtues associated with thriving, and thousands of studies have examined how these and other attributes contribute to health, well-being, and life satisfaction. Researchers examining human thriving across the lifespan conceptualize the term as a growth-oriented, developmental process (See, e.g., Benson & Scales, 2009; Bundick et al., 2010; Lerner et al., 2003).

The current study builds upon Price-Mitchell's (2010b, 2015) qualitative study with civically engaged youth. Her research suggests eight attributes—curiosity, creativity, empathy, integrity, resilience, resourcefulness, self-awareness, sociability—were observable in highly successful youth prior to the end of high school. These attributes were fostered by

relationships with supportive adult mentors, including parents, educators, extended family, and afterschool program leaders. These findings support theory and research that point to the critical role of positive relationships to a young person's development, academic success, and psychological well-being (Bronfenbrenner & Morris, 2006; Cozolino, 2006, 2013; Siegel, 2020; Vygotsky, 1962). Using Price-Mitchell's eight constructs as a conceptual framework, the current study seeks to understand the importance of these constructs to a young person's attainment of high life satisfaction.

Literature Review

The constructs in this study have been widely investigated by researchers. Most often, they have been studied individually rather than examined in a group. Conceptualizations of constructs vary by discipline and are often ill-defined. Because developmental constructs are abstract entities that represent behaviors, internal processes, and individual characteristics, it was critical for this study to clearly define each construct, including its value to individuals and society, prior to designing a survey. We relied on research in the following literature review that describes common behaviors of individuals who demonstrated these eight developmental attributes. This literature informed the conceptualizations of each construct and design of scales used for measurement.

Creativity

We conceptualize creativity as an everyday human capacity to produce new ideas, discoveries, and processes. Creativity has been defined and studied from multidisciplinary perspectives, including cognitive psychology (Ward et al., 1999), motivation (Collins & Amabile, 1999), personality (Feist, 2010; King et al., 1996), and systems theory (Csikszentmihalyi, 1999). The focus of everyday creativity is on the diverse ways individuals engage in activities that use their creative minds (Conner et al., 2018; Cotter et al., 2018).

Creativity has been linked to human flourishing for its ability to connect individuals with life's meaning, a theme that underscores much of human inquiry (Wright & Pascoe, 2015). Individuals who engage their creative abilities tend to respond more effectively to change, becoming more adaptable, flexible, and responsive to life circumstances (Bruner, 1993). For society, creativity and innovation are vital to solving multidisciplinary global problems (Ahlstrom, 2010).

The current study assesses behaviors and beliefs that have been recognized by researchers as representative of individuals who demonstrate everyday creativity. These include one's self-efficacy for generating new and

innovative ways of doing things (Karwowski & Beghetto, 2019), ability to appreciate artistic expression by others (Wright & Pascoe, 2015), and views about one's creative abilities (Putwain et al., 2012).

Curiosity

We conceptualize curiosity as a human desire to seek and acquire new knowledge, skills, and ways of understanding the world. A subject of inquiry in multidisciplinary fields, curiosity has been viewed as a mental state (Inan, 2012), an emotion (Brady, 2009; Silvia, 2008b), and an intellectual or moral virtue (Baehr, 2011; Baumgarten, 2001; Peterson & Seligman, 2004).

Most contemporary scientists view curiosity as a basic element of cognition, a motivator of individual learning and decision making, and a vital force to human development and well-being (Kang et al., 2009; Kidd & Hayden, 2015; Park et al., 2004; von Stumm et al., 2011). The benefits of curiosity have mostly been observed in individuals, but healthy outcomes for society have also been noted, including tolerance of uncertainty, positive emotions, humor, out-of-the-box thinking, creative innovation, and positive social action (Celik et al., 2016; Clark & Seider, 2017; Kashdan et al., 2013).

The current study assesses behaviors and attitudes that have been linked to the aspects of curiosity that Kashdan et al. (2020) defines as joyous exploration and stress tolerance. The pleasurable experience of finding the world intriguing has been linked to a love of learning and a fascination with acquiring new knowledge and abilities (Kashdan & Silvia, 2009; Park et al., 2004; Schutte & Malouff, 2020). Curious individuals must also believe they can cope with high levels of challenge, complexity, and uncertainty (Silvia, 2008a). These aspects of curiosity mirrored the information-seeking behaviors of purpose-driven young people (Price-Mitchell, 2010b, 2015).

Empathy

We conceptualize empathy as the ability to recognize and respond to the needs and suffering of others. A complex, multifaceted construct, theorists agree that there are affective and cognitive aspects to empathy (Davis, 1983; Deutsch & Madle, 1975) and that empathy is related to prosocial behavior and altruism (Batson, 2010; de Waal, 2008; Eisenberg et al., 2007; Hoffman, 2008). Slote (2001, 2004) argued that empathy is foundational to a person's ability to care for others, and research suggests empathy can be measured by assessing one's intentions to behave in caring, prosocial ways (Batson, 2011; Batson & Shaw, 1991; Baumsteiger & Siegel, 2019; Zaki, 2014).

Research in human development and social neuroscience suggests empathy benefits individuals by fostering positive interpersonal relationships

(Batson et al., 2015; Cozolino, 2006; Decety & Svetlova, 2012). It has also been shown to facilitate greater cooperation and less conflict within social or work-related groups (Cikara & Van Bavel, 2014) and to benefit society through altruistic, caring actions (Batson et al., 2015).

The current study focuses on a person's motivation to care for the well-being of others (Decety, 2015). It measures empathy by assessing one's intent to behave in caring, prosocial ways. This more narrow, cognitive measure of empathy is supported by literature and helped us focus on empathy's outcome rather than the psychological complexities that underlie the construct. The study's focus on caring actions also supported behaviors observed in civically engaged youth (Price-Mitchell, 2010b).

Integrity

We conceptualize integrity as an ability to act in ways consistent with the values, beliefs, and moral principles that one holds. Integrity is derived from the Latin word *integritas*, meaning wholeness. Rogers (1961) described psychological integrity, or congruence, as a time when an individual's feelings "are available to him, available to his awareness, and he is able to live these feelings, be them, and is able to communicate them if appropriate" (p. 61). Peterson and Seligman (2004) classified integrity as a character strength and virtue and linked it to moral courage, honesty, responsibility, authenticity, and trustworthiness.

Integrity has inherent value to self and society. In contemporary literature, it has been shown to include both moral and psychological aspects of self that help individuals integrate values and actions across the lifespan (Cottingham, 2010; Cox et al., 2003). It has also been associated with self-actualization and positive interpersonal outcomes (Peterson & Seligman, 2004). For society, perceived integrity has been shown to have a strong positive relationship to transformative leadership (Parry & Proctor-Thomson, 2002).

The current study assesses three types of behaviors that have been recognized by researchers as representative of individuals who demonstrate integrity. These behaviors include displaying consistency of words and actions (Palanski & Yammarino, 2007; Simons, 2002); being true to oneself; and showing moral/ethical behaviors, like honesty and moral courage (Peterson & Seligman, 2004).

Resilience

We conceptualize resilience as an individual's psychological capacity for positive adaptation despite adversity. Historically, the study of resilience has been the purview of developmental researchers who have worked on

identifying protective factors that promote resilience in children, particularly in at-risk populations (Luthar, 2015). Some theorists link resilience to aspects of personality like hardiness and ego resilience, a trait that reflects general sturdiness of character (Eisenberg et al., 2004). Resilience in adulthood has been studied far less than in childhood, but a growing body of research links resilience to positive adaptation throughout the life span (Ong et al., 2009; Snyder & Lopez, 2002).

Developmental researchers have mainly studied resilience in individuals. But resilience has also been shown to be integral to all social systems, including schools (Goldstein & Brooks, 2007), families (Patterson, 2002), organizations (Duchek & Raetze, 2017), and society (Walker, 2019). Individual resilience is improved when children and adults are members of those adaptive family, social, and cultural systems (Masten & Obradovic, 2006).

The current study assesses the behaviors and feelings recognized in the literature as representative of individuals who demonstrate psychological resiliency. Resilient people express feelings of hope, optimism, and faith about their futures (Ong et al., 2006; Taylor et al., 2000); convey positive emotions during difficult times (Cohn et al., 2009; Folkman & Moskowitz, 2000; Ong et al., 2009); and value social connectedness as a means of support when life is challenging (Ryff, 2014; Ryff & Singer, 2003).

Resourcefulness

We conceptualize resourcefulness as an ability to find and use available resources to problem-solve, achieve goals, and shape the future. The literature on resourcefulness focuses on a common theme—the processes by which individuals achieve goals. Several threads of research contribute to understanding why some individuals accomplish their highest goals despite challenges while others encounter unending setbacks. In his theory of learned resourcefulness, Rosenbaum (1990, 2000) suggested that a repertoire of mastery behaviors that included planning, problem-solving, and evaluation help individuals attain higher levels of achievement. Dweck (1999) suggested that an individual's beliefs about intelligence guide their goal-setting and corresponding performance. She described this belief as a growth mindset (Dweck, 2006).

The benefits of human resourcefulness are many. It has been associated with adaptation to new and challenging situations and linked to more positive health outcomes (Zauszniewski & Bekhet, 2011). Resourcefulness helps students mitigate academic stress and depression (Akgun & Ciarrochi, 2003). For society, resourcefulness is key to achieving social innovation through the capacity of communities to engage in collaborative goal setting and problem solving (Ulug & Horlings, 2019).

Similar to Kennett and Keefer's (2006) integrated approach to evaluating resourcefulness, the current study draws from both Rosenbaum's and Dweck's work. It assesses three types of behavior and/or beliefs of resourceful individuals: they enjoy achieving goals despite challenges (Dweck, 1999, 2006), monitor and evaluate their goals, and employ problem-solving strategies (Rosenbaum, 1990).

Self-Awareness

We conceptualize self-awareness as an ability to examine and understand oneself relative to one's surrounding environment. The human ability to self-focus—to shift attention from one's environment to oneself and vice versa—has been a focal point of multidisciplinary research for decades (Duval & Wicklund, 1972). It is generally agreed that self-focus has private and public dimensions that can be viewed from both a dispositional and situational perspective (Fenigstein et al., 1975). Dispositional self-focus is often referred to as self-consciousness and is considered a relatively stable personality trait. Situational self-focus and reflection, the constructs used in the current study, are most often labeled self-awareness and considered more momentary and short-lived (Carver & Glass, 1976). Yet, despite its transitory nature, situational self-reflection and awareness has been shown to be essential for positive development, particularly during challenging periods of time (Ardelt & Grunwald, 2018).

Self-awareness is a tool for monitoring and adjusting one's behavior and beliefs about the world, both within oneself and between others (Lou, 2015). It has been linked to greater emotional intelligence (Serrat, 2017); an ability to make meaning from life experiences (Gardner et al., 2005); self-efficacy (Caldwell & Hayes, 2016); and the development of mindfulness, self-compassion, and gratitude (McGehee et al., 2017). Self-awareness and reflective thinking contribute to society in many ways, including the ability to understand other's worldviews, co-create new relationships between diverse groups (Yan & Wong, 2005), and become an effective organizational and societal leader (Gardner et al., 2005).

The current study assesses the private and public behaviors and beliefs that have been recognized as representative of individuals who demonstrate self-awareness. In addition to the above references, self-aware individuals understand their strengths and weaknesses, reflect on their life experiences, and can identify connections between their emotions, words, and actions (Serrat, 2017). They also work hard to understand their values (Gardner et al., 2005) and life purpose, and they believe in themselves (Caldwell & Hayes, 2016).

Sociability

We conceptualize sociability as the capacity to understand and express feelings and behaviors that facilitate positive relationships. A multidimensional construct used in numerous lines of inquiry, researchers recognize its association with positive emotions and social competencies in children and adults (Eid et al., 2003; Wilmot et al., 2019). The brain's social engagement system has helped researchers better understand how relationships are formed through the interplay of behavior and emotions (Porges, 2011). From an early age, the ability to foster positive relationships is a core aspect of SEL and central to adult development (Dusenbury et al., 2015). While sociability can be considered a personality or dispositional trait (Cheek & Buss, 1981; Goldberg, 1990; Harari et al., 2019), our focus is on learned behaviors that have been shown to foster healthy relationships from childhood and throughout the lifespan (Mahoney et al., 2020).

The ability to engage in positive relationships is linked to thriving in youth and adulthood, including increased resilience, health, and well-being (Luthar, 2015; Noble & McGrath, 2012). In youth, social competencies and friendship networks are predictive of academic achievement (Asher & Paquette, 2003). Positive work relationships produce better individual and organizational outcomes, including greater learning and creativity (Dutton & Ragins, 2007). Sociability is related to prosocial behavior and civic involvement (Foschi & Lauriola, 2014) and improves societal well-being (Adler & Seligman, 2016).

The current study assesses sociability in two dimensions. First, it examines individual practices (Interpersonal Behaviors Subscale) that are shown to enhance social relationships in multiple contexts, including communicating clearly and negotiating conflict (Dusenbury et al., 2015). Second, based on Porges's (2001) polyvagal theory of social engagement, it assesses an individual's practice of regulating emotions (Self-Control Subscale) in ways that promote positive social interactions, including managing negative emotions, anger, and defensiveness, despite disagreements and conflicts (Cozolino, 2006).

Current Study

Using an online survey developed from the reviewed literature, this study sought to contribute to the research on youth thriving by examining the associations between eight developmental constructs and a young person's self-reported measures of life satisfaction. We hypothesized that young people who rated the constructs like or very much like themselves would also rate themselves higher in life satisfaction and that some constructs

would correlate more highly with life satisfaction than others. Additionally, we examined correlations between a student's GPA, gender, and grade level to the developmental constructs and life satisfaction. We expected that GPA would not be as high of a source of life satisfaction as most of the developmental constructs. Given current mental health challenges for adolescent females, we predicted lower life satisfaction scores among this population.

Methods

Participants

The current study collected data from 602 U.S. eighth and ninth grade students attending public schools in Michigan and Wisconsin. Of participants, 53% were eighth graders; 47% were ninth graders. Ages ranged from 13–15 years. All but 4.8% of participants reported ethnicity, in which multiple categories could be checked. Ethnicities included 85.9% White, 8.5% Hispanic/Latino, 5% Black/African American, 4% Asian, 3.5% American Indian/Alaska Native, and 1.2% Native Hawaiian or Other Pacific Islander. All but 2.5% of participants reported gender identifications, including 50.5% male, 43.2% female, and 3.8% other. GPA range for the past two years included 48.8% in the A range (3.76–4.0+), 31.9% in the B range (3.00–3.75), 13.8% in the C range (2.25–2.99), 3.8% in the D range (1.50–2.24), and 1.7% below D (0.00–1.49).

Procedure

Surveys were collected through Alchemer, a secure online data processing platform used by researchers. Students were asked to complete the survey by their eighth or ninth grade public school classroom teachers who found the survey linked on a website specializing in positive youth development. The survey introduction invites 10- to 17-year-olds to take a free 13-minute survey that will help them identify, understand, and strengthen core attributes that help them thrive. It states that personal information and results are kept private and confidential and shared only with individual participants via email. Participants are told, for research purposes, that data will be aggregated and summarized with other survey-takers.

Adhering to the Children's Online Privacy Protection Act, children 13 and over checked their informed consent prior to the beginning of the survey, indicating that they read, understood, and consented to the terms of service and understood that some survey questions may refer to sensitive data. Three 12-year-olds were eliminated from the study because the researchers had no way of confirming parental consent for this age group.

Links to a comprehensive privacy policy and terms of service were provided. At the completion of each survey, participants received their scores by email with an educational handout to help them understand scoring and how the eight attributes are shown by research to contribute to positive life outcomes. No reports were sent to teachers or schools. In fact, that information is not known to the researchers.

It is important to note that the scores of over 5,000 children and adults from the U.S., Canada, Europe, Asia, and the Middle East have been tracked over a two-year period using the same survey, along with referral sources that include schools, word-of-mouth, family, friend, counselor, therapist, nonprofit organization, social media, internet search, and so on. We chose the population for this cross-sectional study because U.S. eighth and ninth graders were completing the survey in greater numbers—the same adolescent population that also showed declines in mental health. In addition, schools in Michigan and Wisconsin were asking this age group of 13- to 15-year-olds to complete the survey as a classroom assignment, giving researchers the opportunity to examine the attributes of an average adolescent classroom in America's Midwest at a particular point in their education rather than from individual respondents in a variety of educational and geographical environments.

Measures

The study used a 51-question survey we developed and derived from the reviewed literature to measure nine constructs—creativity, curiosity, empathy, integrity, resilience, resourcefulness, self-awareness, sociability, and life satisfaction. Each construct was composed of a five-question Likert scale, except for sociability, which contained nine questions in two sub-scales.

To measure life satisfaction, the three-question Subjective Well-Being Life Satisfaction Subscale of the Comprehensive Inventory of Thriving (CIT; Su et al., 2014) was integrated into the 51-question survey. Questions included: "I am satisfied with my life," and "My life is going well." Permission to use the CIT is granted by its authors for research purposes.

Questions related to the nine constructs were randomly placed throughout the survey, with some questions being reverse-keyed. For example, two related questions that measured curiosity—"If there is a chance to explore new ideas, I jump right in," and "I rarely enjoy the process of learning new things"—required opposite scoring. A third related question was asked from the perspective of others: "Others would describe me as someone who likes discovering new things." We used these three ways of asking questions to triangulate the data for separate constructs as proposed by Denzin and

Lincoln (2003). As a reliability and validity strategy, it adds rigor, depth, and breadth to an investigation (Flick, 1992).

Questions that measured self-awareness included "Others would describe me as someone who knows my strengths and weaknesses" and "I like taking time to reflect on my life experiences." For resourcefulness, questions that required opposite scoring included "I like to achieve goals despite their challenges" and "I often forget to keep track of my goals." For resilience, questions included "Even when life is challenging, I stay positive" and "I feel certain I can get through bad times." Questions related to integrity included "Others would describe me as someone who stands up for my values and beliefs" and "I usually act in ways that feel true to myself."

To assess internal reliability for each scale used in the survey, we calculated Cronbach's alpha coefficient (Cronbach, 1951), an established method for determining if a multiitem scale is measuring the same construct. While the current study has a sample size of 602 eighth and ninth graders, initial pilot studies were conducted with more than 2,000 youth and adult participants. After each pilot phase, the scales were revised to improve consistency, increase the clarity of reverse-keyed items, and adjust the conceptualization of several constructs based on additional literature reviews.

For example, to measure sociability more effectively, we developed two subscales during the pilot phase. One scale focused on measuring interpersonal behaviors (IB), and a second focused on measuring self-control (SC). Questions in the IB scale included "When conflict occurs between myself and others, I try to help resolve it" and "Others would describe me as a good communicator." Questions in the SC scale included "When someone provokes my anger or frustration, I calmly control my reactions" and "Others would describe me as someone who stays calm during conflicts with others." These behaviors are shown in the literature to be related to promoting positive relationships, key to our conceptualization of sociability.

To improve reliability for the empathy scale, we refocused our questions on the outcome of empathy rather than the psychological complexities that underlie the construct. This more narrow, cognitive measure of empathy and emphasis on caring actions is supported by the literature and closely fit behaviors observed in civically engaged youth (Price-Mitchell, 2010b). For example, two questions related to empathy required opposite scoring: "When a friend is sad, I distance myself from them" and "When someone I know is experiencing a hardship, I comfort them."

Data analysis and revisions for clarity and consistency during pilot phases contributed to achieving acceptable alpha coefficients, derived using a correlation-based formula, of over .70 for each scale in a combined

youth–adult population. This study's eighth and ninth grade student responses produced similar alpha coefficients, with the exception of creativity, as shown in Table 1. In reviewing questions on the creativity scale, including the reverse-keyed, "I seldom think about new ways of doing things," we suspect that the eighth and ninth grade respondents in this study found it more challenging than the average respondent to understand this question. Because creativity did not meet an acceptable alpha coefficient in this population, it was eliminated from further analysis in this study. Other researchers have had similar issues with reversed-keyed questions, even with adult-only populations (Zhang et al., 2016).

Table 1. Cronbach's Alphas for Each Scale: Pilot Studies vs 8th–9th Graders

Scale	Pilot Studies	8th–9th Graders
Creativity	.74	.60
Curiosity	.77	.73
Empathy	.75	.71
Integrity	.81	.73
Resilience	.82	.84
Resourcefulness	.77	.76
Self-Awareness	.81	.73
Sociability: Interpersonal Behaviors (IB) Subscale	.75	.73
Sociability: Self-Control (SC) Subscale	.86	.82
Sociability (Combined scales)	.85	.83
Life Satisfaction (LS)	.91	.83

As a means for assessing external reliability in pilot phases, we sent a feedback questionnaire to each participant three days after completion to assess how close individual scores matched what they may have predicted in each of the eight attributes after reading our educational materials. Feedback questionnaires were returned by 5% of participants. The percentage of participants that strongly agreed or agreed with their scores after understanding how we conceptualized each construct ranged from a low of 74% to a high of 91% for each attribute. Those who were undecided or neutral about their scores averaged 13%. Those who disagreed with their scores averaged 5%. No one strongly disagreed with their scores.

Data Analysis

To inquire into the relationship between the remaining seven developmental constructs and life satisfaction, we evaluated correlations and

variance. Correlation is a measure to assess the relationship between two variables, quantifying the degree to which changes in one variable are associated with changes in another variable. While correlation neither confirms causation nor a direction of influence, for the purposes of this study, we examined the correlation of eight developmental constructs on life satisfaction. The other possible direction of influence, that is, examining the possible influence of life satisfaction on developmental constructs, is outside the scope of this study.

Variance, which is the square of correlation, is a measure of how much of the variance in one variable is "explained" by the variance in another. Again, variance does not imply causation, and the term "explained" can be understood as the strength or importance of the relationship. For example, in this study, we wanted to understand the importance of each construct to the outcome of life satisfaction. For the purposes of this study, we assume that life satisfaction is an outcome and that it is the dependent variable.

We also calculated correlations and variance between additional variables provided through the survey, including GPA, gender, and grade level. Because academic achievement is associated with student success, we thought it particularly important to measure the association between GPA and life satisfaction. Therefore, we eliminated five eighth graders and 17 ninth graders that opted not to share their GPA. While we compared males and females, 6.3% of students categorized themselves as "other" or "prefer not to answer." Because the online youth survey is being used by youth worldwide, including those in Arabic countries, we were not able to identify LGBTQ+ students, a limitation of the study. While we collected data on race/ethnicity, we found no correlations between it and any other variables measured, raising the question of whether there was sufficient racial/ethnic representation to make reliable comparisons.

Results

Table 2 shows the correlation coefficients (r) for the seven developmental constructs, life satisfaction, GPA, grade level, and gender. Numbers above zero represent positive correlations; numbers below zero represent negative correlations. When grade level is negatively correlated with another variable, it indicates the other variable is lower for ninth graders than for eighth graders. When gender is negatively correlated with another variable, it indicates the other variable is higher for females and lower for males.

Table 2. Correlation Coefficients Between Variables

	Curiosity	Empathy	Integrity	Resilience	Resourcefulness	Self-Awareness	Sociability	Life Satisfaction
Life Satisfaction	.43	.20	.38	.69	.53	.72	.49	
GPA	.34	.25	.22	.36	.45	.34	.39	.32
Grade Level	-.08	-.08	-.15	-.14	-.19	-.19	-.16	-.17
Gender	-.02	-.39	.07	.08	.04	.05	-.02	.17

Table 3 shows the variance for the seven developmental constructs, life satisfaction, GPA, grade level, and gender. Variance is denoted in the table as a percentage. For example, the first number in the table (.18) suggests that 18% of the variance in life satisfaction is explained by the variance in curiosity or vice versa.

Table 3. Variance Between Factors

	Curiosity	Empathy	Integrity	Resilience	Resourcefulness	Self-Awareness	Sociability	Life Satisfaction
Life Satisfaction	.18	.04	.14	.48	.28	.52	.24	
GPA	.12	.06	.05	.13	.20	.12	.15	.10
Grade Level	.01	.01	.02	.02	.04	.04	.03	.03
Gender	.00	.15	.01	.01	.00	.00	.00	.03

Tables 4 and 5 show GPA range distribution and life satisfaction of study participants by gender. As previously noted, we did not ask questions to further identify gender, including LGBTQ+ students, and therefore can only examine the differences between female and male.

Table 4. GPA Range Distribution by Gender

GPA Range	Female	Male
3.76 - 4.00+	63.1%	37.5%
3.00 - 3.75	19.2%	42.4%
2.25 - 2.99	11.9%	14.8%
1.50 - 2.24	5.0%	2.6%
0.00 - 1.49	0.8%	2.6%

Table 5. Life Satisfaction by Gender

	Female	Male
Very High	5.4%	9.9%
Med High	33.8%	43.7%
Neutral	39.6%	35.5%
Med Low	16.1%	8.2%
Very Low	5.0%	2.6%

Discussion

Previous studies have linked curiosity, sociability, resilience, resourcefulness, integrity, creativity, self-awareness, and empathy to youth, adulthood, and societal thriving. This is the first study to correlate this collection of constructs to life satisfaction in adolescence and to examine if GPA is more or less related to life satisfaction compared with the developmental constructs. This study added evidence to the body of literature on seven of the eight constructs, indicating significant to strong correlations between each of them and life satisfaction in U.S. eighth and ninth graders. (See Measures section for explanation of why creativity was eliminated from this study.) As expected, some constructs correlated more highly than others, with four constructs—self-awareness, resilience, resourcefulness, and sociability—being the strongest correlates of life satisfaction. Constructs that correlated lowest with life satisfaction were curiosity, integrity, and empathy. GPA was also among the lowest factors associated with life satisfaction.

Correlation Analysis

Measuring correlations of psychometric data, such as developmental constructs, is more complex than measuring non-psychometric data, such as GPA, grade level, gender, and so forth. Therefore, developmental constructs generally tend to have lower correlations than non-psychometric data. Achieving correlations above .70 for developmental or psychological constructs is relatively rare. On the other end, correlations less than .20 explain less than 4% of the variance in the variables. For the purposes of this study, we considered correlations above .50 to be relatively strong. Correlations between .35 and .50 were considered moderately strong; correlations between .20 and .35 were considered significant; and correlations below .20 were considered weak or negligible. Below, we discuss each developmental construct, in the order of how strongly it correlated with life satisfaction, followed by other analyzed factors, including GPA and gender.

Self-awareness is strongly correlated to life satisfaction (r = .72), suggesting that 52% of the variance in life satisfaction is explained by the variance in self-awareness. This correlation is very high for a developmental construct, and the study design did not allow for the possible presence of a latent variable or high social desirability bias to be identified. That said, a strong correlation for self-awareness is not surprising in this 13-to-15-year-old population, as this attribute is integral to the formation of self-identity, the most primary task of adolescence (Erikson, 1968; Marcia, 1980; Schwartz et al., 2013). Through self-reflection, adolescents develop a coherent sense of self, including their beliefs, values, aspirations, and roles in society.

Resilience is strongly correlated to life satisfaction (r = .69), suggesting that 48% of the variance in life satisfaction is explained by the variance in resilience. This relatively high correlation for a developmental construct supports the growing body of research that not only recognizes resilience as an indicator of positive adaptation during childhood and adolescence, but also its vital role through the life span (Ong et al., 2009; Snyder & Lopez, 2002). Scientists agree that developing resilience is critical for children and adolescents, building capacity to adapt positively to adversity, maintain psychological well-being, and thrive despite significant challenges (Luthar et al., 2000; Masten, 2014).

Resourcefulness shows a relatively strong correlation to life satisfaction (r = .53), suggesting that 28% of the variance in life satisfaction is explained by the variance in resourcefulness. Also noteworthy is the moderately strong correlation between resourcefulness and GPA (r = .45), suggesting that 20% of the variance in GPA is explained by the variance in resourcefulness. While resourcefulness may be related to constructs like grit, perseverance, goal-orientation, and growth mindset (Duckworth & Gross, 2014; Dweck, 2006), we argue it is an understudied construct that deserves additional research. Akgun and Ciarrochi (2003), for example, showed that high academic stress adversely impacted the grades of low resourceful students but had no effect on students with higher levels of resourcefulness. This suggests that resourcefulness may mediate academic pressure, a top contributor to the decline in adolescent mental health.

Sociability scores were calculated by combining two scales, one that measured positive interpersonal behaviors and the other that measured self-control. Sociability shows a moderately strong correlation to life satisfaction (r = .49), suggesting that 24% of the variance in life satisfaction is explained by the variance in sociability. This finding supports research showing that strong interpersonal skills help adolescents form supportive

relationships, experience a sense of belonging, and develop social competencies that contribute to their overall well-being (Rubin et al., 2015). It also supports research showing that higher scores on self-control predict better psychological adjustment, less substance abuse, and higher grades (Tangney et al., 2018).

Curiosity shows a moderately strong correlation to life satisfaction (r = .43), suggesting that 18% of the variance in life satisfaction is explained by the variance in curiosity. Not surprisingly, curiosity shows a significant correlation with GPA (r = .34), supporting research that links curiosity to a love of learning, which can motivate students to overcome academic challenges and achieve better academic outcomes, regardless of intelligence (von Stumm et al., 2011). Curiosity has also been shown to be an ingredient in the development of well-being and meaning in life (Kashdan & Steger, 2007).

Integrity shows a moderately strong correlation to life satisfaction (r = .38), suggesting that 14% of the variance in life satisfaction is explained by the variance in integrity. This finding supports research that emphasizes how integrity guides adolescents in making choices that align with their principles, which can lead to better stress management and mental health (Damon, 2008). Adolescents with high levels of integrity are also likely to form healthier and more meaningful social relationships, serving as a buffer against mental health issues (Padilla-Walker & Carlo, 2014).

Empathy shows a significant but much weaker correlation to life satisfaction (r = .20), suggesting that only 4% of the variance in life satisfaction is explained by the variance in empathy, measured in this study as cognitive rather than affective empathy. Being female shows a moderately strong correlation with empathy (r =.39). This finding is not unusual. Research suggests there are variances in gender that affect empathy, including neurological and evolutionary differences. For example, the neurobiological underpinnings of empathy show gender differences in the brain networks involved in both affective and cognitive forms of empathy (Christov-Moore et al., 2014). The stronger correlation of being female to empathy supports concerns by some social scientists about the promotion and teaching of affective empathy—the ability to feel what others feel—in school-age children. Because females show naturally higher levels of empathy, they are more likely to internalize the emotions and conflicts that occur within adolescent social circles. These stressors can exacerbate feelings of anxiety and depression (Rudolph, 2002). While empathy is an important motivator for compassionate action in the world, children must also be taught how to understand, manage, and navigate emotional boundaries. More research is

needed to further examine if the moderately strong correlation of gender to empathy may be a factor in greater rates of anxiety and depression in female adolescents.

GPA shows a significant correlation to life satisfaction ($r = .32$), suggesting that 10% of the variance in life satisfaction is explained by the variance in GPA. This correlation supports research that adolescents who achieve higher grades tend to report higher levels of life satisfaction (Lyons & Huebner, 2016). Longitudinal studies also suggest the benefits of high academic achievement on subjective well-being that can extend to adulthood (Fraine et al., 2005). However, there is debate among researchers on the value of correlations of GPA to life satisfaction. Recognizing the complex relationship between GPA and life satisfaction, many researchers suggest that GPA has not been shown to be a consistent predictor of life satisfaction and is more likely associated with other mediating factors, including psychological development, social relationships, cultural values, academic pressure, and economic disparities that can strengthen or weaken the association of GPA to well-being (Rueger et al., 2010; Suldo et al., 2006; Wang & Eccles, 2012). Our study shows that six developmental constructs—self-awareness, resilience, resourcefulness, sociability, curiosity, and integrity—are higher predictors of life satisfaction than GPA, and these factors may also predict higher GPA.

Incidental findings that emerged from this study are noteworthy. Table 2 shows that being in ninth grade correlates negatively with all of the developmental constructs and life satisfaction. Research suggests that the shift to high school brings additional challenges, including increased workload (Suldo et al., 2009), pressure to achieve on standardized tests (Conner & Pope, 2013), and developmental challenges that include more complex social dynamics, forming an identity, and seeking greater autonomy (Eccles & Roeser, 2011). This finding may suggest that fostering developmental attributes in young people is particularly important before students reach high school age.

The data in Tables 3 and 4 comparing GPA and life satisfaction by gender are also significant. In this study's population, female students are 1.7 times more likely to have a GPA in the highest range compared to male students. Male students are 1.8 times more likely than female students to have very high life satisfaction. This disparity has been found in other studies that link females' greater academic performance with higher levels of internal distress (Pomerantz et al., 2002). For optimal mental health, we would hope to see most students' evaluation of life satisfaction to be in the medium high to high range. In this study, only 39.2% of female students and 54.6% of male students reported life satisfaction in these mid to higher ranges.

Implications for Families and Schools

The concept of family–school partnerships echoes back to the ideas of Harvard professor, Ira J. Gordon—that families and schools have equally valued roles in education and child development (Gordon, 1977). For this partnership to flourish, both must adapt to change and engage in learning to enhance their capacity to achieve positive outcomes for children. Systems theorist Peter Senge (2000) said it well,

> If I had one wish for all our institutions, and the institution called school in particular, it is that we dedicate ourselves to allowing them to be what they would naturally become, which is human communities, not machines. Living beings who continually ask the questions: Why am I here? What is going on in my world? How might I and we best contribute? (p. 58)

We began this research by considering Senge's line of questioning. We assume families, schools, and communities are here because they care deeply about the positive development and well-being of youth. What is going on in young people's worlds, and how might teachers, families, youth mentors, and adolescents themselves best contribute? These are driving questions that guide our research into youth development.

Factors affecting the psychological health of today's young people are multifaceted and complex. Top contributors linked to a decline in adolescent mental health include increased academic pressure (Steare et al., 2023), social media (Popat & Tarrant, 2023), bullying (Sutter et al., 2023), and adverse childhood experiences (Scully et al., 2020). These factors are extremely challenging and slow to change because they are firmly embedded in school, family, and cultural systems. Yet progress on addressing the systemic causes of declining mental health in adolescence must remain a top priority.

This study identified aspects of a child's development that are associated with life satisfaction and are within the immediate purview and influence of families, teachers, and youth programs. Mental health researchers agree that effective schooling must include the healthy development of students (Atkins et al., 2010; García-Carrión et al., 2019). Family–school partnerships have long played a critical role towards achieving educational equity—seeking to raise academic performance for all children, especially those impacted by race and income (Mapp et al., 2022). But educational equity is not enough to improve children's life satisfaction and mental health. Children must also experience developmental equity—the right to enjoy the

relationships and relational experiences that help them attain life satisfaction and well-being. SEL interventions in schools cannot accomplish this alone. Families, schools, and communities must work together to respond to and act on Senge's (2000) question: "How might I and we best contribute?"

Addressing the many ways families and schools can foster developmental attributes in children was not in the scope of our research. However, our data suggests that six attributes—self-awareness, resilience, resourcefulness, sociability, curiosity, and integrity—are not only higher correlates of life satisfaction in adolescence than GPA, but that these attributes may also be predictive of academic achievement itself. This is a call for families, schools, and communities to recognize the significant impact of developmental attributes on achievement and well-being and to redefine the fundamental framework of family–school partnerships to include equal focus on educational and developmental equity.

The differences in contributions between "I" and "we" are significant to note. Parents, teachers, and youth mentors must play complementary and mutually reinforcing roles in child development (Bronfenbrenner, 1979). For example, if this principle was part of the compact between families and schools, parent–teacher conferences might focus on how to mutually foster the developmental attributes in this study, understanding that developmentally vulnerable youth can also be among the most high-achieving students. Based on social, emotional, and cognitive observations in the classroom, teachers might suggest and provide educational resources to families with evidence-based ways to foster these attributes at home. In the other direction, families might suggest how teachers could be helpful in supporting their child's unique developmental needs as they observe them at home.

Adolescents themselves must become a critical part of the "I" and "we" dialogue about their own development. Youth-led initiatives focused on positive development should include families and teachers in collaborative dialogue about "what is going on in my world" and how adults can best support youth. A series of conversations might focus on a group of developmental attributes that help kids attain higher life satisfaction. This can be accomplished through a "World Café" approach, a successful tool widely used for participatory change processes in communities (Löhr et al., 2020). These types of approaches support the systemic nature of effective family–school partnerships as emergent processes that build relationships and improve learning in the peripheral spaces where parents and schools interact on behalf of children's positive development (Price-Mitchell, 2010a). They also promote the vital aspect of learning that Lave and Wenger (1991) argued does not rest with the individual but in a relational process situated in a cultural and historical context.

While SEL interventions are vital to social, emotional, and cognitive development, they are also complex and multifaceted, with challenges to implementation and sustainability over time (Durlak et al., 2011). Schools might consider adding a simpler, complementary framework and vocabulary that supports SEL goals and also makes communication about positive development with family, school, and community stakeholders easier to understand, discuss, and implement within their unique contexts. This study examined one such framework, Price-Mitchell's (2010b, 2015) *The Compass Advantage*, designed to help families, schools, adolescents, and youth programs understand why and how to scaffold development. Shek et al. (2019) reviews other frameworks, including Benson's 40 developmental assets, Lerner's 5Cs and 6Cs conceptions, and Catalano's 15 developmental constructs.

The findings from this study suggest that children would be more highly satisfied with their lives if family–school partnerships focused on two goals: developing a child's internal attributes and encouraging their educational achievement. This means that all adults who support youth learn how to build relationships with children that foster positive developmental attributes and well-being. Theory and research views child and adolescent development as a dynamic system and examines how constructs diverge or converge to foster thriving (Baltes, 1987). According to systems theory (Bertalanffy, 1956; Bronfenbrenner, 1979), success is more closely linked to broad patterns and relationships than to narrowly restrictive factors like GPA. When new patterns are identified and understood, small changes by those who care about the positive development of youth can boost young people's life satisfaction and success in school in big ways.

Study Limitations

Several limitations of the current study are worth noting. First, we did not measure all aspects of development that are associated with life satisfaction, including cognitive abilities that have been linked to performance, health, and longevity (Lövdén et al., 2020) and other character strengths that have been defined in the literature (Peterson & Seligman, 2004). Instead, we limited our study to eight developmental constructs for the purpose of examining Price-Mitchell's (2010b, 2015) qualitatively derived conceptual framework through a statistical lens.

Second, correlation and variance differ from causation. Our research design limited our ability to conduct in-depth structural equation modeling (SEM) and path analysis of our data, which may produce greater understanding of the constructs' relationships. Consequently, we were not

able to measure each of the constructs' direct and indirect impact on life satisfaction and on the other constructs. Future studies would benefit from designs that incorporated SEM analysis. Specifically, correlations are often affected and inflated by latent sources of common method bias, such as social desirability bias. Identifying and controlling for common method bias requires the inclusion of a marker variable (Richardson et al., 2009). Future studies that inquire more deeply into the causal relations among constructs would utilize a research design that employs marker variables (Simmering et al., 2014; Williams & O'Boyle, 2015).

Finally, while our study was based on research that linked eight developmental constructs to individual and societal well-being, we measured their impact only on individual well-being. We would hypothesize that some constructs contribute more to individual development while others contribute more to societal development and well-being. Empathy, for example, was one of the weaker correlates to life satisfaction but may be more strongly correlated to societal well-being. Future studies might explore the relationship between these constructs and proxies for societal well-being such as individual contributions to community.

Conclusion

This study offers new data about developmental attributes that are associated with life satisfaction in U.S. eighth and ninth grade adolescents. Of the developmental constructs in the final dataset, self-awareness, resilience, and resourcefulness are the most strongly correlated with life satisfaction. Moderately strong correlations exist for sociability, curiosity, and integrity. GPA and empathy are the lowest correlates of life satisfaction among measured constructs.

In addition, this study shows that some developmental attributes are also moderately correlated with academic achievement, including resourcefulness, resilience, and sociability. Data indicates that female students are 1.7 times more likely to have a GPA in the highest range compared to their male counterparts, while male students are 1.8 times more likely to report very high life satisfaction than females. In addition, being in ninth grade is negatively associated with life satisfaction and each of the developmental constructs, suggesting a downward trend in well-being from eighth to ninth grade. Further research is needed to develop and refine methods to explore causation and systemic relationships between developmental constructs, including pathways to individual and societal thriving.

References

Adler, A., & Seligman, M. E. (2016). Using wellbeing for public policy: Theory, measurement, and recommendations. *International Journal of Wellbeing, 6*(1), 1–35. https://doi.org/10.5502/ijw.v6i1.429

Ahlstrom, D. (2010). Innovation and growth: How business contributes to society. *Academy of Management Perspectives, 24*(3), 11–24. https://doi.org/10.5465/amp.24.3.11

Akgun, S., & Ciarrochi, J. (2003). Learned resourcefulness moderates the relationship between academic stress and academic performance. *Educational Psychology, 23*(3), 287–294. https://doi.org/10.1080/0144341032000060129

Ardelt, M., & Grunwald, S. (2018). The importance of self-reflection and awareness for human development in hard times. *Research in Human Development, 15*(3–4), 187–199. https://doi.org/10.1080/15427609.2018.1489098

Asher, S. R., & Paquette, J. A. (2003). Loneliness and peer relations in childhood. *Current Directions in Psychological Science, 12*(3), 75–78. https://doi.org/10.1111/1467-8721.01233

Atkins, M. S., Hoagwood, K. E., Kutash, K., & Seidman, E. (2010). Toward the integration of education and mental health in schools. *Administration and Policy in Mental Health and Mental Health Services Research, 37*(1), 40–47. https://doi.org/10.1007/s10488-010-0299-7

Baehr, J. (2011). *The Inquiring Mind*. Oxford University Press.

Baltes, P. B. (1987). Theoretical propositions of lifespan developmental psychology: On the dynamics between growth and decline. *Developmental Psychology, 23*(5), 611–626. https://doi.org/10.1037/0012-1649.23.5.611

Batson, C. D. (2010). Empathy-induced altruistic motivation. In M. Mikulincer & P. R. Shaver (Eds.), *Prosocial motives, emotions, and behavior: The better angels of our nature.* (pp. 15–34). American Psychological Association. https://doi.org/10.1037/12061-001

Batson, C. D. (2011). *Altruism in Humans*. Oxford University Press.

Batson, C. D., David, A. L., & Eric, L. S. (2015). The empathy–altruism hypothesis. In A. S. David & G. G. William (Eds.), *The Oxford handbook of prosocial behavior*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195399813.013.023

Batson, C. D., & Shaw, L. L. (1991). Evidence for altruism: Toward a pluralism of prosocial motives. *Psychological Inquiry, 2*(2), 107–122. https://doi.org/10.1207/s15327965pli0202_1

Baumgarten, E. (2001). Curiosity as a moral virtue. *International Journal of Applied Philosophy, 15*(2), 169–184. https://doi.org/10.5840/ijap200115215

Baumsteiger, R., & Siegel, J. T. (2019). Measuring prosociality: The development of a prosocial behavioral intentions scale. *Journal of Personality Assessment, 101*(3), 305–314. https://doi.org/10.1080/00223891.2017.1411918

Benson, P. L., & Scales, P. C. (2009). The definition and preliminary measurement of thriving in adolescence. *The Journal of Positive Psychology, 4*(1), 85–104. https://doi.org/10.1080/17439760802399240

Bertalanffy, L. (1956). General systems theory. In L. Bertalanffy & A. Rapoport (Eds.), *General systems: Yearbook of the Society for the Advancement of General Systems Theory* (Vol. 1, pp. 1–10). Society for General Systems Research.

Brady, M. (2009). Curiosity and the value of truth. In A. Haddock, A. Millar, & D. Pritchard (Eds.), *Epistemic value* (pp. 265–283). Oxford University Presss.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (pp. 793–828). Wiley.

Bruner, E. M. (1993). Epilogue: Creative persona and the problem of authenticity. In S. Lavie, K. Narayan, & R. Rosaldo (Eds.), *Creativity/anthropology*. Cornell University Press.

Bundick, M. J., Yeager, D. S., King, P. E., & Damon, W. (2010). Thriving across the life span. In R. M. Lerner, M. E. Lamb, & A. M. Freund (Eds.), *The handbook of life-span development*. Wiley. https://doi.org/10.1002/9780470880166.hlsd001024

Caldwell, C., & Hayes, L. A. (2016). Self-efficacy and self-awareness: Moral insights to increased leader effectiveness. *Journal of Management Development, 35*(9), 1163–1173. https://doi.org/10.1108/JMD-01-2016-0011

Carver, C. S., & Glass, D. C. (1976). The Self-Consciousness Scale: A discriminant validity study. *Journal of Personality Assessment, 40*(2), 169–172. https://doi.org/10.1207/s15327752jpa4002_8

Celik, P., Storme, M., Davila, A., & Myszkowski, N. (2016). Work-related curiosity positively predicts worker innovation. *Journal of Management Development, 35*(9), 1184–1194. https://doi.org/10.1108/JMD-01-2016-0013

Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology, 41*(2), 330–339. https://doi.org/10.1037/0022-3514.41.2.330

Christov-Moore, L., Simpson, E. A., Coudé, G., Grigaityte, K., Lacoboni, M., & Ferrari, P. F. (2014). Empathy: Gender effects in brain and behavior. *Neuroscience & Biobehavioral Reviews, 46*, 604–627. https://doi.org/10.1016/j.neubiorev.2014.09.001

Cikara, M., & Van Bavel, J. J. (2014). The neuroscience of intergroup relations: An integrative review. *Perspectives on Psychological Science, 9*(3), 245–274. https://doi.org/10.1177/1745691614527464

Clark, S., & Seider, S. (2017). Developing critical curiosity in adolescents. *Equity & Excellence in Education, 50*(2), 125–141. https://doi.org/10.1080/10665684.2017.1301835

Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion, 9*(3), 361–368. https://doi.org/10.1037/a0015952

Collins, M. A., & Amabile, T. M. (1999). Motivation and creativity. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 279–312). Cambridge University Press.

Conner, J. O., & Pope, D. C. (2013). Not just robo-students: Why full engagement matters and how schools can promote it. *Journal of Youth and Adolescence, 42*(9), 1426–1442. https://doi.org/10.1007/s10964-013-9948-y

Conner, T. S., DeYoung, C. G., & Silvia, P. J. (2018). Everyday creative activity as a path to flourishing. *The Journal of Positive Psychology, 13*(2), 181–189. https://doi.org/10.1080/17439760.2016.1257049

Cotter, T. S., DeYoung, C. G., & Silvia, P. J. (2018). Creativity's role in everyday life. In J. C. Kaufman & R. J. Sternberg (Eds.), *Cambridge handbook of creativity* (2nd ed., pp. 640–652). Cambridge University Press.

Cottingham, J. (2010). Integrity and fragmentation. *Journal of Applied Philosophy, 27*(1), 2–14. https://doi.org/10.1111/j.1468-5930.2009.00472.x

Cox, D., LaCraze, M., & Levine, M. (2003). *Integrity and the fragile self*. Ashgate.

Cozolino, L. (2006). *The neuroscience of human relationships*. Norton.

Cozolino, L. (2013). *The social neuroscience of education: Optimizing attachment and learning in the classroom*. Norton.

Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychomerika, 16*, 297–334. https://doi.org/10.1007/BF02310555

Csikszentmihalyi, M. (1999). Implications of a systems perspective for the study of creativity. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 313–335). Cambridge University Press.

Damon, W. (2008). *The path to purpose: Helping our children find their calling in life*. Free Press.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113–126. https://doi.org/10.1037/0022-3514.44.1.113

de Waal, F. B. M. (2008). Putting the altruism back into altruism: The evolution of empathy. *Annual Review of Psychology, 59*(1), 279–300. https://doi.org/10.1146/annurev.psych.59.103006.093625

Decety, J. (2015). The neural pathways, development, and functions of empathy. *Current Opinion in Behavioral Sciences, 3*, 1–6. https://doi.org/10.1016/j.cobeha.2014.12.001

Decety, J., & Svetlova, M. (2012). Putting together phylogenetic and ontogenetic perspectives on empathy. *Developmental Cognitive Neuroscience, 2*(1), 1–24. https://doi.org/10.1016/j.dcn.2011.05.003

DeNeve, J.-E., Diener, E., Tay, L., & Xuereb, C. (2013). The objective benefits of subjective well-being. In J. Helliwell, R. Layaard, & J. Sachs (Eds.), *World Happiness Report 2013* (Vol. 2, pp. 54–79). UN Sustainable Development Solutions Network. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2306651

Denzin, N. K., & Lincoln, Y. S. (2003). *The landscape of qualitative research: Theories and issues* (2nd ed.). Sage.

Deutsch, F., & Madle, R. A. (1975). Empathy: Historic and current conceptualizations, measurement, and a cognitive theoretical perspective. *Human Development, 18*(4), 267–287. https://doi.org/10.1159/000271488

Diener, E., Kahneman, D., & Helliwell, J. (2010). *International differences in well-being*. Oxford University Press USA.

Diener, E., Pressman, S. D., Hunter, J., & Delgadillo-Chase, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being, 9*(2), 133–167. https://doi.org/10.1111/aphw.12090

Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. (2017). Social–emotional competence: An essential factor for promoting positive adjustment and reducing risk in school children. *Child Development, 88*(2), 408–416. https://doi.org/10.1111/cdev.12739

Duchek, S., & Raetze, S. (2017). Resilience in organizations: An integrative multilevel review and agenda for the future. *Academy of Management Proceedings, 2017*(1). https://doi.org/10.5465/AMBPP.2017.15344abstract

Duckworth, A., & Gross, J. J. (2014). Self-control and grit: Related but separable determinants of success. *Current Directions in Psychological Science, 23*(5), 319–325. https://doi.org/10.1177/0963721414541462

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Dusenbury, L. A., Newman, J. Z., Weissberg, R. P., Goren, P., Domitrovich, C. E., & Mart, A. K. (2015). The case for preschool through high school state learning standards for SEL. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, & T. P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practice* (pp. 532–548). Guilford.

Dutton, J., & Ragins, B. R. (Eds.). (2007). *Exploring positive relationships at work: Building a theoretical and research foundation*. Lawrence Erlbaum Associates.

Duval, S., & Wicklund, R. A. (1972). *A theory of objective self awareness*. Academic Press.

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.

Dweck, C. S. (2006). *Mindset: The new psychology of success*. Ballantine.

Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence, 21*(1), 225–241. https://doi.org/10.1111/j.1532-7795.2010.00725.x

Eid, M., Riemann, R., Angleitner, A., & Borkenau, P. (2003). Sociability and positive emotionality: Genetic and environmental contributions to the covariation between different facets of extraversion. *Journal of Personality, 71*(3), 319–346. https://doi.org/10.1111/1467-6494.7103003

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2007). Prosocial development. In W. Damon, R. M. Lerner, & N. Eisenberg (Eds.), *Handbook of child psychology* (Vol. 3, pp. 646–718). Wiley. https://doi.org/10.1002/9780470147658.chpsy0311

Eisenberg, N., Spinrad, T. L., Fabes, R. A., Reiser, M., Cumberland, A., Shepard, S. A., Valiente, C., Losoya, S. H., Guthrie, I. K., & Thompson, M. (2004). The relations of effortful control and impulsivity to children's resiliency and adjustment. *Child Development, 75*(1), 25–46. https://doi.org/10.1111/j.1467-8624.2004.00652.x

Erikson, E. H. (1968). *Identity, youth, and crisis*. Norton.

Feist, G. J. (2010). The function of personality in creativity. In J. C. Kaufman & R. J. Sternberg (Eds.), *The Cambridge handbook of creativity* (pp. 113–130). Cambridge University Press.

Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology, 43*(4), 522–527. https://doi.org/10.1037/h0076760

Flick, U. (1992). Triangulation revisited: Strategy of validation or alternative? *Journal for the Theory of Social Behaviour, 22*(2), 175–197. https://doi.org/10.1111/j.1468-5914.1992.tb00215.x

Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*(6), 647–654. https://doi.org/10.1037/0003-066X.55.6.647

Foschi, R., & Lauriola, M. (2014). Does sociability predict civic involvement and political participation? *Journal of Personality and Social Psychology, 106*(2), 339–357. https://doi.org/10.1037/a0035331

Fraine, B. D., Landeghem, G. V., Damme, J. V., & Onghena, P. (2005). An analysis of wellbeing in secondary school with multilevel growth curve models and multilevel multivariate models. *Quality and Quantity, 39*(3), 297–316. https://doi.org/10.1007/s11135-004-5010-1

García-Carrión, R., Villarejo-Carballido, B., & Villardón-Gallego, L. (2019). Children and adolescents mental health: A systematic review of interaction-based interventions in schools and communities [Systematic review]. *Frontiers in Psychology, 10*. https://doi.org/10.3389/fpsyg.2019.00918

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly, 16*(3), 343–372. https://doi.org/10.1016/j.leaqua.2005.03.003

Gaylor, E. M., Krause, K. H., Welder, L. E., Cooper, A. C., Ashley, C., Mack, K. A., Crosby, A. E., Trinh, E., Ivey-Stephenson, A. Z., & Whittle, L. (2021). Suicidal thoughts and behaviors among high school students—Youth Risk Behavior Survey, United States. *Morbidity and Mortality Weekly Report, 72*(Suppl-1), 45–54. https://doi.org/10.15585/mmwr.su7201a6

Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence, 35*(3), 293–301. https://doi.org/10.1007/s10964-006-9036-7

Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five factor structure. *Journal of Personality and Social Psychology, 59*(6), 1216–1229. https://doi.org/10.1037/0022-3514.59.6.1216

Goldstein, S., & Brooks, R. B. (Eds.). (2007). *Understanding and managing children's classroom behavior: Creating sustainable, resilient classrooms* (2nd ed.). Wiley.

Gordon, I. R. (1977). Parent education and parent involvement: Retrospect and prospect. *Childhood Education, 54*, 71–79. https://doi.org/10.1080/00094056.1977.10728366

Harari, G. M., Müller, S. R., Stachl, C., Wang, R., Wang, W., Bühner, M., Rentfrow, P. J., Campbell, A. T., & Gosling, S. D. (2019). Sensing sociability: Individual differences in young adults' conversation, calling, texting, and app use behaviors in daily life. *Journal of Personality and Social Psychology, 19*(1), 204–228. https://doi.org/10.1037/pspp0000245

Hoffman, M. L. (2008). Empathy and prosocial behavior. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (3rd ed.). Guilford.

Huebner, E. S., Suldo, S., Valois, R. F., Drane, J. W., & Zullig, K. (2004). Brief Multidimensional Students' Life Satisfaction Scale: Sex, race, and grade effects for a high school sample. *Psychological Reports, 94*(1), 351–356. https://doi.org/10.2466/pr0.94.1.351-356

Inan, I. (2012). *The philosophy of curiosity*. Routledge.

Kang, M. J., Hsu, M., Krajbich, I. M., Loewenstein, G., McClure, S. M., Wang, J. T.-Y., & Camerer, C. F. (2009). The wick in the candle of learning: Epistemic curiosity activates reward circuitry and enhances memory. *Psychological Science, 20*(8), 963–973. https://doi.org/10.1111/j.1467-9280.2009.02402.x

Karwowski, M., & Beghetto, R. A. (2019). Creative behavior as agentic action. *Psychology of Aesthetics, Creativity, and the Arts, 13*(4), 402–415. https://doi.org/10.1037/aca0000190

Kashdan, T., & Steger, M. (2007). Curiosity and pathways to well-being and meaning in life: Traits, states, and everyday behaviors. *Motivation and Emotion, 31*(3), 159–173. https://doi.org/10.1007/s11031-007-9068-7

Kashdan, T. B., Disabato, D. J., Goodman, F. R., & McKnight, P. E. (2020). The Five-Dimensional Curiosity Scale Revised (5DCR): Briefer subscales while separating overt and covert social curiosity. *Personality and Individual Differences, 157*, 109836. https://doi.org/10.1016/j.paid.2020.109836

Kashdan, T. B., Sherman, R. A., Yarbro, J., & Funder, D. C. (2013). How are curious people viewed, and how do they behave in social situations? From the perspectives of self, friends, parents, and unacquainted observers. *Journal of Personality, 81*(2), 142–154. https://doi.org/10.1111/j.1467-6494.2012.00796.x

Kashdan, T. B., & Silvia, P. J. (2009). Curiosity and interest: The benefits of thriving on novelty and challenge. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (2nd ed., pp. 367–374). Oxford University Press.

Kennett, D. J., & Keefer, K. (2006). Impact of learned resourcefulness and theories of intelligence on academic achievement of university students: An integrated approach. *Educational Psychology, 26*(3), 441–457. https://doi.org/10.1080/01443410500342062

Kidd, C., & Hayden, B. Y. (2015). The psychology and neuroscience of curiosity. *Neuron, 88*(3), 449–460. https://doi.org/10.1016/j.neuron.2015.09.010

King, L. A., Walker, L. M., & Broyles, S. J. (1996). Creativity and the five-factor model. *Journal of Research in Personality, 30*(2), 189–203. https://doi.org/10.1006/jrpe.1996.0013

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral parcipation*. Cambridge University Press.

Lerner, R. M., Dowling, E. M., & Anderson, P. M. (2003). Positive youth development: Thriving as the basis of personhood and civil society. *Applied Developmental Science, 7*(3), 172–180. https://doi.org/10.1207/S1532480XADS0703_8

Löhr, K., Weinhardt, M., & Sieber, S. (2020). The "World Café" as a participatory method for collecting qualitative data. *International Journal of Qualitative Methods, 19*. https://doi.org/10.1177/1609406920916976

Lou, H. C. (2015). Self-awareness—An emerging field in neurobiology. *Acta Paediatrica, 104*(2), 121–122. https://doi.org/10.1111/apa.12876

Lövdén, M., Fratiglioni, L., Glymour, M. M., Lindenberger, U., & Tucker-Drob, E. M. (2020). Education and cognitive functioning across the life span. *Psychological Science in the Public Interest, 21*(1), 6–41. https://doi.org/10.1177/1529100620920576

Luthar, S. S. (2015). Resilience in development: A synthesis of research across five decades. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology* (pp. 739–795). Wiley. https://doi.org/10.1002/9780470939406.ch20

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*(3), 543–562. https://doi.org/10.1111/1467-8624.00164

Lyons, M. D., & Huebner, E. S. (2016). Academic characteristics of early adolescents with higher levels of life satisfaction. *Applied Research in Quality of Life, 11*(3), 757–771. https://doi.org/10.1007/s11482-015-9394-y

Mahoney, J. L., Weissberg, R. P., Greenberg, M. T., Dusenbury, L., Jagers, R. J., Niemi, K., Schlinger, M., Schlund, J., Shriver, T. P., VanAusdal, K., & Yoder, N. (2020). Systemic social and emotional learning: Promoting educational success for all preschool to high school students. *American Psychologist*. https://doi.org/10.1037/amp0000701

Mapp, K. L., Henderson, A. T., Cuevas, S., Franco, M. C., Ewert, S., & Borrello, V. J. (2022). *Everyone wins! The evidence for family–school partnerships and implications for practice*. Scholastic.

Marcia, J. E. (1980). Identity in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 159–187). Wiley.

Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development, 85*(1), 6–20. https://doi.org/10.1111/cdev.12205

Masten, A. S., & Obradovic, J. (2006). Competence and resilience in development. *Annals of the New York Academy of Sciences, 1094*(1), 13–27. https://doi.org/10.1196/annals.1376.003

McGehee, P., Germer, C., & Neff, K. (2017). Core values in mindful self-compassion. In L. Monteiro, J. Compson, & F. Musten (Eds.), *Practitioner's guide to ethics and mindful-*

ness-based interventions (pp. 279–293). Springer. https://doi.org/10.1007/978-3-319-64924-5_11

McLeod, J. D., Uemura, R., & Rohrman, S. (2012). Adolescent mental health, behavior problems, and academic achievement. *Journal of Health and Social Behavior, 53*(4), 482–497. https://doi.org/10.1177/0022146512462888

Noble, T., & McGrath, H. (2012). Well-being and resilience in young people and the role of positive relationships. In S. Roffey (Ed.), *Positive relationships: Evidence based practice across the world* (pp. 17–33). Springer Netherlands. https://doi.org/10.1007/978-94-007-2147-0_2

Ong, A. D., Bergeman, C. S., & Boker, S. M. (2009). Resilience comes of age: defining features in later adulthood. *Journal of Personality, 77*(6), 1777–1804. https://doi.org/10.1111/j.1467-6494.2009.00600.x

Ong, A. D., Edwards, L. M., & Bergeman, C. S. (2006). Hope as a source of resilience in later adulthood. *Personality and Individual Differences, 41*(7), 1263–1273. https://doi.org/10.1016/j.paid.2006.03.028

Padilla-Walker, L. M., & Carlo, G. (2014). Prosocial behavior: From early to middle adolesence. In L. M. Padilla-Walker & G. Carlo (Eds.), *Prosocial development: A multidimensional approach* (pp. 235–256). Oxford University Press.

Palanski, M. E., & Yammarino, F. J. (2007). Integrity and leadership: Clearing the conceptual confusion. *European Management Journal, 25*(3), 171–184. https://doi.org/10.1016/j.emj.2007.04.006

Park, N., Peterson, C., & Seligman, M. E. P. (2004). Strengths of character and well-being. *Journal of Social and Clinical Psychology, 23*(5), 603–619. https://doi.org/10.1521/jscp.23.5.603.50748

Parry, K. W., & Proctor-Thomson, S. B. (2002). Perceived integrity of transformational leaders in organisational settings. *Journal of Business Ethics, 35*(2), 75–96. https://doi.org/10.1023/A:1013077109223

Patterson, J. M. (2002). Understanding family resilience. *Journal of Clinical Psychology, 58*(3), 233–246. https://doi.org/10.1002/jclp.10019

Peterson, C., & Seligman, M. E. (2004). *Character strengths and virtues: A handbook and classification*. Oxford University Press.

Pomerantz, E. M., Altermatt, E. R., & Saxon, J. L. (2002). Making the grade but feeling distressed: Gender differences in academic performance and internal distress. *Journal of Educational Psychology, 94*(2), 396–404. https://doi.org/10.1037/0022-0663.94.2.396

Popat, A., & Tarrant, C. (2023). Exploring adolescents' perspectives on social media and mental health and well-being—A qualitative literature review. *Clinical Child Psychology and Psychiatry, 28*(1), 323–337. https://doi.org/10.1177/13591045221092884

Porges, S. W. (2001). The polyvagal theory: Phylogenetic substrates of a social nervous system. *International Journal of Psychophysiology, 42*(2), 123–146. https://doi.org/10.1016/S0167-8760(01)00162-3

Porges, S. W. (2011). *The polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, and self-regulation*. Norton.

Price-Mitchell, M. (2010a). Boundary dynamics: Implications for building parent–school partnerships. *School Community Journal, 19*(2), 9–26. https://www.adi.org/journal/fw09/Price-MitchellFall2009.pdf

Price-Mitchell, M. (2010b). *Civic learning at the edge: Transformative stories of highly engaged youth* (Publication No. 3422334) [Doctoral dissertation, Fielding Graduate University]. ProQuest.

Price-Mitchell, M. (2015). *Tomorrow's change makers: Reclaiming the power of citizenship for a new generation*. Eagle Harbor Publishing.

Putwain, D. W., Kearsley, R., & Symes, W. (2012). Do creativity self-beliefs predict literacy achievement and motivation? *Learning and Individual Differences, 22*(3), 370–374. https://doi.org/10.1016/j.lindif.2011.12.001

Richardson, H. A., Simmering, M. J., & Sturman, M. C. (2009). A tale of three perspectives: Examining post hoc statistical techniques for detection and correction of common method variance. *Organizational Research Methods, 12*(4), 762–800. https://doi.org/10.1177/1094428109332834

Rogers, C. R. (1961). *On becoming a person: A therapist's view of psychotherapy*. Houghton Mifflin.

Rosenbaum, M. (1990). The role of learned resourcefulness in the self-control of health behavior. In M. Rosenbaum (Ed.), *Learned resourcefulness: On coping skills, self-control, and adaptive behavior* (pp. 3–30). Springer.

Rosenbaum, M. (2000). The self-regulation of experience: Openness and construction. In P. Dewe, A. M. Leiter, & T. Cox (Eds.), *Coping and health in organizations* (pp. 51–67). Taylor & Francis.

Rubin, K. H., Bukowski, W. M., & Bowker, J. C. (2015). Children in peer groups. In M. H. Bornstein, T. Leventhal, & R. M. Lerner (Eds.), *Handbook of child psychology and developmental science* (7th ed., Vol. 4, pp. 175–222). Wiley.

Rudolph, K. D. (2002). Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health, 30*(4), 3–13. https://doi.org/10.1016/S1054-139X(01)00383-4

Rueger, S. Y., Malecki, C. K., & Demaray, M. K. (2010). Relationship between multiple sources of perceived social support and psychological and academic adjustment in early adolescence: Comparisons across gender. *Journal of Youth and Adolescence, 39*(1), 47–61. https://doi.org/10.1007/s10964-008-9368-6

Ryff, C. D. (2014). Self-realisation and meaning making in the face of adversity: A eudaimonic approach to human resilience. *Journal of Psychology in Africa, 24*(1), 1–12. https://doi.org/10.1080/14330237.2014.904098

Ryff, C. D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived.* (pp. 15–36). American Psychological Association. https://doi.org/10.1037/10594-001

Schutte, N. S., & Malouff, J. M. (2020). Connections between curiosity, flow, and creativity. *Personality and Individual Differences, 152*. https://doi.org/10.1016/j.paid.2019.109555

Schwartz, S. J., Zamboanga, B. L., Luyckx, K., Meca, A., & Ritchie, R. A. (2013). Identity in emerging adulthood: Reviewing the field and looking forward. *Emerging Adulthood, 1*(2), 96–113. https://doi.org/10.1177/2167696813479781

Scully, C., McLaughlin, J., & Fitzgerald, A. (2020). The relationship between adverse childhood experiences, family functioning, and mental health problems among children and adolescents: A systematic review. *Journal of Family Therapy, 42*(2), 291–316. https://doi.org/10.1111/1467-6427.12263

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being.* Free Press.

Senge, P. M. (2000). Systems change in education. *Reflections, 1*(3), 52–60.

Serrat, O. (2017). Understanding and developing emotional intelligence. In O. Serrat (Ed.), *Knowledge solutions: Tools, methods, and approaches to drive organizational performance* (pp. 329–339). Springer Singapore. https://doi.org/10.1007/978-981-10-0983-9_37

Shek, D. T. L., Dou, D., Zhu, X., & Chai, W. (2019). Positive youth development: Current perspectives. *Adolescent Health, Medicine, and Therapeutics, 10*, 131–141. https://doi.org/10.2147/AHMT.S179946

Siegel, D. J. (2020). *The developing mind: How relationships and the brain interact to shape who we are*. Guilford.

Silvia, P. J. (2008a). Appraisal components and emotion traits: Examining the appraisal basis of trait curiosity. *Cognition and Emotion, 22*(1), 94–113. https://doi.org/10.1080/02699930701298481

Silvia, P. J. (2008b). Interest—The curious emotion. *Current Directions in Psychological Science, 17*(1), 57–60. https://doi.org/10.1111/j.1467-8721.2008.00548.x

Simmering, M. J., Fuller, C. M., Richardson, H. A., Ocal, Y., & Atinc, G. M. (2014). Marker variable choice, reporting, and interpretation in the detection of common method variance: A review and demonstration. *Organizational Research Methods, 18*(3), 473–511. https://doi.org/10.1177/1094428114560023

Simons, T. (2002). Behavioral integrity: The perceived alignment between managers' words and deeds as a research focus. *Organization Science, 13*(1), 18–35. https://doi.org/10.1287/orsc.13.1.18.543

Slote, M. (2001). *Morals from motives*. Oxford University Press.

Slote, M. (2004). Autonomy and empathy. *Social Philosphy and Policy, 21*(1), 293–309. https://doi.org/10.1017/s0265052504211128

Snyder, C. R., & Lopez, S. J. (Eds.). (2002). *Handbook of positive psychology*. Oxford University Press.

Steare, T., Gutiérrez Muñoz, C., Sullivan, A., & Lewis, G. (2023). The association between academic pressure and adolescent mental health problems: A systematic review. *Journal of Affective Disorders, 339*, 302–317. https://doi.org/10.1016/j.jad.2023.07.028

Su, R., Tay, L., & Diener, E. (2014). The development and validation of the Comprehensive Inventory of Thriving (CIT) and the Brief Inventory of Thriving (BIT). *Applied Psychology: Health and Well-Being, 6*(3), 251–279. https://doi.org/10.1111/aphw.12027

Suldo, S. M., Riley, K. N., & Shaffer, E. J. (2006). Academic correlates of children and adolescents' life satisfaction. *School Psychology International, 27*(5), 567–582. https://doi.org/10.1177/0143034306073411

Suldo, S. M., Shaunessy, E., Thalji, A., Michalowski, J., & Shaffer, E. (2009). Sources of stress for students in high school college preparatory and general education programs: Group differences and associations with adjustment. *Adolescence, 44*, 925–948. https://pubmed.ncbi.nlm.nih.gov/20432608/

Sutter, C. C., Stickl Haugen, J., Campbell, L. O., & Tinstman Jones, J. L. (2023). School and electronic bullying among adolescents: Direct and indirect relationships with sadness, sleep, and suicide ideation. *Journal of Adolescence, 95*(1), 82–96. https://doi.org/10.1002/jad.12101

Tangney, J. P., Boone, A. L., & Baumeister, R. F. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. In R. F. Baumeister (Ed.), *Self-regulation and self-control* (pp. 173–212). Routledge. https://doi.org/10.4324/9781315175775

Taylor, S. E., Kemeny, M. E., Reed, G. M., Bower, J. E., & Gruenewald, T. L. (2000). Psychological resources, positive illusions, and health. *American Psychologist, 55*, 99–109. https://doi.org/10.1037/0003-066X.55.1.99

Twenge, J. M., Cooper, A. B., Joiner, T. E., Duffy, M. E., & Binau, S. G. (2019). Age, period, and cohort trends in mood disorder indicators and suicide-related outcomes in a nationally representative dataset, 2005–2017. *Journal of Abnormal Psychology, 128*(3), 185–199. https://doi.org/10.1037/abn0000410

Ulug, C., & Horlings, L. G. (2019). Connecting resourcefulness and social innovation: Exploring conditions and processes in community gardens in the Netherlands. *Local Environment, 24*(3), 147–166. https://doi.org/10.1080/13549839.2018.1553941

Veenhoven, R. (2009). How do we assess how happy we are? Tenets, implications, and tenability of three theories. In A. K. Dutt & B. Radcliff (Eds.), *Happiness, economics, and politics* (pp. 45–69). Edward Elgar.

Veenhoven, R. (2012). Happiness: Also known as "life satisfaction" and "subjective well-being." In K. C. Land, A. C. Michalos, & M. J. Sirgy (Eds.), *Handbook of social indicators and quality of life research* (pp. 63–77). Springer Netherlands. https://doi.org/10.1007/978-94-007-2421-1_3

Veenhoven, R. (2015). The overall satisfaction with life: Subjective approaches (1). In W. Glatzer, L. Camfield, V. Møller, & M. Rojas (Eds.), *Global handbook of quality of life: Exploration of well-being of nations and continents* (pp. 207–238). Springer Netherlands. https://doi.org/10.1007/978-94-017-9178-6_9

von Stumm, S., Hell, B., & Chamorro-Premuzic, T. (2011). The hungry mind: Intellectual curiosity is the third pillar of academic performance. *Perspectives on Psychological Science, 6*(6), 574–588. https://doi.org/10.1177/1745691611421204

Vygotsky, L. S. (1962). *Thought and language*. MIT Press.

Walker, B. (2019). *Finding resilience: Change and uncertainty in nature and society*. CSIRO. https://doi.org/10.1071/9781486310784

Wang, M.-T., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development, 83*(3), 877–895. https://doi.org/10.1111/j.1467-8624.2012.01745.x

Ward, T. B., Smith, S. M., & Finke, R. A. (1999). Motivation and creativity. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 189–212). Cambridge University Presss.

Williams, L. J., & O'Boyle, E. H. (2015). Ideal, nonideal, and no-marker variables: The confirmatory factor analysis (CFA) marker technique works when it matters. *Journal of Applied Psychology, 100*(5), 1579–1602. https://doi.org/10.1037/a0038855

Willroth, E. C., Ong, A. D., Graham, E. K., & Mroczek, D. K. (2020). Being happy and becoming happier as independent predictors of physical health and mortality. *Psychosomatic Medicine, 82*(7), 650–657. https://doi.org/10.1097/psy.0000000000000832

Wilmot, M. P., Wanberg, C. R., Kammeyer-Mueller, J. D., & Ones, D. S. (2019). Extraversion advantages at work: A quantitative review and synthesis of the meta-analytic evidence. *Journal of Applied Psychology, 104*(12), 1447–1470. https://doi.org/10.1037/apl0000415

Wright, P. R., & Pascoe, R. (2015). Eudaimonia and creativity: The art of human flourishing. *Cambridge Journal of Education, 45*(3), 295–306. https://doi.org/10.1080/0305764X.2013.855172

Yan, M. C., & Wong, Y.-L. R. (2005). Rethinking self-awareness in cultural competence: Toward a dialogic self in cross-cultural social work. *Families in Society, 86*(2), 181–188. https://doi.org/10.1606/1044-3894.2453

Zaki, J. (2014). Empathy: A motivated account. *Psychological Bulletin, 140*(6), 1608–1647. https://doi.org/10.1037/a0037679

Zauszniewski, J. A., & Bekhet, A. K. (2011). Measuring use of resourcefulness skills: Psychometric testing of a new scale. *ISRN Nursing,* 787363. https://doi.org/10.5402/2011/787363

Zhang, X., Noor, R., & Savalei, V. (2016). Examining the effect of reverse worded items on the factor structure of the Need for Cognition Scale. *PLOS ONE, 11*(6), e0157795. https://doi.org/10.1371/journal.pone.0157795

Authors' Note: The survey conducted and datasets generated and analyzed for the current study are available from the corresponding author upon reasonable request.

Marilyn Price-Mitchell is a developmental psychologist and Fellow at the Institute for Social Innovation, Fielding Graduate University. Her research interests are in positive youth development, youth civic engagement, and family–school–community partnerships. A scholar–practitioner, Price-Mitchell translates evidence-based research into practice to help families, educators, and youth mentors foster developmental attributes in K–12 children and adolescents. Correspondence regarding this article may be addressed to Dr. Marilyn Price-Mitchell, Institute for Social Innovation, Fielding Graduate University, 2020 De La Vina St., Santa Barbara, CA 93105, or email mprice-mitchell@email.fielding.edu

Brett Clay is a lecturer at the University of Washington Bothell School of Business, executive coach, and management consultant. Dr. Clay's research interests are in leader and organization development. His expertise includes psychometric instrument development, quantitative analysis, and applying theories of change in individuals and organizations.