

**EXPLORING THE RELATIONSHIP BETWEEN STUDENTS' LIFE SATISFACTION
AND SCHOOL-BASED SOCIAL AND BEHAVIORAL SUCCESS**

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ABSTRACT

THE RELATIONSHIP BETWEEN STUDENTS' LIFE SATISFACTION AND SCHOOL- BASED SOCIAL AND BEHAVIORAL SUCCESS

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Life satisfaction is key indicator of psychological well-being, a central component of positive psychology, and an important correlate of positive development. Concurrent and predictive validity of global and domain-specific life satisfaction reports were explored with respect to social success within the classroom, peer rejection, and externalizing behavior problems. The Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS), which yields an overall subjective life satisfaction score in addition to five domain-specific satisfaction scores (family, friends, self, school, living environment), was administered to a sample of 198 3rd through 8th grade students in an urban public school in a northeastern U.S. city during the fall of 2008 (Time 1) and spring 2009 (Time 2). A friendship survey was also administered at both time points; peer nominations from these surveys were used to calculate individual peer acceptance and peer rejection scores, as well as to identify classroom social networks and students' salience within them. Data were also collected on individual disciplinary incidents throughout the year resulting in a total number of office discipline referrals (ODRs) for each student.

Given the abundance of literature suggesting that low levels of self-reported life satisfaction are linked to poor social and behavioral outcomes, it was expected that subjective satisfaction ratings would demonstrate an inverse relationship with peer rejection and disciplinary referrals, and

a positive relationship with social success, as measured by peer acceptance and social network centrality. At Time 1, in contrast with the hypothesis, none of the domain-specific or global life satisfaction variables were found to demonstrate any significant relationships with peer rejection or acceptance. However, as expected, Time 1 social network centrality demonstrated a small but significant correlation with satisfaction with self and a moderate correlation with satisfaction with friends. This relationship remained significant with respect to satisfaction with friends and Time 2 social network centrality, but decreased in magnitude. Regression analyses revealed that Time 1 life satisfaction variables were *not* able to predict a significant portion of the variance in any of the established outcome variables. This research was limited by its use of a single school with a homogenous student population; nevertheless, it provides an exploratory look into the potential of subjective life satisfaction profiles to serve as a screening tool for identifying students that may benefit from targeted social or behavioral interventions. Future research should examine this potential with larger and more diverse samples of students.

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CHAPTER 1

INTRODUCTION

Research Problem

The goal of school psychology is to promote the academic, social, and emotional success of all children (National Association of School Psychologists, 2005). Despite this overarching mission, which emphasizes a holistic approach to service delivery, efforts to improve children's lives have historically been aimed at remediating problems or eliminating or treating psychopathology (Huebner, Suldo, Smith, & McKnight, 2004). This traditional, deficit-oriented model reflects a "disease model" of human functioning that focuses on repairing psychological damage. While this cause is both important and functional, Seligman (1999) stipulated that such an exclusive emphasis on pathology neglects the "flourishing individual" and the "thriving community" (p.560). Accordingly, he called for an expansion of the research base on well-being and positive development, labeling this branch of study "positive psychology" (Seligman, 1999).

Historically, the mission of American schools has always included a commitment to social development in addition to the more commonly recognized civic and academic development of children (Dewey, 1970). Nevertheless, the goal of helping students achieve social-emotional and behavioral success has often been overlooked as a result of shifts in American educational philosophy, particularly the escalating importance of academic training (Reschly, 1988). Over the last few decades, researchers have noted a substantial decrease in the amount of attention paid to social relationships within schools and an increased emphasis on intellectual and academic development, accountability, and the organizational, curricular, and administrative aspects of education (Baker, 1998; Tyack & Cuban, 1995). Furthermore, it has been argued that the deficit model is insufficient for identifying students who do not exhibit

clinical levels of pathology but who experience low levels of well-being or diminished life satisfaction and are potentially at risk for developing future psychological problems (Larson, 2000). As a result of growing discontent with the deficit-oriented model of school psychology service delivery, utilization of a more positive approach reflecting an increased emphasis on preventative screenings and interventions has been suggested (Reschly, 1988).

According to Huebner and Gilman (2003), positive psychology has the potential to provide the framework for a truly comprehensive model of service delivery that encompasses an increased focus on prevention as well as greater emphasis on social-emotional and behavioral well-being. Unlike the traditional “wait-to-fail” model of service delivery, a positive psychology perspective may provide practitioners with the foundation to develop preventative programs and services and promote the flourishing and optimal development of *all* individuals, as opposed to just those displaying academic/behavioral deficits, psychopathology, or giftedness (Chafouleas & Bray, 2004). Huebner and Gilman (2003) illustrate this concept in the following passage:

“School psychologists could expand their client base and array of services, increasing their impact in the schools and related institutions. School psychologists who are interested in facilitating the effective and superior functioning of children, families, and institutions require expanded conceptualizations of health and service delivery; their efforts will be limited if they operate solely from problem-focused (e.g., problem-solving) conceptualizations in service delivery” (p. 100).

While a deficit model attempts to remediate difficulties, a positive psychology orientation takes a proactive approach to promoting holistic development of individual students and the school community through fostering character strengths and creating supportive environments that encourage optimal adjustment and flourishing (Seligman & Csikszentmihalyi, 2000).

While there exists an extensive body of research on developmental psychopathology, there is a relative scarcity of research exploring positive development and well-being (Larson, 2000; Suldo & Schafer, 2008). Subjective well-being has been defined as an individual’s experience or

appraisal of the positive qualities in his or her life (Diener, 1984). Cowen (1991) argued that wellness should be evaluated on the basis of positive indicators, such as individual reports of satisfaction with one's life, and subsequently proposed life satisfaction as the key indicator of psychological well-being (Cowen, 1994). Within the literature, life satisfaction has been explored both with regard to an overall or global appraisal of one's quality of life and to evaluations of various, prominent domains of life (Huebner, Suldo, Smith, & McKnight, 2004). Whereas unidimensional scales assess general satisfaction with life as a whole, multidimensional scales target multiple, specific spheres of life (e.g., family, friends/peers, self, school).

There is considerable evidence documenting the benefits of high levels of life satisfaction in an adult population; however, researchers have identified a need for further exploration of the relationship between life satisfaction and various experiences, attitudes, behaviors, and social-emotional outcomes within child and adolescent populations (Huebner, Suldo, Smith, & McKnight, 2004). Preliminary research in the field has revealed a positive relationship between life satisfaction and a number of positive school-related variables for children and adolescents, including GPA, attitude, participation, interpersonal and peer success, and intrapersonal functioning (Gilman & Huebner, 2006; Hodges, Malone, & Perry, 1997; Martin & Huebner; 2007). These findings generally parallel the adult literature, supporting the significance of positive ratings of life satisfaction and suggesting that the relationships between satisfaction and relevant life outcomes (social, emotional, behavioral, etc.) begin as early as adolescence. Nevertheless, research has not yet explored the relationship of life satisfaction to these domains of positive functioning in younger individuals. Furthermore, Haranin, Huebner, and Suldo (2007) noted that the majority of life satisfaction research has concentrated on studies of concurrent validity, leading to a gap in our understanding of the predictive validity of this

construct.

Purpose of the Study

The current study expands upon previous research in a number of ways. First, it extends upon previous research by examining the predictive utility of life satisfaction in a younger population to explore whether these relationships exist in students as young as 3rd grade. Consistent with a goal of expanding primary and secondary prevention efforts, the current study investigated the concurrent and predictive validity of global and domain-specific life satisfaction reports with respect to social success, peer rejection, isolation, and externalizing behavior problems at school. In this way, the current project explores the utility of subjective life satisfaction reports as a screening tool for identifying students at risk of developing social, emotional, and behavioral problems early on in the developmental trajectory in order to allow for maximum exposure to supportive programs and interventions and thus increase the likelihood of effectiveness. In further support of this goal, the current study utilizes a brief scale of multidimensional life satisfaction. Whereas existing research utilizes a scale that requires up to 30 minutes for completion, the short-form used in this study takes approximately five minutes to administer (Huebner, 1994; Seligson, Huebner, & Valois, 2005), rendering it a more practical tool for screening purposes. Finally, this study addresses a common limitation in existing research: an exclusive reliance on self-report measures. In the current study, a peer nomination procedure is used to examine social networks and relationships within the classroom, allowing for an analysis of observed as opposed to self-perceived social success (acceptance, rejection, isolation).

Overall, as recent research suggests that high levels of self-reported life satisfaction are

linked to favorable social and behavioral outcomes, the present study sought to investigate the predictive utility of global and domain-specific life satisfaction for identifying elementary and middle school students at risk of peer rejection, social isolation, and/or exhibiting externalizing behaviors (as measured by office discipline referrals), as well as for predicting social success within the classroom setting (peer acceptance, social network centrality). Specifically, the following questions were evaluated:

1. Is Life Satisfaction stable over the course of the school year?
2. Do self-reported Life Satisfaction scores demonstrate significant relationships with externalizing behaviors (peer rejection), internalizing behaviors (social isolation), and social success within the classroom (peer acceptance, social network centrality)?
3. Does Life Satisfaction at Time 1 predict future externalizing/internalizing behavior and/or social success at Time 2 (Spring 2009)?
 - a. Do Time 1 LS scores predict Time 2 Office Discipline Referrals (externalizing behavior)
 - b. Do Time 1 LS scores predict Time 2 Peer Rejection (externalizing behavior)
 - c. Do Time 1 LS scores predict Time 2 Social Isolation (internalizing behavior)
 - d. Do Time 1 LS scores predict Time 2 Peer Acceptance (social success)
 - e. Do Time 1 LS Scores predict Time 2 SNC (social success)
 - f. Do domain-based scores demonstrate incremental validity by predicting additional variance in future social and behavioral success indices beyond that accounted for by global life satisfaction?
4. Does the relationship between Life Satisfaction and behavioral and social success indices differ across grade levels?

CHAPTER 2

LITERATURE REVIEW

The overall betterment of children's lives is commonly regarded as the underlying mission of school psychologists. Historically, however, efforts to attain this goal have been predominantly espoused in a deficit-oriented model focused on remediation of problems and weaknesses, alleviating or eliminating symptoms of psychopathology and mental illness, and decreasing the likelihood that such pathologies may develop (Huebner, Suldo, Smith, & McKnight, 2004). Recently, the field of psychology has begun to pay more attention to promoting the type of growth and development that focuses on well-being as well as pathways to pathology. This "new" empirically based science of well-being and optimal functioning has been labeled "positive psychology," which focuses on establishing pathways to positive development through identifying and fostering strengths, promoting adaptive responses to adversity and negative life events, and building environments that support psychological adjustment and flourishing.

Positive Psychology

Positive psychology has been defined as the scientific study of human strengths and virtues that enable individuals and communities to thrive and foster optimal development, centering on three "pillars" or central concerns: positive emotions and experiences, positive individual traits or characteristics, and positive institutions (Seligman & Csikszentmihalyi, 2000). The first pillar, the study of positive emotions and experiences, refers to promoting contentment with the past, happiness in the present, and hope for the future. The second pillar, understanding positive individual traits, entails the study of strengths and virtues, characteristics

that are expected to contribute to resilience and provide a buffer against adversity (Masten, 2001). Such virtues include the capacity for love and work, courage, compassion, resilience, creativity, curiosity, integrity, self-knowledge, moderation, self-control, and wisdom (Seligman, 2002). Finally, understanding positive institutions requires an investigation of the qualities that promote stronger and more supportive communities, such as tolerance, leadership, responsibility, civility, nurturance, teamwork, and purpose (Seligman & Csikszentmihalyi, 2000). An understanding of this framework is important to the rationale of the current study, which attempts to explore the role of life satisfaction (a representation of the first pillar's positive emotions and experiences) as a characteristic that may contribute to positive interactions and behaviors (a representation of the second pillar's emphasis on character strengths that may cushion the blow of adverse circumstances). Furthermore, analyzing the relationship between global and domain-specific life satisfaction and positive school-based outcomes is consistent with the goals of the third pillar, promoting positive institutions.

According to Martin Seligman (1999), widely recognized as one of the founders of the movement, positive psychology was developed as a reaction to an overemphasis on pathology in the study of psychology. In his 1998 APA presidential address, he coined the term "Positive Psychology," describing it as "a reoriented science that emphasizes the understanding and building of the most positive qualities of an individual: optimism, courage, work ethic, future-mindedness, interpersonal skill, the capacity for pleasure and insight, and social responsibility" (Seligman, 1999, p. 559). Furthermore, mental health professionals and laypersons alike often acknowledge that a lack of disease is by no means equivalent to a superior sense of wellbeing (Huebner & Gilman, 2003). Huebner and Gilman (2003) provide a perfect illustration of the rationale for placing such weight on this new branch of psychology: "As one example, most

parents are not satisfied if the outcomes of their child-rearing efforts are limited to the failure to develop psychopathology. Rather, most parents seek to promote high levels of positive characteristics in their children, such as altruistic behavior, positive self-esteem, and academic excellence” (p. 100). These positive characteristics are expected to provide a buffer against the development of psychological difficulties (Masten, 2001). In short, people desire more than just the termination of misery, distress, and suffering; they want to nurture their unique potential and individual strengths, lead meaningful and satisfying lives, enjoy loving and supportive relationships, and learn how to realize optimal levels of functioning.

Rationale for a Positive School Psychology

Historically, the mission of American schools has always included a commitment to social growth in addition to the more commonly recognized civic and academic growth of children (Dewey, 1970). Although helping students achieve social-emotional success is considered a primary goal of school psychologists, this goal has often been ignored as a result of shifts in American educational philosophy. Furthermore, over the last few decades, there has been increasing frustration in the field of school psychology with the largely deficit-oriented model of school psychology service delivery, which has been accompanied by a push towards a more positive approach and an increased emphasis on preventative screenings and interventions (Reschly, 1988). This push is consistent with the current mission of school psychologists, who are charged with helping students to succeed academically, socially, and emotionally in an effort to improve children’s lives, as opposed to just their intellects. Positive psychology has the potential to fulfill the historic beliefs in the social, as well as the academic function of schooling by providing a framework to identify pathways to positive social and behavioral development, components of overall well-being and optimal functioning.

Schools represent one of the most important contexts for children's development due to the significant amount of time spent there, and the extent to which they influence children's experiences and self-perceptions, as well as their capacity to affect children's life courses (Baker, Dilly, Aupperlee & Patil, 2003). Accordingly, a positive psychology perspective on school psychology challenges practitioners to explore the degree to which schools and educational practices support children's optimum adjustment and psychological competence. As school-based practice provides opportunities to alter one of the primary developmental contexts in an effort to improve these outcomes, an exploration of the factors that contribute to positive growth and adjustment will be necessary to foster interventions that promote the well-being of students and overall school flourishing. Pursuit of this ideal is thus consistent with the third pillar of positive psychology: the study of positive institutions. As stated by Chafouleas and Bray (2004): "Without consideration of the third pillar, the positive institutions, the potential for positive psychology within the individual would not be fully realized. That is, the positive institution promotes, recognizes, and provides reinforcement for the display of positive individual traits" (p. 3). Furthermore, as the contexts in which individuals develop play a powerful role in furthering their adjustment and adaptation, the degree to which schools function as psychologically healthy environments is a formative issue in the application of a positive psychology orientation as applied to children (Masten & Coatsworth, 1998).

Historically, the mission of American schools has always included a commitment to social development in addition to the more commonly recognized civic and academic development of children (Dewey, 1970). The social context of schools was thus considered a critical component of the development of an educated society. Nevertheless, research on trends in public school reform has indicated a substantial decrease in the amount of attention paid to social relationships

within schools over the past 40 years (Baker, 1998). Instead, there has been an increasing emphasis on the intellectual and academic development of students, accountability, and the organizational, curricular, and administrative aspects of education (Tyack & Cuban, 1995). Recently, however, researchers in the field of education have witnessed a resurging interest in the social functions of schooling and the significance of the social context of schools as a predictor of successful school and life outcomes. Baker (1998) stipulated that social-contextual variables within schools include student relationships with peers, relationships among students and teachers, and the degree to which one's school or class acts as a supportive environment; as we are social beings, these social-contextual variables contribute to children's appraisals of the school environment and satisfaction with school in general. Huebner (1994) defined satisfaction with school as an individual's subjective and cognitive appraisal of the quality of school life, one of the core domains of children's overall life satisfaction, and thus an important aspect of overall well-being. Accordingly, satisfaction with school represents a valuable area for investigating students' perceptions of the school environment, and subsequently of schools as positive institutions.

Although promoting positive emotional experience in the school setting may not provide as obvious a causal link to skill development as direct instruction, this practice can serve an important role in what Seligman (2002) calls "psychological immunization," or the prevention of helplessness. For psychologists, fostering positive emotion by nurturing student talents and character strengths (such as motivation, perseverance, and creative problem solving) and by teaching children that outcomes are dependent on their behavior can serve as a powerful method for preventing early school failure and cultivating mastery (Chafouleas & Bray, 2004). For example, students exhibiting externalizing behaviors are often surrounded by negativity, which

can be counteracted using classroom interventions that allow students opportunities for success and incorporate high rates of praise (Jenson, Olympia, Farley, & Clark, 2004). Such practices support the development of positive institutions, increasing the likelihood of primary prevention and student success.

Promoting Positive Schools: A Developmental-Ecological Perspective

Baker, Dilly, Aupperlee, and Patil (2003) proposed a developmental-ecological framework for understanding positive school adjustment and the development of schools as positive institutions grounded in the work of Bronfenbrenner (1997, 1999), Deci and Ryan (1985) and Lazarus (1991). In response to the lack of a unified theory incorporating both individual and environmental variables, Baker and colleagues (2003) submit that children take an active role in their own development through mutually shaping interactions between the individual and the environment:

As they interact with school settings, children construct meaning about themselves, others, and the nature of school. The meanings children derive influence their beliefs about themselves as individuals, as learners, and about the purposes, nature, and goals of education. These beliefs in turn affect children's engagement and participation in school. Within this perspective, schools influence development because their characteristics affect children's appraisals of the school environment which, in turn, affect school-related cognitions and, ultimately, school-related behavior (p. 209).

Furthermore, positive practices within the school that promote a sense of connection and community are likely to be judged as supportive by students, promoting higher levels of satisfaction and in turn, increased engagement (Baker, Terry, Bridger, & Winsor, 1997). Schools also directly affect development because their structures and practices exert a socializing influence on students. Within this framework, positively influential schools will be those that demonstrate an adequate fit between the school's environment and the developmental needs of

students (Baker, 1998).

Subjective Well-Being

Subjective well-being has been defined as an individual's experience or appraisal of the positive qualities in his or her life (Diener, 1984). While early research on positive adjustment focused on objective indicators of well-being and quality of life (e.g., income, access to health, educational, and recreational resources), subjective indicators have begun to receive more attention in the literature (Huebner, Suldo, Smith, & McKnight, 2004). Csikszentmihaly (1990) goes so far as to stipulate that "subjective experience is not just one of the dimensions of life, it is life itself" (p.192). Maintaining positive levels of subjective well-being is important for psychological adaptation and normative functioning (Gilman & Huebner, 2006). From an evolutionary perspective, a positive subjective well-being set point allows for increased opportunities for social and personal advancement, exploratory behavior, and development of reliable coping mechanisms (Diener & Diener, 1996). Lazarus (1991) proposed that a positive baseline subjective well-being may provide the foundation on which an individual's cognitive appraisals and affective experience are based, thus serving as a buffer against the experience of negative emotions and behavioral reactions. Overall, when considering a model of mental health, subjective well-being alone may not be sufficient, but it certainly appears necessary based on existing literature (Diener, Lucas, Suh, & Smith, 1999).

The construct of subjective well-being is conceptualized as having both a cognitive component (life satisfaction) and an emotional component, which is further broken down into positive and negative affect (Huebner, 1991a; Diener et al., 1999). Thus, subjective well-being is comprised of three distinct domains of experience. The first, life satisfaction, also referred to

in the literature as perceived quality of life, refers to the cognitive appraisal of one's quality of life (Gilman & Huebner, 2003), otherwise defined as "excellence or goodness in aspects of life that go beyond mere subsistence, survival, and longevity" (Frisch, 2000, p.208). Positive affect refers to the frequency of positive emotions such as joy, pride, or contentment; in turn, negative affect refers to the frequency of negative emotions such as anxiety, despair, and anger (Huebner 1991a; Huebner & Dew, 1996). Research has supported the notion that these three concepts are interrelated, but distinct constructs in both adults and children (Diener et al., 1999; Huebner & Dew, 1996); accordingly, explorations of subjective well-being typically consider each component separately (Gilman & Huebner, 2003).

The current project focused its examination on the implications of life satisfaction on a variety of social and behavioral outcomes. Although an examination of positive and negative outcomes is valuable, life satisfaction was selected as the optimal subjective well-being variable for the purposes of this study for a number of reasons. First, through its definition as a general evaluation of overall life conditions, life satisfaction inherently incorporates both positive and negative affective states in addition to providing a reflection of environment and life events (Diener et al., 1999). Second, life satisfaction is *not* an epiphenomenon; it is not simply a secondary symptom or end-product of other factors, such as positive life experience, personality characteristics, and so on (Gilman & Huebner, 2003). Instead, life satisfaction appears to influence important behaviors and attitudes, and individuals with high levels of satisfaction tend to experience a number of benefits with regard to intrapersonal, interpersonal, vocational, health, and educational outcomes (Gilman & Huebner, 2003). Furthermore, Cowen (1994) has proposed life satisfaction as a key indicator of psychological wellness, asserting that "wellness is something more than/other than the absence of disease, that is, it is defined by the 'extent of

presence' of positive marker characteristics" (p. 154), of which life satisfaction is one. Park (2004) echoed this sentiment, stating that "positive indicators such as life satisfaction should be included in any assessment battery to capture comprehensively what is meant by the psychological well-being of youth" (p. 27).

From a theoretical perspective, life satisfaction research takes into account a multi-contextual perspective, supporting ecological theory by emphasizing the effects of various domains with high salience on children's adaptation (e.g., school, family, friends; Diener et al., 1999). Furthermore, consistent with the above-mentioned developmental-ecological framework, life satisfaction research can provide a lens to assess the "fit" between children and their environment (Gilman & Hueber, 2003), an important component in the development of positive, supportive institutions. Finally, assessment of students' full range of functioning, including both positive and negative indicators, can potentially alert school psychologists to potential "risk" indicators suggested by changes in life satisfaction (i.e. a drop from "high" to "moderate" satisfaction levels might warrant further investigation and/or intervention efforts; Gilman & Huebner, 2003) and assist in the development of person-centered interventions (Fave & Massimini, 2005). For these reasons, life satisfaction research is consistent with school psychology's mission to provide services that benefit all children through the fostering of mental health and well-being promotion in symptomatic and non-symptomatic children alike. Thus, life satisfaction was selected as the optimal variable through which to assess children's well-being within the school setting.

Existing Life Satisfaction Research

Within the literature, life satisfaction has been explored both with regard to an overall or

global appraisal of one's quality of life and to evaluations of various, prominent domains of life (Huebner, Suldo, Smith, & McKnight, 2004). Whereas unidimensional scales aim to assess satisfaction with life as a whole, multidimensional scales target multiple, specific spheres of life (e.g., family, friends/peers, self, school). Such methods yield more differentiated information, subsequently allowing for the identification of individuals that may be satisfied with one domain (i.e., peer interactions) but highly unsatisfied with another (i.e., family relationships). Within the multidimensional conceptualization, multiple models have been proposed; however, the most widely used and empirically supported model, supported by confirmatory factor analysis procedures, consists of five specific second-order domains – family, friends, school, living environment, and self – that are subsumed under a first-order global life satisfaction measure (Gilman & Huebner, 2003; Huebner, & Laughlin, 2000; Huebner, Laughlin, Ash, & Gilman, 1998). This study used one such measure, examining these five domains of life satisfaction in addition to global life satisfaction.

Regardless of the method of study, assessment of life satisfaction traditionally provides participants with the ability to designate functioning across the entire range of possible experience, ranging from very negative (e.g., “terrible”) to very positive (e.g., “delighted”) (Huebner, Suldo, Smith, & McKnight, 2004). Thus, life satisfaction measures provide a dual-valence model that extends beyond the mere absence of negative emotions and experience. This practice is consistent with Veenhoven's (1988) stipulation that life satisfaction is the key indicator of positive psychological well-being due to its examination of both positive and negative indicators of children's functioning.

Life Satisfaction Across the Lifespan

Research has indicated that a positive state of global life satisfaction, a general cognitive evaluation of one's life that both transcends and incorporates judgments about the specific domains in one's life, is normative within the population (Diener & Diener, 1996). Similar to adults, more recent examinations of levels of life satisfaction in youth populations have found that the majority of children and adolescents are generally satisfied with their lives and view their lives in a positive manner (Huebner, 1991a; 2004). In a study of over 5,000 American adolescents, 73% indicated positive ratings of global life satisfaction (responses ranging from "mostly satisfied" to "delighted;" Huebner, Drane, & Valois, 2000). Similar findings have been obtained across a wide variety of youth populations, including: Chinese (Leung & Zang, 2000), Canadian (Greenspoon & Saklofske, 1997), Spanish (Casas, Alsinet, Rossich, Huebner, & Laughlin, 2001), Australian (Cummins, 1997), Portuguese (Neto, 1993), and Korean (Park, 2000) students. While general satisfaction, or at least contentment, appears to be the cross-cultural norm for individuals of all ages, there are those who indicate negative appraisals of their lives; approximately one tenth of the population in Huebner, Drane, and Valois's (2000) study reported feeling "mostly dissatisfied" or "terrible" with regard to their global life satisfaction.

Correlates of Life Satisfaction

Myriad studies and articles have demonstrated support for the important role of life satisfaction in an adult population. In a review of existing research, Frisch (2000) noted that life satisfaction was shown to predict a wide array of outcomes, ranging from psychological disorders (e.g., depression, suicidality), physical health (e.g., respiratory illness, cardiovascular disease), longevity, interpersonal problems (e.g., marital problems, peer rejection), willingness to

participate in health promotion programs, and job difficulties (unemployment, job dissatisfaction). Dear, Henderson, and Korten (2002) demonstrated that deviations from the normative high levels of well-being are associated with a variety of maladaptive outcomes. In contrast, Deiner and Seligman (2002) found that “very happy” adults (those in the top 10% of subjective well-being measures) reported significantly lower levels of psychological distress, more positive social relationships, and higher levels of extraversion than their counterparts on the extremely low end of the continuum. Similarly, Lyubormirsky, King, and Diener (2005) found additional support for the positive implications of positive subjective well-being in adults, as those high in life satisfaction demonstrated greater success in terms of interpersonal, occupational, and physical functioning. In sum, these studies support the notion that life satisfaction holds important implications with regard to mental and physical health.

While there exists a considerable body of research concerning the predictive utility of life satisfaction assessments in an adult population, the majority of child and youth life satisfaction research has focused on life satisfaction as an outcome variable, examining the assumed intrapersonal, interpersonal, behavioral, and environmental determinants (correlates) of individual differences in life satisfaction (Huebner, Suldo, Smith, & McKnight, 2004). Such studies have revealed a wide variety of associated factors. The first wave of research in this field explored the relationship among demographic variables and life satisfaction. Similar to findings with adults, these early life satisfaction studies revealed negligible or modest correlations between life satisfaction and demographic variables such as age, gender, socio-economic status, race, and parental marital status (Gilman & Huebner, 2003; Huebner, 1991a). With regard to socio-economic status, differences in life satisfaction may be observed when financial struggles are accompanied by extreme situations, such as homelessness (Bearsley & Cummins, 1999);

however, it is generally accepted that once children's fundamental needs are met, differences in socio-economic status are not associated with significant differences in life satisfaction level (Veenhoven, 1988).

Unlike demographic variables, personality variables have been shown to be some of the strongest correlates of life satisfaction among children and adolescents. For example, children reporting high degrees of life satisfaction tend to have positive views of themselves (high self-esteem), to be relaxed and extraverted, and to believe what happens to them is under their own control (internal locus of control; Ash & Huebner, 2001; Dew & Huebner, 1994; Huebner, 1991a). Self-control and self-reliance, similar constructs to self-esteem, have also demonstrated positive correlations with life satisfaction (Greenspoon & Saklofske, 2001; Neto, 1993). Furthermore, children with pro-social dispositions (higher levels of social interest) have been found to report higher levels of life satisfaction (Gilman, 2001). In addition to these positive relationships, negative correlations have been found between self-reported life satisfaction ratings and possession of anxious or neurotic character traits (Fogle, Huebner, & Laughlin, 2002). Huebner (1991a) proposed that the observation of strong relationships between satisfaction and internal personality variables and the relatively weak associations with demographic variables implies that objective circumstances (socio-economic status, parental marital status, etc.) may not have a direct impact on children's subjective well-being, but are instead mediated by children's individual personality differences and perceptions of their lives.

Beyond intrapersonal variables, child and youth perceptions of the quality of their interpersonal relationships (i.e. family and friends) are also strongly associated with levels of life satisfaction. Not surprisingly, positive relationships with parents are positively correlated with life satisfaction, and have actually been found to demonstrate stronger relationships with overall

life satisfaction in children than peer relationships (Huebner, 1991a). Parent relations also demonstrated a stronger relationship with adolescent life satisfaction than physical appearance and academic self-concept, demonstrating the importance of close interpersonal relationships to a sense of well-being (Dew & Huebner, 1994). Further investigations of the role of familial factors have identified specific variables directly associated with life satisfaction in children, including: authoritative parenting style (Petito & Cummins, 2000), parental social support (Stevenson, Maton, & Teti, 1999), a loving parental relationship (Grossman & Rowat, 1995), and continuity of parental marital status (Demo & Acock, 1996). Additionally, life satisfaction levels have been found to act as a mediator between parenting styles (supervisory, provision of autonomy, social support) and internalizing and externalizing behaviors in adolescents (Suldo & Huebner, 2004a).

Environmental variables represent another correlated category to youth's life satisfaction ratings. After reviewing existing research on life satisfaction in children and adolescents, Huebner and colleagues (2004) reported that the rapidly expanding database substantiates the idea that situational factors (e.g., neighborhood, life events/stressors, daily experiences) are highly relevant to life satisfaction levels. For example, living in a residential neighborhood, as compared to industrial or commercial areas, was associated with higher satisfaction (Homel & Burns, 1989). With regard to life events and experiences, both acute and ongoing or chronic events influence life satisfaction. These events can be positive (i.e., getting a perfect score on a test) or negative (death in the family), with positive daily (chronic) experiences acting as the strongest predictor of life satisfaction, even above and beyond the accumulation of major or daily life stressors (Ash & Huebner, 2001; McCullough, Huebner, & Laughlin, 2000).

Research regarding the mental health of children and adolescents has also established the existence of significant associations between a variety of internalizing and externalizing behaviors. With regard to internalizing conditions, global life satisfaction has demonstrated a negative correlation with mood-disorders such as depression (correlations ranging from .50 to .60 across various age groups), anxiety, and social stress (Gilman, Huebner, & Laughlin, 2000; Greenspoon & Saklofske, 1997; Neto, 1993; Huebner, 1991a; Adelman, Taylor, & Nelson, 1989). Studies have also linked satisfaction to various risk behaviors. For example, lower levels of life satisfaction were associated with a higher likelihood of substance abuse, including: cigarette smoking, chewing tobacco, marijuana use, regular alcohol use, binge drinking, intravenous drug use, cocaine, and steroid groups (Zullig, Valois, Huebner, Oeltmann, & Drane, 2001). Furthermore, lower satisfaction was also linked to decreased age of first use (Zullig et al., 2001). Other negatively associated risk behaviors include carrying a weapon to school, physical fighting, drinking and driving, being injured or threatened by a weapon (Valois, Zullig, Huebner, & Drane, 2001); sexual risk-taking behaviors (i.e., age of first intercourse, alcohol/drug use prior to intercourse, no use of contraception, forced sexual relations, and dating violence; Valois, Zullig, Huebner, Kammerman & Drane, 2002), and negative weight perceptions and unhealthy dieting behaviors (i.e., vomiting, use of laxatives, taking diet pills; Valois, Zullig, Huebner, & Drane, 2003). Within a population of referred elementary and middle school students, lower life satisfaction was negatively related to teacher-reported instances of behavior problems. Thus, it appears that, similar to the adult population, the subjective life satisfaction of youth holds important implications with regard to mental and physical health.

Life Satisfaction in Schools

A number of studies have focused their efforts on exploring the relationship between life satisfaction and various experiences, attitudes, and behaviors within the school setting. Consistent with the developmental-ecological framework for positive school adjustment, Adelman, Taylor, and Nelson (1989) demonstrated that perceived control at school was associated with higher life satisfaction ratings. Furthermore, Huebner, Funk, and Gilman (2000) found a relationship between low global life satisfaction and negative attitudes towards teachers and school in general, and Maton (1990) revealed that African American males who had dropped out of school early evidenced lower ratings of life satisfaction following drop-out. Gillman (2001) provided an example of the relationship between life satisfaction and positive school experience, as he found that higher adolescent life satisfaction levels were associated with increased participation in structured extracurricular activities (sports, chess clubs, peer tutoring, volunteering, etc.). This finding supports the significance of active participation and engagement in stimulating, structured, activities.

Other school-related well-being research has targeted the life satisfaction of unique child populations, such as children receiving special services or youth with particular disabilities or skills. Initial research in this field found lower satisfaction levels in populations of children referred for mental health services (Adelman, Taylor, & Nelson, 1989). Children with emotional disabilities demonstrated similar patterns of life satisfaction, evidencing diminished levels when compared to students without any diagnosable condition and those identified as having learning disorders (Huebner & Alderman, 1993). On the other hand, giftedness did not appear to have any significant relationship with overall life satisfaction. In a population of middle school students, Ash and Huebner (1998) were unable to identify any differences in global or domain-

specific life satisfaction levels; however, they did note that school-based satisfaction accounted for a greater portion of the variance in gifted students' global satisfaction levels, demonstrating the particular significance of the school climate for this group of children. Children with physical disabilities also did not differ significantly from their non-disabled counterparts with regard to life satisfaction, although the population consisted solely of students with cerebral palsy, and only those that were capable of participating in interviews (Magill-Evans, Darrah, Adkins, & Kratochvil, 2001).

In a cross-sectional study, Gilman and Huebner (2006) demonstrated evidence for a positive relationship between life satisfaction and a variety of positive school-related outcomes. In a sample with a mean age 14.45, students reporting high global life satisfaction were found to demonstrate significantly higher adaptive functioning on measures of intrapersonal, interpersonal, and school-related functioning than those who report low levels of satisfaction. With regard to school variables, students who reported high life satisfaction were more likely to report higher grade point averages (GPAs), better attitudes towards school and towards teachers, and increased participation in structured extracurricular activities. In the area of interpersonal variables, high life satisfaction students demonstrated lower levels of social stress, more positive peer relationships, and more positive peer experiences. Finally, with regard to intrapersonal variables, adolescents reporting "high" levels of life satisfaction report significantly higher scores on measures of hope, self-esteem, (internal) locus of control; and lower scores on social stress, anxiety, negative attitude towards teachers, and intrapersonal functioning than those who report "average" levels of satisfaction. Significant differences were also found on all measures, between students reporting average levels of satisfaction with those reporting low levels of satisfaction, with lower satisfaction associated with more maladaptive functioning in all cases.

Furthermore, “high” satisfaction adolescents demonstrated no clinical levels of psychological symptoms, compared to 7% in the “average” group and 42% of the “low” satisfaction group.

Social success and interpersonal experiences within the school setting have also been documented as important correlates of life satisfaction in children and adolescents. This is because students who are socially rejected or have few friends have a higher likelihood of experiencing peer victimization (Hodges, Malone, & Perry, 1997). Martin and Huebner (2007) explored the relationship among various forms of peer victimization and prosocial experience and emotional well-being in a sample of 6th to 8th grade students in an effort to expand previous research on the detrimental effects of victimization. Findings indicated that adolescents faced with overt and relational victimization and diminished pro-social interactions demonstrated lower levels of well-being. Prosocial experience, defined as the frequency with which a student has been the recipient of positive or supportive acts by peers, was identified as a protective factor capable of providing a buffer between otherwise distressing events and emotional well-being (Martin & Huebner, 2007). Similarly, in a study of 8th and 9th graders, Konu, Lintoten, and Rimpela (2002) found that school context (school conditions, social relationships, means for self-fulfillment, health status) and social relationships (having at least one intimate friend, not being bullied) were the most important predictors of general subjective well-being. While these studies contribute useful knowledge to the field of life satisfaction research, the underlying focus of these investigations was to identify determinants of life satisfaction using simple correlational statistics; nevertheless, there is a lack of research examining life satisfaction as a predictor of social/interpersonal success over time.

Finally, students’ appraisals of satisfaction with their school environment (one domain of children’s global life satisfaction) have been linked to a number of important educational

outcomes. Positive appraisals, representing satisfaction, have demonstrated significant relationships to student acceptance of educational values, motivation to succeed, and commitment to school (Goodenow & Grady, 1992). In contrast, negative appraisals (dissatisfaction with school) have been found to be associated with a variety of unfavorable educational outcomes, including dropping out of school, problem behavior/externalizing problems, and poor school achievement (Ainely, 1991). Furthermore, negative appraisals of school experiences have been shown to have unfavorable psychological consequences, such as discontent, alienation, and disengagement or identification with school altogether (Fine, 1986). Finally, Baker (1998) suggested that, based on over-representation in indicators of poor school adjustment, including school drop-out rates, unemployment, and poor mental health outcomes, it may be especially useful to consider satisfaction as a proxy for adjustment among low-income, urban, African American children. Thus, particular attention was paid to the role of school satisfaction as a predictor of social and behavioral outcomes in the current study.

Overall, the findings regarding the correlates of life satisfaction in children and adolescents parallel the adult literature, supporting the significance of positive life satisfaction and suggesting that relationships between satisfaction and relevant life outcomes (social, emotional, behavioral, etc.) begin as early as adolescence. Nevertheless, there exists a dearth of research exploring the relationship of life satisfaction to these domains of positive functioning in younger individuals, as well as in urban, African-American youth populations; thus, the current study explored the relationship of life satisfaction to several domains of social and behavioral functioning in a sample of urban, primarily African-American elementary and middle school students.

Life Satisfaction: Causal Pathways

While initial research focused on life satisfaction as an outcome measure, more recent research in the field has begun to explore the “how’s” and the “why’s” of the relationships established by previous correlational studies. Over the past few years, a number of studies have emerged that attempt to uncover causal pathways and explore the interaction of personality and environmental variables. This new avenue of research set out to examine both the mechanisms by which intra-individual variables and environmental variables affect life satisfaction, and the potential of life satisfaction to mediate and/or moderate the effect of these internal and external factors on additional outcomes and behaviors.

Studies seeking to understand *how* variables such as personality traits and positive or negative experience impact life satisfaction have identified a number of important cognitive mediators. One cognitive variable that had been suggested as a key factor in determining life satisfaction is causal attribution style (Seligman, Peterson, Kaslow, Tanenbaum, Alloy, & Abramson, 1984). Causal attribution style involves a person’s explanation for the cause of a particular outcome or behavior; those with an adaptive attribution style tend to create external, unstable, and specific explanations for negative events and internal, stable, and global explanations for positive ones. Individuals with a maladaptive style follow an opposite pattern, generating internal, stable, and global attributions for negative events and vice versa (Seligman, et al., 1984). Rigby and Huebner (2005) conducted a study to examine their hypothesis that adolescents’ causal attribution style mediates the relationship between personality characteristics such as extraversion and emotional stability and life satisfaction. Results indicated that adaptive attributions for positive events/outcomes served as partial, cognitive mediators between emotional stability and life satisfaction. Similarly, Ash and Huebner (2001) found that locus of

control attributions mediated the relationship between negative life events and chronic stressors and adolescent life satisfaction.

Other studies have further illustrated that life satisfaction is not simply an epiphenomenon by demonstrating its ability to mediate between environmental experiences and adaptive behavior. For example, McKnight, Huebner, and Suldo (2002) explored the possibility that life satisfaction serves as an intervening variable that mediates the relationship between stressful life experiences and adolescent behavioral outcomes. Findings provided support for the role of life satisfaction as a partial cognitive mediator between acute stressful life events and behavior, particularly internalizing behaviors, thus suggesting that adolescent's cognitions regarding their subjective appraisals of quality of life play an important role in influencing behavioral outcomes and supporting further exploration of this impact. Additionally, Suldo and Huebner (2004b) demonstrated that adolescents with high life satisfaction were less likely to engage in future externalizing behaviors after being faced with significant life stressors, providing support for the exploration of life satisfaction as a screening tool (predictor) to identify at-risk students.

Life Satisfaction as a Predictor of Social and Behavioral Outcomes

Specifically, this study explored the ability of life satisfaction among children and adolescents to predict future levels of adaptive interpersonal success, peer rejection, and externalizing behaviors in an effort to support its use in identifying students at risk for problems in these areas. For example, Frisch (2000) proposed that life satisfaction measures could potentially prove useful in screenings, goal-setting activities, intervention planning, and clinical evaluations of adults. Huebner, Gilman, and Suldo (2007) have extended this proposal to applications with children and adolescents in school settings. There has been a growing desire

for greater attention to the social-emotional development component of schooling, including an identification of methods to screen for children “at-risk” of developing more severe problems in these areas to parallel the increasing emphasis on universal academic screening of all students. To date, only a small number of studies have been published that explore the predictive utility of life satisfaction in this manner; however, establishing such predictive relationships is essential to explore the practical utility of life satisfaction as a screening tool.

Harani, Huebner, and Suldo (2007) noted that the majority of life satisfaction research has concentrated on studies of concurrent validity, leading to a dearth in the current understanding of the predictive validity of this construct, and, despite the increase in use of multidimensional life satisfaction scales, the contributions of specific domains in relation to global measures have only scarcely begun to be explored. Accordingly, Harani and colleagues (2007) conducted an examination of the concurrent, predictive, and incremental validity of global and domain-based life satisfaction reports in a sample of adolescents over a period of three years. The author used both the Students’ Life Satisfaction Scale (SLSS; Huebner, 1991b), a unidimensional measure, and the Multidimensional Student Life Satisfaction Scale (MSLSS; Huebner, 1994), based on Huebner’s five-domain multidimensional model of life satisfaction: family, friends, school, self, living environment (see Gilman & Huebner, 2000, for further description of these measures). Findings indicated that life satisfaction was significantly related to future measures of internalizing behavior (withdrawn, somatic complaints, anxious, depressed) as well as externalizing behavior (delinquent behavior, aggression) in adolescents as far as two years later. As can be expected, the magnitude of the correlations decreased over time; nevertheless, these findings provided substantial evidence for the predictive validity of adolescent global life satisfaction.

The authors also found evidence for the incremental validity of the five domain-based adolescent life satisfaction reports (friends, school, living environment, self, family, consistent with Huebner's model described above), as the domain measures provided additional, unique information beyond that provided by the global life satisfaction measure (Haranin, Huebner, & Suldo, 2007). Domain scores did not predict internalizing/externalizing behavior as robustly as global life satisfaction scores; however, the results demonstrated that certain domains – school, living environment, and family – are better predictors of externalizing behavior, while others – friends, living environment, and self – are the best predictors of internalizing behavior. According to the authors, this information suggests that knowledge about the levels of specific aspects of adolescent life satisfaction can provide “non-redundant information” with regard to the explanation and prediction of adolescent behavior problems and potentially assist in the accuracy of life-satisfaction assessments and predictions. In concluding, the authors call for additional research, stipulating the following:

Pending additional research, the domain-based scores may prove most useful in determining which specific areas of life to target for health promotion efforts for individuals or groups of adolescents. For example, students who report dissatisfaction with school life may require different interventions than students who report dissatisfaction with family life (Haranin et al., p.137).

Overall, the results of this study indicate that both global and domain specific measures of life satisfaction can predict important future behaviors in adolescents.

While Haranin et al.'s (2007) study focused on life satisfaction's predictive utility with regard to internalizing and externalizing behaviors, Martin, Huebner, and Valois (2008) examined longitudinal relationships between adolescents' (grade 6 to 8) life satisfaction and a variety of social and relational outcomes. Early research on the correlates of life satisfaction in children and youth demonstrated a strong relationship between perceptions of interpersonal

(family, friend) relationships and overall satisfaction levels, and more recent research identified a link between low life satisfaction and negative peer interactions, including overt and relational victimization and diminished prosocial interactions (Martin & Huebner, 2007). Martin et al. (2008) sought to investigate the directionality of this relationship between life satisfaction and positive/negative peer social experience using a longitudinal design. For the purposes of this study, the MSLSS was also used as the measure of life satisfaction, and three types of victimization were used: overt victimization (verbal and physical threats/attacks), relational victimization (social exclusion, gossip/rumor-spreading), and reduced prosocial experience.

Martin and colleagues' (2008) results found support for the role of life satisfaction as a predictor of future social outcomes. Specifically, initial life satisfaction scores did not predict future overt victimization scores, but did predict relational victimization and prosocial experiences. Together, these two studies support the conceptualization of low levels of life satisfaction as an identified risk factor for adverse peer relationships in future (relational victimization, lack of prosocial experience), internalizing behaviors, and externalizing behavior. Nevertheless, a common limitation among both studies was the methodology for examining these social and behavioral outcomes, relying solely on student' self-reports of their own social experience and behaviors. The current study addressed these limitations by utilizing social networking procedures as an objective measure of social success (acceptance by peers, peer rejection, and social network centrality) and office discipline referrals as an objective measure of behavioral success within the school environment.

The Current Study

The current study was designed to explore the concurrent and predictive validity of global and domain-specific life satisfaction reports with respect to social success, peer rejection, social

network centrality, and externalizing behavior problems. This project expands upon previous research in a number of ways. First, it extends upon previous research by examining the predictive utility of global and domain specific life satisfaction in a younger population to explore whether these relationships exist earlier on in development, as this information would be highly beneficial for the development of primary and secondary prevention programs. The youngest students in Martin et al. (2008) and Haranin et al.'s (2007) studies were in 6th grade; the current study explored similar relationships in students ranging from 3rd to 8th grade. Just as targeted academic prevention efforts have the greatest chance for success when initiated at early ages, it is critical to assess the utility of life satisfaction as a tool for identifying students at risk of developing social/emotional/behavioral problems early on to provide maximum exposure to supportive programs and interventions.

This study also expanded upon previous research in its use of measures. First, one of the most common limitations in existing research is the sole reliance on self-report measures. The current study acknowledged this limitation by utilizing a peer nomination procedure to explore social networks and relationships within the class, allowing for an analysis of observed as opposed to self-perceived social success (acceptance, rejection, social network centrality). Furthermore, office discipline referrals are used as an objective measure of externalizing behaviors, whereas Haranin et al.'s (2007) study utilized self-report.

Another advantage of the current study is its exploration of the use of a short-form scale of multidimensional life satisfaction. The two existing studies examining life satisfaction as a predictor of later behavioral and social outcomes utilized the MSLSS, a 40-item self-report scale that takes approximately 20-30 minutes to complete (Huebner, 1994). In contrast, the current study seeks to obtain similar evidence of predictive and incremental validity using the Brief

Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson, Huebner, & Valois, 2005), a 6-item version of this scale that takes approximately five minutes to complete. Part of the rationale for conducting such research involves exploring the utility of life satisfaction measures as a screening tool for identifying at-risk children; demonstration of the predictive validity of a briefer measure would be advantageous.

Overall, given the abundance of literature suggesting that low levels of self-reported life satisfaction are linked to poor social and behavioral outcomes, the present study sought to confirm and explore the predictive utility of overall and domain-specific life satisfaction for identifying elementary and middle school students at risk of peer victimization (rejection) and/or exhibiting externalizing behaviors (as measured by office discipline referrals), as well as for predicting social success within the classroom setting (peer acceptance, social network centrality). It was expected that global life satisfaction measures would demonstrate both concurrent and predictive validity with regard to all outcome measures. Negative relationships were hypothesized between life satisfaction and measures of internalizing/externalizing behaviors, whereas positive relationships were expected to be identified between life satisfaction and measures of classroom social success. Furthermore, based on the recent demonstrations of the incremental validity of domain-specific life satisfaction scores, it was expected that domain-based life satisfaction would contribute unique variance to the predictive validity of global life satisfaction scores.

CHAPTER 3

METHODS

Participants

During the fall of 2008, all students from an urban public school in the mid-Atlantic U.S. were enrolled in a larger longitudinal study of friendships among elementary and middle school children. This sample thus represents a convenience sample, as the school had already provided permission and Institutional Review Board approval had already been obtained for conducting research in this school. All students enrolled in Grades 3 through 8 ($n = 378$) were recruited as participants for the current project. Only students whose parents provided consent were included. Following attainment of parental permission, students were asked to provide written assent to participate in the study. A total of 138 participants provided both parental consent and student assent.

Participating students' ages ranged from approximately 7 to 14 years old. The sample consisted of 12 classrooms across the six grade levels recruited (3rd to 8th grade), with two classrooms per grade, and approximately 20-25 students in each classroom. The majority of the sample identified themselves as African American; more specifically, demographic information provided by the respective school district for the year data were collected (2008-2009) listed the ethnic breakdown of the school as the following: African American (98%), Hispanic, (less than 1%), European-American (less than 1%), and Other (less than 1%). Approximately half of the sample was female. Using qualification for free or reduced-cost lunch as an indicator of low socioeconomic status (SES), it was determined that the majority of students (86.9% during the 2008-2009 school year) come from low-income families and reside in the local area surrounding

the school. No participants were excluded because of age, gender, economic status, or ethnic origin.

Procedures

In the Fall of 2008, teachers were recruited for participation by the principal investigator of the overarching study. This group of teachers was then provided with a description of all study activities that would be taking place in their classrooms and provided with consent forms. Teachers were given the opportunity to opt in or out of the study; no consequences were provided for declining participation. Among the 12 teachers recruited across the six grade levels, the return rate of completed teacher consent forms was 100%.

After teacher consent was obtained, letters describing the study and requesting parental permission for student participation were sent to all students enrolled in grades 3 through 8. Parents were given the option to contact one of the study investigators if they had any questions regarding the nature of the procedures; however, only one parent chose to utilize this option and spoke with the larger study's principal investigator prior to signing consent. To increase return rates on consents, a pizza party reward was offered to the class that brought in the most completed consent forms within their grade group (third through fifth, sixth through eighth). Class-wide pizza parties were subsidized by the principal investigator of the overarching study. In order to ensure that there was no coercion, parents were provided with the opportunity to opt in or out of participation, and completed and returned forms were counted towards the classroom totals, regardless of whether parent permission was granted.

Students who brought back signed parental consent forms were asked to indicate a willingness to participate through signing a student assent form prior to completing any of the measures. The content of these forms was read and explained to the students in either a group or

individual format (depending on the needs of the child) to ensure that each child understood the terms to which they were agreeing. As previously mentioned, all students who returned parental consent forms also provided child assent to participate. The final number of students for whom completed consent forms were returned was 138; however, due to the peer nomination procedures in the measures utilized for the purposes of this study, anonymous information was collected on all 378 students.

Once parent and teacher consent and student assent were obtained, teachers were asked to provide approximately 30 minutes of class time at two points during the school year (once during the Fall/Winter and once during the Spring) in order to allow their students to complete a battery of questionnaires (please see Measures section below for a detailed description of these assessment tools). Due to delays in obtaining student consent forms, Time 1 data were collected between the months of October, 2008 and February. As no new consent forms were required in the spring, all Time 2 data were collected in June, 2009. No students dropped out of the study or withdrew between data collection periods; however, due to variability in attendance, some students who completed the measures at Time 1 did not have the opportunity to complete them at Time 2, and vice versa.

All students who provided both parental consent and their own assent by Time 1 of data collection were administered two questionnaires (Friendship Survey and Brief Multidimensional Student Life Satisfaction Survey, described below) in a class-wide, small group, or individualized format during class time. Variability in administration format depended on developmental capabilities and the availability of adult assistance to promote understanding of instructions. Research personnel and teachers arranged convenient times for data collection sessions to take place. Each data collection session consisted of a minimum of two to three

research personnel entering a classroom at the pre-determined time to administer the measures. Research personnel were primarily trained graduate students, with the exception of two principal investigators from the larger study, both doctoral level psychologists. During the majority of sessions, questionnaires were presented in a class-wide format; however, exceptions were made when it was determined to be more developmentally appropriate to present the materials in a small group or individual format (typically for the younger students in the sample). Additionally, exceptions were made for students who struggled with reading skills or who requested adult assistance to complete their questionnaires.

At the start of each data collection session, one of the principal investigators or research personnel briefly described the intentions and objectives of the study in developmentally appropriate terms. Students were told that researchers wanted to find out about students' friendships and obtain students' opinions about how happy they were with various aspects of their lives. Within the group administration format, one or more of the researchers read each of the survey questions aloud to the class before surveys were distributed, and students were provided with the opportunity to ask questions to clarify any misunderstandings. Subsequently, students were given a packet of surveys that included the *Friendship Survey* and the *Brief Multidimensional Students' Life Satisfaction Scale*, amongst other measures not utilized for the purposes of this study. Once surveys were distributed, students were reminded to complete the information quietly and independently and to keep their eyes on their own paper, as it was important that they be as honest as possible in their answers. While students were working on completion, the examiners individually circled throughout the class to check for comprehension problems or students that were falling behind or struggling. In these situations, or if students raised their hand to request help, examiners made themselves available to assist the children in

reading, interpreting, and responding to the survey questions appropriately. Furthermore, as previously mentioned, students in the younger grades and students who were unable to read were administered the questionnaires in a 1:1 format and were read all instructions and questions by one of the study investigators or one of the trained graduate students assisting with data collection.

While these questionnaires were administered at both Time 1 and Time 2, data on office discipline referrals were collected only at the end of the year representing all referrals throughout the year. For each specific teacher-defined occurrence of a disciplinary violation, a standardized school-wide discipline referral form was filled out in which teachers provided information in each of several categories of behavior (see Measures section for a detailed list). These data were entered into a database by trained graduate students using the School-Wide Information System (SWIS), a web-based information system that allows schools to organize office referral data and generate reports on student behavior (May, Ard, Todd, Horner, Glasgow, Sugai, & Sprague, 2010). At the end of the school year, reports were generated to obtain each individual student's total number of referrals for discipline problems throughout the year.

Measures

Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; see Appendix A). This brief, five-item scale yields scores in five specific domains (family, friends, self, school, and living environment); in addition, an optional sixth question can be used to provide a measure of global life satisfaction (Seligson, Huebner, & Valois, 2003). All six questions were utilized for the purposes of this study. On this scale, each domain is represented by a single question, on which students are asked to respond according to a 7-point scale by selecting one of the following choices to describe their satisfaction in each domain: terrible, unhappy, mostly

dissatisfied, mixed (about equally satisfied and dissatisfied), mostly satisfied, pleased, or delighted. By providing the opportunity to differentiate several levels of satisfaction above and below neutral, the BMSLSS allows for a more sensitive measure of youth well-being in relation to many existing traditional measures focusing exclusively on psychopathological functioning. The BMSLSS is a self-completed measure that takes approximately five minutes to complete, and was completed by students at the beginning/middle and end of the school year (Time 1 and Time 2) to evaluate changes in satisfaction over the course of the school year.

Previous research has indicated that levels of perceived life satisfaction are related to numerous behavioral and social outcomes and can act as a buffer for stressful environmental experiences (Suldo & Huebner, 2004a); thus, this measure was used to quantify students' internal feelings of well-being and explore how well these feelings predict behavioral and social successes and/or problems. The BMSLSS has consistently yielded adequate internal consistency estimates; alpha coefficients for the six-item version range from 0.76 for elementary students and 0.85 for older students, demonstrating acceptable reliability for research purposes (Funk, Huebner, & Valois, 2006, Seligson, Huebner, & Valois, 2005; Seligson et al., 2003).

With regard to validity, Seligson and colleagues (2003) demonstrated that the total BMSLSS score displayed a high degree of concurrent, criterion-related validity with two different life satisfaction instruments developed specifically to measure life satisfaction in children and adolescents: the Students' Life Satisfaction Scale (SLSS: Huebner, 1991b) and the Multidimensional Student Life Satisfaction Scale (MSLSS: Huebner, 1994). Additionally, the single-item domain scores evidenced a substantial degree of convergent validity (mean validity coefficient = 0.63) with the equivalent multi-item domain scores from the MSLSS (Huebner, Seligson, Valois, & Suldo, 2006). Both of these measures are considerably lengthier than the

BMSLSS and require additional time to complete; thus, as the BMSLSS was deemed reliable and valid for the current sample population, it was determined to be a more practical and desirable assessment tool. Inter-correlations among the five BMSLSS domain were found to range from 0.15 to 0.45 ($M = .30$); these modest correlations support the conceptualization that the items (domains) are distinct, but related constructs (Seligson et al., 2005). Furthermore, principal axis factor analyses have lent support for one higher-order, general life satisfaction factor among students ranging in age from 8 to 18 (Funk et al., 2006; Seligson et al., 2005).

Friendship Survey. The Friendship Survey was used to collect the data used to develop representations of social networks within each classroom, as well as to collect demographic information about the students. Social networks provide a representation of students' perceptions and observations of the social environment at the classroom level. This method of combining student perceptions provides a rich depiction of the system of connections that comprise the social milieu of a classroom. Social network coding is a non-self report measure that utilizes peer nomination as an alternative to using simple self-report of friendships to determine the individual salience of each child within the class. Furthermore, this method provides a valid picture of the full set of networks with as few as 50% of the students within a class reporting on their perceptions (Cairns & Cairns, 1994, p. 101), which provides a distinct advantage when collecting data in classrooms where not all students returned consent forms. In order to ensure this minimum level of participation and ensure the validity of the social network measure, consent forms were sent home repeatedly until a 50% participation rate was secured for each classroom.

The first items on the survey pertained to demographic information. Students were asked to list their name, the date, their school name, teacher name, age, grade, gender and ethnicity

before moving on to the questions about friendships. Next, participating students were asked to name all of the kids in the class with whom they like to “hang out.” This free-recall method was used as an alternative to providing students with a list of names and asking them to label their peers, as the salience of each peer in memory provides an important gauge of the students’ position within the social structure of the class. Once students had completed this list, they were asked to circle the names of the three friends they like to hang out with the most, and finally to place a star next to the one student of those three they like to hang out with most of all. Students were also asked to list the names of any children in their class they did *not* like to hang out with, which provides a method for assessing peer rejection. The next section of the questionnaire asked students to answer the question: “Are there kids in your class who like to hang out together? Who are they?” For this component, students were prompted to draw a circle around the names of the children in each group of friends, with reminders to consider both boys and girls, as well as themselves (see Appendix B for a copy of the survey).

Once this information was obtained, this study utilized a series of procedures detailed in Cairns and Cairns (1994) and Farmer and Farmer (1996) to analyze friendships and social network centrality. The first step in interpreting the data involved the creation of a “Friendship Matrix.” In this matrix, each student’s name was listed along the horizontal and vertical axis of a spreadsheet in corresponding, alphabetical order. Then, using the questionnaires, each student’s specific friend nominations (including top three friends, best friend, and rejections) were noted on the spreadsheet by placing the number 1 (best), 2 (top three but not best), or 3 (nominated but not in top three) in the corresponding square. An “X” was used to denote dislike of a classmate. To illustrate, if “Suzy’s” responses were being inputted, the researcher would locate Suzy’s name in the column on the left-hand side of the matrix, and make the appropriate notations

across this row in the columns corresponding to the names of peers that Suzy had nominated.

When the top three or best friendships were reciprocal, the number was circled; when they were not reciprocated, a small x was written in superscript next to the number. This process allowed for the determination of each student's percentage of "reciprocal top 3" and "reciprocal best" friendships, which were summed at the end of each row. Additionally, the number of friend nominations made (Outdegrees), received (Indegrees), and dislike nominations (Rejections) were also summed and presented within this matrix.

Once this matrix was complete, a second "Co-occurrence" matrix was created to illustrate the number of times students were nominated by their peers as members of the same group as well as the overall number of times each student was nominated to any group. Similar to the Friendship Matrix, each student's name was written down the left-hand side of a spreadsheet and along the top, in alphabetical order. For each group listed on each individual questionnaire, an initial tally mark was made in the box corresponding to the row and column for the (alphabetically) first student in the group's name (i.e. Row: Becky, Column: Becky). From this point, a tally mark was made in the same row in the column corresponding to every other student listed in the group (i.e., Row: Becky, Column: Suzy). Then, this process was repeated in the row denoting the [alphabetically] second student in the group, and so on until each student in each group received a tally mark in the box corresponding his/her individual row and column, all of which accordingly fell along a diagonal starting at the uppermost left-hand corner and running down to the lowermost right-hand corner. This procedure allowed for determination of the total number of group nominations each student received, as well as the number of times they were nominated to a group with each other student in the class.

Using the Co-occurrence matrix, correlations were run using the SPSS statistical analysis computer program to determine whether student connections to their peers were significant. Any statistically significant scores with a correlation greater than 0.4 were considered to be “true connections” between peers (Cairns & Cairns, 1994). Finally, a pictorial representation of the social structure of each class was created depicting all valid connections among students and the complex social groups or networks comprised of these connections (see Appendix C for a sample social network).

Individual, Cluster, and Social Network Centrality. Cairns and Cairns (1994) proposed a set of procedures for obtaining three different measures of social network centrality through a series of analyses: individual centrality, group or cluster centrality, and overall social network centrality. The final product, the overall social network centrality (SNC) score, reflects the prominence of an individual student within the social structure of the class and is determined through the calculation of three related scores (see Table 1 for a depiction of this process). The overall SNC score will be used as an objective measure of social success within the classroom environment.

Individual centrality refers to the centrality of a particular student relative to his/her classmates. This score is calculated using each student’s total number of nominations to any group within the co-occurrence matrix, referred to as the student’s individual raw score. The highest individual raw score within the class serves as the upper limit for determining individual centrality scores; this number is multiplied by 0.3 and 0.7 to create four levels of individual centrality represented by four possible individual centrality scores (0, 1, 2, 3). Cluster centrality, which refers to the centrality of a specific group in relation to the larger classroom network, is then calculated using an identical set of procedures once the cluster raw score has been

determined. A student’s cluster/group raw score is obtained by averaging the two highest individual raw scores within that student’s group, defined as any students that share significant connections with the target student as well as each other. Table 1 depicts the process by which raw scores are converted to individual and cluster centrality scores for each student. Finally, each student’s overall social network centrality” (SNC) score is determined by assigning the lesser of these two scores (Farmer & Farmer, 1996).

Table 1: *Determining Individual and Cluster Centrality*

Individual Centrality Score	Conversion equation for Individual or Cluster Raw Scores
3	$(0.7)x$ to x
2	$(0.3)x + 0.1$ to $(0.7)x - 0.1$
1	0.1 to $(0.3)x$
0	0

Note. x = highest individual or group raw score in class

According to categorizations described by Farmer and Farmer (1996, p. 437), four distinct levels of social network centrality can be obtained: 1) isolated, 2) peripheral, 3) secondary, and 4) nuclear. These levels were coded accordingly on a scale from 0 to 3 to reflect each student’s degree of integration in the social networks of the class. Please refer to Table 2 for a depiction of how SNC scores are determined.

Table 2. *Determining Social Network Centrality (Cairns & Cairns, 1994)*

Social Network Centrality	Individual Centrality	Cluster Centrality
“Nuclear” = 3	High	High
“Secondary” = 2	Medium	High
“Secondary” = 2	High or Medium	Medium
“Peripheral” = 1	Low	High or Medium
“Peripheral” = 1	Any	Low
“Isolated” = 0	Any	Belongs to No Cluster

Peer Acceptance – Child Rated (Cairns & Cairns, 1994). A measure of peer acceptance was also obtained using the total number of friendship nominations, known as the “Indegrees,” received by each student based on the first question of the Friendship Questionnaire. This summed total (# Indegrees) was then converted into a standard z-score [$z = (\#Indegrees - \text{Mean Indegrees}) / \text{SD Indegrees}$] to allow for comparisons across classrooms, yielding a Peer Acceptance score (Mean = 0, SD = 1) for each student within each class. This z-score thus provides a measure of how many students in the classroom freely reported that they like to “hang out” with the subject.

Peer Rejection – Child Rated. A measure of peer rejection was also obtained by summing the number of nominations each student received in the category “do NOT like to hang out with,” and subsequently converting this total into a z-score in the manner described above. Similarly, each student received a Peer Rejection score within each classroom. This z-score thus provides a measure of how many students in the classroom freely reported that they do NOT like to “hang out” with the subject.

Office Discipline Referrals (ODRs). Data were collected by teachers on individual disciplinary incidents. These data were already being collected by the school using a standardized discipline referral form that asked reporters/witnesses of behavioral incidents to provide information regarding the date and time the report was generated, the location of the incident, the reason for referral (see Table 3 for a list of all possible categories), believed motivation (i.e. peer/staff attention; avoidance of demands, staff, or peers; acquisition of tangible items; communication problems; unknown), witnesses of the event, and measures taken before the referral, and any actions taken as a result of the referral. This information was then put into a

database by trained graduate students using the School-Wide Information System (SWIS), a web-based information system that allows schools to organize office referral data and generate reports on student behavior. At the end of the school year, reports were generated to obtain each individual student's total number of referrals for discipline problems throughout the year. For the purposes of this study, ODRs refers to total number of referrals.

Table 3. *Categories of Discipline Referrals*

Disruption	Noncompliance/Defiance	Electronic Violations
Disrespect	Physical/Verbal Altercation	Inappropriate Language/Profanity
Skip Class/Truancy	Hitting/Biting/Kicking Staff	Hitting/Biting/Kicking Student
Destruction of Property	Stealing/Theft	Harassing/Threatening/Intimidating Behavior
Controlled Substances	Harmful Instruments	Sexual Misconduct
Fighting	Other: _____	

CHAPTER 4

RESULTS

Descriptive Statistics

The current sample consisted of 198 students: 55.6% female (n =110) and 44.4% male (n = 88). Students' ages ranged from 7 to 15 years (M = 11.27, SD = 1.92). When asked to identify their ethnicity, students in the sample predominantly identified themselves as African American (79.8%) or Multiple Ethnicities (11.1%).

Table 4 presents the means and standard deviations for BMSLSS measures completed by participants at Time 1 and Time 2. As discussed in the data analysis plan, due to the small sample size of two classrooms per grade, the sample was further broken down into two “grade groups:” elementary (3rd – 5th grade) and middle school (6th – 8th grade). Table 5 presents the means and standard deviations for BMSLSS measures for participants at both time periods according to grade group.

Table 4. *Descriptive Statistics for BMSLSS Variables at T1 and T2*

Variable	T1 M(SD) (n=198)	T2 M(SD) (n=149)
T1 BMSLSS Family	5.83(1.46)	6.05(1.22)
T1 BMSLSS Friends	5.66(1.45)	5.53(1.45)
T1 BMSLSS School	4.92(1.85)	5.08(1.63)
T1 BMSLSS Self	6.21(1.46)	6.21(1.28)
T1 BMSLSS Where I live	5.27(2.00)	5.32(1.28)
T1 BMSLSS Overall	5.68(1.60)	5.97(1.33)

Table 5. *BMSLSS Scores at T1 and T2 by Grade Group*

Variable	Grade Group 1: Elementary		Grade Group 2: Middle School	
	Time 1 M(SD) n = 90	Time 2 M(SD) n = 71	Time 1 M(SD) n = 108	Time 2 M(SD) n = 78
BMSLSS Family	6.02(1.54)	6.17(1.30)	5.68(1.38)	5.95(1.15)
BMSLSS Friends	5.81(1.56)	5.65(1.40)	5.53(1.34)	5.42(1.49)
BMSLSS School	4.88(2.08)	5.37(1.81)	4.95(1.64)	4.82(1.41)
BMSLSS Self	6.16(1.61)	6.21(1.37)	6.25(1.32)	6.21(1.19)
BMSLSS Where I live	5.36(2.16)	5.45(1.94)	5.19(1.87)	5.21(1.63)
BMSLSS Overall	5.57(1.77)	6.08(1.35)	5.77(1.45)	5.86(1.31)

Preliminary Analyses

A series of factor analyses were conducted to assess the distinctiveness of the various domains of life satisfaction assessed by the BMSLSS and of the three “Friendship” variables intended for use as outcome measures of social success. First, the factorability of the six BMSLSS items was examined using the Time 1 data (as the Time 2 BMSLSS data were not used in subsequent analyses, a factor analysis of these data was not deemed necessary). Principal components analysis of the BMSLSS was used because the primary purpose was to identify whether the six items on this brief measure of life satisfaction accurately represented six individual factors representing satisfaction with family, friends, school, self, residence, and overall satisfaction that are frequently assessed with the long-form version of the same scale. An analysis of the initial eigenvalues showed support for only one factor within this sample, with an eigenvalue of 2.702, which explained 45.02% of the variance. According to the component matrix, only one component was extracted; accordingly an analysis of multi-factor solutions using varimax factor rotation was not possible. For the purposes of future analyses, this single

factor will be referred to as “BMSLSS Life Satisfaction Factor.” The utility of this single factor solution will be explored in subsequent correlational and regression analyses.

Second, the factorability of the three variables obtained from the Friendship Survey was assessed for Time 1 data. Principal component analysis supported a one-factor solution, as only one component emerged with an eigenvalue over 1. This component, with an eigenvalue of 1.722, explained 57.40% of the variance. Again, as only one component was extracted, no exploration of the factors using varimax rotation was possible. Finally, the same analysis was conducted for the Time 2 Friendship variables. Interestingly, this indicated support for two distinct components, despite the smaller sample size at Time 2. Initial eigenvalues showed that the first factor explained 50% of the variance with an eigenvalue of 1.529, while the second factor explained 34.837% of the variance, with an eigenvalue of 1.045. This two-factor solution was examined using a varimax rotation of the factor loading matrix. The intercorrelations among the factors are presented in Table 6, while the factor loading matrix for the rotated two-factor solution is presented in Table 7.

Table 6. *Inter-correlations of BMSLSS Domains*

	1	2	3	4	5
Family	-	.398**	.330**	.317**	.313**
Friends		-	.380**	.359**	.134
School			-	.322**	.251**
Self				-	.305**
Where I Live					-

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

Table 7. *Factor Loading Based on a Principal Components Analysis with Varimax Rotation for 3 Friendship Survey Variables*

	Factor 1	Factor 2
T2 Rejection		.976
T2 SNC	.889	
T2 Acceptance	.842	

Note. Factor loadings < .2 are suppressed.

Based on this matrix, it appears that T2 SNC and T2 Acceptance loaded as one distinct factor, which could be called “Time 2 Social Success,” while Rejection represented a second distinct factor on its own, here forth referred to as “T2 Rejection Factor.”

Is Life Satisfaction stable over the course of the school year?

To determine whether there were changes in self-reported life satisfaction scores over the course of the school year, a paired samples t-test was used to compare each of the BMSLSS scores at T1 and T2. No significant differences were found to exist on any of the domain-based life satisfaction scores or overall life satisfaction scores between Time 1 and Time 2.

Furthermore, each Time 1 life satisfaction score (Family, Friends, School, Self, Residence, and Overall) demonstrated a significant positive correlation with its corresponding Time 2 life satisfaction score. The following Time 1 life satisfaction categories demonstrated statistically significant but small (Cohen, 1988) correlations with their Time 2 counterparts: Family ($r = .23$, $p < .01$), Friends ($r = .24$, $p < .01$), Residence ($r = .24$, $p < .01$), and Overall Life Satisfaction ($r =$

.267, $p < .01$). Moderate correlations were found between Time 1 and Time 2 scores in both the School ($r = .32$, $p < .01$) and Self ($r = .33$, $p < .01$) domains of life satisfaction, indicating slightly greater stability in these two categories over the course of the school year. Overall, these results indicate that life satisfaction, both domain-based and global, remained stable over the course of the school year.

Do self-reported life satisfaction scores demonstrate significant relationships with demographic variables?

To answer this question, Pearson correlations among these variables were examined for Time 1 data. Table 8 depicts the correlations between life satisfaction variables and demographic variables (gender, grade, grade group) at Time 1. Furthermore, based on the results of the factor analysis, the single factor variable extracted from the six BMSLSS items was also entered into the correlation matrix for exploration.

Table 8. *Correlations among BMSLSS Scores and Demographic Variables at T1*

Variable	Gender	Grade	Grade Group
T1 BMSLSS Family	-.044	-.121	-.118
T1 BMSLSS Friends	.049	-.115	-.096
T1 BMSLSS School	.045	-.033	.020
T1 BMSLSS Self	-.009	.031	.032
T1 BMSLSS Where I live	.048	-.028	-.041
T1 BMSLSS Overall	.035	.007	.063
BMSLSS Life Satisfaction Factor	.019	-.072	-.050

Note. Gender: 0=female, 1=male.

Note. Grade Group: 1 = Elementary (Grades 3-5), 2 = Middle School (Grades 6-8).

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

Based on the results of these correlations, life satisfaction variables did not demonstrate any significant relationships with demographic variables. To further assess whether differences existed in life satisfaction between males and females, independent sample t-tests were conducted for both Time 1 and Time 2 BMSLSS data. Based on these analyses, no significant differences were found to exist in life satisfaction scores between males and females on any of the BMSLSS variables at Time 1 or Time 2. As there were no statistically significant differences between genders with regard to life satisfaction variables, there was no need to control for gender in subsequent analyses.

To further assess whether differences existed in life satisfaction among grade groups, independent sample t-tests were conducted for both Time 1 and Time 2 BMSLSS data. Due to the small sample size, students were grouped into one of two “Grade Groups:” Elementary (Grades 3 through 5), Middle School (Grades 6 through 8). These analyses indicated no significant differences between elementary aged and middle school aged students on life satisfaction variables at Time 1. At Time 2, however, one statistically significant difference emerged between elementary school and middle school students with regard to the life satisfaction variables assessed by the BMSLSS. Specifically, within the School domain, middle school students ($M = 4.82$, $SD = 1.41$) demonstrated significantly lower levels of satisfaction than did elementary aged students ($M = 5.37$, $SD = 1.81$; $t(146) = 2.069$, $p < .05$).

Do self-reported life satisfaction scores demonstrate significant relationships with externalizing behaviors and/or social success within the classroom?

To answer this question, Pearson correlations among these variables were examined for Time 1 data. Table 9 depicts the correlations between life satisfaction variables and

externalizing behaviors (peer rejection, office discipline referrals), and measures of classroom-based social success (peer acceptance, social network centrality) at Time 1.

Table 9. *Correlations among BMSLSS Scores and Outcome Variables at T1*

Variable	T1 Rejection	T1 Acceptance	T1 SNC
T1 BMSLSS Family	-.112	.024	.073
T1 BMSLSS Friends	-.015	.054	.234**
T1 BMSLSS School	.036	-.020	.036
T1 BMSLSS Self	.031	-.058	.171*
T1 BMSLSS Where I live	.062	.068	.133
T1 BMSLSS Overall	.051	-.032	.019
BMSLSS Life Satisfaction Factor	.052	-.003	.152

Note: Gender (0=female, 1=male)

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

Although life satisfaction variables did not demonstrate any statistically significant relationships with externalizing behaviors (as measured by peer rejection) or peer acceptance, significant relationships were found among two Time 1 life satisfaction measures and Time 1 social success within the classroom: Social Network Centrality. Specifically, satisfaction with Self demonstrated a small yet significant positive correlation with SNC ($r = .171, p < .05$), while satisfaction with Friends demonstrated a moderate positive correlation with SNC ($r = .234, p < .01$). Accordingly, students who reported higher levels of satisfaction with Self and Friends were more likely to be prominent within the social networks of their classroom. Furthermore, the single factor extracted from the BMSLSS items did not correlate significantly with any Time 1 outcome variables.

Predictive Validity: Does Life Satisfaction at Time 1 predict future externalizing behavior and/or social success?

Initial analysis of this question consisted of exploring the correlations among Time 1 Life Satisfaction scores and Time 2 outcome variables: Rejection, ODRs, Acceptance, and SNC. The results of this analysis are presented in Table 10.

Table 10. *Correlations among BMSLSS Scores and Outcome Variables at T2*

Variable	T2 Rejection	ODR	T2 Acceptance	T2 SNC	T2 Social Success	T2 Rejection Factor
T1 BMSLSS Family	-.030	.182	.020	.101	.069	-.009
T1 BMSLSS Friends	-.066	.086	.059	.157*	.124	-.038
T1 BMSLSS School	.084	-.094	.002	.037	.030	.086
T1 BMSLSS Self	.026	-.043	.021	.027	.034	.028
T1 BMSLSS Where I live	.039	.053	.065	.084	.084	.039
T1 BMSLSS Overall	.085	.086	-.037	.056	.017	.099
BMSLSS LS Factor	.082	.138	.015	.107	.077	.097

Note. Gender (0=female, 1=male)

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

Based on these data, Time 1 life satisfaction variables do not demonstrate statistically significant relationship with future office discipline referrals, peer rejection, or peer acceptance. The majority of Time 1 life satisfaction variables also did not show any significant correlations with Time 2 social network centrality with the exception of Time 1 Satisfaction with Friends, which demonstrated a small but statistically significant correlation with social network centrality at

Time 2 ($r = .157, p < .05$). Again, the addition of the factor scores obtained through factor analysis yielded no significant correlations.

To further answer this question, a series of regression models were used to evaluate the ability of general and domain-specific life satisfaction scores to predict each the following outcomes: externalizing behaviors (measured by peer rejection and office discipline referrals), and social success within the classroom (measured by peer acceptance and social network centrality). The specific results of these analyses are included in Appendix D (Tables 11 through 14).

According to these regression analyses, none of the Time 1 life satisfaction scores demonstrated a statistically significant ability to predict any of the four outcome variables. Accordingly, despite the proposed analysis of the incremental validity of the domain-based scores (by assessing their ability to predict additional variance in ODRs, Time 2 Rejection, Time 2 Acceptance, and/or Time 2 SNC), the lack of significance of both the global and domain specific life satisfaction variables in the regression analyses thwarted the usefulness of this exploration.

To explore the predictive validity of the BMSLSS Life Satisfaction Factor extracted from the six individual items, separate regression analyses were conducted using the BMSLSS as the predictor for each of the four outcome variables. These analyses yielded no significant results. Additionally, the utility of looking at the social outcomes in terms of the two factors identified by the factor analysis of the three Friendship Survey variables - T2 Social Success and the T2 Rejection Factor - was also explored through a separate series of regression analyses.

First, a regression analysis was run using the six BMSLSS items as the predictor of T2 Social Success. Second, a regression analysis was conducted using the six BMSLSS items as the predictor of the T2 Rejection Factor; however, the BMSLSS items were not able to predict a statistically significant portion of the variance in either outcome factor. Finally, a series of regression analyses were conducted using the BMSLSS Life Satisfaction Factor as the predictor and the two Friendship Survey factors as the outcome variables, none of which produced any significant findings.

Does the relationship between life satisfaction variables and Time 2 behavioral and social success indices differ between grade groups?

To answer this question, a series of regression analyses were used to evaluate differences in the relationship between life satisfaction and each of the externalizing behavior and social success outcome variables (ODRs, peer rejection, peer acceptance, and SNC). Due to the small sample size of two classrooms per grade level, separate regression equations were run for each grade group (elementary: 3rd through 5th, and middle school: 6th through 8th) and each Time 2 criterion variable. Based on these analyses, the BMSLSS variables were not able to predict significant variance in the outcome variables within either grade group (adjusted $R^2 < .10$ in all regression analyses); however, a number of individual BMSLSS variables did approach significance when the sample was divided by grade group. The specific results of these regression analyses are presented in Appendix D (Tables 15 through 22).

To explore the usefulness of both the BMSLSS single factor solution and the two factors identified in the Time 2 friendship data – T2 Social Success and the T2 Rejection factor – an additional series of regression analyses was conducted for both elementary and middle school

students. Six regression equations were run for each of these grade groups, paralleling the series of analyses conducted above in the Predictive Validity section. First, the BMSLSS LS Factor was used as the predictor variable for each of the four outcome variables for the elementary school students: ODRs, T2 Rejection, T2 Acceptance, and T2 SNC. Then, the six BMSLSS domain scores were evaluated as potential predictors of the two Friendship Survey factors. This series was then repeated for the middle school grade group. Again, while the number of individual factors that approached significance increased when the sample was divided by grade group, none of the models were able to predict a statistically significant portion of the variance in the outcome measures.

CHAPTER 5

DISCUSSION

The primary purpose of this study was to extend previous research exploring the utility of subjective life satisfaction reports to predict social and behavioral outcomes among school aged children. Specifically, this project aimed to analyze the concurrent and predictive validity of the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson et al., 2005), a short-form scale of multidimensional life satisfaction, to evaluate its potential use as a screening tool for identifying students at risk of externalizing behavior problems, peer rejection, and/or social isolation. Research questions included an analysis of the stability of life satisfaction reports among elementary and middle school students over the course of the school year, the relationship among life satisfaction variables and demographic variables, the relationships among life satisfaction variables and concurrent social outcome variables, and the ability of life satisfaction variables from the beginning of the school year to predict various indices of behavioral and social success at the end of the year. Findings will be discussed in the order the questions were presented.

Characteristics of Life Satisfaction in Elementary and Middle School Students

Previous research has established that the majority of children and adolescents are generally satisfied with their lives and view their lives in a positive manner, as indicated by the assignment of responses ranging from “mostly satisfied” to “delighted” (Huebner, 1991a; 2004; Huebner, Drane, & Valois, 2000). The results of the current study supported this finding, as mean satisfaction ratings in the Family, Friends, Self, Where I Live, and Overall domains indicated ratings of at least “mostly satisfied” in each category. This finding was likely the most

encouraging finding of the current project, as it demonstrated that despite the socio-economic disadvantages and risk factors faced by the majority of students in this population, these students reported satisfaction levels consistent with students in schools and residential areas with greater school and community resources. It was only in the Time 1 School domain did mean satisfaction ratings dip below a score of 5, indicating “mostly satisfied.” In this category, the mean score obtained was 4.92, indicating satisfaction levels between “mixed: about equally satisfied and dissatisfied” and “mostly satisfied.” This finding may be related to Huebner and colleagues’ (2004) finding that situational factors such as the quality of one’s neighborhood and environment are highly relevant to global life satisfaction levels, as well as Homel and Burns’ (1989) finding that living in residential neighborhoods was associated with higher overall life satisfaction. Thus, while demographic variables such as gender, SES, and age alone have been found to demonstrate little to no relationship with life satisfaction (Huebner, 1991a; Gilman & Huebner, 2003; Huebner, Suldo, & Gilman, 2000), it is possible that situational factors may have influenced students in the current sample’s perceptions of satisfaction across the various domains of life satisfaction. As the students in this study reside and attend school in a low SES, urban neighborhood with limited resources, it is not surprising that their ratings in this category would be lower. Nevertheless, the average ratings across all domains were reported to be higher than neutral, a strong positive finding of the current project.

Within the current sample of elementary and middle school students, life satisfaction was generally found to be a stable characteristic over the course of the school year. From Time 1 to Time 2, no significant differences were found on any of the domain-based or overall life satisfaction scores; however, based on correlational analysis, the Self and School domains were found to be slightly more stable than the other domains, as well as the overall life satisfaction

category. As the Self and School domains represented the categories with the highest and lowest mean scores at both time points, it is possible that these were the most salient areas of life satisfaction for students in this population, which might account for the stronger relationships between Time 1 and Time 2 scores on these two variables. Furthermore, the fact that students completed this measure at school likely increased the salience of this particular category, as it is likely that respondents were highly aware of their feelings towards school at both time points. This finding appears consistent with research showing that daily events contribute unique variance in explaining adolescents' subjective ratings of satisfaction and overall well-being (McCullough, Huebner, & Laughlin, 2000); it is possible that specific experiences that occurred over the course of the day the surveys were completed (i.e. obtaining a low grade on an exam, getting disciplined by a teacher, receiving a stressful homework assignment, etc.) may have been particularly relevant to students' ratings within the school domain due to its heightened salience at the time of testing.

BMSLSS Scale Properties

While previous research supported the use of the single-item domain scores of the BMSLSS by demonstrating a substantial degree of convergent validity with the equivalent multi-item domain scores from the MSLSS (Huebner, Seligson, Valois, & Suldo, 2006), a preliminary factor analysis was conducted to assess whether these single-item scores actually represented six distinct constructs. The results of the principal components analysis indicated that in the current sample, the six BMSLSS items comprised a single, higher-order (i.e. general) life satisfaction factor, with moderate inter-correlations among the BMSLSS. This is consistent with previous research on this scale with students in grades 3-8, in which this finding was deemed to support the notion that the items are related, yet differentiable (Seligson, et al., 2005; Huebner, Seligson,

Valois, & Suldo, 2006). Nevertheless, during the data collection, it was noted by the principal investigator that students would often report the same levels of life satisfaction across multiple domains, which may have been due to some difficulty understanding the nature of the questions. It is possible that this response style had a negative impact on the distinctiveness of the domain scores. Some students seemed to have difficulty with the language of the scale, particularly with regard to the terms used to designate the varying levels of satisfaction. In particular, many students were unclear as to the meaning of the terms “Pleased” and “Delighted,” and this should be a consideration when this scale is used with similar populations in the future.

An exploration of the utility of the single BMSLSS life satisfaction factor revealed that this factor did not correlate significantly with any of the demographic variables (Gender, Grade, and Grade Group), consistent with correlational analyses of the individual BMSLSS items. This is consistent with research indicating little to no relationship among demographic variables and life satisfaction reports in children and adolescents (Huebner, 1991a; Gilman & Huebner, 2003; Huebner, Suldo, & Gilman, 2000). Furthermore, the BMSLSS factor was not found to have significant relationships with the Time 1 outcome variables (Rejection, Acceptance, and SNC), while two of the individual BMSLSS domain scores – satisfaction with Friends and with Self - did correlate significantly with SNC. Similarly, the BMSLSS factor did not correlate significantly with any Time 2 outcome variables, despite one significant relationship between Time 1 Satisfaction with Friends and Time 2 SNC. It is possible that the single factor solution, which was comprised of all five domain scores as well as the overall satisfaction score, was not able to account for the unique relationships that certain domains of life satisfaction have with behavioral and social success outcomes. Alternatively, it is also possible that the sample was not large enough or diverse enough (all students came from one school and had similar demographic

backgrounds) to adequately explore this relationship. This finding is consistent with previous research demonstrating that the five particular domains of life satisfaction can provide “non-redundant information” with regard to the explanation and prediction of adolescent behavior problems and internalizing behaviors (social withdrawal, depression, anxiety, etc.) that affect interpersonal relationships (Haranin, Huebner, & Suldo, 2007).

Friendship Survey Variables

The factorability of the three outcome variables obtained from the Friendship Survey – Peer Rejection, Peer Acceptance, and Social Network Centrality – were also analyzed to determine whether they represented three distinct factors. Although the Time 1 data indicated support for only one factor, principal components analysis for the Time 2 Friendship Survey data indicated a two-factor solution. Specifically, one component included of Acceptance and Social Network Centrality, while the second component was comprised solely of Peer Rejection. This factor structure follows logically from the nature of the characteristics being assessed, as peer acceptance and social network centrality represent positive aspects of the peer socialization experience, while peer rejection serves as an indicator of negative peer relationships. For the purposes of this study, both the original three Friendship Survey variables and the Time 2 Friendship Variable factors were used in the analyses for comparative purposes.

Life satisfaction and Demographic Variables

Based on correlational analysis of the BMSLSS variables and the BMSLSS life satisfaction factor with demographic variables of gender, grade, and grade group (elementary vs. middle school), no significant relationships were found. Further exploration of these relationships using independent sample t-tests did indicate that middle school students showed

significantly lower levels of satisfaction within the school domain at Time 2 than their elementary school counterparts. It is possible that this finding may be related to Baker's (1998) proposal that school satisfaction may be considered a particularly salient proxy for adjustment among low-income, urban, African American children. As the students age, they may become more aware of negative environmental factors related to attending school in a low-income, urban environment, which in turn may affect satisfaction levels. More information is needed to understand the exact nature of this relationship, or whether this finding would generalize to other populations; overall, however, these findings are consistent with prior research finding only small or non-significant relationship between demographic variables and student life satisfaction reports (Huebner, Suldo, & Gilman, 2006; Gilman & Huebner, 2003; Huebner, 1991a).

Concurrent Validity

Correlations among the Time 1 BMSLSS variables and Time 1 social outcome variables (Rejection, Acceptance, and SNC) were weaker than expected based on previous research (Gilman, et al., 2000; Huebner, Funk, & Gilman, 2000; Haranin, Huebner, & Suldo, 2007). At Time 1, none of the domain-specific or global life satisfaction variables were found to demonstrate any significant relationships with peer rejection or acceptance. This finding was inconsistent with the hypothesis of the current study, in which it was stated that subjective satisfaction ratings were expected to demonstrate an inverse relationship with peer rejection and a positive relationship with social success, as measured by peer acceptance and social network centrality. Nevertheless, a small but significant correlation was found between satisfaction with Self and Time 1 Social Network Centrality, while a moderate correlation was found between satisfaction with Friends and Time 1 Social Network Centrality. As Social Network Centrality is an objective measure of a student's prominence and success within the classroom social milieu, it is

not surprising that the relationship between satisfaction with Friends and SNC emerged as the strongest demonstration of concurrent validity of the life satisfaction variables. These findings are also consistent with previous research findings that life satisfaction demonstrates a positive relationship with self-esteem, extraversion, positive peer relationships, and pro-social dispositions in children (Gilman & Huebner, 2006; Ash & Huebner, 2001; Gilman, 2001; Dew & Huebner, 1994; Huebner, 1991a), which likely all contributed to why students with higher satisfaction ratings in these areas demonstrated higher degrees of social success. Nevertheless, it is important to note that these Time 1 correlations are relatively weak, and should only be considered tentative evidence for the existence of these relationships. Future research should include further investigation of the mechanisms that account for the relationship between specific domains of life satisfaction and positive and negative social experiences.

Predictive Validity

Previous longitudinal analyses have established evidence for a linear association between life satisfaction and peer victimization, social success, and externalizing behavior problems in adolescent samples (Martin, et al., 2008; Haranin, et al., 2007). Within the current study, predictive validity was first explored using simple correlational analysis among the Time 1 life satisfaction variables - including the five domains (Family, Friends, School, Self, and Where I live), Overall Life Satisfaction, and the BMSLSS Life Satisfaction Factor – and the Time 2 outcome variables (Office Discipline Referrals, Peer Rejection, Peer Acceptance, and Social Network Centrality). Using this form of analysis, the only significant relationship that emerged was between Time 1 Satisfaction with Friends and Time 2 SNC. This finding is consistent with the concurrent validity analysis conducted in the present study, in which Time 1 Satisfaction with Friends was found to have a significant, moderate correlation with Time 1 SNC. Children

identified as having high SNC have, by definition, more salience among their peers; thus, it is not surprising that these students were found to be happier with their social standing and friendships. The strength of this relationship decreased from Time 1 to Time 2; however, this finding is consistent with the results of Haranin and colleagues' (2007) study, in which correlations among adolescent life satisfaction scores and outcome variables declined in magnitude over time. Nevertheless, due to the relatively small sample size and weak correlation between these variables, it is possible that the correlation between Time 1 BMSLSS Friends and Time 2 SNC could be a Type I error, representing a falsely positive finding. Thus, the ability of the Time 1 Satisfaction with Friends domain to predict social network centrality later on in the school year should be considered a tentative finding and interpreted with caution until further research is able to replicate and reinforce this finding.

With regard to the prediction of externalizing behaviors and social success, this study extended beyond prior studies by evaluating the predictive validity of domain-based and global life satisfaction scores by expanding the sample to include elementary school students in addition to middle and high school aged students, as well as by utilizing objective measures of externalizing behavior and interpersonal success, as opposed to self-report. In contrast with the hypothesis and previous research indicating the predictive validity of life satisfaction variables with regard to future social and behavioral outcomes (Martin et al., 2008; Haranin et al., 2007), regression analyses revealed that Time 1 life satisfaction variables were *not* able to predict a significant portion of the variance in any of the established outcome variables or the two Friendship Survey factors obtained through the factor analysis procedures.

There are several explanations for this lack of significant findings. First, it may be that the sample size of students was too small; thus, variables that may have been able to account for

a significant portion of variance in behavioral or social outcomes in a larger population that may not have been identified in the current study. Another explanation may be that there are other characteristics, specific to school or other student variables, which were not explored in this research project. For example, in the present study, the influence of student ethnicity was not explored due to the very low number of students identifying themselves as anything other than “African American” or “Multiple Ethnicities,” nor was the influence of SES examined, as the majority of students came from low-income families and resided in the local area surrounding the school. While differences in socio-economic status are generally not associated with significant differences in global life satisfaction levels (Veenhoven, 1988), it is possible that SES may have an impact on specific domains of life satisfaction or the way in which life satisfaction relates to behavioral and social outcomes. Alternatively, the lack of significant results may be related to the specific characteristics of the sample. Results from this project may differ from those in existing research due to the fact that this student sample consisted predominantly of African American children from a low socio-economic background attending school in an urban environment, while previous research has utilized students in rural or suburban school districts with moderate SES levels and mixed ethnicities (Martin, et al., 2008; Haranin, et al., 2007). The implications of these demographic and environmental factors has not yet been examined with respect to exploring the ability of life satisfaction reports to predict students at risk of developing social, emotional, and behavioral problems; thus, the results of the current study provide a preliminary glance at issues that might need to be considered in this population relative to those that have already been studied.

As the current study’s use of an elementary school sample was exploratory in nature, potential differences in the predictive validity of the life satisfaction variables with regard to

student's grade level were explored through a second set of regression analyses in which students were divided into two grade groups: elementary school (grades 3-5) and middle school (grades 6-8). In contrast with the hypothesis that life satisfaction ratings taken at the beginning of the school year would be able to account for a significant portion of the variance in measures of externalizing behaviors, peer rejection, and classroom social success later in the school year, none of the predictive equations were significant for either grade group. As in the aforementioned regression analyses, this lack of significant findings may be due to the relatively small sample size of each grade group, the lack of diversity in demographic characteristics of the population, or variables unique to this school or student population that were not evaluated as part of this study.

Nevertheless, when the students were divided by grade group, a number of the individual BMSLSS domain variables approached significance within specific regression equations. These results suggests that differences may indeed exist in the relationship between life satisfaction variables and future indices of behavioral and social problems and successes, as it is likely these findings may have been significant with a larger sample of students in each grade group. More attention is needed to determine the specific role of life satisfaction across grades, and future research with larger and more diverse student populations would benefit from an exploration of how this relationship changes as students age.

Limitations and Future Directions

One of the primary limitations of this study was its use of a convenience sample of elementary school and middle school students attending a single school with low levels of diversity. As has been noted, the sampling issues within the current study may have had a substantial influence on the results of this project. First, the overall sample of students was fairly small and relatively homogenous; the vast majority of students identified as African American, resided and

attended school in an urban neighborhood, and came from low-income families. Furthermore, while one aim of this study was to assess potential differences in the role of life satisfaction across grades, the sample only consisted of two classrooms per grade. Accordingly, the sample had to be condensed into two grade groups (elementary and middle school), which may have been unable to portray subtle differences in students at varying grade levels. Finally, only students who returned with signed consent forms from parents or guardians were allowed to participate. It is possible that these students may have parents who are either more supportive or more involved in their education, creating a self-selection bias that would affect the findings, as parent relationships have demonstrated a strong relationship with life satisfaction ratings in children (Stevenson, et al., 1999; Grossman & Rowat, 1995; Huebner, 1991a). Overall, a larger population of students is needed to fully evaluate the ability of a short form multidimensional subjective life satisfaction scale to identify students at risk of experiencing peer victimization/rejection, social isolation, and/or externalizing behavior problems. In order for any findings to be generalized, future research must analyze and compare findings within more diverse populations of students.

The second primary limitation of the current study is related to the measures used. First, the use of the BMSLSS may have resulted in limited distinction among life satisfaction domains due to the reliance on only one question to obtain a satisfaction score for each domain. While this scale has been deemed reliable for research purposes with the current sample (Funk et al., 2006; Seligson et al., 2005; Seligson et al., 2003) and the single-item domain scores have demonstrated a high degree of convergence with equivalent multi-item domain scores from the MSLSS (Huebner, et al., 2006), it is possible that the confusion observed among the students in the current study led to decreased differentiation across domains, precluding the richness that a multi-item questionnaire might allow. As this study was exploratory in its use of subjective multi-

dimensional life satisfaction reports to act as a screening tool, the short-form version was deemed preferable; however, future research might benefit from exploring the predictive utility of the longer version of this scale with regard to the social and behavioral outcomes assessed in the current study. Additionally, this study was limited by its sole reliance on objective measures of social outcomes. While the use of objective measures represented an expansion of prior research that utilized only subjective measures of social success and victimization experiences, future research should consider the use of both objective and subjective indices of social outcomes to enhance the meaningfulness of the findings.

Finally, this study was intended to be exploratory in nature. As it relies on correlational analysis, it cannot be assumed that any of the life satisfaction variables actually have a causal relationship with the social and behavioral success indices assessed. Any relationships that emerged among these variables may actually be bi-directional; alternatively, it is possible that additional variables not assessed in the current study may account for these relationships or mediate the relationship between them. As previous research in the field has found that cognitive variables (i.e., causal attribution style, locus of control) can mediate the relationship between factors such as personality characteristics or negative life events and life satisfaction, future research may benefit from including these variables in their exploration of the mechanisms by which life satisfaction influences and is influenced by social and behavioral outcomes in the school setting.

Implications for Practice

Although many of the hypotheses of the current study were not supported by the results, the findings described here lend support for a relationship between subjective ratings of life satisfaction and social success in the classroom. In this study, Social Network Centrality was the only outcome

measure that demonstrated any significant relationship with life satisfaction. Nevertheless, this finding, in combination with previous research establishing the ability of life satisfaction reports to identify students at risk of exhibiting externalizing behavioral problems, peer victimization, and positive peer experiences (Martin, et al., 2008; Haranin, et al., 2007) indicates a need for further exploration of this construct as a potential screening tool in schools.

Despite life satisfaction's lack of significant predictive ability in this study, life satisfaction profiles in and of themselves can provide useful information related to students' well-being (Huebner, et al., 2007). Life satisfaction ratings can provide a useful lens through which to evaluate the "fit" between children and their environment within the context of a developmental-ecological framework; thus providing a method for tracking the social and emotional well-being of students who might otherwise fall through the cracks if they fail to demonstrate clinical levels of maladjustment or pathology within a deficit-oriented model of school psychology service delivery (Gilman & Huebner, 2003; Larson, 2000). For example, if life satisfaction measures were included as part of an over-arching universal screening of psychological well-being, any highly negative profiles or significant drops in an individual's life satisfaction ratings between data points could serve as a warning that a child may need additional evaluation to determine if they might benefit from receiving targeted interventions. Furthermore, pending additional research, the domain-based scores may prove to be a valuable source of information for assisting in the development of tailored interventions for individuals or groups of students. Logically, it follows that students experiencing dissatisfaction with friends may warrant different intervention programs than students reporting high levels of dissatisfaction with school. Though more research is needed to determine exactly how subjective life satisfaction can be used to promote optimal functioning in students, this construct remains a promising

avenue for research aimed at incorporating the ideals of an applied positive school psychology framework, moving the field towards a focus on prevention and intervention, and developing schools as positive institutions that encourage students to flourish and thrive.

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APPENDIX A

BRIEF MULTIDIMENSIONAL STUDENTS' LIFE SATISFACTION SCALE

(Huebner, 1997)

These six questions ask about your satisfaction with different areas of your life. Circle the best answer for each.

1. I would describe my satisfaction with my family life as:
 - a) Terrible
 - b) Unhappy
 - c) Mostly dissatisfied
 - d) Mixed (about equally satisfied and dissatisfied)
 - e) Mostly satisfied
 - f) Pleased
 - g) Delighted
2. I would describe my satisfaction with my friendships as:
 - a) Terrible
 - b) Unhappy
 - c) Mostly dissatisfied
 - d) Mixed (about equally satisfied and dissatisfied)
 - e) Mostly satisfied
 - f) Pleased
 - g) Delighted
3. I would describe my satisfaction with my school experience as:
 - a) Terrible
 - b) Unhappy
 - c) Mostly dissatisfied
 - d) Mixed (about equally satisfied and dissatisfied)
 - e) Mostly satisfied
 - f) Pleased
 - g) Delighted
4. I would describe my satisfaction with myself as:
 - a) Terrible
 - b) Unhappy
 - c) Mostly dissatisfied
 - d) Mixed (about equally satisfied and dissatisfied)
 - e) Mostly satisfied
 - f) Pleased
 - g) Delighted

5. I would describe my satisfaction with where I live as:
- a) Terrible
 - b) Unhappy
 - c) Mostly dissatisfied
 - d) Mixed (about equally satisfied and dissatisfied)
 - e) Mostly satisfied
 - f) Pleased
 - g) Delighted
6. I would describe my satisfaction with my overall life as:
- a) Terrible
 - b) Unhappy
 - c) Mostly dissatisfied
 - d) Mixed (about equally satisfied and dissatisfied)
 - e) Mostly satisfied
 - f) Pleased
 - g) Delighted

APPENDIX B
FRIENDSHIP SURVEY

What is your name? _____

Date: _____

School Name: _____

Teacher Name: _____

Age: _____

Grade: _____

Are you a BOY or a GIRL? (circle one)

Ethnicity: (circle one)

Black

White Asian

Latino

Multiple Other

1. Are there any kids in your class that you like to hang out with?

Who are they? (Use first names only; plus last initial if needed)

2. Circle the names of the 3 kids you most like to hang out with.

3. Put a STAR * next to the name of the ONE kid you most like to hang out with.

4. Do you see this person just at school , or other places ?

Where else?

5. Are there any kids in your class that you don't like to hang out with?

Who are they? (Use first names only; plus last initial if needed)

6. Are there kid in your class who like to hang out together?

Who are they?

Remember to think about Boys and Girls!

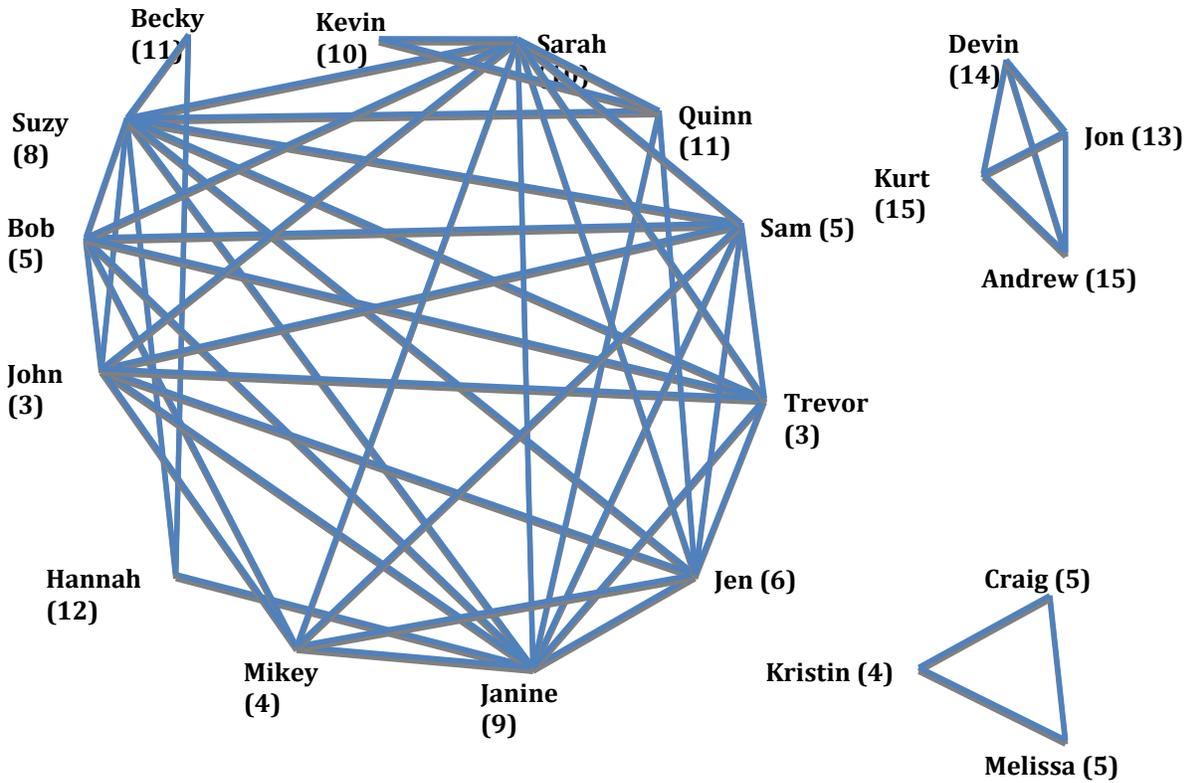
Remember to put yourself if you hang out with a group!

Draw a  CIRCLE around each group!

APPENDIX C

SAMPLE SOCIAL NETWORK*

*All names have been changed



APPENDIX D

ADDITIONAL ANALYSES AND TABLES

Table 11. *Regression Analysis for Predicting ODRs*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	.437	.375	.163	1.165	.247
T1 BMSLSS Friends	.479	.312	.176	1.536	.128
T1 BMSLSS School	-.314	.231	-.149	-1.357	.178
T1 BMSLSS Self	.054	.353	.018	.153	.878
T1 BMSLSS Where I live	.002	.234	.001	.010	.992
T1 BMSLSS Overall	-.074	.310	-.030	-.238	.813

Note. $R^2 = .069$.

Table 12. *Regression Analysis for Predicting T2 Rejection*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	-.144	.775	-.116	-1.287	.200
T1 BMSLSS Friends	-.066	.112	-.050	-.608	.544
T1 BMSLSS School	.134	.109	.134	1.641	.103
T1 BMSLSS Self	.095	.082	.074	.856	.393
T1 BMSLSS Where I live	-.003	.111	-.003	-.042	.967
T1 BMSLSS Overall	.097	.073	.085	.912	.363

Note. $R^2 = .036$.

Table 13. *Regression Analysis for Predicting T2 Acceptance*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	.014	.060	.021	.232	.817
T1 BMSLSS Friends	.030	.059	.043	.508	.612
T1 BMSLSS School	-.015	.044	-.029	-.348	.728
T1 BMSLSS Self	-.006	.060	-.009	-.101	.920
T1 BMSLSS Where I live	.052	.040	.106	1.318	.189
T1 BMSLSS Overall	-.050	.057	-.082	-.872	.384

Note. $R^2 = .014$.

Table 14. *Regression Analysis for Predicting T2 SNC*

Variable	B	SE(B)	β	t	Sig. (p)
T1 BMSLSS Family	.032	.052	.055	.607	.545
T1 BMSLSS Friends	.088	.051	.145	1.738	.084
T1 BMSLSS School	-.023	.038	-.049	-.597	.551
T1 BMSLSS Self	-.048	.052	-.082	-.927	.355
T1 BMSLSS Where I live	.036	.035	.082	1.026	.306
T1 BMSLSS Overall	.016	.049	.030	.317	.752

Note. $R^2 = .034$.

Table 15. *Regression Analysis for Predicting ODRs in Elementary Students*

Variable	B	SE(B)	β	t	Sig. (p)
T1 BMSLSS Family	1.005	.821	.290	1.225	.229
T1 BMSLSS Friends	.495	.603	.149	.820	.418
T1 BMSLSS School	-.467	.435	-.197	-1.073	.291
T1 BMSLSS Self	-.691	.927	-.141	-.745	.461
T1 BMSLSS Where I live	-.041	.567	-.014	-.071	.943
T1 BMSLSS Overall	.090	.582	.032	.155	.878

Note. $R^2 = .111$.

Table 16. *Regression Analysis for Predicting T2 Rejection in Elementary Students*

Variable	B	SE(B)	β	t	Sig. (p)
T1 BMSLSS Family	-1.156	1.110		-1.042	.301
T1 BMSLSS Friends	.095	.142	.083	.669	.505
T1 BMSLSS School	.088	.148	.070	.594	.554
T1 BMSLSS Self	.039	.101	.045	.382	.703
T1 BMSLSS Where I live	.052	.148	.045	.350	.727
T1 BMSLSS Overall	.011	.090	.014	.121	.904

Note. $R^2 = .073$.

Table 17. *Regression Analysis for Predicting T2 Acceptance in Elementary Students*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	.035	.079	.055	.445	.657
T1 BMSLSS Friends	.004	.082	.006	.050	.960
T1 BMSLSS School	-.110	.056	-.233	-1.974	.052 – close!
T1 BMSLSS Self	.100	.082	.158	1.222	.225
T1 BMSLSS Where I live	-.001	.050	-.003	-.027	.978
T1 BMSLSS Overall	-.067	.072	-.120	-.940	.350

Note. $R^2 = .064$.

Table 18. *Regression Analysis for Predicting T2 SNC in Elementary School Students*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	.058	.062	.115	.932	.354
T1 BMSLSS Friends	.101	.065	.184	1.559	.123
T1 BMSLSS School	-.078	.044	-.208	-1.771	.080
T1 BMSLSS Self	.021	.064	.042	.325	.746
T1 BMSLSS Where I live	-.008	.039	-.022	-.193	.848
T1 BMSLSS Overall	.011	.057	.025	.199	.843

Note. $R^2 = .072$.

Table 19. *Regression Analysis for Predicting ODRs in Middle School Students*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	-.325	.332	-.195	-.977	.333
T1 BMSLSS Friends	.351	.273	.202	1.283	.205
T1 BMSLSS School	-.131	.222	-.090	-.592	.556
T1 BMSLSS Self	.366	.264	.221	1.385	.171
T1 BMSLSS Where I live	-.239	.184	-.197	-1.298	.199
T1 BMSLSS Overall	.276	.306	.172	.901	.371

Note. $R^2 = .108$.

Table 20. *Regression Analysis for Predicting T2 Rejection in Middle School Students*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	-.472	.196	-.349	-2.411	.018
T1 BMSLSS Friends	-.220	.162	-.158	-1.356	.178
T1 BMSLSS School	.244	.136	.210	1.794	.076
T1 BMSLSS Self	.123	.166	.088	.745	.458
T1 BMSLSS Where I live	-.010	.124	-.009	-.078	.938
T1 BMSLSS Overall	.197	.198	.154	.995	.322

Note. $R^2 = .111$.

Table 21. *Regression Analysis for Predicting T2 Acceptance in Middle School Students*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	.016	.103	.023	.158	.874
T1 BMSLSS Friends	.071	.085	.098	.831	.408
T1 BMSLSS School	.120	.072	.199	1.683	.096
T1 BMSLSS Self	-.137	.087	-.187	-1.571	.119
T1 BMSLSS Where I live	.110	.065	.200	1.680	.096
T1 BMSLSS Overall	-.108	.104	-.163	-1.039	.301

Note. $R^2 = .092$.

Table 22. *Regression Analysis for Predicting T2 SNC in Middle School Students*

Variable	B	SE(B)	β	<i>t</i>	Sig. (<i>p</i>)
T1 BMSLSS Family	.075	.094	.116	.799	.426
T1 BMSLSS Friends	.138	.079	.208	1.750	.083
T1 BMSLSS School	.037	.066	.067	.561	.576
T1 BMSLSS Self	-.151	.081	-.227	-1.862	.066
T1 BMSLSS Where I live	.106	.062	.207	1.712	.090
T1 BMSLSS Overall	-.079	.095	-.130	-.832	.407

Note. $R^2 = .099$.