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Links between Parents' and Children's Levels of Gratitude, Life Satisfaction, and Hope

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by

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Dedication

This thesis is dedicated to my devoted husband, Andrew Hoy. Without your constant encouragement, motivation, and positive outlook, this study would not have been possible. Thank you for only seeing my strengths, for believing in my success, and for teaching me to push through challenges. Thank you for your endless patience throughout my graduate school journey. Your incredible character inspires me, and exudes the very qualities I studied in this thesis: gratitude, life satisfaction, and hope. I love you.

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Abstract

Positive psychology encourages a focus on identifying and promoting wellness in individuals rather than analyzing psychopathology. Although decades of research shows that mental illness is in part environmental and hereditary, little is known about the relationship between parental levels of positive emotions such as gratitude, life satisfaction, and hope, and their children's levels of the same constructs. This study utilized a past, present, and future framework of positive emotions to explore parental and child levels of gratitude, life satisfaction, and hope. This quantitative study analyzed correlations between self-reported levels of gratitude, life satisfaction, and hope among a sample of 153 fourth and fifth grade students and their parents (143 female caregivers, 119 male caregivers). Findings include statistically significant relationships between (a) mother and child gratitude (but not father and child gratitude) and (b) child life satisfaction with both mothers' and fathers' life satisfaction. No relationships emerged between parental hope and child hope. The study has important implications for school psychologists, including sharing with caregivers' the relationships between parental positive emotions and their children' levels of wellness. Future research is needed to investigate the *causes* of the links identified in the current study, as well as to explore the relationship between parental and child hope.

Chapter One: Introduction

Statement of the Problem

Within the last decade there have been exciting new developments in the way some researchers conceptualize mental health. This paradigm shift has been called positive psychology, and it encourages a focus on identifying and promoting wellness in individuals rather than the typical analysis of psychopathology and mental illness (Seligman & Csikszentmihalyi, 2000). It is a movement which focuses on identifying strengths instead of weaknesses, and seeks to utilize protective factors to build resilience against psychopathology. While there are numerous constructs that fit under the positive psychology framework, the current study focused on the positive emotions of gratitude, life satisfaction, and hope. Gratitude has been defined as "a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from a specific other or a moment of peaceful bliss evoked by natural beauty" (Peterson & Seligman, 2004, p. 554). Life satisfaction is the cognitive component of a larger construct, subjective well-being, and has been defined as a "cognitive judgmental process" and appraisal of one's quality of life (Diener, Emmons, Larsen, & Griffin, 1985, p. 71). Finally, hope is the "belief that one can find pathways to desired goals and become motivated to use those pathways" (Snyder, Rand, & Sigmon, 2005, p. 257). While these three constructs have been studied extensively in adults, there is a small but growing literature on wellness in youth.

Recently, researchers have begun to focus on the predictors and antecedents of gratitude, life satisfaction, and hope in youth. Although there is a growing knowledge on the positive outcomes associated with each construct, very little is understood about how they develop. Specifically, there is scarce understanding about the etiology of wellness, and the possible relationship between parental levels of wellness and their children's levels. Extensive research has been conducted looking at the role of parental *pathology* in relation to child pathology (Eley, 2001; Faraone, Spencer, Aleardi, Pagano, & Biederman, 2004; Glowinski, Madden, Bucholz, Lynskey, & Heath, 2003; Hetema, Neale, & Kendler, 2001; Loehlin, Willerman, & Horn, 1988; Rhee & Waldman, 2002; Silberg, Maes, & Eaves, 2010). The literature clearly supports a moderate to strong genetic transmission of most psychological disorders between parents and children (Beauchaine & Hinshaw, 2008). It is also generally accepted that parental psychopathology has a marked impact on children's risk for developing maladaptive social, emotional, and behavioral concerns (Mowbray, Bybee, Oyserman, MacFarlane, & Bowersox, 2006; Papp, Goeke-Morey, & Cummings, 2004; Silberg, Maes, Eaves, 2010). Researchers have suggested that this link is the result of both genetic heritability and a shared environment. The transmission and impact of shared environment on *wellness* (or the possible relationship between parent and child levels of gratitude, life satisfaction, and hope) has yet to be explored. Given the vast array of positive outcomes associated with gratitude, life satisfaction, and hope, it seems critical to examine what factors may lead to their development and cultivation.

Overview of Relevant Literature

In a thorough search of the literature, only six studies were found that examined studies relevant to links between parents' levels of positive constructs and their children's. One study examined the heritability of gratitude, three explored life satisfaction in families, and three considered links between parent and child hope (one of the three was part of the aforementioned gratitude study). Regarding gratitude, Steger, Hicks, Kashdan, Krueger, and Bouchard (2007) examined 336 monozygotic (MZ; identical) and dizygotic (DZ; fraternal) adult twins to evaluate the genetic links between character strengths, including gratitude. The authors used the Values in Action Inventory of Strengths assessment, which defines gratitude as "being aware of and thankful for the good things that happen, taking time to express thanks" (Peterson & Seligman, 2004, p. 559). The correlation between identical twins' gratitude was moderate (r = .39) between identical twins, and small (r = .18) between fraternal twins. The authors hypothesized that approximately 60% of the variance in gratitude among MZ individuals could be accounted for by shared environment, while nearly 80% variation should be expected among DZ individuals. Although this study did not assess links in gratitude between parents and children, it does have implications for the current study. Specifically, findings suggest that a small correlation should be expected in gratitude between family members who share half of their genes, such as mother-child and father-child.

Three studies were found that examined parental levels of life satisfaction in relation to their children's life satisfaction. Lykken and Tellegen (1996) used a large sample of seventeen-year-old twins and their parents from the United States to explore the relationship between parent-child levels of subjective well-being (life satisfaction is

conceptualized as the cognitive component of subjective well-being). The sample of 349 MZ twins and 192 DZ twins were first compared (MZ twins with each other, DZ with each other) and then correlated with their 447 parents' reports of subjective well-being. Results suggested a moderately strong genetic connection between MZ twins who share the same DNA (r = .48), but only a small correlation between twins and parents (r = .20). The authors concluded that although subjective well-being appears to run in families (as noted in the statistically strong relationship among MZ twins), it may only be weakly related between parents and their children.

In the third related study, Casas and colleagues studied 266 Spanish adolescents and their parents in an investigation of parental levels of life satisfaction and their children's (Casas, Coenders, Cummins, González, Figuer, & Malo, 2008). The authors hypothesized that parents and their children would have a small but significant correlation coefficient of approximately r = .20 (which was based on Lykken and Tellegan's obtained correlation between fraternal twins who shared 50% of their genetics). This correlation was chosen because even though Casas and colleagues did *not* utilize a twin sample, the amount of shared genetics between first-degree relatives such as mother-child, mirrors the biology of fraternal twins. While their data yielded one statistically significant relationship among parents and children (Index of Personal Well-Being), their data did not support a strong, reliable correlation between parent-child levels of satisfaction with "life as a whole" (Casas et al., 2008, p. 199).

Fourth, Ben-Zur conducted a study in Israel with 121 adolescents ages 15-17, and both mothers and fathers (Ben-Zur, 2003). The author hypothesized that a positive correlation would exist between adolescents' levels of mastery, optimism, and life

satisfaction with their parents' levels. Adolescent life satisfaction was moderately correlated (r = .34) with fathers' report of personal life satisfaction, and yielded a smaller correlation (r = .25) with mothers' levels of life satisfaction. Significant relationships between adolescents and both of their parents' levels of life satisfaction support a need for further research in this area.

The fifth related study was conducted by Westburg and Martin (2003) who evaluated the impact of a goal-oriented reading and writing intervention on children's hopefulness as well as parents' perception of their children's level of hope. Their final research question pertained to the current study in that they examined the relationship between parental levels of hope and their children's hope. They used a sample of 46 children (ages 8-15) and 43 parents from the United States, and administered psychometrically sound measures of hope both pre and post intervention. Their results demonstrated that there was not a significant relationship between hope levels on the parent and child measures (Total Hope, r = 0.08, p > .05; Agency, r = 0.10, p > .05; and Pathways, r = 0.08, p > .05). This study was limited by its small sample size and the fact that the parent data was solicited from just one parent. Also, the correlation between parent and child hope was only a very small component of the study, and thus warrants more systematic investigation.

The sixth related study, Marques, Pais-Riberio, and Lopez (2007, July) used the Child Hope Scale (CHS; Snyder, Hoza, Pelham, Rapoff, Ware, Danovsky, et al. 1997) and the Adult Dispositional Hope Scale (AHS; Snyder, Harris, Anderson, Holleran, Irving, L., et al. 1991) in a sample of 256 Portuguese students ranging in age from 10-15, and their 256 female caregivers. The researchers found a moderate correlation between

children's level of hope and their female guardians' (r = .37). This preliminary finding suggests that the development of hope in children may be related to caretakers' levels of hope.

The final relevant literature is the aforementioned Steger and colleagues' study (2007), where the authors examined hope using a subscale of the Values in Action assessment. The sample of 366 adult twins answered 10 items pertaining to hope (defined as "expecting the best in the future and working to achieve it; believing that a good future is something that can be brought about"; Peterson & Seligman, 2004). Results indicated a moderate relationship between MZ twins' hope (r = .43), and a small correlation (r = .20) among DZ twins. Although the authors did not compare parental and child hope, it can be hypothesized that a small correlation could be expected in hope between other pairs of first-degree relatives, such as mother-child and father-child.

In sum, existing research suggests a small but significant relationship between parent and child levels of life satisfaction. However, there is less known about possible links between parent and child levels of gratitude. Furthermore, available literature on the relationship between parental hope and child hope has provided conflicting results.

Conceptual Framework

The guiding conceptual framework at the basis of this study is a model promoted by Seligman for understanding positive emotions, which in turn effects overall satisfaction and well-being (Seligman, 2002). As the goal of this study was to discover if indicators of parental wellness are related with their children's wellness, it seemed appropriate to utilize a framework which considered how to conceptualize general wellness. Seligman outlined how to improve overall well-being by enhancing three

different realms of positive emotions: past, present, and future. In his seminal book *Authentic Happiness*, he argued that positive emotions about the past, present, and future are similar, but not inherently linked (Seligman, 2002). He posited that it is possible to change perceptions in each of these areas, by working to enhance three particular positive psychology constructs: gratitude, happiness, and hope. This guiding conceptual framework was also endorsed by Miller and Nickerson (2007) who affirmed Seligman's framework and advocated the need for improving children's positive emotions by intervening on their perspectives of the past, present, and future. While Miller and Nickerson (2007) suggested using two other positive psychology constructs as indictors of present-focused emotions (e.g., mindfulness and flow), they echoed calls for the study of gratitude and hope as indicators of past and future positive emotions, respectively.

These three constructs serve as a model for understanding positive emotions in the past, present, and future (Seligman, 2002). Gratitude is relevant to positive experiences in the past because it relates to satisfaction and appreciation of past events. Life satisfaction (i.e., happiness) reflects a present satisfaction and contentment with one's life. Finally, hope is an example of a future-focused positive emotion because it represents optimism and expectation of things to come. This conceptual framework guided the principal investigator (PI) towards selecting the three specific constructs to study, with the overarching goal of exploring parental and child levels of wellness.

The final piece of the conceptual framework for this study comes from another leading research in the field of positive psychology, Barbara Fredrickson. She proposed the "broaden and build" theory of positive emotions, which suggests that the development of several discrete positive emotions can lead to improved overall

functioning (Fredrickson, 2001). Fredrickson argues that the promotion of positive emotions leads to human flourishing, largely through enhanced social relationships. This theory has been confirmed by the numerous studies on positive outcomes associated with high levels of gratitude, life satisfaction, and hope among youth and adults. Fredrickson's "broaden and build" theory of positive emotions provided further rationale for the current study's focus on possible predictors of wellness.

Study Purpose

The purpose of this study was to determine the strength of the relationships between parental levels of gratitude, life satisfaction, and hope, and their children's levels of the same emotions. Importantly, "parental" refers to individuals who are the *primary* caregivers of children who identify as the biological mother, biological father, step-parents, adoptive parents, or custodial grandparents. This conceptualization of "parent" was expanded in order to permit examination of relationships between biological and non-biological parents' positive emotions and their children's emotions.

Research Questions

1.) What is the relationship between caregivers' levels of gratitude and their children's levels of gratitude?
2.) What is the relationship between caregivers' levels of life satisfaction and their children's levels of life satisfaction?
3.) What is the relationship between caregivers' levels of hope and their children's levels of hope?

Hypotheses for research questions. The researcher hypothesized that the correlations between parent-child gratitude, life satisfaction, and hope would be at or

exceed r = .20. This is based on previous research hypotheses with positive emotions (Ben-Zur, 2003; Casas, Coenders, Cummins, González, Figuer, & Malo, 2008; Lykken & Tellegen, 1996; Marques, Pais-Riberio, & Lopez, 2007; Steger et. al., 2007), and based on heritability research with the transmission of parental psychopathology to children (Silberg, Maes, & Eaves, 2010). While this study anticipated correlations slightly higher than r = .20 due to the impact of genetics and shared environment, it did not attempt to make a clear determination regarding if significant relationships were the result of either heritability or the shared environment.

Operational Definitions of Terms

Positive Psychology. Positive psychology is a recent movement within the field of psychology that researches ways of identifying wellness, building strengths, and promoting resilience in individuals. Sheldon and King (2001) defined it as "the scientific study of ordinary human strengths and virtues" (p. 216).

Gratitude. Gratitude is "a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from a specific other or a moment of peaceful bliss evoked by natural beauty" (Peterson & Seligman, 2004, p. 554).

Subjective well-being. Subjective well-being is a multi-faceted construct which includes an individual's satisfaction with life in both broad and specific domains, as well as their experience of positive and negative affect (Diener, Scollon, & Lucas, 2004).

Life satisfaction. Life satisfaction is the cognitive component of subjective well-being. Individuals can experience life satisfaction in both broad (e.g., satisfaction with life as a whole) or specific (e.g., satisfaction with peers, family, school) domains. It is a

"cognitive judgmental process" and appraisal of one's quality of life (Diener, Emmons, Larsen, & Griffin, 1985, p. 71).

Hope. Hope is "a belief that one can find pathways to desired goals and become motivated to use those pathways" (Snyder, Rand, Sigmon, 2005, p. 257). Hope thus is comprised of high levels of pathway and agency thinking, as described below.

Pathway. Pathways are an individual's perception that he or she can plan and find routes to achieve his or her goals (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, et al., 1991).

Agency. Agentic thinking has been described as the cognitive motivation and determined thought-process that enables an individual to reach his or her goals (Snyder, Harris, Anderson, Holleran, Irving, et al., 1991).

Heritability. The extent to which genetic individual differences contribute to individual differences in observed behavior or phenotypic individual differences.

Heritability estimate. Behavioral geneticists define heritability estimates as "the extent to which individual differences in complex traits are due to genetic factors" (Berk, 2000, p. 114).

Shared environment. Shared environment is defined as "environmental factors responsible for resemblance between family members" (Plomin, DeFries, McClearn, & McGuffin, 2001, p. 300). Of note, resemblance in this definition does not refer to physical appearance.

Significance of the Study

Positive psychology constructs such as gratitude, subjective well-being, and hope have been investigated more rigorously with adults within the past few decades. Less is

known with regard to predictors of childhood wellness and children's functioning. Furthermore, while there is extensive research on the correlations between parental and child levels of psychopathology, there is little research exploring what contributes to child wellness. Thus, there is great room for growth of understanding in the area of *if* and to what degree parental levels of wellness are related to their children's level of wellness. To date, there have only been six studies published in this specific area. Of these, none examined the relationships between parental and child levels on several positive emotion constructs (e.g., gratitude, life satisfaction, and hope). Furthermore, a review of the literature yielded a paucity of research with these constructs and elementary aged children. This study was the first of its kind, and filled in numerous gaps in the current literature by examining a diverse sample of younger children and their parents.

Chapter Two: Review of the Literature

This chapter describes the key theoretical frameworks which guided this study, including positive psychology, social learning theory, and the triad of past, present, and future positive emotions (e.g., gratitude, life satisfaction, and hope). The rich literature on each of these topics and their relationship to the current study are thoroughly explored. However, because there is sparse research regarding the possible relationship between wellness in parents and children, this chapter first establishes the connection between parent levels of *psychopathology* and their children's levels of psychopathology. Reviewing the literature on the heritability of psychological disorders lays the foundation for the main hypothesis of this study, namely that there exists a small to moderate relationship between parental levels of wellness and their children's wellness.

Parental Psychopathology and Heritability

The link between familial and child psychopathology has been explored for decades. At the heart of the investigation is the long-standing question of nature vs. nurture (Galton, 1874). The nature vs. nurture debate centers on the degree to which heritability and environmental factors impact the development of pathology. Researchers investigate nature vs. nurture using methods such as family, twin, and molecular studies. These methods are broadly called kinship studies, and they are used to analyze the similarities and differences of characteristics between parents and children (Berk, 2000). Kinship studies provide a measure of the genetic relationship between parents and children using a heritability estimate. Heritability estimates describe the "extent to which

individual differences in complex traits are due to genetic factors" (Berk, 2000, p. 114). Heritability estimates are correlations which range from 0 - 1.0, with zero meaning no relationship and one meaning a perfect correspondence. However, unlike typical correlations it is not possible to have a negative heritability estimate. For example, if a disorder had a heritability estimate of .8, there would be an 80% likelihood that the parents' offspring would have the same disorder.

Heritability of internalizing disorders. Countless kinship studies have been conducted in support of the heritability of psychopathology. Researchers have found that some disorders have a much higher rate of heritability, while others are less impacted by genetics. For example, a review of recent studies on the etiology of Major Depressive Disorder (MDD) provide a heritability estimate between 35%-75% within families (Eley, 2001; Glowinski, Madden, Bucholz, Lynskey, & Heath, 2003; Silberg, Maes, & Eaves, 2010). Silberg, Maes, and Eaves (2010) used an expansive twin sample to determine the genetic and environmental correlates of parental and childhood depression. The authors analyzed correlations between sets of monozygotic twins MZ (n = 498), dizygotic twins DZ (n = 545), as well as correlations between parents and their monozygotic and dizygotic twin children (N = 1598). The researchers found that MZ twins correlated .32 with each other, while DZ twins correlated .12. A genetic relationship was further supported with parent-child correlations of .20. Although these correlations are modest, no relationships were found when the researchers analyzed uncle and cousin correlations with children, suggesting the importance of *both* genetics and shared environment.

Similarly, Loehlin, Willerman, and Horn (1988) analyzed a large sample of adopted children with depression and schizophrenia. The researchers found higher rates

of *both* disorders in the biological relatives of the adoptees, than in the adoptive relatives. More recently, Klien and colleagues found a much higher risk for depression in the first degree relatives of depressed children then in the relatives of adolescents with other disorders or without pathology (Klein, Lewinsohn, Seeley, & Rohde, 2001). These studies suggest a strong genetic link between parental depression and childhood psychopathology. Another internalizing disorder, anxiety, presents a more moderate genetic risk for children. Eley (2001) reported a heritability estimate of 33% for anxious symptoms. Similarly, Hetema, Neale, and Kendler (2001) suggested that genetics account for 30% - 40% of individual variability across studies of parental and childhood anxiety.

Heritability of externalizing disorders. The heritability of externalizing disorders is not as well established, with two notable exceptions: Attention Deficit/Hyperactivity Disorder (ADHD) and Conduct Disorder (CD). ADHD, one of the most common neurological disorders of childhood, appears to have a particularly strong genetic relationship. Faraone, Spencer, Aleardi, Pagano, and Biederman (2004) describe a meta-analysis of twenty different twin studies that yield a mean heritability estimate for ADHD of .76. Beauchaine and Hinshaw (2008) reported a similar finding across studies with a heritability estimate of .60 -.80. Regarding the genetic contributions to CD, Rhee and Waldman's (2002) meta-analysis of recent studies on antisocial behavior and conduct disorder found that nearly 50% of the variance in individuals was due to genetic factors. However, when antisocial behavior was broadly defined, this estimate dropped to 41% of the variance.

Genetics and developmental periods. Clearly, some psychopathological disorders present more genetic risk to offspring than others. Importantly, behavioral

geneticists have suggested that the heritability of psychopathology often has more influence at certain developmental periods than others (Beauchaine & Hinshaw, 2008). For example, genetics seem to play a greater role in the development of depression for adolescents than for children (Lemery & Doelger, 2005; Rice, Harold, & Thapar, 2002; Scourfield, Rice, Thapar, Harold, Martin, & McGuffin, 2003; Silberg, Maes, & Eaves, 2010). Specifically, younger children are more impacted by environmental aspects than parental depression. However, as youth approach adulthood, the likelihood of depression is increasingly predicted by genetics (Silberg, Maes, & Eaves, 2010).

Environmental factors and psychopathology. The interplay between genetics and the environment cannot be over emphasized. While the studies previously mentioned support the role of genetics in psychopathology, environmental factors represent the remaining source of the variance. Extraneous factors such as socio-economic status (Keenan, Hipwell, Chung, Stepp, Stouthamer-Loeber, Loeber, & McTigue, 2010), parenting style (Milevsky, Schlechter, Nettter, & Keehn, 2007), inter-parental conflict (Smith & Hancock, 2010), poor peer relationships (Gaspar de Matos, Barrett, Dadds, & Short, 2003), environment (Steele, Forehand, & Armistead, 1997), and major life events (Milan & Pinderhughes, 2006) all contribute to the development of psychopathology. Although there has been a clear divide in years past regarding nature vs. nurture, Beauchaine and Hinshaw (2008) argue that the question itself is deceptive, as it suggests that the two concepts are mutually exclusive. Instead, it may be more prudent (and scientifically supported) to consider nature and nurture as interdependent, inherently linked constructs (Beauchaine & Hinshaw, 2008). As such, the current study acknowledged that any links identified between parental positive emotions and child

positive emotions were likely due to a combination of genetic transmission and environmental influences.

Framework for Understanding Parent-Child Positive Emotions

The clear link between parent-child psychopathology presents the following question: could there be a similar relationship between aspects of parental levels of positive emotions (e.g., gratitude, life satisfaction, hope) and their children's levels of these factors? Just as with psychopathology, this question must encompass issues of both genetic influence and environmental impact. There is no theoretical framework describing links between positive psychology constructs and families. Instead, the current study drew on a foundational theory in the field of psychology, which may explain the interplay between genetic and environmental factors in parents and children.

Social learning theory. Social learning theory was introduced by the developmental psychologist Albert Bandura in 1977. The theory is based on the premise that children learn and develop differently by watching models (i.e., parents, other significant adults, peers) and by imitating those behaviors (Bandura, 1977). Learning occurs primarily through observation and subsequent opportunities to practice and receive reinforcement. Bandura expanded on his original idea with social cognitive theory (Bandura, 1991). Social cognitive theory emphasizes (1) vicarious learning, or learning by observation, (2) the impact of parents, peers, and media on child development, (3) the idea that moral development is a reciprocal process between cognitions, behavior, and the environment (Bandura, 1991). Bandura suggested that parents and other significant adults model more than just behavior—they have the ability to aid in the transmission of morality to their children. While morality is clearly separate

from the development of positive emotions and well-being, this theory supports the idea that parents provide more than just genetics to their children.

The hypotheses in the current study (i.e., that there is a relationship between parental wellness and their children's wellness) were based on both the genetic relationship and social learning experiences shared between parents and children. Specifically, it is suggested that children receive certain genetic propensities for wellness (instead of vulnerabilities), and also observe and imitate both negative and positive emotions exhibited by their parents. Just as with psychopathology, indicators of wellness are subject to the interplay of genes and the environment. Thus, the link between parent-child positive emotions is likely due to both the heritability of wellness *and* social learning. While the limits of the study prevented it from determining the full extent of the influence of genetics vs. social learning on wellness, it is useful to consider the social learning framework as a reason for why parent-child wellness should be related. Another necessary framework for conceptualization of this study is positive psychology.

Positive Psychology

Originally, the field of psychology had very different objectives from the contemporary purposes (Seligman, 2002). While psychology pre-WWII was full of research investigating the treatment of mental illness, it was also concerned with identifying talent and discovering methods to increase productivity (Seligman & Csikszentmihalyi, 2000). This was exemplified by research assessing an individual's strengths, giftedness, and IQ. However, the science of psychology post-WWII has focused almost entirely on aspects of identifying and ameliorating mental illness (Benjamin, 1992). Since the mid-twentieth century, great strides have been made in

understanding psychopathology, as well as learning how humans respond to difficult or adverse circumstances. While there is great importance in the classification and treatment of mental illness, some researchers have begun to investigate an alternative approach. This approach has been termed positive psychology. The positive psychology paradigm was not conceptualized to replace the dearth of previous literature on psychopathology. Instead, creators sought to promote a dual approach to mental health, one that could incorporate treatment as well as return to an interest in building wellness, which has interested researchers since the birth of psychology (Seligman & Csikszentmihalyi, 2000).

Positive psychology has been defined as "the scientific study of ordinary human strengths and virtues" (Sheldon & King, 2001, p. 216). At the turn of the 21st century, Martin Seligman and Mihaly Csikszentmihalyi ushered in the basic tenants, purpose, and direction of the movement with an introductory article published in the American Psychologist (Seligman & Csikszentmihalyi, 2000). The article emphasized the need for psychologists to study three specific facets of positivity: positive emotions, traits, and institutions. Their description of positive psychology suggested the need for a drastic methodological pendulum swing— a transformation of the field of psychology that focuses on measuring and promoting positive emotions in individuals, rather than looking strictly at psychopathology. The goals of this wellness approach are to identify strengths instead of weaknesses, and to utilize protective factors to build resilience against psychopathology (Seligman & Csikszentmihalyi, 2000).

Conceptual Framework of Positive Emotions: Past, Present, and Future

In his book *Authentic Happiness,* Seligman (2002) introduced a framework for understanding positive emotions and experiences, which in turn effect overall satisfaction and well-being. He outlined how overall well-being can be greatly improved by enhancing three different realms of positive emotions: the past, present, and future. Positive emotions about the past, present, and future are similar, but not inherently linked. For instance, it is possible to feel satisfied about the present, but harbor angry or guilty feelings about the past. Thus, although it is optimal to have positive emotions in all three domains, they are not always in balance. However, Seligman posits that it is possible to change perceptions in each of these areas, by working to enhance the three positive psychology constructs that are the focus of this thesis: gratitude, life satisfaction, and hope.

Just as the psychopathological veins of contemporary psychology investigate constructs of illness (e.g., depression, anxiety, schizophrenia), researchers within positive psychology have identified a myriad of constructs that reflect positive experiences. Some of these constructs include flow, mindfulness, forgiveness, curiosity, gratitude, life satisfaction, and hope. Seligman advanced the latter three as a model for understanding positive emotions in the past, present, and future (Seligman, 2002). Gratitude is relevant to positive experiences in the past because it relates to appreciation of past events. In this view, grateful individuals possess a sort of retrospective satisfaction about past events and individuals. Life satisfaction reflects a present satisfaction with one's life circumstances or experiences. Of note, life satisfaction can be conceptualized as an indicator of *both* a present and past wellness, depending on the time frame that an

individual is asked to reflect on prior to rendering global judgments of his or her life satisfaction. However, it is more commonly used as a present construct. Finally, hope is an example of a future-focused positive emotion, because it represents optimism and expectation of things to come. Miller and Nickerson (2007) affirmed Seligman's framework and advocated the need for improving children's positive emotions by intervening on their perspectives of the past, present, and future. While they suggested focusing on two other positive psychology constructs to enhance positive emotions in the present (specifically, mindfulness and flow), they confirmed the importance of considering gratitude and hope as indicators of past and future positive emotions (Miller & Nickerson, 2007).

Another leading researcher within positive psychology, Barbara Fredrickson, has focused on the overall role of positive emotions in improving human functioning. Although not specific to positive emotions in youth, her research is grounded in the literature on the outcomes of positive emotions. Relevant to the current study is her "broaden and build" theory of positive emotions. She has suggested that "positive emotions (a) broaden people's attention and thinking, (b) undo lingering negative emotional arousal, (c) fuel psychological resilience, (d) build consequential personal resources, and (e) trigger upward spirals toward greater well-being in the future" (Fredrickson, 2006, p. 21). Fredrickson argues that positive emotions are worth studying because even though they are typically transient, they actually create lasting resources for individuals who possess them. This theory provides a further rationale for the importance of investigating links between parental and child positive emotions.

The current study applied the triad of positive emotions framework to the investigation of the possible relationship between parent levels of wellness with regard to past, present, and future emotional experiences (gratitude, life satisfaction, and hope) and their children's levels of the same indicators of wellness. The following sections discuss these three concepts in depth by providing definitions of each, and reviewing outcomes associated with each construct in youth. Additionally, any known predictors of each construct are described. Finally, although research is extremely limited, any previous literature relevant to the relationship between parental levels of each construct and their children's levels are conveyed.

Gratitude

Gratitude has been a highly valued character quality for thousands of years (Aquinas, 1981; Aristotle, 1962). Classical writers such as Aristotle and Thomas Aquinas devoted significant time to understanding the facets of gratitude, and although they disagreed about its inherent qualities, they acknowledged that it was an asset to any community. The disagreement about what constitutes the specific essential characteristics of gratitude has continued into modern time. As a construct, gratitude is difficult to define because it has been conceptualized as an emotion, attitude, habit, and trait (Emmons, McCullough, & Tsang, 2003). It is important to note that the different interpretations do not negate gratitude's place as an indicator of positive emotions about the past. Although the debate itself falls outside of the realm of the purposes of this project, it is important to discuss the various ways researchers have conceptualized the construct of gratitude.

Definition of gratitude. Gratitude involves appreciating past events or people, which enables individuals to have satisfaction with their past (Seligman, 2002). Although the past cannot be changed, positive emotions regarding the past can improve by choosing to be grateful for the good things or positive relationships that did occur. Fitzgerald (1998) describes gratitude as having three components: (a) a sense of appreciation towards someone or something, (b) a sense of good will towards that person or thing, (c) a disposition to act in a positive manner that flows from that appreciation. One commonly cited definition in the literature describes gratitude as "a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from a specific other or a moment of peaceful bliss evoked by natural beauty" (Peterson & Seligman, 2004, p.554). This definition highlights the savoring nature of gratitude, or the ability to reflect back and find satisfaction with one's past. Emmons and Hill (2001) describe gratitude as a dispositional trait but also recognize its cognitive underpinnings. They define the construct as a "rational choice to focus on life's blessings rather than its shortcomings" (p. 15). This perspective underscores the cognitive piece of gratitude, specifically as a mental resolution to find positivity and goodness in past events or relationships. Gratitude has also been described as a kind of moral thermometer, because engaging in grateful thinking makes one cognizant of the benefits received from a helpful benefactor (Chen, Chen, Kee, & Tsai, 2009). Furthermore, the leading researchers on gratitude (Emmons, McCullough, & Tsang, 2003) posit that gratitude is a dispositional trait that has many interdependent facets. Exceptionally grateful people tend to differ from typical individuals in four ways: intensity, frequency, span, and density. Specifically, grateful people feel thankful emotions with more strength, more often

throughout a day, across multiple life circumstances (e.g., occupation, relationships), and toward more people or more circumstances (Emmons, McCullough & Tsang, 2003). For the purpose of this study, gratitude was defined as a dispositional trait, and was assessed by the Gratitude Questionnaire (GQ-6; McCullough et. al., 2002). This measure evaluates the four facets of gratitude described in the definition above: intensity, frequency, density, and span of gratitude.

Developmental progression of gratitude. Gratitude in youth is a recent scientific interest, and researchers have found that the construct may not even emerge until the ages of seven or eight. This is due to the cognitive capacities required to appreciate past events, and the ability to recognize the cost to the benefactor and subsequent benefit to the beneficiary. Graham (1988) published the earliest study on gratitude in youth and determined that children must have prerequisite cognitive tools in order to experience gratitude. Specifically, children age seven and older reported higher levels of gratitude when they interpreted a benefactor's action as *intentional* rather than random. In addition, children must be at an age where they have meaningful life events to reflect back on. More recent support for the developmental progression of gratitude comes from McCullough, Kilpatrick, Emmons, and Larson (2001). They found that children must have the ability to (a) appreciate, and (b) reciprocate, in order for gratitude to occur. In addition, Park and Peterson (2006) did not find evidence of gratitude in their sample of 680 young children (ages 3-9) until the age of seven. In sum, it is estimated that the ability to experience gratitude matures and stabilizes by the age of ten (Emmons & Shelton, 2002; Graham, 1988). For this reason, this study targeted a sample of older

elementary children (4th - 5th grade students), in an effort to obtain a stable and valid measure of gratitude.

Positive outcomes associated with gratitude in youth. Gratitude is an important construct to explore as it has been implicated in a myriad of positive outcomes. With adults, McCullough, Emmons, and Tsang (2002) found that positive emotions such as life satisfaction, vitality and optimism were more prevalent among people who were dispositionally grateful. These same researchers found that grateful individuals reported lower levels of stress and depression. Two recent studies in youth demonstrated that gratitude is linked with a host of adaptive psychological outcomes such as increased life satisfaction, pride, hope, optimistic thoughts, pro-social relationships, positive mood, as well as improved physical and emotional well-being (Froh, Yurkewicz, & Kashdan, 2009; Froh, Kashdan, Ozimkowski, & Miller, 2009). Froh, Yurkewicz, and Kashdan (2009) utilized a sample of 154 early adolescent students ages 11-13, and reported a negative correlation between physical symptoms (e.g., headaches, dizziness, stomach aches in the last 2 weeks) and gratitude. In this study, early adolescents who reported higher gratitude also had higher perceptions of peer and familial social support, optimism, and life satisfaction (both global and domain-specific). Researchers also discovered a small gender difference in which girls obtained more social benefits from gratitude. The authors concluded that gratitude plays an important role in helping adolescents flourish.

Froh, Kashdan, Ozimkowski, and Miller (2009) conducted the first randomized controlled trial with a gratitude intervention with 89 students ages 8-19 who completed the Gratitude Questionnaire (GQ-6; McCullough et al., 2002). The researchers found that

students who finished the gratitude intervention (e.g., gratitude visit and journaling) had higher levels of positive affect at Time 2 (immediately post-intervention) and at Time 4 (two months post-intervention). In older adolescents ages 14-19, gratitude has been linked to lower levels of depression and materialism, and positively correlated with academic achievement (Froh, Emmons, Card, Bono, & Wilson, 2011). Thus, the burgeoning research on gratitude in youth appears to mirror the same positive associations with health, social, and emotional outcomes as has been established in adults (Froh, Kashdan, Ozimkowski, & Miller, 2009).

Predictors of gratitude in adults. Some researchers have investigated the predictors and antecedents of gratitude development. In one of the most comprehensive collection of gratitude studies to date, McCullough and colleagues (2002) describe several studies that investigated the predictors of dispositional gratitude among adults. In their first study, 238 college students completed the GQ-6, as well as measures of affectivity, life satisfaction, pro-social behavior, and religiosity; three informants also rated the participants on these variables. Small to moderate correlations ($r = \leq .30$) were found between religiosity and a grateful disposition. Similarly, Emmons, and Kneezel (2005) investigated the potential correlates of religiosity and gratitude in a mixed methods design study with 199 adults with neuromuscular diseases. The authors administered a religious problem-solving scale along with the GQ-6 and found small to large relationships ($r = .28$ to $r = .52$). Moreover, Adler and Fagley (2005) used a sample of 420 college students to determine the correlates of appreciation (i.e., gratitude). Results demonstrated that gratitude had the strongest correlations with spirituality ($r = .45$), followed by optimism ($r = .31$) and emotional awareness ($r = .19$).

Returning to the discussion of McCullough, Emmons, and Tsang's studies (2002), another predictor of higher gratitude appears to be certain personality traits. Their second study included a sample of 1,228 adult participants who completed the GQ-6, measures of subjective well-being, and Saucier's (1994) "Big Five" inventory. The personality variables within the Big Five predicted 28% of the variance in the GQ-6. Specifically, agreeableness, openness, and extroversion were all strongly correlated with having a grateful disposition. The results also demonstrated that gratitude is inversely correlated with materialism and envy. Thus, it seems that religiosity and certain personality traits may serve predictors or facilitators of gratitude among adults.

Previous literature on links between parents and children's gratitude. Similar literature on possible predictors of child gratitude is significantly limited. As such, it is unclear what leads children to be more or less grateful. One potential factor suggested by the current study is parental levels of gratitude. Gratitude as a dispositional trait has only been investigated in youth during the last ten years. A thorough literature search using a variety of search terms yielded only two studies relevant to links between parents and their children's level of gratitude.

The first study investigated the influence of heritability and shared environment on the development of gratitude. Although information from both parents and children were not examined, a twin sample was used to explore the genetic transmission of gratitude. Steger, Hicks, Kashdan, Krueger, and Bouchard (2007) examined an adult sample of 336 monozygotic (MZ; identical) and dizygotic (DZ; fraternal) twins to evaluate genetic links between character strengths, including factors related to the current study (e.g., gratitude and hope). The participants' mean age was 49 years old. The

researchers assessed individuals' levels of 24 character strengths using the Values in Action inventory of strengths assessment, which included 10 items specific to gratitude (VIA; Peterson & Seligman, 2004). The VIA defines gratitude as "being aware of and thankful for the good things that happen, taking time to express thanks" (p. 559), which is consistent with how gratitude was operationalized in the current study. Participants rated themselves according to a five point Likert scale ranging from *very much like me* to *very much unlike me*. Results indicated a moderate correlation between identical twins' gratitude (r = .39), while a small correlation (r = .18) was obtained among DZ twins. The authors hypothesized that approximately 60% of the variance in gratitude among MZ individuals could accounted for by shared environment, while nearly 80% variation could be expected among DZ individuals. The implication of these findings for the current study is that a small correlation should be expected in gratitude between first-degree relatives such as mother-child and father-child pairs, in that these family members share half of their genes.

The second study was conducted in 1980, and explored politeness patterns in youth, by recording the use of "yes, thank you, and good-bye" routines in twenty-two children ages 2-5 (Greif & Gleason, 1980). In a series of controlled interactions, researchers observed the rates of children exhibiting greetings and gratitude ("thank you") with and without adult prompting when meeting and receiving a gift from a research assistant. Children were observed receiving a gift without adult prompting, with adult prompting ("say thank you"), and with adult modeling. Results demonstrated that before adult modeling, children spontaneously thanked the assistant 7% of the time. However, after adult modeling, the rate of "thank you" increased to 86% (Greif &

Gleason, 1980). This research suggests that childhood gratitude may be acquired through parental modeling and practice, which is in alignment with social learning theory. No further studies involving gratitude in parents and youth were found. Thus this study was the first of its kind to explore the possible relationship between gratitude among parents and their children in an older elementary school age sample.

Life Satisfaction

The scientific term for happiness has been termed "subjective well-being" (SWB). Life satisfaction, one component of SWB, serves as the cognitive indicator of positive emotions in the present. Subjective well-being has been defined as "an individual's own assessment of his or her own life-not the judgments of experts-and includes satisfaction (both general and satisfaction with specific domains), pleasant affect, and low negative affect" (Diener, Scollon, & Lucas, 2004, p. 189). Thus, SWB encompasses both cognitive and emotional conceptions of happiness. The cognitive aspect is tapped with life satisfaction, and the emotional piece is reflected in both positive and negative affect. Positive affect has been described as the frequency of positive emotions such as joy or exhilaration. Alternatively, negative affect is the frequency of negative emotions such as fear or guilt (Snyder & Lopez, 2009). It is important to note that researchers have found that self-reports of SWB frequently fluctuate. This is because the construct contains the emotional interpretations of quality of life which can vary from day to day depending on positive or negative life events. As such, the cognitive component of SWB, life satisfaction, is more commonly used in research because it is a more stable indicator of happiness (Diener, Lucas, & Oishi, 2002).

Definition of life satisfaction. A leader in the area of life satisfaction (LS) research has defined the construct as a "cognitive judgmental process in which individuals assess the quality of their lives on the basis of their own unique set of criteria" (Pavot & Diener, 1993, p. 164). Life satisfaction has further been described as an appraisal of the positive things in one's life overall or within specific domains, such as satisfaction with one's family, school, and neighborhood (Diener, 1994). In other words, it is an individual's level of satisfaction and contentment with the quality of his or her *presently* occurring life. Life satisfaction can be further divided into two components: general or global satisfaction, and satisfaction with specific life domains (Myers & Diener, 1995). For example, one might report that he or she is satisfied with his or her life as whole, but has varying levels of satisfaction in the areas of family, occupation, or peer relations. For the purpose of this study, only general or global life satisfaction was examined.

Positive outcomes associated with life satisfaction in youth. In contrast to the extensive research conducted on adult happiness, there exists a modest but growing literature on happiness in youth. Within the available research, many positive associations and outcomes have been reported on children with high life satisfaction. In Gilman and Huebner's (2006) study with 485 adolescents, students who reported high levels of life satisfaction had more satisfying relationships with adults and peers, better attitudes towards teachers, and also lower levels of stress. Another intriguing finding from their study was that students high in LS did not report any psychopathological symptoms. However, 7% of the youth who had average LS and 42% of the youth with low LS scored in the clinical range on self-reports of psychopathological symptoms. In a

comprehensive study by Gilman and Huebner (2006), the researchers found that adolescents in the highest ranges of life satisfaction reported the lowest levels of depressive symptoms. Those same students also had the highest scores of hope. In a different study investigating the advantages of high LS, Suldo and Huebner (2006) found that middle and high school students with the top 10% highest scores of LS had superior peer relations, and also better perceptions of their social and academic competence. Suldo and Huebner (2004) used a sample of 816 high school students and investigated the relationship between life satisfaction and externalizing disorders. Higher initial levels of life satisfaction were found to predict lower levels of externalizing behaviors one year later, suggesting that life satisfaction may serve as a buffer against the development of psychopathology. Further, Zimmerman, Salem, and Maton's (1995) research indicates that an inverse relationship exists between students' LS and their engagement in risky behaviors (e.g., sexual behavior and substance use).

There are also many positive educational implications for youth with high life satisfaction. Suldo, Shaffer, and Riley (2008) found a small but statistically significant correlation (r = .21) between levels of LS in high school students and their grade point averages (GPA). Suldo et al. (2008) also determined that life satisfaction was strongly correlated with better student-teacher relationships (r = .33). Similarly, Suldo and Huebner (2006) found that middle and high school students with higher levels of life satisfaction indicated higher ratings of social support from teachers. In Gilman and Huebner's (2006) research, students who reported high levels of life satisfaction also had the highest scores in positive academic events, suggesting that happier youth are able to have more optimal experiences at school. Furthermore, research has found an inverse

relationship between life satisfaction and problem behaviors (e.g., externalizing behaviors) exhibited at school (Suldo & Huebner, 2006).

Predictors of life satisfaction. The research on predictors of life satisfaction is much more developed when compared to the field's current understanding of the determinants of gratitude and hope. Lyubomirsky and Sheldon (2005) provided a thorough model for understanding predictors of happiness among *adults*, which was conceptualized by pooling together multiple theories of happiness. Lyubomirsky presented three determinants of happiness: (1) a happiness set point, (2) life circumstances, and (3) intentional activity. Each determinant accounts for a certain percentage of variance in determining a person's total happiness (specifically, genetic set point 50%, life circumstances 10%, and intentional activity 40%).

First, the happiness set point is "genetically determined and is assumed to be fixed, stable over time, and immune to influence or control," and determines 50% of an individual's happiness level (Lyubomirsky & Sheldon, 2005, p. 116). This finding comes out of the extensive twin research conducted in the last few decades that was primarily led by Lykken and Tellegen (1996). Their research explored the heritability of SWB among identical and fraternal twins. In their estimates, genetics accounted for nearly 80% of the variance in people's level of happiness. However, Lykken (1999) acknowledged the likelihood that a more modest and accurate percentage of variance may be around 50%. This genetic influence is highest among those with 100% shared genes, or monozygotic twins. The amount of heritability decreases to approximately $r = .20$ with dizygotic twins reared together and between typical siblings and their parents. Within the last few decades there have been several other twin studies looking at the similarity

between children and their parents, all of which agree with the 50% estimate of happiness heritability (Bartels & Boomsma, 2009; Bartels, Saviouk, De Moor, Willemsen, Van Beijsterveldt, Hottenga, et. al., 2010; Lykken, 1999). However, of note, high heritability does not mean that the trait is unchangeable (Seligman, 2002).

Another strain of research supporting genetic set-points of happiness is the idea of the hedonic treadmill. The hedonic treadmill suggests that any gains made in one's level of happiness quickly dissipate and return to normal within a period of a few short weeks or months (Brickman & Campbell, 1971). This return to baseline suggests that perhaps people have an average level of satisfaction that ebbs or decreases slightly depending on circumstances. However, despite occasional fluctuation, there tends to be a natural return to the mean. One significant study that provided support for the hedonic treadmill found that lottery winners reported the same levels of happiness just one year after receiving their winnings (Brickman, Coates, & Janoff-Bulman, 1978). Similarly, Diener and Lucas (1999) found surprisingly small correlations between economic wealth and reported levels of happiness. Finally, Myers (2000) analyzed the rise in personal income in America over the last fifty years and found no significant concurrent change in well-being.

Thankfully, genetics are not the only factor that determines one's happiness. Lyumbomirsky advanced a second predictor of happiness—life circumstances. Life circumstances determine approximately 10% of people's total happiness and include demographic characteristics (e.g., socio-economic status, gender, age, marital status), as well as personal history (e.g., childhood trauma or accidents), region of residence, current job, physical health, and religiosity (Lyumbomirsky, 2005). Such life circumstances are

not easily amenable to change, but they can be altered with effort (e.g., job transfer, divorce and remarriage, or church attendance). Studies on life satisfaction have concluded that while each of these circumstances is somewhat implicated in life satisfaction as a whole, they do not have a significant impact on individuals' happiness. Specifically, socio-demographic variables such as age, SES, and ethnicity have all yielded weak or non-existent correlations with life satisfaction with people in general (Seligman, 2002). For example, people with higher incomes are only slightly happier than those with low socio-economic status (Seligman, 2002). Researchers have attributed the small impact of life circumstances on happiness to the hedonic treadmill described earlier. Humans quickly adapt to changes in setting, and return to their chronic happiness set-point within a matter of months (Brickman & Campbell, 1971; Lyumbomirsky, 2005).

The final, and most promising, piece of the happiness model involves intentional activities. Lyumbomirsky hypothesized that international activities explain the remainder of one's happiness, determining approximately 40% of the variance in one's happiness. Intentional activities are things that individuals actively can do to improve their happiness and can be loosely categorized into behavioral (e.g., exercising, journaling, performing acts of kindness), cognitive (e.g., reframing negative events), or volitional (e.g., setting personal goals, working towards a cause) domains (Lyumbomirsky, 2005). Of note, it is possible for an intentional activity to also be a life circumstance. For example, an individual may decide to move to a warmer climate with the intention of enhancing his or her happiness. The important distinction between life circumstances and intentional activities is whether something happens to an individual (circumstance), or whether an

individual is actively engaged in changing something. Lyumomirsky's model is based on an understanding of happiness in *adults*. As such, it is unclear whether the model functions similarly in youth, especially when considering that children have more limitations on their ability to change life circumstances or perform as wide a range of intentional activities. This is an area that clearly merits further research.

Aside from genetics, circumstances, or intentional activities, relationships and daily environments (e.g., school) appear to influence youth happiness. The quality of youth's relationship with their parents and friends also appears to predict or contribute to youth life satisfaction. In a unique study with a mixed methods design, Edwards and Lopez (2006) obtained qualitative data from 266 Mexican American adolescents. Perceived level of family support emerged as the strongest predictor of life satisfaction. In addition, Milevsky, Schlechter, Netter, and Keehn (2007) reported that maternal parenting style (authoritative) was predictive of higher life satisfaction in a sample of 272 high school students. Returning to Edwards and Lopez (2006), adolescents reported that the second most important factor in life satisfaction was support (helpfulness) and enjoyable experiences with friends. Other studies have also supported the finding that strong peer relationships contribute to overall life satisfaction in youth (Gilman, Easterbrooks, & Frey, 2004; Park & Huebner, 2005).

Finally, daily environments predict a portion of satisfaction in youth. Children spend a significant portion of their day in schools, and thus it seems clear why factors such as school climate have an impact on youth's life satisfaction. For instance, in Suldo, Shaffer, and Riley's (2008) sample of 321 high school students, school climate (particularly student-teacher relationships and parental involvement at school) accounted

for 14% of the total variance of youth's global life satisfaction. In a similar study with 461 middle school students, school climate (particularly student-teacher relationships, peer relationships, and fairness) accounted for nearly 18% of the variance in students' global life satisfaction (Thalji, Duong, Hoy, Frey, & Suldo, 2011, February). Taken together, these studies suggest that school environment is implicated in determining youth happiness.

Previous literature on links between parents and children's life satisfaction. Pertinent to the current study is the investigation of possible correlations between parents' and their children's levels of life satisfaction. Perhaps the most significant study on this topic was conducted by Lykken and Tellegen (1996), who studied subjective well-being in an American adolescent sample of 349 MZ twins, 192 DZ twins, and their 447 parents. Adolescent participants were all seventeen years of age and still lived at home. The parents and adolescents completed the Multidimensional Personality Questionnaire (MPQ), a 198-item assessment that includes a Well-Being Index (Tellegen, 2000). Lykken and Tellegen found that while the monozygotic twins had a strong correlation on the Well-Being Index with their twin counterparts of (r = .47), parents and twins had only a modest correlation of (r = .20). This statistically significant but small correlation was nearly equivalent with the correlation between the spouses themselves (r = .18). This data suggests that although life satisfaction has a clear genetic connection (as noted in the strong correlation between identical twins), parents and their children's life satisfaction seem to only be modestly linked. Many other large twin studies have analyzed the genetics of subjective well-being and life satisfaction, but they are outside of the purposes of this study as they do not include correlations between parents and their children.

A thorough search of the literature yielded two additional studies that specifically examined correlations between parent and child levels of life satisfaction. Casas, Coenders, Cummins, González, Figuer, and Malo (2008) studied 266 families with adolescents (ages 12 – 16) in Spain. The researchers randomly selected seven schools for participation in the study, and subsequently filled a quota for every age group. Although 323 questionnaires were completed by either mothers or fathers, 57 cases were dropped due to missing data. Of note, the researchers obtained 139 matched pairs with surveys completed by *both* parents and the student. However, they chose to maximize their sample size and instead ran separate correlational analyses that used all available data for mother-child measures and father-child measures. The researchers hypothesized that the impact of genetic set-points for happiness (an estimated $r = .20$ for non-twins), plus shared environment (an added .20) would yield a parent/child correlation no less than $r = .40$ (Casas et al., 2008). The researchers also suggested that the adolescents' overall well-being would be more highly correlated with their parents' overall levels than parent-child correlations in specific domains of life satisfaction. The researchers utilized the Personal Well-Being Index, a tool used by the International Well-Being group to assess SWB (Cummins, Eckersley, van Pallant, Vugt & Misajon, 2003). The Personal Well Being Index is a measure of domain-specific life satisfaction, and includes the following seven factors: satisfaction with standard of living, health, life achievements, relations with other people, personal security, group belonging to, and security for the future. Youth and parents also responded to the general question, "how satisfied are you with your life as a whole" which was used as a measure of overall well-being.

Results indicated a small correlation (r = .19) between mothers and fathers and adolescents on the full Personal Well Being Index. However, no statistical significance was found between parents and adolescents on the one item measure of satisfaction with life as a whole. While this correlation is consistent with the hypothesized heritability estimate of r = .20, it reflects only a 5% shared variance between youth and parents. It is unknown if the small correlation reflects effects of heritability or shared environment. Furthermore, the authors concluded that their data did not support a strong, reliable correlation between parent-child levels of satisfaction with "life as a whole." Of note, overall life satisfaction was only measured by one question, which could have contributed to the weak effects. The authors also suggested that their inconclusive results were due to the age of the sample, in that older adolescents may have weaker correlations with parents due to the greater influence of peers. The current study investigated this hypothesis by targeting a sample of older elementary school age children.

In 2003, Ben-Zur published a study with 323 participants from Israel, comprised of 121 adolescents ages 15-17, and their mothers and fathers (Ben-Zur, 2003). The sample was obtained by graduate students who solicited their friends and neighbors who had adolescents. Data was subsequently collected in homes under the graduate students' supervision. The researchers were able to obtain data from *both* mothers and fathers for every adolescent participant—a unique strength of the study. Although the larger purpose of the study was to examine the relationship between adolescent's feelings of mastery and optimism and subsequent SWB, one particular research question of the study is pertinent to this project. The author hypothesized that positive correlations would exist between adolescents' levels of mastery, optimism, and SWB, and their parents' levels of

these variables. This hypothesis was based on theoretical framework derived from Family Process Theory (Larson & Richards, 1994). This theory posits that adolescents share much of their parents' emotions, cognitions, and values due to both genetics and their shared "reality." The adolescents and both parent participants completed the PANAS (Watson, Clark, & Tellegen, 1988), the Mastery Scale (Pearlin & Schooler, 1978), an optimism measure (LOT; Scheier & Carver, 1985), a social desirability scale (SDS; Crowne & Marlowe, 1964) and the Life Satisfaction Scale (Ben-Zur, 2003).

Results indicated that adolescent life satisfaction yielded a moderate correlation (r = .34) with fathers' life satisfaction, and a small but significant correlation (r = .25) with maternal life satisfaction. The significant links between adolescents' and their parents' levels of life satisfaction justifies further investigations into the topic. Of note, both the previous studies were conducted outside of the United States, and examined middle to late adolescents ages 12 to 17. The current study aimed to replicate these methods in an American sample of children in elementary school.

Hope

Hope provides an indicator of one's positive emotions and expectation of well-being in the future. Researchers have looked at hope for several decades, and there are varying opinions regarding its definition. Hope can be conceptualized as an emotion, cognition, or combination of both. Early research on hope emerged in the 1950s and 1960s, and researchers proposed that hope involved the expectation of achieving a goal (Snyder, Cheavens, & Michael, 1999). Stress and coping research in the 1970's began to look at hope and its role in reducing negative emotions and improving physiological symptoms of chronic illness (Simonton & Matthews-Simonton, 1978; Cohen, 1979).

Hope began to gain more attention as researchers found that individuals with higher levels of hope possessed an improved capacity to cope with difficult circumstances (Frank, 1973).

Definition of hope. Although there have been some theories promoting hope as an emotion, there are over fifty published studies supporting the cognitive nature of hope. Erikson's work in developmental psychology posited that hope is the belief (or cognition) that goals can be attained (Erikson, 1964). He defined hope as, "the enduring belief in the attainability of fervent wishes, in spite of dark urges and rages which mark the beginning of existence" (Erikson, 1964, p. 118). This framework of hope has become more prevalent in the literature. Erikson also promoted the idea that hope begins at birth, suggesting that even infants have the ability to hope. As time has passed, this theory has been validated and most researchers appear to agree that the construct of hope begins to emerge as early as toddlerhood (age 3) and has been shown to remain fairly stable through development (Snyder, 1994).

The most prevalent and well-researched cognitive view of hope to date is Snyder's hope theory. Snyder defines hope as a "belief that one can find pathways to desired goals and become motivated to use those pathways" (Snyder, Rand, & Sigmon, 2005, p. 257). Hope theorists suggest that hope has three primary components: goals, agentic thinking, and pathways. Agentic thinking is "goal-directed determination" to reach a goal, while pathways are an individual's perception that he or she can plan and find routes to achieve his or her goals (Snyder, Harris, Anderson, Holleran, Irving, et al., 1991). In other words, agency thinking represents an individual's motivation or will-power to reach a goal, while pathway thinking is the individual's planning process of

routes to reach a goal. Goals serve as the final target of a hopeful thought, and require the activation of both agency and pathway thinking in order to attain (Snyder, Cheavens, & Michael, 1999).

Positive outcomes associated with hope in youth. In adult populations, higher hope has been associated with improved physical health, self-esteem, and college GPA (Chang, 1998; Harney, 1990; Snyder et. al, 1991). Hope has also been strongly associated with life satisfaction. In a study with 591 college students looking at the impact of hope and optimism on 14 different components of well-being (e.g., life satisfaction, positive affect, purpose in life), hope was significantly correlated with 12 out of 14 components. Altogether, hope and optimism accounted for an average of 51% of the variance in the well-being factors (Gallagher & Lopez, 2009).

In one of the seminal articles on positive outcomes and hope in youth, Snyder and colleagues (1997) found that more hopeful children reported higher levels of self-esteem (r = .23 to r =.55) and more significant life goals. Children with high hope also demonstrated greater interpersonal skills and were more adept at solving problems (Snyder, Hoza, Pelham, Rapoff, Ware, Danovsky, et al., 1997). Valle, Huebner, and Suldo (2006) explored the relationship between levels of hope and adolescent outcomes. In their final sample of 699 middle and high school students, hope at Time 1 predicted higher levels of life satisfaction at Time 2 (r = .40) and lower internalizing psychopathology at Time 2 (r = .39). Although hope was correlated with behavioral problems in this study, Valle et al. (2006) did not find that initial levels of hope predicted externalizing behaviors one year later. In another study with 784 high school students, researchers found that hope was a stronger predictor of grades (r = .27) than other factors

such as self-esteem and explanatory style (Ciarrochi, Heaven, & Davies, 2007). In addition, behavioral problems (e.g., hyperactivity, inattention, and aggression) were negatively correlated with hope (r = - .22).

While hope has not been connected with higher intellectual ability, it has been linked with higher levels of academic achievement (Snyder, Hoza, et al. 1997; Snyder et al., 1991). Additionally, in Seligman's research on explanatory style and optimism within children, he posited that children who have positive expectations of their future are more likely to become hopeful teenagers and adults (Seligman, 1990). He also described how hopeful children are less depressed, higher achieving, and healthier overall. In sum, there are a myriad of positive outcomes associated with hope during youth.

Predictors of hope. While there have not been studies investigating the heritability of hope, there are several researchers who have studied predictors of a related construct: optimism. Optimism is defined as a broad, positive expectation of future outcomes and a belief that good outcomes will exceed negative events (Kassinove & Sukhodolsky, 1995; Scheier & Carver, 1985). The distinction between optimism and hope pertains to the fact that optimism involves positive *perceptions* of the future, and has less focus on the mechanisms of goal attainment. Alternatively, hope is considered a more cognitive, goal-specific and goal-driven process (Gallagher & Lopez, 2009; Scheier & Carver, 1985). A discussion of further differences between hope and optimism is beyond the scope of this study, but it is useful to know that a debate exists regarding the separability of these constructs. Despite the differences between the constructs, optimism studies provide useful data and are most likely indicative of what researchers would find with hope. Gillham and Reivich (2004) argue that there are three key predictors of

optimism in youth: genetics, level of positive/negative affect, and parenting. In regard to genetics, Plomin, Scheier, Bergeman, Pederson, Nesselroade, and McCleam, (1992) reported that at least one-quarter of the variability of optimism in individuals is inherited. Of note, this is significantly less than the happiness set points discussed earlier (25% of the variance compared to approximately 50% of the variance). Additionally, Schulman, Keith, and Seligman (1991) used a twin sample when researching explanatory styles, which are ways of interpreting or making sense of past, present, and future events. Individuals can have either a pessimistic explanatory style (e.g., bad events are stable, global, and internal), or an optimistic explanatory style (e.g., bad events are temporary, specific, and external). Similar to the heritability of happiness, they found positive correlations with monozygotic twins (r = .48) but dizygotic twins produced a correlation of zero. Thus, it appears that optimism, a related construct to hope, has a very strong connection among individuals who share 100% of their genetic code, but a non-existent relationship with first-degree relatives (e.g., fraternal twins, parents and children). The greater the shared genetics, the more similarity with regards to explanatory styles.

The second likely predictor of hope is one's level of positive or negative affect. Individuals who naturally have a high level of positive affect will also be able to think more positively about the future (Seligman, 1990). This phenomenon has a circular effect, because optimistic and hopeful thoughts in turn impact one's level of happiness.

A third likely predictor of hopeful thinking is parenting and parent modeling. Extensive research has been conducted in the area of parenting and children's attachment. Several researchers have suggested that children with strong and secure attachments to their parents are more likely to be optimistic and confident about the future (Bowlby,

1969; Erikson, 1963; Lieberman, 1993; Snyder, 2000). Furthermore, parents who model hopeful thinking and coping skills teach their children how to perceive the future. Coping skills are implicated in hopeful thinking because they enable children to handle defeat or frustration. Without such skills, children repeatedly endure disappointment and failure, which can lead to hopelessness (Snyder, 2000).

Research has also been conducted on the role of demographic factors in predicting levels of hope. Similar to findings with the original Adult Hope Scale (Snyder, Harris, et al., 1991), Snyder and colleagues did not find any statistically significant gender differences on the Child Hope Scale (Snyder et al., 1997). In addition, they found no statistically significant differences between levels of hope and ethnicity or age. These findings have been replicated (Ciarrochi, Heaven, & Davies, 2007; Valle, Huebner, & Suldo, 2006).

Previous literature on links between parents' and children's hope. Although there is a paucity of empirical research in the area of the hereditability of hope, leaders in the field have hypothesized that parents high in hope will rear children similarly high in hope (Farran, Herth, & Popovich, 1995; Snyder, 1994; Snyder et al., 1999). However, the first experimental study examining this question did not support the potential hereditary nature of this construct and its ability to transfer from parent to child. Westburg and Martin (2003) conducted one of the few published studies examining the correlation between parental levels of hope and their children's hope levels. The larger purpose of the study was to evaluate the impact of a goal-oriented reading and writing intervention on children's hopefulness, the parents' perception of their children's level of hope, and finally the relationship between parental and child levels of hope. They used a relatively

small sample size of 46 children (ages 8-15) and 43 mothers and fathers. The researchers administered the Children's Hope Scale (CHS; Snyder, Hoza, et al., 1997) to children and the Adult Hope Scale (AHS; Snyder et al., 1991) to parents both pre- and post-intervention. There was not a significant relationship between hope levels on the AHS and CHS either in Total Hope (r = .08, p > .05) or the various components of hope, Agency (r = .10, p > .05) and Pathways (r = .08, p > .05 &Westburg & Martin, 2003). One limitation of this study is that the authors only solicited data from one parent per child, instead of analyzing correlations between mother-child and father-child measures. The researchers stated the need for additional studies with larger samples sizes and inclusion of both parents in the evaluation of parent-child hope.

More recently, Marques, Pais-Riberio, and Lopez (2007, July) used the CHS and the AHS in a sample of 256 Portuguese youth (ages 10 to 15) and their caregivers. The students had a mean age of 11.18, and 52.3% of the participants were girls. Guardians included both mothers (66.7%) and fathers. The researchers found a statistically significant correlation between children's level of hope and their guardians' level of hope (r = .37). Marques et al. (2007) presented their results at the poster session during the 10th European Congress of Psychology convention, but have not yet published their study. As such, further details about their method and results could not be obtained. However, this promising finding suggests that the development of hope in children may be related to caretakers' levels of hope.

A final study of relevance investigated the influence of genetics and shared environment on the development of hope. Steger et al. (2007) examined an adult sample of 336 MZ and DZ twins to determine whether genetic links existed among positive

character strengths, including hope, as assessed by a ten-item hope subscale on the VIA. The VIA defines hope as "expecting the best in the future and working to achieve it; believing that a good future is something that can be brought about" (Peterson & Seligman, 2004, p. 570). Notably, this definition leans more towards optimism than the goal-oriented definition of hope used in the current study. Participants rated themselves according to a five point Likert scale ranging from *very much like me* to *very much unlike me*. Results indicated a moderate correlation (r = .43) between MZ twins' hope, and a small correlation (r = .20) among DZ twins. The authors hypothesized that approximately 60% of the variation in hope among MZ individuals can be accounted for by shared environment, while 80% variation should be expected among DZ individuals. Steger et al.'s findings suggest that a small correlation should be expected between hope levels of first-degree family members who share half of their genes, such as mother-child and father-child.

Conclusion

The research of positive psychology seeks to return the field to its early roots—identifying and promoting wellness (Seligman & Csikszentmihalyi, 2000). One framework for understanding wellness is the study of positive emotions and their predictors. Positive emotions can be felt toward people and events in the past (e.g., gratitude), feelings of well-being in the present (e.g., life satisfaction), and expecting and working towards goals in the future (e.g., hope). These three constructs have been studied rather thoroughly in adults, and more recently among children and adolescents. Because of the numerous positive outcomes associated with having high levels of gratitude, life satisfaction, and hope, it is prudent to understand how each of these constructs develops.

One way of accomplishing this is by investigating whether there are relationships between the three positive emotion constructs among parents and their children.

While extensive research has been conducted on the genetic transmission and impact of shared environment on psychopathology among families (Eley, 2001; Faraone, Spencer, Aleardi, Pagano, & Biederman, 2004; Glowinski, Madden, Bucholz, Lynskey, & Heath, 2003; Hetema, Neale, & Kendler, 2001; Loehlin, Willerman, & Horn, 1988; Rhee &Waldman, 2002; Silberg, Maes, &Eaves, 2010), there is a marked gap in the wellness literature. In fact, the triad of gratitude, life satisfaction, and hope has never been studied simultaneously within a parent and child population. Furthermore, there is a great need for research on gratitude, life satisfaction, and hope specifically in younger children. The preponderance of studies addressed in this review either included adults or adolescents, and very few included parents in their samples. Although this study will not be able to provide genetic influence or shared environment data (due to the correlational nature of the design and lack of a twin sample), it is able to identify the direction and strength of the relationship between parents and their children's wellness. The purpose of the current study was thus to determine the extent of the relationships between parental levels of gratitude, life satisfaction, and hope, and their children's levels of gratitude, subjective well-being, and hope.

Chapter Three: Method

Research Design

The purpose of this study was to investigate the significance and magnitude of links between parents' levels of positive emotions and their children's levels. This study utilized a non-experimental, correlational design based on the concurrent data collection of self-report measures from children and both (when possible) parents. A correlational design was considered appropriate for this study, based on the type of relational research questions that were generated. Quantitative methods were used to analyses the data. Data collection occurred in May of 2011 at two local elementary schools. The following chapter outlines the characteristics of the population and sample, recruitment of student and parent participants, and data collection procedures. The ethical considerations made throughout the study are also discussed. The chapter concludes with an overview of the data analysis procedures.

Setting Characteristics

The target population of this study was elementary-aged children in grades 4 and 5 and their primary caregivers. Data was solicited from two local elementary schools. According to information on the district website, both School 1 and School 2 received "A" grades for the 2010-2011 school year. Additionally, both schools employ a substantial number of teachers with degrees of M.A. and higher (School 1 has 32%; School 2 has 21%).

School 1. At the time of data collection, School 1 served 946 students in Pre-K through 5th grade. It is located in a suburban area of middle to high socio-economic status, which is reflected in the low numbers of students eligible for free or reduced lunch (25% of students in the school). In regard to student ethnicity, School 1 is composed of approximately 54% White Non- Hispanic, 27% Hispanic, 8% Asian, 8% Black, and 3% Multi-racial students. Additionally, School 1 has a large Exceptional Student Education (ESE) program with 180 students. This number represents 19% of the total student population. Of those students, 30% are involved in the gifted program and 70% are identified as having disabilities. School 1 has several self-contained Varying Exceptionalities, Autism Spectrum Disorders, and Deaf or Hard of Hearing classrooms. Regarding the grade levels of interest for this research project, School 1 had fourteen classrooms serving 4th or 5th grade students, with 135 fourth graders and 160 fifth graders.

School 2. The second school is a smaller elementary school with a total of 672 students, and is within ten miles of School 1. School 2 also has relatively low numbers of students receiving free and reduced lunch (23%), and has a similar demographic profile of School 1 with 60% White, 23% Hispanic, 7% Black, 6% Multi-racial, and less than 1% American Indian students. Key differences include a slightly higher percentage of White and Multi-racial students, and slightly fewer Hispanic and Asian students in attendance. Fourteen percent of School 2's students are enrolled in ESE, with Speech and Language (40%) and Gifted (30%) as the largest exceptionalities within the program. The school does not have any self-contained classrooms. At the time of data collection, School 2 had twelve classrooms serving 4th and 5th grade students, with 112 fourth

graders and 124 fifth graders enrolled. Table 1 provides a summary of the demographic characteristics of students in both schools.

Table 1
School Demographic Information

	School 1	School 2	Total
Total Enrollment	946	642	1,618
Student Gender			
Male	54% (509)	52% (354)	53% (863)
Female	46% (437)	48% (327)	47% (764)
Student Race/Ethnicity			
American Indian or Alaskan Native	0% (0)	>1% (1)	>.001% (1)
Asian or Pacific Islander	8% (76)	4% (26)	6% (102)
Black, Non-Hispanic	8% (77)	7% (48)	8% (125)
Hispanic	27% (255)	23% (153)	25% (408)
Multiracial	3% (30)	6% (43)	5% (73)
White, Non-Hispanic	54% (508)	60% (401)	56% (909)
Free & Reduced Lunch Status			
Yes	25% (236)	23% (156)	24% (392)
No	75% (710)	77% (516)	76% (1,226)
Students Enrolled in ESE	19% (180)	14% (93)	17% (273)
Grade Level			
Pre-K	3% (32)	> 1% (5)	2% (37)
Kindergarten	17% (162)	15% (102)	16% (264)
First	16% (155)	17% (115)	17% (270)
Second	18% (165)	14% (97)	16% (262)
Third	14% (137)	18% (117)	16% (254)
Fourth	14% (135)	17% (112)	15% (247)
Fifth	17% (160)	18% (124)	18% (284)

Note. ESE=Exceptional Student Education

Participants

Student participant demographic characteristics. Only those students in fourth and fifth grade at the two schools were recruited for participation, primarily due to requirements for the readability of the surveys. At the time of data collection, Schools 1 and 2 had 249 fourth grade and 284 fifth grade students (N = 531). Out of this total sample, data was gathered from 153 fourth and fifth grade students (and their parents). Specifically, 76 fourth and 77 fifth grade students out of 26 classrooms participated, which reflects a participation rate of 28.8%. Of note, parents of 18 students (3%) refused participation via written correspondence with the principle investigator; no communication was received from the remaining 68.2% of the recruited sample. This percentage rate is somewhat lower than desired, but respectable in the context of the fact that student participation also required participation by their parents.

Table 2 summarizes the demographic features of the students who participated in the study. Females were slightly more represented than males (e.g., 54.25% compared with 46.75% males). The sample was evenly split between fourth and fifth grade students, and was composed of students ages 9-12. The majority of the students were ten years old (56%), followed by eleven years old (32%), and nine years old (11%). One student was twelve years old.

Students were also asked about their race and ethnic identity and were instructed to select all that applied. Response options included: White, Hispanic, Black or African American, American Indian/Alaska Native, Asian, Native Hawaiian, or Other Ethnicity. The student sample was 58.17% White, 21.57% Hispanic, 9.8% Black, 5.23% Asian, and 3.27% Multiracial. In general, the ethnic characteristics of the sample were very similar

to the school populations. The only difference is that Black students were slightly overrepresented and Multiracial students were slightly underrepresented.

Table 2
Demographic Characteristics of Student Sample (N = 153)

Variable	*N*	%
Gender		
Male	70	45.75%
Female	83	54.25%
Grade		
Fourth	76	49.67%
Fifth	77	50.33%
Student Age		
9	17	11.11%
10	86	56.21%
11	49	32.03%
12	1	0.65%
Ethnicity		
White, Non-Hispanic	89	58.17%
Hispanic Only and White	33	21.57%
Black	15	9.80%
Asian/Pacific Islander	8	5.23%
Multiracial	5	3.27%
Native American/ Alaska Native	1	0.65%
Other ethnic background	2	1.31%

Caregiver participant demographic characteristics. In addition to the 153 students, survey data was gathered from 262 of their parents. Specifically, data was collected from 143 participants who identified as "mothers" (female respondents) and 119 participants who identified as "fathers" (male respondents). Approximately 5% of the total sample of parents identified themselves as the youth's step-parents, and less than 1% reported that they were the adoptive parent. Two percent of the parent sample was composed of grandparents. The following paragraphs highlight parents' caregiver type (e.g., biological, step, adoptive, grandparent), age, ethnicity, living arrangement with the student, as well as family structure.

Female caregivers. Of the 143 female caregivers, 95% identified as the biological mothers of the participating student. An additional 2.78% identified themselves as the step-mothers. There were no adoptive mothers. Female respondents of three youth participants identified as grandmothers. Of those surveys, one person was the paternal grandmother and legal guardian who had cared for the student since the child was three weeks old. The two other surveys were completed by the same person, who filled out one survey for her fourth grade student and another for her fifth grade student. This grandmother reported that the children had been living with her for 1-2 years. No other female participants provided data on more than one child.

Female caregivers ranged in age from 26 to 63. Approximately 60.56% of the mothers were between the ages of 36-45, and 22.56% were between the ages of 26-35. A total of 142 out of 143 mothers answered questions about their ethnicity. As shown in Table 3, the majority of female adult participants were White (62.75%), Hispanic (15.69%), Multi-racial (7.19%), Asian (7.19%), or African-American (6.54%).

All mothers provided information about their current living arrangements, which was used to determine the amount of time the student shared his/her environment with his/her parent(s). The majority of mothers (92.56%) indicated that the students lived in their home full time. Six percent of mothers reported that their child spent *most* of the time in their home (e.g., they had primary custody of the student). Only 1.39% of mothers reported that their child spent only half of the time in their home. Regarding their relationship status with the student's father, most mothers (76.6%) indicated that they were married, 14.89% were divorced, 2.13% were separated, 4.96% were never married, 1% were widowed, and two mothers did not state their status.

Male caregivers. Approximately 91% of the 119 male responders were the biological fathers of the students. There were eight step-fathers (6.7%) who completed the surveys. Out of those fathers, one indicated that he had only cared for the student for less than 1-2 years. The only adoptive father in the data set reported that he had been with the student since the child was 10 months old. Regarding grandfather participants, one grandfather completed two surveys. This grandfather was married to the aforementioned grandmother who also completed two surveys. No other male participants provided data on more than one child.

Fathers in the data set were predominately between the ages of 36-45 (68.39%). In contrast to the mothers, there were very few young fathers between the ages of 26-35 (only 5.98% of the sample compared to 22.56% of mothers). Fathers of five participants reported being between 56-63, representing 4.26% of the male sample.

The ethnic make-up of the fathers was nearly identical to the mother data with one notable exception. Nearly 22% of the father sample was multi-racial (most commonly,

Hispanic plus another race other than White, such as African-American) while the mother sample was only about 7% multi-racial.

Regarding the fathers' current living arrangement with their student, 93.33% of fathers reported that the child lived full-time in their home. Three percent said "most of the time," and 2.5% indicated that the student spent half or less than half of the time at their home. In regards to family structure, a greater percentage of the father participants were married (88.98% of fathers compared to 76.6% of mothers). Only 7.63% of fathers said that they were divorced compared to 14.89% of mothers. One father reported that he was never married to the student's mother, two said they were never married but living together, and one indicated that he was a widower.

In sum, the data set includes 262 adult participants (2 of whom rated two children a piece), who serve as caregivers to 153 participating students. The vast majority of adult respondents (93%) were biological parents of the participating students (137 mothers and 109 fathers). The sample included a total of 112 complete caregiver triad sets (complete data collected from a mother and a father of a given student). This number includes a total of 98 complete biological parent triad sets. Of these complete biological parent triad sets, 93 of the families shared the same environment (i.e., all lived together in the same house). Table 3 includes complete demographic characteristics of the parent sample.

Table 3
Demographic Characteristics of Caregiver Sample

Variable	Mother (*n* = 143)		Father (*n* = 119)	
	n	%	*n*	%
Caregiver type				
Biological parent	137	95.14%	109	90.83%
Step-parent	4	2.78%	8	6.67%
Adoptive parent	0	0%	1	0.83%
Grandparent	2	2.08%	1	1.67%
Age in years				
26-35	32	22.56%	7	5.98%
36-45	86	60.56%	80	68.39%
46-55	22	15.48%	25	21.35%
56-63	2	1.40%	5	4.26%
Ethnicity				
White	96	62.75%	80	52.29%
Hispanic	24	15.69%	21	13.73%
African- American	10	6.54%	8	5.23%
Asian	11	7.19%	9	5.88%
Native Hawaiian/Other Pacific Islander	0	0%	1	0.65%
Native American/ Alaska Native	0	0%	1	0.65%
Multiracial	11	7.19%	33	21.57%
Other ethnicity	1	0.65%	0	0%
Living arrangement				
Child lives in home full-time	133	92.36%	112	93.33%
Most of the time	9	6.25%	4	3.33%
Half of the time	2	1.39%	3	2.50%

Less than half of time	0	0%	1	0.83%
Family Structure				
Married	108	76.60%	105	88.98%
Divorced	21	14.89%	9	7.63%
Separated	3	2.13%	0	0%
Never Married	7	4.96%	1	0.85%
Not Married but Living Together	0	0%	2	1.69%
Widowed	2	1.42%	1	0.85%

Procedures

Recruitment of student participants. Student participants were recruited for this study based on their age (4th and 5th grade levels), primarily due to the previous literature on the developmental progression of gratitude, life satisfaction, and hope in children, as well as the reading requirements of the student self-report measures. Before the study commenced, it was determined that students would be excluded from participating if they met any of three specific criteria. First, students would not be permitted to participate if they were *not* in fourth or fifth grade. This exclusionary criteria was enacted by only recruiting from the 4th and 5th grade classrooms at Schools 1 and 2. Second, students who refused to assent would not be permitted to participate. Only one student with parent consent was excluded for this reason. This student appeared anxious when called to the survey administration room, and asked not to answer the self-report questions. Data obtained previously from his parents were subsequently removed from the database. Third, students/parents not proficient in English were not permitted to participate. This exclusionary criteria was due to the fact that the self-report surveys were

only available in English. No students were excluded due to language concerns or inability to understand the directions.

Regarding missing data, three students were excluded from the study because their parents provided consent for parent and student participation but did not complete the parent surveys. The students were given duplicate parent survey packets to take home, but the parent measures were never returned. Three different (unknown) students were excluded from participation because although parent survey packets were returned to the school, no consent forms for student participation were attached. This likely occurred because parents misunderstood the directions requesting them to keep the consent form attached to the surveys. Although each survey had a corresponding code number, the consent form provided the last name of the parents so that the student could be identified and given the same number. These three students were never identified and thus the parent data were never entered into analyses.

Data Collection Procedures

After receiving approval from the participating school district and the university's Institutional Review Board, the principle investigator (PI; author of the current thesis) shared the purpose of the study with the teachers, and described their role in collecting consent forms. At School 1, this entailed visiting each classroom and speaking with teachers individually. At School 2, the PI spoke with the fourth and fifth grade teachers for approximately 5-10 minutes during a grade level meeting. Teachers were asked to remind students to return their consent forms and to collect any returned consents as they came in. One teacher went beyond this request and offered her students classroom

rewards for returning consent forms. Over half of this class was able to participate in the research study. All other teachers adhered to the incentive plan provided by the PI.

Participant incentives. Several incentives were offered and distributed to recruit participants. Parents who returned completed surveys and student consent forms were entered into a drawing for a fifty-dollar Target gift card. One gift card was awarded per school. Students who returned signed parent consents, regardless of whether their parents gave positive or negative consent for student participation, received a gel pen. On the day of student data collection, students received an additional gel pen for completing the student survey packet. Additionally, children who completed the student self-report surveys were placed into drawings for pairs of movie tickets to a local theater. Two 4th and 5th grade student participants from each school were selected from random drawings to receive this incentive.

Caregiver participant data collection. After teachers were informed on the intent of the study in early May, three members of the research team (the PI and two graduate student research assistants) explained the purpose of the study to all students in all fourth and fifth grade classrooms at both schools, during the second week of May. Research team members read aloud a script outlining the basic premise of the study, and also explained how students could be involved. The parent and student incentives and voluntary nature of the study were discussed. The students were given parent consent forms and parent measures in two sealed envelopes and were asked to return them to their classroom teacher as soon as possible. These packets were distributed on 5/9/2011 and 5/10/2011. Families were given approximately two weeks to return these packets. After the first distribution of parent packets, the PI visited each school three times to pass out

additional parent packets and to collect any that had been returned. During each of those visits, the PI went to each 4th and 5th grade classroom with the incentives to show children what their reward would be for bringing back signed consent forms. The purpose of this method was to increase student interest in the study at each school, and appeared successful in producing more participation as indicated by additional complete parent packets turned in by the next visit.

Student participant data collection. Student data collection began on 5/23/11 for School 1, and School 2 began on 5/24/11. Two make-up days (5/25/11 and 5/26/11) were held for those students with parent consent who were absent, or who turned in parent consent forms late. At School 1, data was collected in the media center with groups of 20 students. At School 2, the research team administered the battery of self-report measures described below to groups of 15 – 20 students; data collection took place in a portable classroom. Both locations were quiet and free from distraction. A member of the research team read the student assent form aloud and secured written assent from all students before explaining further directions. Then, the researcher read each item on the demographic form (see Appendix E) to the students to ensure that the questions were understood. Two example survey questions were then read aloud to model the various types of survey metrics, and to train students how to answer the Likert-style questions. Students then completed the remaining three surveys at their own pace. Most students finished the survey packet within 10 minutes.

Variables

Due to the correlational research questions posed in this study, there were no manipulated independent variables. The variables investigated in relation to one another

included caregiver self-report levels of gratitude, life satisfaction, and hope, and child self-report levels of gratitude, life satisfaction, and hope.

The variables of caregiver and child gratitude have been defined as, "a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from a specific other or a moment of peaceful bliss evoked by natural beauty" (Peterson & Seligman, 2004, p. 554). This definition is reflected in the Gratitude Questionnaire (GQ-6; McCullough et al., 2002), which was developed for use with adults but has successfully been revised and administered to youth. The parent and child level variable of life satisfaction can be defined as a "cognitive judgmental process" or appraisal of one's own quality of life (Diener, Emmons, Larsen, & Griffin, 1985, p. 71). This definition draws from the literature on life satisfaction and is tapped by the Satisfaction with Life Scale (SWLS; Diener, 1985) in adults, and the Students' Life Satisfaction Scale (SLSS; Huebner, 1991a) in youth. Finally, the parent and child variables of hope can be defined as, "a belief that one can find pathways to desired goals and become motivated to use those pathways" (Snyder, Rand, & Sigmon, 2005). This definition reflects the current understanding of hope theory as posited by Snyder, and is measured by the Adult Dispositional Hope Scale (AHS; Snyder, Harris, et al., 1991), and the Child Hope Scale (CHS; Snyder, Hoza, et al., 1991).

Measures

Five self-report measures for children and their parents were used in this study. The following sections discusses the measures by their respective positive emotion (e.g., gratitude, life satisfaction, and hope) by first describing the parent measure followed by the child version (if applicable). Next, the psychometric properties of each measure are

established by summarizing the available research on a given measure's reliability and validity.

Gratitude Questionnaire (GQ-6). In order to answer the first research question, one measure was selected that is appropriate for both parents and children. The Gratitude Questionnaire (GQ-6; McCullough et al., 2002) was chosen based on its clear construct definition, strong psychometric properties, and brevity of length. While gratitude has been defined as an emotion, mood, virtue, and affective trait, there is more literature support and acceptance regarding the dispositional perspective. The GQ-6 (see Appendix F for the adult version, and Appendix G for the youth modification) was designed to measure gratitude as a dispositional or affective trait, and is aligned with current literature. The authors of the measure suggested that highly grateful people differ from typical individuals based on the intensity, frequency, density, and span of gratitude felt and shared (McCullough et al., 2002). The six-item, self-report measure taps these four facets of trait gratitude. Items are responded to using a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly disagree*). Items 3 and 6 are reversed scored. Sample items include, "I feel thankful for what I have received in life," and "I am grateful to a wide variety of people." An example of a reverse scored item is, "When I look at the world, I don't see much to be grateful for." A total score is obtained from summing all six items and ranges between 6 - 42. This study calculated and analyzed the mean score on the GQ-6, obtained by dividing the total sum by six. Although standardized norms are not available for the GQ-6, various studies have reported a range in means 3.67 - 6.17.

Research conducted with adults using the GQ-6 has demonstrated strong reliability. Wood and colleagues explored the test-retest reliability of the GQ-6 three

months following initial administration and reported a correlation of .59 (Wood, Maltby, Gillett, Linley, & Joseph, 2008). Strong internal consistency is evidenced in the high alpha's ranging from .82 to .87 (McCullough et al., 2002). Regarding the validity of the GQ-6 in adult samples, McCullough and colleagues (2002) found that the GQ-6 correlated positively (r = .30 - .50) with other indicators of wellness such as life satisfaction, hope, and vitality. The data from this preliminary study lends support for the facets of gratitude measured by the GQ-6, in that even though gratitude correlated positively with other indicators of wellness, it continued to maintain its distinctiveness as a construct. Discriminant validity was further noted in the weak correlations with measures of depression and stress (McCullough et al., 2002; Wood et al., 2008).

Although the GQ-6 was developed with adults, it has increasingly been used with youth. While it is becoming a more common outcome measure in wellness studies with youth, only one published study has specifically explored the psychometric properties of the GQ-6 in children and adolescents (see Froh, Fan, Emmons, Bono, Huebner, & Watkins, 2011). The sample included 1,405 middle school and high school students ranging in age from 10-19. In regards to reliability, the authors reported acceptable alphas ($\alpha > .70$) across all age groups (ages 10-19). Test-retest reliability was not investigated with this sample, and has not been addressed by any other studies with youth to date. Using both single and multiple group confirmatory factor analyses, Froh and colleagues (2011) found the factor structure of the GQ-6 that had been obtained with adults replicated among this sample of youth, with the exception of one item: Item # 6. The authors noted that item #6 ("long amounts of time can go by before I feel grateful to something or someone") appeared too abstract and difficult to comprehend. After the

researchers determined that this item had minimal factor loading on the overall construct of gratitude as assessed by the GQ-6, the item was removed from subsequent analyses. This finding was also noted in Chen, Chen, Kee, and Tsai's (2009) study with Taiwanese adults, and item 6 was dropped from analyses due to poor item fit. Due to the literature support regarding the concerns with item 6, this item should be interpreted with care. However, since the GQ-6 has never been administered to late elementary aged students, the current study included item 6 to see if the factor structure is upheld or if the data supports previous literature. Additionally, due to the PI and her research team's concerns that item #5 was overly complex for the targeted sample ("as I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history"), a reworded version of this item was added (shown in Appendix G as item #7; "As I grow up, I feel more thankful for the people and things that have made me who I am"). This item was created to make it potentially more readable for the young sample targeted for inclusion in the current study. In sum, the GQ-6 that was administered to children participants included the original six items, as well as a re-worded version of item #5 that was added as a seventh item.

In addition to factorial validity, Froh and colleagues (2011) provided support for several other types of validity. Specifically, the GQ-6 evidenced strong convergent validity with the Gratitude Adjective Checklist (GAC; McCullough et al., 2002) for two distinct age groups, 10-14 year olds (r = .47 - .61) and 15-19 year olds (r = .42 -.52). The GQ-6 demonstrated even stronger validity with the Gratitude Resentment and Appreciation Test (GRAT-short form; Thomas & Watkins, 2003), particularly among the 14-19 year olds (r = .60 – .70) as compared to the 10-13 year olds (r = .22 to .64, & Froh,

et al., 2011). Moderate correlations were also found between the GQ-6 and the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson, Huebner, & Valois, 2003) with 10-14 year olds (r = .56- .59) and 15-19 year olds (r = .44 - .47). In addition, the researchers reported a strong correlation between the GQ-6 and positive affect with 10-11 year olds (r = .34) as measured by the Positive and Negative Affect Scale for Children (PANAS-C; Laurent, Cantanzaro, Thomas, Rudolph, Potter, Lambert, et a., 1999). While there were significant relationships between the GQ-6 and negative affect (r = .16- .35), there was not a statistically significant correlation in the 10-11 year old sample. Discriminant validity was also demonstrated with moderate negative correlations between the GQ-6 and the Center for Epidemiologic Studies Depression Scale for Children across all age groups (r = -.12 - .44; CES-DC; Weissman, Orvaschel, & Padian, 1980). Of note, the authors concluded that the GQ-6 was a more psychometrically sound measure for use with ages 10-13 when compared with the GRAT-short form or the GAC. Because the current study was the first time the GQ-6 was administered to a sample of late elementary aged students, the PI investigated the factor structure of the GQ-6 via an exploratory factor analysis and calculation of Cronbach's alpha. The results of these analyses are reported in Chapter Four.

Satisfaction with Life Scale (SWLS). To address the second research question, the researcher utilized two different instruments for parents and their children. The Satisfaction with Life Scale (SWLS; Diener, 1985) was selected for use with caregivers based on its alignment with the conceptual framework of this study (it measures global life satisfaction), and based on the empirical support for its reliability and validity. The SWLS (see Appendix H) is a 5-item self-report measure, which is completed using a

closed response 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The paper and pencil measure yields a Total Scaled Score ranging from 5-35 when all five items are summed. However, this study analyzed the measure using a mean score, which divides the total score by 5. Mean scores on the SWLS range from 1 - 7. Scores between 1 - 1.8 reflect extreme dissatisfaction with life, and scores between 6.2 - 7 reflect extreme satisfaction with life. While standardized norms are not available, Pavot and Diener (1993) summarized the Total Scaled Score means of 1179 college students and reported normative ranges between 4.6 – 5.04. In general, a score of 4.0 is considered a neutral score (Pavot & Diener, 1993). The SWLS has been used with numerous diverse populations (e.g., geriatric; patients with schizophrenia) and is considered the gold standard measure for assessing adults' life satisfaction.

The internal consistency of the SWLS has shown repeated high alpha coefficients of above .80 (Pavot & Diener, 1993). One month test-retest correlation coefficients range from .80 to .84 (Pavot, Diener, Colvin, & Sandvik, 1991; Steger, Frazier, Oishi, & Kaler, 2006), with a two month test-retest correlation of .82 (Diener et al., 1985). Magnus, Diener, Fujita, and Pavot (1992) found a five year test-retest reliability of .54, suggesting that time and/or life events impact one's appraisals of life satisfaction.

Regarding validity, the SWLS has yielded moderate to high correlations in the expected directions with theoretically related but distinct constructs such as personality factors (Pavot & Diener, 1993; Pavot, Diener, Colvin & Sandvik, 1991; Schimmack, Oishi, Furr, & Funder, 2004). The SWLS has also demonstrated convergent validity with other measures of subjective well-being such as the Life Satisfaction Index- Adults (r = .46; Neugarten, Havighurst, & Tobin, 1961), the PANAS-short form positive affect index

(r = .24), the PANAS negative affect index (r = - .26; Watson, Clark, & Tellegen, 1988), and the Life-3 delighted terrible scale (r = .56; Andrews & Withey, 1976). The SWLS also yielded a strong negative correlation (r = -.72) with a common index of depression (i.e., the Beck Depression Inventory; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), which is consistent with the theoretically inverse relationship between life satisfaction and emotional distress.

Students' Life Satisfaction Scale (SLSS). Life satisfaction among children was assessed using the Students' Life Satisfaction Scale (SLSS; Huebner, 1991b), a frequently used measure of children's global life satisfaction. The SLSS was selected based primarily on its conceptual framework (it measures global, or unidimensional, life satisfaction versus satisfaction in separate domains), as well as the ample empirical support for its reliability and validity. The SLSS (see Appendix I) is a 7-item self-report measure which utilizes a closed response 4-point Likert scale response metric (1 = *never*, 2 = *sometimes*, 3 = *often*, and 4 = *always*). Although more recent studies have utilized a 6-point response metric, a 4-point metric was deemed more appropriate for use in the current study of younger students (Huebner, 1991). An example of an item is "I am pleased with my life." Of the seven items, two are reversed scored. The items are then summed and averaged, which yields a total score between 1 and 4. Higher scores represent greater life satisfaction, and lower scores demonstrate room for growth. While standardized norms have not yet been developed, Suldo and Huebner's (2004) large sample of 1188 adolescents indicated a mean score of 4.21 on the 6-point response metric. Overall, the literature has suggested that SLSS scores above 4.0 represent high

life satisfaction when the 1 – 6 metric is used. Using the 1 – 4 response metric, scores of 3.0 or greater could be considered to be in the positive life satisfaction range.

In regard to the technical adequacy of the instrument, Huebner (1991) found that the measure has strong internal consistency (= .84) with 254 children in grades 3-8. Terry and Huebner (1995) utilized a late elementary age sample of 183 students in 3-5th grade and reported a correlation coefficient of = .73. Even stronger alpha coefficients were evidenced in a large adolescent sample (= .86; Dew & Huebner, 1994). Test-retest reliability was established with children ages 7-14 during the initial validation of the SLSS, which yielded correlations of .74 after a 2-week interval and .64 after 4 weeks (Huebner, 1991a).

The SLSS has demonstrated moderate convergent validity (r = .54) with parents' reports of their children's life satisfaction (Gilman & Huebner, 1997). Additionally, construct validity was established with the SLSS and another measures of youth life satisfaction during its initial validation. Specifically, Huebner (1991b) reported significant correlations between SLSS scores and students' scores on the Dimensions of Temperament Survey (DOTS-R; Windle & Lerner, 1986) mood scale r = .34, the Perceived Life Satisfaction Scale (Adelman, Taylor, & Nelson, 1989) r = .58, and the Happiness subscale from the Piers-Harris Self Concept assessment (Piers, & Harris, 1969) r = .53. Regarding evidence of discriminate validity, the SLSS has been distinguished from the constructs of positive and negative affect (Huebner & Dew, 1993). Further, SLSS scores are not associated with race (Huebner, 1995) or IQ (Huebner & Alderman, 1993).

Adult Hope Scale (AHS). To address the third research question, the PI used two different measures for parents and their children. The Adult Dispositional Hope Scale (AHS; Snyder, Harris, Anderson, Holleran, Irving, et al. 1991) was chosen because it reflects the conceptual framework of dispositional nature of hope, or hope as a trait. The AHS (see Appendix J) is a self-report, 12-item assessment that can be used with individuals ages 15 and older. The measure was modeled after Snyder's hope theory of pathway and agency motivation. Thus, four items measure one's pathway thinking and four items tap one's agency motivation; four additional items are distracters. The participant chooses a response on a four-point continuum from 1 (*definitely false*) to 4 (*definitely true*) on every item. Scores range from 8-64 when agency and pathway totals are summed. For the purpose of this research study, a mean score was calculated and analyzed. An agency score is obtained by adding items 2, 9, 10, and 12; a pathway score is derived by adding together items 1, 4, 6, and 8. These subscale scores can be interpreted separately (i.e., levels of agency compared with levels of pathway). Subscales are then summed to form a total hope score and divided by 8 to yield a mean score. Although standardized interpretations of the scores are not available, scores in the upper one third (5.34 – 8) of the distribution are conceptualized as reflecting high hope, whereas scores in the bottom one third of the distribution (1– 2.66) suggest low hope.

The reliability of the AHS has been established through tests of internal consistency and test- retest. Snyder and colleagues (1991) reported overall Cronbach alphas ranging from .74-.84 in their initial validation study with large adult samples. Furthermore, they found test-retest reliability coefficients of .85 after three weeks, .73 after eight weeks, and .76 after ten weeks (Snyder, Harris, et al., 1991). These strong

correlations evidence the temporal stability of hope, which is necessary to support the dispositional theory of hope. In addition, the developers of the scale conducted factor analyses to explore the two-factor structure (agency and pathway). Results demonstrated that although agency and pathway scores were moderately correlated and thus related, they were upheld as unique factors.

Researchers expect that the construct of hope should be highly related to other constructs such as optimism and problem-solving ability. High convergent validity (r = .50 - .60) has been noted with measures such as Scheier and Carver's (1985) Life Orientation Scale which assesses dispositional optimism. The AHS correlated strongly (r = -.61) with Heppner and Petersen's (1982) Problem Solving Inventory where negative scores indicate higher problem solving skills. Researchers have also reported negative correlations with the Minnesota Multiphasic Personality Inventory (MMPI; Irving, Crenshaw, Snyder, Francis, & Gentry, 1990).

Children's Hope Scale (CHS). For student participants, the Children's Hope Scale (CHS) by Snyder, Hoza, et al. (1991) was selected because of its brevity, readability (appropriate for ages 7-15), and reflection of the hope-trait theory. The self-report instrument measures goal oriented thinking, and like the adult version taps both pathway and agency thinking. The CHS (see Appendix K) has a six-item Likert scale framework, in which participants select responses ranging from (1) *none of the time* to (6) *all of the time*. The CHS has three items that measure pathways thinking and three items which measure agency. This study calculated and analyzed a mean score, obtained by dividing the total score by six. In general, participants who score within the top third of the distribution (4.0 – 6.0) are considered "high hope," while scores in the bottom third of

the distribution (1 – 2.0) reflect low hope (Lopez, Rose, Robinson, Marques & Pais-Ribeiro, 2009). The CHS can be read to the child, or the child can complete the measure him or herself with pencil and paper.

The reliability of the CHS has been upheld both in initial validation studies and subsequent research. Snyder and colleagues (1997) reported adequate internal consistency (α = .72-.86) in their original validation study with children ages 8 to 16 (Snyder, Hoza, et. al, 1997). Further support of internal consistency has been established by Valle (2004), who utilized a sample of late elementary and early middle school students (ages 10-14) and reported an alpha of .83. Snyder and colleagues also noted excellent test- retest reliability after one week (r = .73) and after one month (r = .71). As mentioned earlier, these strong test- retest scores are important for supporting the dispositional nature of hope.

In summarizing the extensive validation research of the CHS since 1997, Snyder (2006) noted the measure has been used with over 2,263 children and has continued to demonstrate strong concurrent, discriminant, and predictive validity. Specifically, the CHS has yielded inverse and significant correlations (r = -.27 to r = -.48) with depression (as measured by the Child Depression Inventory; Kovacs, 1985), hopelessness (Hopelessness Scale; Kazdin, Rodgers, Colbus, 1986), and intelligence (WISC; Wechsler, 1991). Valle et al. (2004) found that the CHS correlated positively with life satisfaction (r = .55) and perceived social support in adolescents (r = .53), as measured by the SLSS (Huebner, 1991a) and the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray & Elliot, 2000), respectively.

Demographic measures. In addition to these measures, both caregivers (when possible) completed a brief demographic form (see Appendix C and D for parent versions), that requested information about their age, ethnicity, marital status, family structure, and language spoken in the home. Children completed a similar measure (see Appendix E) which asked about their age, grade, gender, ethnicity, and who they lived with at home.

Ethical Considerations

Confidentiality was a critical priority throughout the entire study, and was protected by various methods. First, the participants' confidentiality and protection were ensured via the approval and supervision by the participating school district's office of Research and Evaluation, and the university's Institutional Review Board. Once their approval was granted (5/3/11 and 5/5/11, respectively), recruitment of participants commenced on 5/9/11.

Child confidentiality. Students were introduced to the idea of confidentiality when the study was first explained to each class. They were also informed that the study was a voluntary project and that they could choose to withdraw at any time. Confidentiality was verbally explained to students a second time on the day of data collection. Students signed written assent forms (Appendix B), even though this is not typically required of students ages 9-12.

Parent confidentiality. The parent materials were distributed to students in sealed folders to further ensure confidentiality. Parents were assured of confidentiality within the parent consent form (Appendix A). This form outlined the purpose of the research as well as the rights of Human Research Participants and the extent of

confidentiality. In addition, parent packets included two sealable envelopes in which parents placed their completed surveys. Parents were told they could contact the PI at any time with questions about the study or concerns. Parent consent forms and parent surveys were assigned code numbers before they were distributed.

On each day of student data collection, students were matched with their parents' code number. Students were also asked not to write their names on the surveys. Once the students completed the measures, the parent and student consents were separated from the survey data. The data was handled and analyzed in this state, so that the research team was unaware of the names belonging with each survey. Additionally, the data was entered and stored in a locked file cabinet located at the university. Only the PI and her major professor had password access to the data and electronic databases.

Overview of Analyses

Several analyses were utilized during this study. Regarding preliminary analyses, because the GQ-6 has never been administered to late elementary aged students, this study examined the factor structure of the GQ-6 via an exploratory factor analysis. The internal consistency of each measure was also evaluated by calculating Cronbach's alpha for each measure. Descriptive statistics were calculated to determine the mean levels of mother, father, and child reported levels of gratitude, life satisfaction, and hope. Pearson Product Moment Correlations were calculated for each of the three research questions to determine the magnitude, direction, and significance of the correlations between parental levels of gratitude, life satisfaction, and hope with their children's levels of the same constructs. Correlations comparing mother responses to child responses, and father responses to child responses, were run for *each* research question (when applicable). In

the case in which only one parent per child participated (e.g., single parent homes or step-parent households), correlations were run with available data. Thus, the sample size for mother-child correlations differ from the sample size available for father-child correlations. Additional correlations were run with exclusively biological mothers and their child, and biological fathers and their child. Correlations were also conducted on the biological triad sample (n = 98; a complete set of mother, father, and child data). Both the Pearson r and descriptive statistics are presented in an explanatory narrative as well as in tables in Chapter Four.

Chapter Four: Results

The following sections describe results from the statistical analyses that were conducted to prepare the dataset for analysis and to answer the three research questions that guided this study. First, the chapter describes the data entry process. Second, procedures for calculating missing data items are described, as well as the identification and management of outliers. The next section on preliminary analyses includes procedures conducted to ensure reliability and validity of measures (e.g., exploratory factor analysis of the GQ-6, and scale reliability analyses [Cronbach's alpha] for all measures). Descriptive statistics are also reported within this section, including an explanation of the mean scores on parent and student measures. The normality (e.g., skewness and kurtosis) of variables is also addressed. The final sections of this chapter report findings from the correlation analyses conducted for each of the three research questions.

Data Entry and Screening

All parent and student surveys were entered into a SPSS spreadsheet by the PI in June of 2011. A total of 153 student and 264 parent surveys were entered into the spreadsheet. In order to confirm the accuracy of the data set, integrity checks were conducted on every 10^{th} student and parent survey. A total of 17 student, 17 mother, and 17 father surveys were checked, which represent approximately 12.3% of the surveys. When a data entry error was encountered, the PI corrected the mistake and subsequently checked the preceding and following surveys until an error-free survey was encountered.

Each student survey contained 27 items (or data entry points), and each parent survey contained 30 items. A total of two errors were found (and corrected) in the 51 surveys checked, resulting in an accuracy rate 99.86%. This negligible error rate suggests that the accuracy of the data entry and resulting database is highly reliable.

The database was further screened for data entry errors by examining the obtained range of scores on each of the measures used. Descriptive statistics were run on each variable and measure to determine if the range of scores was within the restrictions of the measure. If a score fell outside the permissible or possible range, the entire survey would be checked and re-entered. Although no data entry errors were identified during this process, the screening procedure drew attention to some atypical demographic characteristics of the caregiver respondents, specifically the three grandparents in the study. As described in Chapter Three, two of the grandparents reported on two 4^{th} and 5^{th} grade student participants in the sample. The third grandparent had been the child's caregiver since the student was three weeks old. Based on this information, the grandparent data was deemed appropriate for inclusion in the sample because the participants had a shared environment and considered themselves the children's primary caregivers.

Missing Data

During the data entry process, the PI kept a record of which surveys contained missing data. A total of 381 student and parent surveys packets contained complete data. The remaining 34 survey packets had missing data, with a total of 40 missing items. Specifically, 15 mothers, 12 fathers, and 7 students had missing data points (typically, 1 missing/skipped item per participant packet). Student missing data was minimal because

the PI and research assistants skimmed each survey packet for full and accurate completion of measures before the student participant returned to class. In contrast, the data collection method used with parent participants prevented the PI from controlling the amount of missing data. The measure that most commonly contained missing data was the 12-item Adult Hope Scale. When missing data occurred on this measure, participants typically skipped one item.

Missing data was handled via participant-specific mean item imputation. This procedure was selected due to the minimal amount of missing data, and was conducted so that a complete dataset could be analyzed. When a participant had complete data for at least 80% of the items on the measure, than the participant's mean score on the other items completed in that measure was calculated (using an Excel spreadsheet) and rounded to the nearest whole number. The PI then used that mean value for the measure as a substitute for the missing data point. This process was used with all of the measures except the AHS. On the AHS, participants were allowed to miss one of the four agency items and one of the four pathway items; the imputation procedures described above were followed to derive values for the missing data points. When participants missed one of the filler items on the AHS (items #3, #5, #7, or #11), the missing data point was not calculated, as it did not impact the overall score. After these procedures were completed, the only missing data that remained in the dataset included demographic information such as mother and father age, ethnicity, and language spoken in the home.

Outliers

Univariate outliers were defined as participants whose scores on any of the three variables of interest (gratitude, life satisfaction, and hope) were more than 4 standard

deviations from the sample mean. Using this criteria, one female caregiver emerged as an outlier, as her score on the GQ-6 was particularly low (-4.40 standard deviations from the female adult GQ-mean). However, an examination of the relationships between the mothers' positive emotions and her child's positive emotions indicated that the trends were similar, in the directions discussed later in this chapter (e.g., child also had below average levels of gratitude). Therefore, this participant was retained in the dataset, and no outliers were removed.

Preliminary Analyses

Factor structure of the GQ-6. To further establish the psychometric properties of the measures used to assess the constructs of interest, an exploratory factor analysis (EFA) was conducted with the items on the GQ-6. This specific measure was examined because (a) no published studies had reported using the measure with elementary school children, (b) research with older children questioned the appropriateness of item #6, and (c) the current PI and her research team questioned the readability of item #5.

The 6-item version of the GQ-6 that included all original items was examined first. The screen plot from the EFA (principal components with oblique rotation) suggested a one-factor solution. Further, only one factor had an eigenvalue greater than 1.0. The eigenvalue associated with this single factor was 1.56; the next largest eigenvalue (for a 2^{nd} factor) was .20. All items had adequate factor loadings (above .40) on this single factor; factor loadings ranged from .41 (item #6) to .60 (item #2). The internal consistency of this 6-item version was adequate ($\alpha = .63$) and did not change when item #6 was removed ($\alpha = .63$) to create a 5-item version with items #1 through #4

and the original wording for item #5. In sum, the EFA supported the original 1-factor solution in which all six original items are adequate indicators of the construct.

To explore if replacing item #5 with the reworded item #7 might strengthen the reliability of this measure, the internal consistency and EFA were re-ran using GQ-6 item #1, item #2, item #3, item #4, item #6, and item #7. Results demonstrated that using item #7 did not result in increased reliability (α = .61). Further, the results of the EFA indicated worse model fit, in that item 6 no longer loaded at an acceptable level (specifically, the factor loading was .35; all other items exceeded .40) when item #7 was introduced (and item #5 excluded). Therefore, the original item #5 was retained for the remainder of the analyses, in which child gratitude scores reflected mean scores on GQ-6 items 1, 2, 3, 4, 5, and 6.

Scale reliability. Participants' responses to the SWLS, SLSS, GQ-6, AHS, and CHS were analyzed to determine the internal consistency of the items analyzed within each measure (composite score). Coefficient alpha for the 5-item SWLS completed by mothers was .82, and .80 for fathers. The 7-item SLSS produced an alpha of .80 for students. Thus, the internal consistency reliability for the life satisfaction scales is good within the current samples. The GQ-6 produced slightly lower alphas: .63 for mothers, .69 for fathers, and .63 for students. The internal consistency for the gratitude measure is considered acceptable. Regarding the internal consistency for the composite hope variable (scores on the 8 AHS items that constitute pathway and agency dimensions), coefficient alpha for the total hope scale was .89 for mothers and .85 for fathers. For students, coefficient alpha for the total hope composite yielded on the CHS was .81. Thus, the internal consistency for the hope scales is considered good.

Descriptive Statistics

Table 4 summarizes the mean, standard deviation, range, as well as skew and kurtosis values for the composite scores from each measure. Skew and kurtosis were examined to determine whether each of the measures produced scores with a normal distribution (e.g., skew and kurtosis values between -1.0 and +1.0). Skewness reflects the degree of asymmetry in the distribution, while kurtosis indicates the degree to which the distribution is peaked or has heavy tails. Scores on the SWLS, SLSS, the student GQ-6, and the CHS have an approximate normal distribution. However, parent GQ-6 composites were slightly non-normal (mother GQ-6: skew = -1.39, kurtosis = 2.27; father GQ-6: skew = -1.16, kurtosis = 1.26), as was the mother AHS composite (skew = -1.16, kurtosis = 2.11). Although these values exceed the traditional definition of normality at -1.0 and + 1.0, many researchers have argued that skew and kurtosis values smaller than 3 and 10, respectively, are within acceptable limits (Kline, 2010). Because the skew and kurtosis values were close to ±1.0, and did not exceed the guidelines endorsed by Kline, no variables were transformed and instead all variables were analyzed in their original forms.

Table 4
Descriptive Statistics for All Continuous Variables Analyzed

Variable	*N*	*M*	*SD*	Range	Max Value	Skew	Kurtosis
Satisfaction With Life Scale							
Mothers	144	5.67	.93	3	7	-0.89	0.49
Fathers	120	5.64	.90	3	7	-0.72	0.14
Students' Life Satisfaction Scale	153	3.28	.51	1.57	4	-0.91	0.75
Gratitude Questionnaire Adult							
Mothers	144	6.39	.62	3.66	7	-1.39	2.27
Fathers	120	6.22	.67	4	7	-1.16	1.27
Gratitude Questionnaire Student	153	5.90	.76	3.66	7	-0.56	-0.10
Adult Hope Scale, Total							
Mothers	144	6.71	.86	3.62	8	-1.66	2.11
Fathers	120	6.91	.72	4.37	8	-0.49	0.13
Child Hope Scale, Total	153	4.65	.87	2.33	6	-0.59	-0.28

Child mean levels of positive emotions. The GQ-C was scored by reverse-scoring items #3 and #6, and then averaging students' responses to the six items identified earlier in this chapter. Students' mean score on the GQ-6 was 5.9 with a standard deviation of .76. A score of 5.9 out of 7 suggests a rather grateful state, as this mean corresponds to youth indicating they "agree" with most items describing a grateful disposition.

The SLSS was scored by reverse-scoring items #3 and #4, and then summing and averaging all seven items. Students obtained a mean of 3.28 with a standard deviation of .51 on the SLSS. A score of 3.28 corresponds to a response of "often" when considering

items that describe positive appraisals of one's life. Students' scores ranged from 1.57 – 4.0, out of a total possible range of 1-4. Scores above 3.0 are generally interpreted as having positive life satisfaction.

The CHS was scored by summing the three agency items (#1, #3, #5) and three pathway items (#2, #4, #6) and then dividing by six to get a total mean score. The obtained scores ranged from 2.33 – 6, out of a possible range of 1-6. Students obtained a mean score of 4.65 on the composite CHS score, with a standard deviation of .87. This mean suggests that the typical youth participant experiences high hope between "a lot of the time" and "most of the time." In sum, the typical youth participant in the current study reported relatively high levels of positive emotions.

Parent mean levels of positive emotions. The GQ-6 was scored for parents following procedures specified above for youth. Mothers' mean score on the GQ-6 was 6.39 with a standard deviation of .62. Fathers obtained a gratitude mean of 6.22 with a standard deviation of .67 on the GQ-6. Both values indicate high mean gratitude within the current sample of adults.

The SWLS was scored by summing items #1- #7, and dividing by five to get a mean total score. The mother life satisfaction mean on the SWLS is 5.67 with a standard deviation of .93. Mothers scored a minimum of 3 and a maximum of 7 on the SWLS. Fathers had a life satisfaction item mean of 5.64 with a standard deviation for .90. Fathers also obtained minimum of 3 and maximum of 7 on the SWLS. Both means reflect rather high life satisfaction in the current sample.

The AHS was scored by summing pathway items (#2, #9, #10, #12) and agency items (#1, #4, #6, #8). Filler items (#3, #5, #7, #11) were not included in the total score.

Scores ranged from 3.62 – 8. Mothers obtained a mean of 6.71 on the AHS with a standard deviation of .86. The average mother in this sample reported a high level of hope, but had some room for growth. The fathers' mean hope scores (6.91), with a standard deviation of .72, were somewhat higher than the mother participants'.

Correlation Analyses

Pearson product-moment coefficients were calculated between parent and student variables in order to determine the existence and/or strength of any relationships. The alpha was set at .05 to indicate statistical significance. This section first provides the results of the correlations that were conducted to explore parent-child gratitude, life satisfaction, and hope. Next, a summary of ancillary findings on parental positive emotions and different child positive emotions (e.g., maternal gratitude and child life satisfaction) are described. Last, intercorrelations between different child positive emotions (e.g., links between child gratitude and child satisfaction) and intercorrelations between varying parental positive emotions are reported.

The "total sample" dataset included all caregivers (e.g., biological parents, step-parents, adoptive parents, and grandparents) and all student participants. This was the largest dataset, and includes children who share genetic links and/or environment with their adult caregivers (n = 143 female caregivers; n = 119 male caregivers). Table 5 provides a summary of the intercorrelations between variables in the total sample with all child participants and all caregivers (n = 415).

The second set of correlational analyses used only the data from the students whose biological parents participated. Essentially, this analysis removed the step-parents, adoptive parents, and grandparents from the dataset. This dataset is referred to as the

"biological sample," and reflects relationships between children and first-degree relatives with whom they share genetic links. A completely shared environment is not necessarily present because some biological parents in the sample had only partial custody of the participating child. Importantly, the PI analyzed relationships between biological mothers and their children separately from relationships between the biological fathers and their children in order to maximize available sample size, as the sample consisted of more biological mother-child pairs (n = 137) than biological father-child pairs (n = 109). Because the majority of female participants were the biological mothers, the dataset did not vary much between the female sample used in the total sample analyses. Similarly, the biological father sample did not differ substantially in size (n = 109 compared to n = 119) since all but 10 of the male participants were the child's biological father. Table 6 and 7 provide a summary of the intercorrelations between variables in the biological samples of children with their mothers and fathers, respectively.

The third set of correlation analyses included biological triad data (n = 98 sets of children and their parents). This sample included the families who provided complete data from *both* the biological mother, biological father, and the child. Of these 98 triads, 93 of the children lived with both parents full-time, 4 children split time relatively equally between their mothers and fathers (both parents endorsed "child lives in my home most of the time" or "child lives in my home about half of the time" on the demographic form), and one child lived with her mother "most of the time" and her father "less than half of the time." This dataset is referred to as the "triad sample" reflects relationships between children and first-degree relatives with whom they share genetic links and a substantial amount of shared environment. Originally, the PI had intended to only collect

data using this criterion. However, it was decided to expand the data collection options for the purpose of examining results obtained when the term "parent" was defined broadly. Table 8 provides a summary of the intercorrelations between variables in the biological triad sample.

Of note, this researcher experimented with defining the triad dataset as either those children who shared 100% environment with their biological parents (n = 93) as well as those children who shared *at least* 50% environment with their biological parents (n = 97). The magnitude and direction of the relationships between variables of interest were similar regardless of how the triad dataset was defined; however, due to the reduction in sample sizes when the two aforementioned datasets were used, some of the correlations were no longer statistically significant using conventional guidelines of $p < .05$. Thus, to maximize power, findings from the largest possible dataset of triads (n = 98) are subsequently reported in this chapter.

Relationships between Parents' and their Children's Levels of Gratitude

Total sample. In the total sample of children and their caregivers, mother gratitude was significantly related in a positive direction to child gratitude (r = .23). The size of this relationship is considered small. Father gratitude was unrelated to child gratitude (r = .09, *ns*).

Biological sample. In the biological sample, mother gratitude yielded the same correlation with child gratitude as in the total sample (r = .23). Gratitude within biological fathers was again not related to child gratitude (r = .07, *ns*).

Triad sample. Within the triad sample (biological mothers, biological fathers, and students), mother gratitude was related to child gratitude in a positive direction (r = .21). Father gratitude was unrelated (r = .08, *ns*).

Summary. Taken together, these results indicate that maternal gratitude had a similarly-sized, positive relationship with child gratitude across all datasets (which defined caregiver/parent differently), with a range from r = .21 to r = .23. Although the correlations were small, they were statistically significant at the $p < .05$ level. Father gratitude demonstrated a consistent pattern of no relationship with child gratitude.

Relationships between Parents' and their Children's Levels of Life Satisfaction

Total sample. As shown in Table 5, statistically significant, positive links exist between *both* mother and father life satisfaction and their children's life satisfaction. The magnitude of these associations is moderate; specifically, the mother-child correlation was .31 and the father-child correlation was .30.

Biological sample. As shown in Table 6, the relationship between children's life satisfaction and their biological mother's life satisfaction was statistically significant and positive. The magnitude of the link was in the upper end of the small range (r = .26). As shown in Table 7, biological fathers' life satisfaction yielded a significant link with their children's life satisfaction (r = .29). The magnitude of this correlation was also in the upper end of the small range.

Triad sample. As shown in Table 8, mother life satisfaction again demonstrated a significant, positive relationship to child life satisfaction (r = .19). This is considered a small relationship. Fathers' life satisfaction was significantly related to higher child life satisfaction (r = .32). The size of this relationship is considered moderate. Fisher r-to-z

transformation for two independent samples was used to assess the significance of the difference in the strength of these two correlation coefficients (.19 and .32). The resulting *z*-value of -0.96 was not statistically significant (p = .34), indicating that the size of the correlations between parent and child life satisfaction were statistically similar in the current sample of children.

Summary. Taken together, results across datasets indicate small to moderate, positive correlations between *both* mother and father life satisfaction and their children's life satisfaction. In the biological triad data, although paternal life satisfaction appeared to have a greater influence on child life satisfaction (r = .32) compared to mother-child life satisfaction (r = .19), this difference in magnitudes was not statistically significant.

Relationships between Parents' and their Children's Levels of Hope

Total sample. Within the entire sample of caregivers, child hope was not significantly related to maternal hope (r = .09, *ns*) or paternal hope *(*r = -.01, *ns*).

Biological sample. Biological mothers' hope was not related to child hope (r = .08, *ns*). Likewise, biological fathers' hope was not related to child hope (r = .03, *ns*).

Triad sample. No statistically significant relationships were identified between child hope and parental hope (mother, r = .13, *ns*; father, r = .09, *ns*).

Summary. Across all datasets, mothers' and fathers' levels of hope were unrelated to their children's levels of hope. The correlation values did not approach statistical significance, regardless of the dataset analyzed.

Other Relationships between Parents' and Children's Positive Emotions

Total sample. Within the total sample, mother gratitude was related to higher child life satisfaction (r = .23), but unrelated to child hope (r = .14, *ns*). Mothers' life

satisfaction was significantly associated with higher child gratitude (r = .18) and child hope (r = .26). Of note, maternal life satisfaction was the only parent positive emotion to yield a relationship with child hope. Maternal hope was unrelated to child gratitude and child life satisfaction.

Father gratitude was unrelated to child life satisfaction and child hope. Father life satisfaction was significantly correlated in a positive direction with child gratitude (r = .21); in contrast to findings with mothers, father life satisfaction was not correlated with child hope (although it neared statistical significance, r = .15, ns). Paternal hope was unrelated to child gratitude (r = .07, *ns*) as well as child life satisfaction (r = .15, *ns*).

Biological sample. Findings for mother-child pairs in this sample were highly consistent with the results from analyses with the total sample, as described above. Results of correlations between biological fathers' and their children were also similar, with one exception. Specifically, there was a small, but significant positive relationship between father life satisfaction and child hope (r = .19).

Triad sample. Correlations between parents' and children's levels of different positive emotions were very similar to findings yielded in the total sample (as reported above) with one exception. Specifically, mothers' gratitude was unrelated to child life satisfaction. Consistent with findings using the biological sample, father life satisfaction was related to greater child hope (r = .20).

Summary. Across datasets, mothers' gratitude was correlated with higher levels of children's life satisfaction, whereas children's life satisfaction was not related to fathers' gratitude. Both mother and father gratitude were unrelated to child hope levels. Parental life satisfaction had a small, but statistically significant relationship with child

gratitude in a positive direction. While mothers' life satisfaction was linked with child hope in all datasets, fathers' life satisfaction demonstrated a significant relationship with child hope in only the biological and triad samples.

Interrelationships among Children's Positive Emotions

Although not directly related to the three research questions posed, several interesting findings emerged regarding interrelationships between child positive emotions. The statistical analyses from the total sample indicated that among children, gratitude was strongly related to their life satisfaction (r =.49) and total hope scores (r =.51). The strongest link was between child total hope and child life satisfaction (r = .60), a large correlation. This pattern of strong interrelationships between child positive emotions remained consistent throughout the datasets analyzed.

Relationships between Parents' Positive Emotions

Interrrelationships among positive emotions. For mothers, higher gratitude was correlated with greater life satisfaction (r = .54) and hope (r = .39). Additionally, mothers who reported higher hope also reported higher life satisfaction (r = .40).

For fathers, gratitude was correlated in a positive direction with life satisfaction (r = .40) and hope (r = .38). Additionally, fathers who reported higher hope also strongly reported higher life satisfaction (r = .58). These patterns of relationships were consistent across the datasets analyzed, with one difference. Interrelationships among fathers' positive emotions were consistently stronger among the dataset that only included biological fathers whose children also had the participation of their biological mothers. (father gratitude/father life satisfaction, r = .49; father life satisfaction/father hope, r = .58; father hope/father gratitude, r = .42).

Correlations between fathers' and mothers' levels of the same positive emotion. Positive emotions were also linked *across* the mother and father datasets. Specifically, within the triad sample analyses, father gratitude had a moderate and significant positive correlation to mother gratitude (r = .31). Furthermore, father life satisfaction was moderately related with greater mother life satisfaction (r = .38). These relationships were significant in all datasets analyzed, but were strongest in the triad sample which was primarily composed of spouses. Correlations between paternal and maternal levels of hope were not significant.

Correlations between fathers' and mothers' levels of different positive emotions. No statistically significant relationships were identified with different parental positive emotions (e.g., mother gratitude was unrelated to father life satisfaction).

Table 5

Correlations between Parents' and their Children's Positive Emotions in the Total Sample of Caregivers

	1	2	3	4	5	6	7	8
1. Child Gratitude	1.00							
2. Mother Gratitude	.23**	1.00						
3. Father Gratitude	.09	.24*	1.00					
4. Child Life Satisfaction	.49***	.22**	-.04	1.00				
5. Mother Life Satisfaction	.18*	.54***	.08	.31***	1.00			
6. Father Life Satisfaction	.21*	.09	.40***	.30***	.34***	1.00		
7. Child Hope	.51***	.14	-.01	.60***	.26**	.14	1.00	
8. Mother Hope	.05	.39***	.04	.11	.40***	.10	.09	1.00
9. Father Hope	.07	.08	.38***	.15	.05	.58***	- .01	.08

Note. Student N = 153, Mother N= 143, Father N = 119. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Correlations between Biological Mothers and their Children's Positive Emotions (N = 137 dyads)

	1	2	3	4	5	6
1. Child Gratitude	1.00					
2. Mother Gratitude	.23**	1.00				
3. Child Life Satisfaction	.53***	.17*	1.00			
4. Mother Life Satisfaction	.18*	.52***	.26**	1.00		
5. Child Hope	.51***	.11	.62***	.24***	1.00	
6. Mother Hope	.06	.36***	.09	.40***	.08	1.00

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

Table 7

Correlations between Biological Fathers and their Children's Positive Emotions (N = 109 dyads)

	1	2	3	4	5	6
1. Child Gratitude	1.00					
2. Father Gratitude	.07	1.00				
3. Child Life Satisfaction	.56***	-.04	1.00			
4. Father Life Satisfaction	.22*	.49	.29**	1.00		
5. Child Hope	.62***	.02	.69***	.19*	1.00	
6. Father Hope	.09	.41***	.16	.56***	.03	1.00

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

Table 8

Correlations between Biological Mothers, Biological Fathers, and Children's Positive Emotions (N = 98 triads)

	1	2	3	4	5	6	7	8
1. Child Gratitude	1.00							
2. Mother Gratitude	.21*	1.00						
3. Father Gratitude	.08	.30*	1.00					
4. Child Life Satisfaction	.56***	.13	-.01	1.00				
5. Mother Life Satisfaction	.24*	.54***	.20*	.19*	1.00			
6. Father Life Satisfaction	.23*	.13	.50***	.32**	.38***	1.00		
7. Child Hope	.61***	.07	.03	.70***	.22*	.20*	1.00	
8. Mother Hope	.10	.36***	.08	.03	.40***	.14	.13	1.00
9. Father Hope	.14	.13	.42***	.20*	.11	.58***	.09	.09

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

Summary of Findings

There was a small, but statistically significant relationship between maternal gratitude and child gratitude ranging from $r = .21$ to $r = .23$. This finding was consistent throughout the various sample analyses (total sample, biological mothers, and the biological triad sample). There appears to be *no* link between fathers' gratitude and their children's gratitude.

Results also demonstrated a consistent link between children's life satisfaction and their parents' life satisfaction. Mother life satisfaction is related to child satisfaction (range of $r = .19$ to $r = .31$, $p < .001$), particularly when the dataset with all female caregivers was analyzed. There is also a relationship between fathers' life satisfaction and their children's life satisfaction, ranging from $r = .29$ to $r = .32$. Across all datasets analyzed, parental hope was not associated with child hope.

Ancillary analyses revealed large, statistically significant relationships between children's levels of different positive emotions. In addition, moderate relationships emerged between maternal and paternal levels of the same positive emotion, specifically, gratitude and life satisfaction. Interpretations of these results are provided in the context of any previous relevant literature in Chapter Five of this document.

Chapter Five: Discussion

The current study explored links between parental levels of wellness (as indicated by positive emotions) and their children's levels. Gratitude, life satisfaction, and hope were selected based on Seligman's (2002) framework, which suggests that total wellness can be achieved by maintaining positive levels of emotions in the past (e.g., gratitude), present (e.g., life satisfaction), and future (e.g., hope). Although literature in the area of parent-child positive emotions was scarce, the author of the current thesis hypothesized that small to moderate links would be discovered due to shared biological and environmental factors. Specifically, it was assumed that children's levels of positive emotions would be related to their parent's emotions due to shared genes and shared environment. The following sections summarize the results within the context of previous literature, and provide interpretations of the findings. First, the chapter briefly summarizes how the various datasets allowed for unique interpretations of the results. Secondly, the chapter highlights the presence (or absence) of links between parental gratitude, life satisfaction, and hope. Next, implications for school psychologists and the study's contribution to the literature are discussed. Finally, limitations or delimitations are described. The chapter concludes with directions for future research.

Interpretation Features of the Datasets

The total sample, biological sample, and triad sample allowed the PI to investigate different aspects of the research questions. The total sample provided the largest sample

size and included the combination of biological parents, step-parents, and other guardians. This dataset was the most frequently referenced because its size provided the greatest statistical power and thus reliability. The biological sample (i.e., mother-child pairs and father-child pairs) permitted the PI to make hypotheses regarding possible genetic influences on links between positive emotions. This was due to the biological match between student participants and the parents, and the exclusion of non-biological parents. Finally, the triad sample allowed the PI to investigate the influence of *both* genetic and shared environment factors. This was possible because the triad sample participants involved youth with complete biological sets of parents, who also shared the student's environment. This triad dataset afforded comparisons of magnitudes of relationships between children and their mothers and fathers, respectively, given that data from both biological parents was available. The following sections describe the primary findings from these various datasets within the context of previous literature.

Links between Parental Gratitude and Child Gratitude

Results obtained from the current study demonstrated clear, reliable links between mother and child gratitude. The finding suggests that families with mothers who are high in gratitude have similarly grateful children. Although the relationship was small, it was statistically significant with a range between $r = .21$ through $r = .23$ across all datasets. Throughout all analyzes, paternal gratitude remained unrelated to child gratitude.

The findings with regard to links between mothers' and their children's gratitude are consistent with the only previous study conducted in this area. Steger and colleagues (2007) reported a correlation of $r = .18$ between fraternal twins' gratitude. A twin sample should be considered relevant to the current study because fraternal twins share 50% of

their genetic code, as in the case of parents and their biological children. Steger et al. (2007) hypothesized that nearly 80% variation should be expected among individuals who share 50% genetics, as well as environment. Thus, the current study appears to validate Steger et al.'s (2007) findings in regard to *mother* and child gratitude.

The mother-child gratitude link is likely based on a combination of heritability and environmental factors. It is hypothesized that children learn gratitude through modeling (e.g., social learning theory) and reinforcement. Previous research by Greif and Gleason (1980) suggests that politeness patterns, or outward indications of inward gratitude, increase following parental modeling. Half of the results of this study support this notion. The finding that paternal gratitude is not linked with child gratitude casts doubt on the idea that gratitude is highly heritable. Several hypotheses were generated to address these results.

One hypothesis is the *amount* of time children spend in a shared environment with their mother versus their father. Although the working status of the participants in this study is unknown, it is possible that many of the female guardians were either "stay at home" mothers, or mothers who bore the burden of care-giving responsibilities. It is speculated that the student participants may spend more time with their mother and are thus *exposed* to greater amounts of maternal modeling of gratitude.

A second hypothesis is that fathers may model gratitude in less demonstrative ways. In other word, male gratitude may have less of an influence on children because it is more discrete. Several studies have reported that although men and women experience similar levels of positive emotions (Seligman, 2002), men over age 35 tend to conceal expressions of gratitude (Sommers & Kosmitzki, 1988). In a study on gender differences

in gratitude, Kashdan, Mishra, Breen, and Froh (2009) found that men outwardly express less gratitude compared with women. In contrast, women reported recognizing and expressing gratitude in more explicit ways than men (Kashdan, Mishra, Breen, & Froh, 2009). Applications of this research to the current study suggest that perhaps even the fathers in this study who report feeling a high level of gratitude may not demonstrate gratitude as overtly as mothers.

The aforementioned literature support the current study's finding that child gratitude may be primarily learned from mothers. It would seem reasonable that if gratitude were strongly genetic, similar correlations would have emerged between *both* mothers and fathers and their children, especially in the biological and triad datasets. Since the mother-child links emerged regardless of guardian dataset and because paternal gratitude was not implicated in child levels, it is possible that gratitude may have a *stronger* environmental component than biological. However, the correlational methods of this study prevent the researcher from determining the level of impact of either heritability or shared environment on the links identified.

Links between Parental Life Satisfaction and Child Life Satisfaction

The current study found that mother and father life satisfaction were significant correlates of child life satisfaction. Thus, happier parents tended to have happier children. For mothers, correlations across samples ranged from $r = .19$ to $r = .31$ and father-child correlations were consistently moderate (ranged from $r = .30$ to $r = .32$). Analyses from the triad dataset indicated that the size of the difference between mother-child and father-child correlations ($r = .19$ vs. $= .32$, respectively) was not statistically significant.

These findings are consistent with a large proportion of previous literature. Lykken and Tellegan's (1996) sample of 541 twins and 447 parents found a modest correlation of r = .20 between parents and twins' subjective well-being. Of note, Lykken and Tellegan (1996) found a stronger relationship between identical twins (r = .47), which suggests that there is a more robust genetic link when 100% genetics are shared. The authors also used an older sample of youth (age 17), and a measure of subjective well-being, rather than a measure of life satisfaction.

Casas and colleagues (2008) also investigated links between adolescents (ages 12-16) and parent life satisfaction in 266 families. The sample included 139 matched/triad sets (mother, father, and child) that completed the Personal Well-Being Index (a measure of subjective well-being instead of just life satisfaction). The authors found a correlation of r = .19 between parents and their children on the overall wellness index, but no relationships for the item "satisfaction with life as a whole." They speculated that their inconclusive results with the global life satisfaction construct were possibly due to the use of a one-item indicator. Regardless of these distinctions, a correlation of r = .19 is similar to the magnitude of the relationships yielded in the current study for life satisfaction.

Lastly, Ben Zur (2003) examined an adolescent sample of 121 students ages 15-17 and both mothers and fathers (N = 363). They completed the Life Satisfaction Scale (Ben Zur, 2003) as well as the PANAS (Watson, Clark, & Tellegen, 1988). As in the current study, the researchers analyzed mother-child life satisfaction and father-child life satisfaction separately. The findings were very consistent with results from this study, specifically, father-child life satisfaction (r = .34), and mother-child life satisfaction (r =

.25). Ben Zur (2003) noted a statistically weaker relationship between adolescent life satisfaction and mother life satisfaction, but a follow-up test comparing the magnitude of these correlations indicated that the size difference was not statistically significant (z = .76, p = 0.45, ns).

In sum, the current study validates the aforementioned literature by finding small to moderate relationships between parent and child levels of life satisfaction. The fact that the correlations in the current study remained significant across the varying analyses suggests a reliable relationship regardless of guardian type and sample size. The sample of children examined in the current study extends previous findings to a younger age range; significant links between parent and child life satisfaction appear robust among children ages 9, 10, 11, and 12 (the current study) through older adolescence (Ben Zur, 2003; Casas et al., 2008; Lykken & Tellegan, 1996). While the trend in the current study and the literature is for slightly higher relationships between father-child life satisfaction as compared to mother-child life satisfaction, this distinction is small and thus unlikely to have practical significance. This researcher hypothesizes that the parent-child life satisfaction link is likely due to both genetic influence (as validated by the small but stable results in several twin studies) as well as shared environment (e.g., parental modeling, shared experiences).

Links between Parental Hope and Child Hope

Across all datasets, parental hope was not related to child hope. The correlations never approached statistical significant regardless of the sample type utilized. This finding was somewhat surprising in light of some of the previous literature.

Two studies stand in contrast to the findings in the current study. First, in the United States, Steger and colleagues (2007) found a small but significant correlation of *r* = .20 between 336 fraternal twins' levels of hope. The Steger study differed from the current investigation because it used an adult sample (*M* age = 49), and it did not explore parent-child correlations. The researchers did not use a stand-alone measure of hope, and instead used the Values in Action inventory of strengths, which included a ten-item hope scale (Peterson & Seligman, 2004).

Marques et al. (2007) found a correlation of *r* = .37 between the hope levels of 256 children (ages 10-15) and their guardians (66.7% mothers) using the CHS and AHS. Since the Marques study is considered the most similar to the current research due to its sample size and measure selection, it is surprising that such starkly different results were obtained. It is possible that the difference lies in the age of the students (predominantly middle school age students versus elementary age children). Although there is no prior research on the developmental progression of hope, it could be hypothesized that hope levels stabilize as students mature. Differences in the geographic origins of the samples may also contribute to the contradictory findings, as Marques et al. (2007) examined families from Spain. It could be hypothesized that hope is more family-based among certain cultures, as compared to American culture.

However, the results from the current study were consistent with Westburg and Martin's (2003) study, which used the same hope measures (AHS and CHS). Their small sample of 46 children (ages 8-15) and 43 mothers and fathers did not indicate a significant parent-child relationship between total hope levels or in regard to type of hope (pathways vs. agency). The study design was limited by the small sample size and the

collection of data from one parent per child (either from the mother or father). However, there continued to be no relationship between parental and child hope in the current study, even with the relatively larger power (i.e., with a sample size of 153 children and 262 guardians).

The null relationship between parent-child hope obtained in the current study and by Westburg and Martin (2003) could be explained by a lack of genetic influence or shared environment on individuals' hope levels. Research on predictors of optimism, a related construct, demonstrated strong correlations among identical twins (r = .48) while r = .0 among fraternal twins (Schulman, Keith, & Seligman, 1991). For individuals sharing 100% of their genetics (i.e., identical twins), heritability accounts for approximately 50% of the variance and the remainder is composed of environment. For individuals who share only 50% of their genetics (i.e., fraternal twins), no relationship between relatives' hope emerged, suggesting that environmental experiences or unique genetic features eradicated any biologically-based influence on hope. Based on the lack of correlation between fraternal twins' optimism, it would be likely that the parent-child relationship would also produce a null result unless the influence of the shared environment (and presumably parental modeling and teaching) were particularly great. A final tentative explanation for the lack of the parent-child hope link is that child hope may be more influenced by parental emotions other than hope (e.g., life satisfaction). This idea is explored in the next section.

Other Relationships between Parents' and Children's Positive Emotions

Ancillary analyses yielded interesting relationships between parental positive emotions and different child emotions. For instance, maternal gratitude emerged as a

particularly important emotion. Beyond its link with child gratitude, maternal gratitude was consistently related to higher child life satisfaction. Paternal gratitude did not have this same relationship. It appears that students experience higher levels of gratitude *and* life satisfaction when their mother's are particularly grateful. Gratitude was unrelated to child hope levels.

The only parent emotion that related to children's levels of hope was parent life satisfaction. Higher levels of maternal life satisfaction were related to greater child hope across all datasets. In contrast, fathers' life satisfaction only related to their children's levels of hope among the biological and triad datasets. This finding suggests that this relationship (father life satisfaction – child hope levels) may be biological in nature, as the link was not statistically significant when non-biological fathers were included in the sample.

Another interesting link was found in the triad sample between paternal hope and child life satisfaction (r = .20). This relationship also approached statistical significance in the total sample analyses. Thus while it appears that parental hope is unrelated to children's hope, fathers' hopefulness may be related to child happiness.

Hypotheses about these results cannot be grounded in previous literature due to the paucity of studies on relationships between parents and children's different positive emotions. While research exists on how gratitude (for instance) influences other positive emotions in adults or students, no research has been conducted on links between varying *parental* positive emotions and their children's emotions. Thus this study presents the first glimpse at how parents' positive emotions may contribute to several different child emotions. Specifically, parents who experience greater life satisfaction, mothers who

have more gratitude, and fathers with higher hope are more likely to have children with higher levels of these positive emotions (albeit not necessarily the same positive emotion).

Interrelationships among Children's Positive Emotions

The current study found among children, gratitude had strong, positive relationships with life satisfaction (r = .49) and hope (r = .51). Likewise, life satisfaction was strongly linked with hope (r = .60). These findings are consistent with previous literature on interrelationships between gratitude, life satisfaction, and hope among youth samples (Froh, Sefick, & Emmons, 2008; Marques, Lopez, & Pais-Ribeiro, 2011). For instance, Froh and colleagues (2009) found that early adolescents with higher gratitude had higher levels of life satisfaction and optimism. Likewise, Valle, Huebner, and Suldo (2004) found that scores on the CHS were strongly correlated (r = .55) with scores on the SLSS among adolescents. Gilman and Huebner (2006) also reported that adolescents in the highest ranges of life satisfaction also had the highest score in hope. In sum, the results from previous literature and the current study suggest that children's positive emotions are integrally connected.

Relationships between Parents' Positive Emotions

Links between mothers' and fathers' levels of the same emotion. Another finding of interest was the relationship between mothers' and fathers' levels of the same positive emotions. Father gratitude had a moderate relationship with mother gratitude (r = .31), and father life satisfaction was moderately correlated with mother life satisfaction (r = .38). These findings were present throughout all datasets, but were strongest in the triad data, which was primarily comprised of spouses. The study did not identify links between

different positive emotions (e.g., fathers' gratitude and mothers' life satisfaction). A review of the literature yielded one study that is relevant to these analyses. Specifically, Gordon, Arnette, and Smith (2011) reported that spousal gratitude was related to the other spouses' life satisfaction and gratitude. The participants included 57 married couples with a mean age of 46.2 years. The average length of their married relationship was 20.7 years. Gratitude was assessed by an 8-item measure developed by the researchers to measure state gratitude, as well as gratitude felt towards a spouse. Using a statistical approach which is appropriate for cross-partner associations, results indicated that Spouse 1's gratitude was a predictor of Spouse 2's gratitude and satisfaction with the marriage.

No studies were found exploring the links between different positive emotions across individuals. The intriguing findings in the current study suggest that either (a) adults select to marry partners who have similar levels of positive emotions, or (b) a given adult's level of positive emotions may influence his or her spouse's positive emotions in addition to the positive emotions of the children in the home. In any event, the significant relationship between parents' levels of gratitude, life satisfaction, and hope indicates that children raised by two parents may be doubly exposed to a certain level of positive emotions, thus increasing the possible influence of shared environment.

Interrelationships among emotions. This study also discovered strong relationships between different positive emotions within a given person. Among female caregivers, higher levels of gratitude co-occurred with greater life satisfaction (r = .54) and hope (r = .40); life satisfaction was also linked with hope (r = .40). Similar links among positive emotions were found in the sample of adult males. Previous literature has

reported these same results between adult positive emotions. McCullough and colleagues (2002) found that adult gratitude was associated with higher levels of life satisfaction and hope, as well as a myriad of other positive outcomes. Bailey, Eng, Frisch, and Snyder (2007) reported that adult hope (specifically agency hope) was a unique predictor of life satisfaction. In sum, adults with high levels of one positive emotion are likely to also have high levels of other positive emotions, similar to inter-relationships among positive emotions among children.

Practical Implications for School Psychologists

This study is unique in its focus on positive emotions in youth. The majority of school based prevention programs target psychopathological emotions such as depression, anxiety, or anger. While efforts to ameliorate these emotions are warranted, recent research on the dual factor model of mental health suggests that the absence of psychopathology does not necessarily equate to total wellness (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). Research with adults indicates that people tend to experience lower levels of positive emotions (i.e., life satisfaction) before demonstrating negative symptoms (i.e., depression; Lewinsohn, Redner, & Seeley, 1991). Thus, identifying positive emotions may prove to be a highly effective, preventative method to protect against psychopathology in youth. School psychologists can use school-wide screening methods to identify students with room for growth in positive emotions; screening methods could include tools similar to the brief measures used in the current study. Interventions for youth identified during the screening process could be based on the literature pertinent to factors correlated with youth wellness (for guidance, see Suldo, Huebner, Michalowski, & Thalji, 2011).

School psychologists can apply the results of this study by working with families to increase awareness of positive emotions and their outcomes. Specifically, school psychologists may wish to share with families the role of positive emotions as protective factors, and emphasize the importance of parental modeling and instruction of gratitude, life satisfaction, and hope. School psychologists can also share with families that parents' levels of positive emotions are in fact likely sources of influence on their own children's wellness. Realizing that parental wellness has a direct link with child wellness may be a powerful tool for families, and perhaps help them self-monitor the specific emotions they demonstrate in their children's presence. This knowledge may also empower caregivers to take purposeful efforts to increase their gratitude and life satisfaction, given that happier adults may raise children with greater happiness and hope.

The small to moderate magnitude of the links between parent and child positive emotions that were indicated by the current study demonstrate that youths' positive emotions are influenced by factors other than home environment and shared genetics. The implication of this finding is that positive emotions are likely amenable to intervention, rather than predetermined. Moreover, the current study affirmed the finding that positive emotions are inherently linked with each other. School practitioners should be aware of this fact, as targeting one particular positive emotion may have the potential to raise overall wellness. Previous literature has indicated that there is a *wealth* of positive outcomes associated with possessing positive emotions such as gratitude, life satisfaction, and hope, in line with Fredrickson's (2001) "broaden and build" theory. She suggests that the development of positive emotions contributes to overall resilience and also serve as invaluable resources that individuals can draw on during challenges. Thus,

targeting any of the positive emotions described in this study may lead to a myriad of outcomes (e.g., psychological, physical, social, and academic) that are important to youth and families. The following paragraphs summarize the budding literature on evidence-based strategies for promoting specific positive emotions in youth.

Positive Emotion Interventions

School-based practitioners can implement interventions focused on *improving* levels of gratitude, life satisfaction, and hope in students. Two such examples of positive emotion interventions are "Counting Blessings" (Emmons & McCullough, 2003) and "Building Hope for the Future" (Marques, Lopez, & Pais-Ribeiro, 2011). These interventions have been shown to increase gratitude, life satisfaction, and hope in students. Both interventions also support the findings in the current study that high levels of one positive emotion have the ability to impact other positive constructs.

Gratitude intervention. "Counting Your Blessings" is an intervention targeting gratitude that was initially piloted with college age students (Emmons & McCullough, 2003). Froh, Sefick, and Emmons (2008) applied the intervention to a sample of 221 early adolescents in the 6^{th} and 7^{th} grade. Pre- and post-measures included the BMLSS (Seligson, Huebner, & Valois, 2003) and revised versions of the gratitude and affect scales used by Emmons and McCullough (2003). Participants were randomly assigned to a counting blessings group, hassles group, or control condition. The counting blessings group recorded grateful thoughts in a journal for a period of two weeks, while the hassle condition recorded frustrating events. Participants in the different conditions were compared at baseline and a 3-week follow up. Results demonstrated small to medium effects size for growth in gratitude among youth in the blessings condition, as compared

to the other two conditions. Additionally, there was a significant effect for improved school satisfaction in the blessings condition, as well as a significant decrease in negative affect. Overall, this intervention provides promising data for school psychologists seeking to promote *both* gratitude and domain-specific life satisfaction. The intervention is not time intensive, and could be adapted to include family members as a way of addressing the results of this study.

Hope intervention. Marques, Lopez, and Pais-Ribeiro (2011) found promising effects of an exciting new intervention intended to promote hope. The intervention was focused on improving hope, and had additional positive effects on life satisfaction and self-worth. Their sample included 62 early adolescents (M = 10.96 years old) who were randomly assigned to an intervention condition or comparison condition. Twenty-nine parents and 8 teachers of the students in the intervention group also participated. All student participants completed the CHS and SLSS, along with additional measures of wellness. The intervention group met for one hour session across five weeks and covered the following lessons: (1) learning about hope, (2) structuring hope, (3) creating positive and specific goals, (4) practice makes perfect, and (5) review and application for the future. The parents and teachers participated in a manualized 1-hour session during the first week of the intervention. Their session covered the following: (1) learning about hope, (2) instruction of hope, and (3) increasing hope. Results demonstrated statistically significant growth in mean levels of life satisfaction *and* hope in the intervention group (as compared to the control condition) from pre-test to 18-month post intervention. This unique intervention provides an ideal example of an application of implication of the

findings from the current study –especially in regards to the targeted instruction and education about positive emotions.

Contributions to the Literature

Knowledge about the detrimental impact of parental psychopathology on children has paved the way for research in the areas of development and implementation of school-based prevention programs and family support services. Findings from the current study highlight a similar inter-connectivity of wellness between parents and children.

The current study adds to the literature base in several exceptional ways. Conceptually, this study provides the first application of the "triad of positive emotions" posited by Seligman (2002) and supported by Miller and Nickerson (2007). The triad framework suggests that total wellness can be achieved when positive emotions in the past, present, and future are targeted. The current study utilized this framework with a student and adult population, and found that the three positive emotions were integrally linked.

Second, this study is the first of its kind to analyze data on multiple positive emotions among both parents and children. The lack of previous research on links between parents' and children's positive emotions became abundantly clear during the literature review conducted to form the aforementioned hypotheses. While some studies have explored links between one specific positive emotion, no available research examined three different types of positive psychological constructs within the same study. The current study is the first to simultaneously compare scores from the SWLS with the SLSS, the GQ-6 with the GQ-6 youth version, and the AHS with the CHS.

Third, the study added to the literature by utilizing an elementary age sample. The predominance of prior research of positive emotions focuses on adults and older adolescents, with only a few studies including younger students. The current study extends the literature on the moderate relationship between parental life satisfaction and *younger* students' life satisfaction. There is great need for additional data with elementary aged samples, especially with the positive emotions of gratitude and hope. This is specifically important with the construct of gratitude, as the primary self-report measure has only been utilized previously with children in the 5th grade and higher (ages 10 and above). Thus, the current study is the first to use the GQ-6 with 9 year olds. It is noteworthy that this measure evidenced acceptable reliability (in terms of internal consistency) among this young age group.

Last, many of the ancillary analyses uniquely contribute to positive psychology research. Particularly, there is a scarcity of literature on links between male and female caregivers' positive emotions (e.g., father gratitude linked with mother gratitude). Findings from the triad sample indicated that caregivers' levels of gratitude and life satisfaction were moderately and reliably linked with each other. Additionally, this study added to the growing literature on the relationship between students' positive emotions. Many of the strongest correlation coefficients in this study were among children's levels of gratitude, life satisfaction, and hope.

Delimitations

Delimitations are defined as exclusionary or inclusionary decisions made by the researcher that inherently limit the breadth of the research. Due to previous literature on the developmental progression of certain positive emotions, the researcher decided to

include only children in the 4th and 5th grades of elementary school. As such, this study's findings can only generalize to older elementary aged students.

Limitations

Four limitations of the current study's design should be noted, namely: the generalizability of the sample, the small sample size, the subjectivity of responses, and the inability to determine why the identified links exist (e.g., the challenges of isolating the effects of heritability and environment). First, because data was only collected from a convenience sample of children at two local elementary schools, the extent to which findings from the current study generalize to more diverse youth is unclear. The results from this study should be considered in the context of a community with an average to high socio-economic status.

Second, the study was limited by the smaller than anticipated response rate. Out of the total available sample, 28.8% of recruited youth participated. While a typical goal for response rates using similar active consent procedures is typically around 50%, the obtained response rate is particularly respectable considering the fact that participation required the collection of data from both students and their parents.

Third, the subjectivity of responses is a limitation because only self-report measures were used. Lucas, Diener, and Larsen (2009) argued that self-report is a valid method for measuring positive emotions, and that individuals are usually the most accurate reporters of their emotions. However, they admit that self-report can be subject to social desirability and haphazard responding, and suggest that it is best to supplement with non-self report measures when possible (Lucas, Diener, & Larsen, 2009). This

recommendation was not possible due to the type of research questions that were posed in the current study, and due to the researchers' limited access to the caregiver participants.

The final limitation is the challenge of determining whether significant relationships between parent and child wellness are primarily due to heritability (i.e. a true genetic link), or to the shared environment. The core of this study raised the question of nature vs. nurture—a question that has not been resolved despite centuries of debate. Developmental psychologists and behavioral geneticists often use expansive twin, adoption, or molecular studies to differentiate the effects of heritability and the environment. These methods provide researchers with data that may suggest causation in either direction (heritability or environment). However, since there were so few studies investigating the relationship between parental and child levels of positive emotions simultaneously, the current study used exploratory measures (i.e., correlational research). As such, the last limitation should not be perceived as a true "barrier," since the researcher did not intend to isolate the genetic and environmental components of positive emotions. While the correlational data from this study can only be used to suggest the direction and strength of the relationship between parental and child wellness, it laid the groundwork for future studies that may attempt to disentangle the causes of the identified relationships.

Future Directions

To facilitate further knowledge in the area of parent and child positive emotions, there are several areas that would benefit from additional research. The most outstanding area is the need to know *why* the links identified in this study exist. As noted earlier, the current study provided an exploratory look at parent-child emotions using correlations.

However, future studies should focus on identifying causation for how wellness (as indicated by positive emotions) is transmitted between parents and children. This could be done by conducting a controlled twin study with parents, MZ and DZ twin participants, or examining youth reared apart from their biological parents (i.e., adoption studies). Future researchers could use a combination of twin and adoption studies with participants who share varying levels of environment and genetics. This would enable researchers to tease apart the impact of heritability and environmental factors.

Second, future research could confirm the true direction of the relationships identified in this study. This study hypothesized that parent emotions were linked with child emotions in a primarily uni-directional manner (e.g., parents' emotions influence their children's emotions). However, there is likely a *reciprocal* relationship between parent-child emotions, such that children's levels of positive emotions likely also influence their parents' emotions. This idea has been explored within the psychopathology literature, wherein children's negative symptoms and behaviors appear to impact their parents' behavior and emotions. Specifically, research conducted on maternal interactions with children with ADHD found that mothers of children with ADHD who were medicated (and demonstrated less non-compliant behaviors) responded with greater warmth (Barkley & Cunningham,1979). Likewise, Lifford and colleagues' (2008) longitudinal study on ADHD and parent-child interactions found that child negative behaviors were linked with higher maternal rejection and worse parent-child relationships. These studies that support problematic parent-child interactions in part follow child psychopathology suggest that there may be a bi-directional link between

parent and child positive emotions. Future studies could explore if and how children's levels of positive emotions influence their parents' behavior and emotions.

A third valuable area of research would be to determine the possible mechanisms that link parent positive emotions to children's positive emotions. Researchers could investigate possible mediators, such as parenting practices, parental conflict, warmth, and enhanced social relationships. For example, happier parents may have less marital conflict, which could in turn positively influence children's happiness levels.

A fourth area of research development could explore whether there are gender differences in the strength and direction of links between positive emotions in parents and children. Although the current sample size was too small to analyze gender differences with sufficient power, it would be intriguing to discover if boys or girls were more influenced by their parents' wellness.

Additionally, more information is needed on the existence of any relationship between parental and child hope. The null findings from the current study were consistent with some prior literature (Westburg & Martin, 2003), but conflicted with other research (Marques et al., 2007; Steger et al., 2007). It would be beneficial to replicate the research design used within this study to explore if links exist with hope.

Future studies should be conducted to consider why maternal gratitude was implicated in child gratitude, while paternal gratitude appeared to be unrelated. More information is needed in order to validate the researcher's hypotheses related to higher amounts of exposure to female expression, as well as differences in male expression and modeling of gratitude.

More research is needed to validate Seligman's framework of the triad of positive emotions (past, present, and future positive emotions) as indicative of total wellness. To date, the current study is the only known one that based its selection of indicators on this framework. It would be fascinating to replicate the current study while exploring additional positive emotions such as joy, love, or pride.

All future studies exploring parent-child positive emotions would benefit from using a larger sample size in order to afford adequate power to detect effects. Future studies should also seek to include participants from lower socio-economic backgrounds to determine whether the results generalize to diverse populations.

Summary

Positive psychology represents a shift in both modern psychological theory and practice. It requires an alteration in thinking from identifying *what is wrong* with people, to giving attention to *what is right* (Seligman & Czikszentmihalyi, 2000). The current study attempted to reflect this perspective by exploring indicators of wellness (specifically, gratitude, life satisfaction, and hope) in both parents and children. The results shed light on emerging questions about how wellness is linked among family members. Importantly, maternal gratitude and parental life satisfaction were found to have small to moderate relationships with children's levels of the same emotion. The study identified several links between positive emotions within a given person, as well as across caregivers. Furthermore, the current study advanced the literature on likely predictors of positive emotions, and strengthened the rationale for attending to positive emotions as key indicators of overall wellness.

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Appendices

Appendix A: Parent Consent Form

Dear Parent(s),
Research shows that students who have more positive thoughts about their past, present, and future have better academic, social, and behavioral outcomes. However, it is unclear how children develop such positive thoughts and emotions. One possibility is that children's levels of positive emotions such as gratitude, happiness, and hope are linked to their parents' levels of these same emotions. This letter provides information about a study that will be done to determine the nature of the relationship between parental levels of positive emotions (specifically, gratitude, happiness, and hope) and children's levels of the same positive emotions.

- ✓ Who We Are: The research project is led by Brenna Hoy, M.A., a graduate student in the School Psychology Program at the University of South Florida (USF) and Shannon Suldo, Ph.D., a professor in the School Psychology Program at USF. We are planning the study in cooperation with the administration of your elementary school to make sure that the study provides information that will be useful to the school.
- ✓ Why We are Requesting You and Your Child's Participation: This study is being conducted as part of a project entitled, "Links between Parents' and Children's Positive Emotions." Your child is being asked to participate in this project because he or she is a 4^{th} or 5^{th} grade student at an elementary school that has agreed to take part in the research project. You are being asked to participate because you are one of the child's parents.
- ✓ Why You and Your Child Should Participate: Because we need to know more about how what makes children happy and successful students! In this study, information about you and your child will be combined with information about all other participating students and their families. Please note neither you nor your child will be paid for your child's participation in this study. However, small rewards such as gel pens and pencils will be given to students who return this permission form, regardless of whether you do or do not allow your child to participate. Also, all parents who take part by completing the surveys will be placed into a drawing for one of several $50 Target gift cards. All students who take part in the study by completing surveys will be placed in separate drawings for one of several pairs of movie tickets to a local movie theater.
- ✓ What Your Child's Participation Requires: Children with written permission to participate in the study will fill out three self-report surveys that ask children about their recent grateful, happy, and hopeful feelings. Children will also fill out a short demographic form, which asks about their age, grade, and ethnicity. The entire packet of questions will take only 15 minutes to complete. Members of the USF research team will administer the surveys at your child's elementary school. This research is not a part of normal classroom activities, but it will take place during regular school hours.
- ✓ What Parent Participation Requires: The child's parent(s) (mother, father, or both if available) will be asked to each fill out a short demographic form asking about age, ethnicity, and marital status, and three self-report surveys asking about recent grateful, happy, and hopeful feelings. We are asking parents to place their completed packet of surveys in the envelope provided and seal the envelope. Sealed envelopes and signed parent permission forms should be returned to your child's teacher. Then, the USF researchers will administer the child versions of the surveys to all students. This project requires data from parent(s) and their children, as such, if neither parent chooses to participate your child not be asked to participate.

- ✓ Please Note: Your decision to allow yourself and your child to participate in this research study must be completely voluntary. You are free to allow yourself and/or your child to participate in this research study or to withdraw at any time. Your decision to participate, not to participate, or to withdraw participation at any point during the study will in no way affect your child's student status, his or her grades, or your relationship with your elementary school, USF, or any other party.
- ✓ Confidentiality of Your Responses and Your Child's Responses: There is minimal risk to you or your child for participating in this research, and your child will also be given the opportunity to decide if he or she would like to participate. Your family's privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, the USF Institutional Review Board and its staff, and other individuals acting on behalf of USF may inspect the records from this research project, but we will not share your or your child's individual responses to the surveys with school system personnel or anyone other than us and our research assistants. Your completed surveys and your child's completed surveys will be assigned a code number to protect the confidentiality of all responses. Only Brenna Hoy and Shannon Suldo (USF researchers) will have access to the locked file cabinet stored at USF that will contain all records linking code numbers to participants' names. All records from the study (completed student and parent surveys) will be destroyed five years after the study is completed.
- ✓ What We'll Do With Your Family's Responses: Results of this study may be published. However, the data obtained from you and your child will be combined with data from the other families in the publication. The published results will not include your or your child's name or any other information that would in any way personally identify your family.
- ✓ Questions? If you have any questions about this research study, please contact Mrs. Hoy at XXX@XXX.com or (XXX) XXX-XXXX. If you have questions about your child's rights as a person who is taking part in a research study, you may contact a member of the Division of Research Compliance of the USF; please refer to **eIRB # 4189**.
- ✓ Want to Participate? To permit yourself and your child to participate in the study, please complete the attached permission form and have your child turn it in to his or her classroom teacher.

Brenna Hoy, M. A.
School Psychology Ed.S. Candidate
University of South Florida

Shannon Suldo, Ph.D.
Associate Professor of School Psychology
Department of Psychological and Social Foundations

Permission for Child to Take Part in this Research Study

☐ I do not give permission to let my child take part in this study.

☐ I freely give my permission to let my child take part in this study. I understand that this is research. I have received a copy of this letter and permission form for my records.

_____ _____ _____
Printed name of child Child's teacher Date

_____ _____
Signature of parent of child taking part in the study Printed name of parent

Consent for Mother to Take Part in this Research Study*

☐ I do not give permission to participate in this study.

☐ I freely give my permission to take part in this study. I understand that this is research. I have received a copy of this letter and consent form for my records.

_____ _____ _____

Signature of mother taking part in study Printed name of parent Date

**If the mother is unavailable, please disregard this section*

Consent for Father to Take Part in this Research Study**

☐ I do not give permission to participate in this study.

☐ I freely give my permission to take part in this study. I understand that this is research. I have received a copy of this letter and consent form for my records.

_____ _____ _____

Signature of father taking part in study Printed name of parent Date

***If the father is unavailable, please disregard this section*

Statement of Person Obtaining Informed Consent

I certify that participants have been provided with an informed consent form that has been approved by the University of South Florida's Institutional Review Board and that explains the nature, demands, risks, and benefits involved in participating in this study. I further certify that a phone number has been provided in the event of additional questions.

_____ _____ _____

Signature of person obtaining consent Printed name of person obtaining consent Date

Appendix B: Student Assent Form

Dear Student,

You are being asked to take part in a research study about your feelings— such as how often you feel thankful, happy with your life, and hopeful about your future. The title of the study is "Links between Parents' and Children's Positive Emotions." You are being asked to take part in this study because you are in 4th or 5th grade. Your parent(s) have also agreed to be a part of this study, and have already said it is okay for you to be in this study. This study will take place at your school, during your normal school hours.

To take part in this study, you will be asked to fill-out four surveys. These surveys will ask you questions about your life, your thoughts and your feelings. Your answers will stay private unless you are in danger, then we will have to get help to make sure you stay safe. If you decide to take part in the study you still have the right to change your mind later. No one will think badly of you if you decide to stop.

Assent to Participate

I understand what the person running this study is asking me to do. I have thought about this and agree to take part in this study.

_____	_____
Name of person agreeing to take part in the study	Date
_____	_____
Name of person providing information to child	Date

Appendix C: Parent Demographic Form - Mother

Forms for Mother*

**This page and the next should only be completed by the student's mother.*
If the mother is unavailable, please disregard this page and the next.

---

1. What is your relationship to the 4th or 5th grade student who will be taking part in this research project?
   A. I am the biological mother
   B. I am the step-mother; *please specify*: How old was the child when you began living together? _____
   C. I am the adoptive mother; *please specify*: How old was the child when you began living together? _____
   D. Other; *please specify*: What is your relationship to this child?_____. How old was the child when you began living together? _____

2. Which situation best describes your living arrangement with the student?
   A. Child lives in my home full-time
   B. Child lives in my home most of the time (in other words, you have primary custody)
   C. Child lives in my home about half of the time (in other words, you have joint or split or shared custody)
   D. Child lives in my home less than half of the time (in other words, you have some custody or visitation rights)
   E. Child does not live in my home

3. Which option best describes your current relationship with the student's biological father?
   A. Married
   B. Divorced
   C. Separated
   D. Never married, not living together
   E. Never married, living together
   F. Widowed

4. Your birthdate: _____ (month) - _____ (day) - _____ (year)

5. Are you of Hispanic, Latino, or Spanish origin?
   A. **No**, not of Hispanic, Latino, or Spanish origin
   B. Yes, Mexican, Mexican American, Chicano
   C. Yes, Puerto Rican
   D. Yes, Cuban
   E. Yes, another Hispanic, Latino, or Spanish origin (*please specify*): - _____

6. What is your race? (*please circle all that apply*)
   A. White or Caucasian
   B. Black or African American
   C. American Indian or Alaska Native
   D. Asian
   E. Native Hawaiian and Other Pacific Islander
   F. Other (*please specify*):_____

7. What language is spoken in your home on a daily basis? (*please circle all that apply*)
   A. English B. Spanish C. Other: _____

Appendix D: Parent Demographic Form - Father

Forms for Father*

**This page and the next should only be completed by the student's father.*
If the father is unavailable, please disregard this page and the next.

---

1. What is your relationship to the 4th or 5th grade student who will be taking part in this research project?
   A. I am the biological father
   B. I am the step-father; *please specify*: how old was the child when you began living together? _____
   C. I am the adoptive father; *please specify*: how old was the child when you began living together? _____
   D. Other; *please specify*: what is your relationship to this child?_____. How old was the child when you began living together? _____

2. Which situation best describes your living arrangement with the student?
   A. Child lives in my home full-time
   B. Child lives in my home most of the time (in other words, you have primary custody)
   C. Child lives in my home about half of the time (in other words, you have joint or split or shared custody)
   D. Child lives in my home less than half of the time (in other words, you have some custody or visitation rights)
   E. Child does not live in my home

3. Which option best describes your current relationship with the student's biological mother?
   A. Married
   B. Divorced
   C. Separated
   D. Never married, not living together
   E. Never married, living together
   F. Widowed

4. Your birthdate: _____ (month) - _____ (day) - _____ (year)

5. Are you of Hispanic, Latino, or Spanish origin?
   A. **No**, not of Hispanic, Latino, or Spanish origin
   B. Yes, Mexican, Mexican American, Chicano
   C. Yes, Puerto Rican
   D. Yes, Cuban
   E. Yes, another Hispanic, Latino, or Spanish origin (*please specify*)

6. What is your race? (*please circle all that apply*)
   A. White or Caucasian
   B. Black or African American
   C. American Indian or Alaska Native
   D. Asian
   E. Native Hawaiian and Other Pacific Islander
   F. Other (*please specify*):_____

7. What language is spoken in your home on a daily basis? (*please circle all that apply*)
   A. English B. Spanish C. Other: _____

Appendix E: Student Demographic Form

Student Information

1. Birthdate: _____- _____- _____
   (month) (day) (year)

2. I am in grade: 4th 5th

3. My gender is: Male Female

4. Are you of Hispanic, Latino, or Spanish origin?
   A. **No**, not of Hispanic, Latino, or Spanish origin
   B. Yes, Mexican, Mexican American, Chicano
   C. Yes, Puerto Rican
   D. Yes, Cuban
   E. Yes, another Hispanic, Latino or Spanish origin (*please specify):*_____

5. What is your race? (*please circle all that apply*)

   A. White or Caucasian
   B. Black or African American
   C. American Indian or Alaska Native
   D. Asian
   E. Native Hawaiian/Other Pacific Islander
   F. Other (*please specify*): _____

6. My biological parents are:

   A. Married
   B. Divorced
   C. Separated
   D. Never married
   E. Never married but living together
   F. Widowed

7. Which adults live in my house? (Circle any adult that lives in your house)

   A. Mother and Father
   B. Mother only
   C. Father only
   D. Mother and Step-father (or partner)
   E. Father and Step-mother (or partner)
   F. Grandparent(s)
   G. Other relative (*please specify*): _____
   H. Other (*please specify*): _____

Sample Questions:

	Never	**Sometimes**	**Often**	**Always**
1. I ride a bike on the weekends	1	2	3	4

	Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
2. Riding a bike is fun	1	2	3	4	5	6	7

Appendix F: GQ-6 for Adults

Circle a number from (**1**) to (**7**) where (**1**) indicates you **strongly <u>dis</u>agree** with the statement and (**7**) indicates you **strongly agree** with the statement. It is important to know what you REALLY think, so please answer the question the way you really feel, not how you think you should.

	Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
1. I have so much in life to be thankful for	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. If I had to list everything that I felt grateful for, it would be a very long list	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. When I look at the world, I don't see much to be grateful for	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I am grateful to a wide variety of people	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. Long amounts of time can go by before I feel grateful to something or someone	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Appendix G: GQ-6 for Youth

Circle a number from (**1**) to (**7**) where (**1**) indicates you **strongly <u>dis</u>agree** with the statement and (**7**) indicates you **strongly agree** with the statement. It is important to know what you REALLY think, so please answer the question the way you really feel, not how you think you should.

	Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
1. I have so much in life to be thankful for	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2. If I had to list everything that I felt thankful for, it would be a very long list	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3. When I look at the world, I don't see much to be thankful for	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4. I am thankful to a wide variety of people	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6. Long amounts of time can go by before I feel thankful to something or someone	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7. As I grow up, I feel more thankful for the people and things that have made me who I am.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Appendix H: Satisfaction With Life Scale

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

		Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
1.	In most ways my life is close to my ideal.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2.	The conditions of my life are excellent.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3.	I am satisfied with my life.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4.	So far I have gotten the important things I want in life.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5.	If I could live my life over, I would change almost nothing.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Appendix I: Students' Life Satisfaction Scale

We would like to know what thoughts about life you've had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with life. In answering each statement, circle a number from (**1**) to (**4**) where (**1**) indicates you **never agree** with the statement and (**4**) indicates you **always agree** with the statement.

	Never	**Sometimes**	**Often**	**Always**
1. My life is going well	1	2	3	4
2. My life is just right	1	2	3	4
3. I would like to change many things in my life	1	2	3	4
4. I wish I had a different kind of life	1	2	3	4
5. I have a good life	1	2	3	4
6. I have what I want in life	1	2	3	4
7. My life is better than most kids'	1	2	3	4

Appendix J: The Adult Hope Scale

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

	Definitely False	Mostly False	Somewhat False	Slightly False	Slightly True	Somewhat True	Mostly True	Definitely True
1. I can think of many ways to get out of a jam.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
2. I energetically pursue my goals.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
3. I feel tired most of the time.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
4. There are lots of ways around any problem.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
5. I am easily downed in an argument.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
6. I can think of many ways to get the things in life that are important to me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
7. I worry about my health.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
8. Even when others get discouraged, I know I can find a way to solve the problem.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
9. My past experiences have prepared me well for my future.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
10. I've been pretty successful in life.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

11. I usually find myself worrying about something.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
12. I meet the goals that I set for myself.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Appendix K: Child Hope Scale

The 6 sentences below describe how children think about themselves and how they do things in general. For each sentence, please think about how you are in most situations. Circle the number that describes you best. For example, circle **1** if it describes you "none of the time." Or, if you are this way "all of the time," circle **6.**

	None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time
1. I think I am doing pretty well.	**1**	**2**	**3**	**4**	**5**	**6**
2. I can think of many ways to get the things in life that are most important to me.	**1**	**2**	**3**	**4**	**5**	**6**
3. I am doing just as well as other kids my age.	**1**	**2**	**3**	**4**	**5**	**6**
4. When I have a problem, I can come up with lots of ways to solve it.	**1**	**2**	**3**	**4**	**5**	**6**
5. I think the things I have done in the past will help me in the future.	**1**	**2**	**3**	**4**	**5**	**6**
6. Even when others want to quit, I know that I can find ways to solve the problem.	**1**	**2**	**3**	**4**	**5**	**6**