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EXAMINING RELATIONSHIPS BETWEEN SUPPORTIVE RESOURCES AND

PSYCHOLOGICAL WELL-BEING AT A SINGLE-GENDER SCHOOL

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EXAMINING RELATIONSHIPS BETWEEN SUPPORTIVE RESOURCES AND

PSYCHOLOGICAL WELL-BEING AT A SINGLE-GENDER SCHOOL

by

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Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

May 2014

Dedication

To all women: Be ever hopeful. May we find balance and serenity.

ACKNOWLEDGEMENTS

It is with great pleasure that I have the opportunity to acknowledge the unwavering support and motivation of those who inspired me on my doctoral journey and helped bring this dissertation to fruition. First, I would like to recognize my dissertation committee members, who not only challenged me to pursue the PhD path, but also believed that I could do it. Each of you provided expertise and direction along the way for which I am truly grateful. I want to thank Dr. Alexandra Garcia for your support of my research efforts; you provided kindness and encouragement at times when I needed them most. Thank you Dr. Keryn Pasch for motivating me in my research endeavors; you helped me grow as a student and as a researcher. To Dr. Alexandra Loukas, thank you for sharing your vast knowledge of adolescent education; you planted a seed and provided a foundation for my dissertation. To Dr. Jessica Duncan Cance, your patience, positivity, and guidance over the past four years have been much appreciated. I am grateful for the time you spent with me during my comprehensive exams; I have learned so much from you as a teacher and as a friend. I want to thank Dr. Carole Holahan for your constant support throughout my years at UT. Your inherently compassionate nature provided me with much-needed encouragement. Most importantly, I want to recognize my advisor and dissertation committee chair, Dr. Mary Steinahrdt. Thank you for taking me on as master's student seven years ago and for sharing your enthusiasm of selflessly helping others. Your diverse research interests and community involvement are truly

assets to the department, the College of Education, the University of Texas, and the Austin community. Thank you for your leadership and guidance on this journey!

I also want to thank additional UT Faculty and Staff members: Dr. John Bartholomew, Dr. Darla Castelli, Dr. Bill Kohl, Tan Thai, Phillip Salazar, Shannon Owens, Lita Garcia, Dr. Sharon Jarvis, Dr. Dixie Stanforth & Phil Stanforth, and Dr. Mike Mackert, as each of you have made a significant impact on my life during my doctoral experience. I would also like to acknowledge my UT classmates and colleagues. My sincere thanks go out to all the previous doctoral students: Lara Latimer, Christian Gloria, Katie Faulk, Erik Gnagy, Troy McAdams, and Tre McAllister. In addition, I would like to thank my fellow classmates Carisa Raucci, Sarah Mount, and Milena Batanova, as you have each provided me with guidance in your own unique ways. This journey would not have been as rewarding or beneficial if not for the camaraderie we shared. Lastly, I would like to express my heartfelt appreciation for two unbelievably talented individuals: my statistician Anna Talley and my editor Chas Hoppe.

It is with the upmost respect and gratitude that I recognize the Ann Richards School for Young Women Leaders. Not only was I fortunate to have had the opportunity to work synergistically with the school for my research endeavors; but I also had the privilege of getting to know the students, faculty, and staff at this remarkable institution. Thank you to the principal, Jeanne Goka-Dubose. I am so pleased to call you a mentor and friend. I would also like to thank the vice principals, Kris Waugh and Anah Sikorsky. All three principals demonstrate leadership and compassion on a daily basis to enhance the lives of all ARS students. They each fulfill their school's mission by

providing unparalleled academic and enrichment opportunities for the students. The positive impact this unique school affords young women is undeniable, and I am so grateful to have been a part of the ARS environment. My sincere gratitude goes out to each and every student, parent/guardian, teacher, faculty, and staff member at the school, without whom this dissertation would not be possible.

I would also like to recognize my coworkers at Lake Austin Spa Resort—not only for their support and encouragement, but also for their flexibility and willingness to help stand-in for me during school-related commitments. Thank you TJ, Adrienne, Corinne, Paul, Sandy, Denise, Anne, PJ, Tommy, Emily, Annie, Tom, Shayne, Bailey, Robbie, and Terry Shaw. This would not have been possible without the kind of support each one of you provided during this time. I enthusiastically extend my appreciation to Dr. Mike Bandy, Nancy Benzel, Ari Diamandopoulos, Joseph Strickland, Joan Long, Dr. Mary Martha Vance, Dorothy Fischer, Jenn Webb, Aaron Rubinstein, Toby Carson, and Dana Stanley for keeping me in one piece physically, mentally, and emotionally. By recognizing the challenging nature of my academic commitments, you each provided me with a much-needed source of strength and inspiration. The definition of resilience has taken on a whole new meaning since I have been so fortunate to have each of you in my life.

My faith, family, and friends have always been my rock-solid foundation. Stephen Coffee and Julie & Gordon Johnson have been extraordinary role models and providers for me in every sense of the word. It is because of you that I know *how* to be resilient. Knowing that you believe in me and are proud of me for what I have been able

EXAMINING RELATIONSHIPS BETWEEN SUPPORTIVE RESOURCES AND PSYCHOLOGICAL WELL-BEING AT A SINGLE-GENDER SCHOOL

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The University of Texas at Austin, 2014

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Guided by the positive youth development (PYD) framework and the broaden-and-build theory of positive emotions, this dissertation project involved the performance of two studies that were designed to explore the multifaceted aspects of personal and environmental sources of support, positive emotions, stress, depressive symptoms, and resilience. Examined in Study I was the question of whether one's positivity would differentiate levels of personal and environmental resources. Examined in Study II were the association, if any, between stress and resilience on depressive symptoms and whether resilience would exhibit a moderating effect of stress on depressive symptoms. Multivariate analysis of covariance and hierarchical multiple regression were used to test the different models in these studies.

A sample of 510 students at an all-girl public middle and high school completed the survey (75% response rate). Results showed that (a) the different categories of positivity distinguished levels of personal and environmental resources, (b) stress had a significant positive direct effect on depressive symptoms, (c) resilience had a significant

negative direct effect on depressive symptoms, and (d) the interaction between stress and resilience had a significant buffering effect on depressive symptoms.

While adolescence is a challenging time in particular for girls, findings from the present study support PYD and the broaden-and-build theory of positive emotions as advantageous frameworks for developing empirically based interventions. Strategies that increase students' positive emotions in schools, which in turn broaden their thinking, coping, and social interactions, would be efficacious. Further, the results from Study II suggest that students with higher levels of resiliency were protected from the impact of stress, thus potentially explaining their lower scores for depressive symptoms compared to those students with lower levels of reported resilience. This supports the significant role of individual resiliency as a personal resource against depressive symptoms when experiencing higher levels of stress. Given the seriousness of declining psychological well-being in young girls as a major public health concern, coupled with the compounding effects later into life, programs that provide opportunities for young girls to cultivated resiliency will be, theoretically, highly effective.

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CHAPTER ONE: INTRODUCTION

Adolescence is a time filled with change and uncertainty. Potential challenges for youth range from biological to environmental. Biological concerns may occur when lower income families are unable to obtain supportive medical care (Rak & Patterson, 2006). Even children who are born healthy can be considered at-risk environmentally due to potential for poverty, family dissension, and parental education level (Brooks, 2006). These years of development present all youth with possible disruptions such as parental conflict, academic pressures to perform, poor parenting, and family discord (Brooks, 2006; Pedro-Carroll, 2001; Smrtnik-Vitulic & Zupancic, 2011).

Factors that increase adolescents' risk for poor developmental and psychological outcomes include minority ethnic status, lower socioeconomic status (SES), higher perceptions of stress, and maladaptive coping (Rew & Horner, 2003). Minority adolescents may have limited accessibility and availability of resources, both social and physical, thus compounding their risk factors for poor development (Wickrama, Noh, & Bryant, 2005). Given this susceptibility, minority youth are sometimes disproportionately disadvantaged (Murry, Berkel, Gaylord-Harden, Copeland-Linder, & Nation, 2011). For example, some adolescent minorities are at an increased risk of dropping out of school, which can lead to fewer job opportunities and lack of insurance coverage (Phinney & Haas, 2003). Hispanic and African American adolescents can be further at risk if their neighborhoods are impoverished, presenting limited opportunities

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for education, community programs, and social support (O'Hare & Mather, 2003; Wickrama et al., 2005; Murry et al., 2011).

These risks have life-altering consequences that shape the future of modern youth. Such negative outcomes include mental health disorders (DHHS, 2003), substance abuse (NHSDA, 2003), school dropout (AECF, 2003), and juvenile crime (Stahl, Finnegan, & Kang, 2002). High-risk youth are more likely to experience problematic outcomes such as a decline in mental health status and the onset of depression (DHHS, 2003). Adolescent depression is a major public health concern (Cote et al., 2003). Overall depression rates in adolescents are estimated between 5% and 15% (Costello, Erkanli, & Arnold, 2006), and according to the National Alliance for Mental Illness (2011), one in five teens has experienced depression at some point in his or her adolescent years. Further, over the past decade, an even greater percentage of adolescents have experienced depressive symptoms (25-50%; Kessler, Avenevoli, & Ries Merikangas, 2001). Given the frequency with which adolescents are reporting depressive symptoms, more attention to this public health concern is warranted.

Adolescence marks a time where there start to be gender shifts with regard to psychological well-being. There are significant changes in prevalence and gender ratios of mental health and behavioral disorders after this transition time (Patton & Viner, 2007). Investigative studies have documented the early onset of puberty over the past several years (Kessler et al., 2001; Costello, Erkanli, & Angold, 2006), a trend that has been linked to an increased risk for subsequent mental health challenges (Mendle, Harden, Brooks-Gunn, & Garber, 2010; Benoit, Lacourse, & Claes, 2013). It is indicated

in the research that the transition to adolescence is often marked with an increase in depression rates, particularly in females (Costello, Mustillo, Erkanli Keeler, & Angold, 2003). Depression and depressive symptoms are more prevalent in females than in adolescent males (Costello et al., 2006; Saluja, Iachan, Scheidt, Overpeck, Sum, & Giedd 2004). Some researchers have identified these gender differences in response to the aforementioned environmental and psychosocial stressors (Kajantie & Phillips, 2006). Female youth report relational aggression, disordered eating, cutting, and teen pregnancy more frequently or exclusively as compared to male youths (Brooks, 2006; Sax, 2010). Adolescent research studies have shown that stress-related internalizing disorders such as anxiety and depression are more prevalent among females than among males (Seng, Graham-Bermann, Clark, McCarthy, & Ronis, 2005). In particular, among low-income minority urban adolescents, females report higher rates of depressive symptoms than their male counterparts (Grant, Compas, Thurm, McMahon, & Gipson, 2004a; Grant et al., 2004b).

Prior to adolescence, the rate of depressive symptoms is fairly similar for boys and girls (Nolen-Hoeksema & Girgus, 1994), yet during the transition to adolescence and continuing into adulthood, there is an increase in depressive symptomology among females (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Nolen-Hoeksema & Girgus, 1994; Wight et al., 2004). For females, the inception of depressive symptoms begins earlier than in males early- to mid-adolescence and becoming more intense in late adolescence (Rudolph, 2008). Adolescent females report higher rates of depressive symptoms during these years, specifically female adolescents between the ages of 12 and

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18. Moreover, when compared with depressed males, the earlier occurrence of

depressive symptoms among females has been linked with more unfavorable and

negative psychosocial outcomes later in life (Kessler et al., 2001; Rudolph, 2008). The

most common signs and symptoms are suicidal thoughts, hopelessness, social isolation,

drug or alcohol use, rage, overeating, and oversleeping (Richardson, Keller, Selby-

Harrington, & Parrish, 1996). The majority of research conducted on adolescents has

involved predominantly White middle- to upper-class samples (Grant et al., 2004b). The

extent to which these findings are relevant to a lower income and ethnically diverse

population is less understood, and therefore they may be at greater risk (Gore & Aseltine,

2003).

       It is not any one particular risk, but rather the collection of the above risks, that

appears to be of most concern for today's adolescent girls. The accumulation of these

risks is more impactful than any single risk in that multiple risks have multiplicative

effects instead of additive effects (Durlak, 1998). These compounded risks only fuel the

extent to which female adolescents experience stress and the social costs associated with

them. Discovering ways to combat the challenges that confront lower income adolescent

girls is needed. Examining the stressors and coping mechanisms of these young women

is key to identifying supportive factors and available resources (Rew, Tyler, Fredland, &

Hannah, 2012; Hurd, Stoddard, & Zimmerman, 2013).

       Even with the intrinsic and potentially stressful experiences that youth undergo,

there are ways to utilize their environments in positive ways. During life's inevitable

challenges, some adolescents develop psychological setbacks, while others function well,

with youth in the latter group referred to as "resilient" (Luthar & Zigler, 1991).

Resilience refers to a dynamic process encompassing positive adaptation within the

context of significant adversity (Luthar, Cicchetti, & Becker, 2000). Further, resilience

focuses on supportive factors that lead to more positive adaptation in the midst of

difficult times (Kirby & Fraser, 1997; Luthar et al., 2000; Luthar, Sawyer, & Brown,

2006). The factors that help youth overcome adverse situations vary among the

population and contextual studies (Fergus & Zimmerman, 2005; Luthar et al., 2006).

However, some overarching themes include parental support and monitoring, supportive

adult relationships, opportunities for success, positive adult influences, and

communication skills. Positive youth development (PYD) is a supportive framework that

encompasses a variety of resources and opportunities for ensuring successful adolescent

growth. This framework provides encouragement and direction that have shown to be

essential resources for youth (Bernard, 1995; Zolkoski & Bullock, 2012).

Examined in the present studies were lower income and minority female

adolescents, the combination of which is a subset of the population that is exposed to or

more apt to experience multiple stressors. Previous research has examined adaptation to

stress (i.e., resilience) among lower income co-ed adolescents as a multidimensional

concept with several challenges (i.e., racial discrimination) and supportive factors (i.e.,

connection to one's ethnic group; Olsson, Bond, Burns, Vella-Broderick, & Sawyer,

2003; Wong, Eccles, & Sameroff, 2003). Thus, there is established advantage in

acknowledging resilience as a multifactorial construct (Egeland, Carlson, & Sroufe,

1993). Just as the impact of multiple risks can be exponential, so can the benefits of

protective factors (Olsson et al., 2003). As potential risk factors are believed to lay the groundwork for a negative chain of events, supportive factors may also facilitate a positive chain reaction unfolding to more favorable outcomes (Egeland, Carlson, & Sroufe, 1993). As most youth are exposed to the aforementioned risks and may have access to multiple resources, it would be beneficial to use a framework that also incorporates several means of building and enhancing resources. PYD upholds that youth who have supportive resources will have more positive outcome potential than youth who lack supportive resources.

Given the constructs of the PYD framework, utilizing a theory that also bolsters positive development would be advantageous. The broaden-and-build theory of positive emotions hypothesizes that positive emotions broaden one's mindset and build one's resources, both personal and environmental (Fredrickson, 2001). PYD can thereby provide adolescents with the scaffolding necessary to further explore this theory, which is relatively new to the adolescent research realm. Coupling this adolescent framework with the broaden-and-build theory of positive emotions (Fredrickson, 1998) could provide further insight and new methodologies to enhance youths' positive development. These methods would allow adolescents to draw upon their resources both internally (i.e., personally) and externally (i.e., environmentally). The broaden-and-build theory postulates that the experience of frequent positive emotions serves to broaden individuals' mindsets and encourages them to try new experiences, allowing them to build resources (viz., psychological, physical, emotional, and intellectual; Fredrickson & Branigan, 2005). Though this theory has been tested in many adult populations

(Fredrickson, 2001; Fredrickson & Branigan, 2005; Fredrickson & Losada, 2005; Faulk, Gloria, Steinhardt, & Cance, 2012), it has been applied infrequently among the adolescent population. While some aspects of the broaden-and-build theory have been utilized among an adolescent population (Reschly, Huebner, Appleton, & Anataramian, 2008), at the time of data collection, this study was the first to introduce the positivity ratio criterion of broaden-and-build theory among an ethnically diverse female adolescent population.

At the core of the broaden-and-build theory, positive emotions provide two primary benefits to individuals: they (a) broaden one's outlook and (b) build a variety of resources (Fredrickson, 1998). First, positive emotions expand one's recognition of possible responses and reactions to stressful situations. This broadened outlook allows individuals to effectively utilize healthier stress-reducing outlets, thereby increasing their likelihood to better adapt to the challenge (Fredrickson, 2001). Secondly, this broadened outlook and strengthened response to challenge builds resources against future challenges (Fredrickson, 2003). A variety of resources, such as resiliency and social connections, when built, may serve as reservoirs of support prior to and in the midst of stressful situations, which are inevitable during the adolescent years.

Positive moments prompt one to engage in new experiences, allowing individuals to connect and build lasting resources that sustain after the positive emotion has faded. Even experiencing brief positive emotional states can lead to developing personal resources, such as resiliency, that encourage one's abilities to meet adversity head on, grow from it, and thrive (Fredrickson, 2001; 2003). Unlike negative emotions that trigger

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a sudden change, positive emotions are more subtle and work over an extended period of time, which creates a chain of resources, both interpersonal and environmental. These resources can be drawn upon later in life, whether in stressful or neutral situations (Park, 2004).

It has been posited that an individual's well-being can be characterized by his or her positivity ratio, or the ratio of experienced positive emotions to experienced negative emotions (Fredrickson & Losada, 2005). While there has been recent critique of the mathematical modeling of this ratio (Brown, Sokal, & Friedman, 2013), what is not in question is that higher positivity ratios are indeed associated with many advantageous outcomes, including thriving psychological health (Fredrickson, 2013). For nearly the past decade, this ratio has been positively correlated with good health, overall wellness, performance, resiliency, and longevity in adult samples (Fredrickson & Losada, 2005; Losada & Heaphy, 2004). Further, it is postulated that this ratio can predict different states of flourishing, languishing, or depression. Individuals that consistently flourish or thrive report positivity levels at or greater than 2.9 to 1, which is the proportion of one's experienced positive to negative emotions. For the purposes of this study, 2.9 will be rounded up to 3 such that a flourishing ratio will be noted as 3 to 1. Flourishing refers to the state of having a sense of fulfillment and the ability to adapt well to adversity. Individuals at or above a ratio of 3 to 1, experience the benefits of positive emotions that provide creativity and personal resiliency (Garland, Fredrickson, Kring, Johnson, Meyer, & Penn, 2010). A positivity ratio between 1 to 1 and up to 3 to 1 indicates an individual is languishing or feeling unsatisfied and finds life unfulfilling (Keyes, & Lopez, 2002).

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Lastly, a ratio at or below 1 to 1 is indicative of an individual reporting depressive symptoms and most likely experiencing clinical depression (Fredrickson, 2009).

Several researchers have found that both risks (challenges in one's environment) and resources (supportive factors in one's environment) do not necessarily occur independently of one another in adolescents, instead typically occurring simultaneously and/or cyclically (Masten, 2001). For example, even though young girls may be experiencing the stress of school demands, parental discourse, or bullying, they may also be experiencing supportive bonds from their teachers, peers, and community members (Greene, 2002). While the environment may host potential risks, it also provides various sources of support and security that may enhance positive outcomes in young people. These supportive interactions with others display the "ecological phenomenon" that is adolescence, and which is influenced by one's involvement with his or her family, school, community, neighborhood, and peers (Greene, 2002; Hurd et al., 2013). In addition to environmental sources of support, many personal resources also provide adolescents with protection against inevitable challenges. Previous research indicates several individual resources including problem-solving skills (Bernard, 1995), positive emotions (Fredrickson, Mancuso, Branigan, & Tugade, 2000), and personal resiliency (Benoit et al., 2013), which may buffer the negative impact of stress on health and well-being.

Purpose

The purpose of this dissertation was twofold: (a) to examine whether personal (viz., hope, resiliency, and percent adaptive coping) and environmental (viz.,

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family/friend/significant other, school connectedness, and community connectedness) resources differentiate among three groups of positivity (viz., flourishing, languishing, and depressed); and (b) to explore the direct and interactive effects of perceived stress and resilience on depressive symptoms among adolescent minority females. Markers of emotional states (viz., positive emotions and negative emotions), personal resources (viz., hope, resiliency, and adaptive coping), environmental resources (viz., family/friend/significant other, school connectedness, and community connectedness), and psychosocial well-being (viz., depressive symptoms) were measured. Additionally, demographic variables (viz., age, ethnicity, and SES) were gathered to control for the possible effect they may have on the relationships of interest.

<div align="center">**Hypotheses**</div>

Study I – Personal and Environmental Resources Characterize Flourishing, Languishing, and Depressed Adolescent Females

The objective of Study I was to determine whether personal and environmental resources characterize individual flourishing, languishing, and depressed students, utilizing the positive youth development framework and to further explore the merit of the broaden-and-build theory's positivity ratio in an adolescent population. With a population of middle and high school adolescent females, it was hypothesized that (a) students with a flourishing ratio would have the highest levels of personal and environmental resources, (b) depressed students would report the lowest levels of personal and environmental resources, and (c) languishing students would report personal and environmental resources in between the flourishing and depressed students.

Study II – Resilience Buffers the Effect of Stress on Depressive Symptoms in Adolescent Females

The objective for Study II was to examine whether resilience moderated the influence of stress on depressive symptoms for adolescent females. It was hypothesized that (a) stress would have a positive direct effect on depressive symptoms, (b) resilience would have a negative direct effect on depressive symptoms, and (c) resilience would interact with stress such that resilience would moderate or buffer the effect of stress on depressive symptoms.

Limitations

Overall, results from this dissertation are recognized with some limitations, including the study's cross-sectional design with a one-time survey data collection, which does not allow for causality, and as with all self-report surveys, common-methods and recall bias are possible. While directionality and causality cannot be directly implied, the results of the study are informative. In Study I, the students that possessed the most personal and environmental resources were also the students most likely to be in a flourishing positivity category. Conversely, those students that reported the least amount of these internal and external resources were the students found in the depressed positivity category. Therefore, based on the present study's results, there is a link with regard to the direction of the findings. And while these findings may not be directly applicable to private or co-educational schools, they do provide research on a growing educational movement. While the environment (i.e. school) was not measured directly, the single-gender school setting may have provided more continuity for its students.

Even though lower income and/or minority adolescents may not be able to directly alter their home, neighborhood, and community surroundings, nurturing their receptiveness to a more positive perception of their environment could be powerful enough that they in turn begin to change their environment.

Significance

Given the unique setting of this single-gender public school, these results may not be directly applicable to adolescent males or those students attending a coeducational and/or private school. However, with the increasing trend of single-sex public education and the increase of adolescent resilience research, one contribution of this study was to this unique subset of youth education and resiliency literature. Specifically, in this study, the question of whether various personal and environmental resources differentiate among groups of positivity ratios was examined. Further, through this study, insight was provided regarding to the moderating effect of resilience on the relationship between stress and depressive symptoms of ethnically diverse female adolescents in the middle and high school setting. Unlike traditional research on adolescent resilience, which may focus solely on individual assets and family-level resources (Fergus & Zimmerman, 2005), incorporated into this study were school, significant other, and community-level resources that are often overlooked. Positive youth development was utilized in the present study, and the limited research of the broaden-and-build theory of positive emotions in the adolescent population was expanded upon as well. Until recently, this theory has had only limited research among young people. These frameworks served as guides for the studies, and the resulting information provides support for resilience

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education programs in schools and possible program planning/curriculum development

for lower SES, minority adolescent females, their schools, and communities.

<div align="center">**Definition of Terms**</div>

Depressive Symptoms. Depressive symptoms show the degree to which an

individual is experiencing symptoms generally associated with depression, such as

depressed mood, feelings of worthlessness, helplessness, and guilt (Radloff, 1977).

Environmental Resources. Sources of social or environmental support that one

perceives as received from his or her surrounding network. These supportive resources

can be drawn from one's school, neighborhood, family, peers/classmates, teachers,

coaches, counselors, and significant others (Zimet, Dahlem, Zimet, & Farley, 1988). The

three environmental resources examined in this study were support from

family/friend/significant, school connectedness, and community connectedness.

Family/Friend/Significant Other Support. Perceptions of social support from

family, friends, and significant others (e.g., teacher, counselor; Zimet et al., 1988).

School Connectedness. School connectedness refers to students' experiences of

closeness and belonging to others at their school (Loukas, Roalson, & Herrera, 2010).

Community Connectedness. Community support represents the larger support

system of one's physical environment. This can include community centers, churches,

one's neighborhood, and other factors in the built environment (Gartland, Bond, Olsson,

Buzwell, & Sawyer, 2011).

Personal Resources. Personal resources are the sources of support that one

receives from himself or herself, including a sense of autonomy, a sense of life purpose,

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and hope (Bernard, 1995; Snyder et al., 1997). The three personal resources used in this study were hope, resiliency, and percent adaptive coping.

Hope. Hope is comprised of two components: "the belief in one's capabilities to produce workable routes to goals (the pathways component), as well as the self-related beliefs about initiating and sustaining movement toward those goals (the agency component)" (Snyder et al., 1997, p. 401). Higher levels of hope reflect increasing levels of both pathway and agency thinking about particular goals. According to Snyder et al. (1997), both the pathway and the agency component must be assessed together to gather the overall sense of hope in youth.

Resilience and Resiliency. Resilience refers to a dynamic process of positive adaptation within the context of adversity (Luthar et al., 2000). Resiliency is used to describe a personal characteristic in youth that, despite high risks, are able to overcome odds, experience better-than-expected outcomes, and are able to bounce back and recover from stress (Werner & Smith, 2001; Smith et al., 2008).

Percent Adaptive Coping. Percent adaptive coping refers to the ratio of how frequently an individual engages in effective or adaptive coping mechanisms in relation to how often an individual engages in ineffective or maladaptive coping mechanisms. Adaptive coping includes acceptance, active coping, emotional support, instrumental support, planning, and positive reframing. Maladaptive coping includes self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame (Carver, 1997).

Moderation. The moderation effect, also known as a buffering, protective, or modifying effect, indicates an interaction between two variables. The impact is such that

the effect of an independent variable on a dependent variable is influenced by an outside independent variable. A moderating effect is tested by regressing the dependent variable on the interaction term of the two independent variables.

Figure 1.   Conceptual model of M acting as a moderating variable in the relationship between X and Y (Fergus & Zimmerman, 2005).
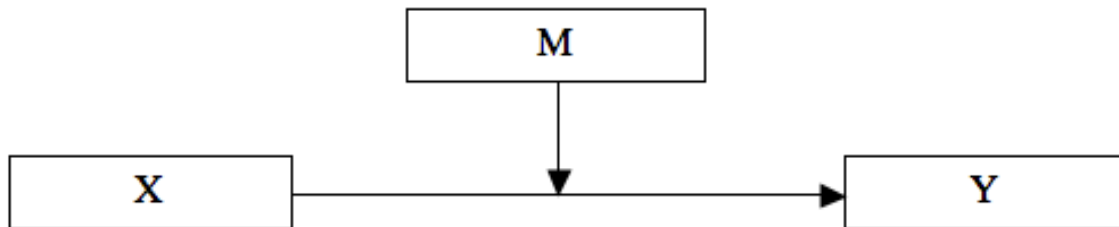
Negativity Bias. Negativity bias is the concept that individuals weigh negative emotions more so than positive emotions such that "bad is stronger than good" (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001).

Negative Emotions. Negative emotions can be understood as evolutionary adaptations to threats of our ancestral survival. These emotions are associated with urges to act in particular ways and embody specific physiological changes (i.e., increased blood flow to flee from danger). Examples of negative emotions include anger, fear, and disgust (Fredrickson, 2003).

Perceived Stress. Perceived stress is a measure of the degree to which one's life situations are deemed as stressful, unpredictable, uncontrollable, and/or overwhelming (Cohen & Williamson, 1988).

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Positive Emotions. Unlike negative emotions that prompt immediate action, positive emotions are subtle responses, feelings, or reactions to everyday circumstances. These emotions act as markers for a state of flourishing or optimal well-being. Examples of positive emotions include interest, hope, and joy (Fredrickson, 2003).

Positivity Offset. Positivity offset refers to the notion that individuals are likely to feel at least mild positive emotions the majority of the time and that most individuals tend to perceive neutral situations as slightly positive (Cacioppo, Gardner, & Berntson, 1999).

Positivity Ratio. Positivity is defined as the ratio of experienced positive to negative emotions. A positivity ratio at or above 3 to 1 is considered to be reflective of a flourishing life. A positivity ratio between 1 to 1 and 3 to 1 is indicative of languishing or lacking fulfillment (Fredrickson, 2008). Lastly, positivity ratios less than 1 to 1 suggest the individual is experiencing depressive symptoms and may have clinical depression (Fredrickson & Losada, 2005; Fredrickson, 2009).

CHAPTER TWO: REVIEW OF LITERATURE

Over the past 30 years, stress among adolescents has been on the rise (Ryan-Wenger, Sharrer, & Campbell, 2005). With changing political, social, and environmental issues, today's youth experience greater rates of homelessness, teen pregnancy, and violence. Drug availability, school demands, new diseases, and the threat of war (Masten & Coatsworth, 1998; Ryan-Wenger et al., 2005) all contribute to the rise of stress among adolescents. These challenging times have given cause for concern with regard to adolescent development and their general well-being. Unfortunately, the intrinsic stressors of adolescence, a developmental period marked by rapid maturational changes, shifting societal expectations, when coupled with the above challenges, leave many young people feeling helpless and without a sense of control or life direction (Fergusson & Woodward, 2002).

The formative years of adolescence are transitions of significant physical, emotional, and cognitive growth. Experiences in these years include rapid maturational changes, development of individual identity, establishment of sociocultural roles, environmental influences, shifting societal demands, and greater educational expectations (Blackwell, Trzesniewski, & Dweck, 2007; Brendgen et al., 2013). Given all this transformation at one time, many youth may find these years especially stressful, which may impact adolescents' ability to cope with and navigate this inherently tumultuous period. Young people from lower income families are more likely to face educational and mental challenges (Wadsworth et al., 2008). These stressors have been correlated

with school dropout rates and/or lower grade point averages, which are more prevalent in lower SES communities (Barton & Coley, 2009; Schaeffer, Akos, & Barrow, 2010). The decline in adolescent psychological well-being among lower income families has been well documented (Fergusson & Woodward 2002; Rew, Grady, & Spoden, 2012; Hurd et al., 2013).

Many young people experience psychosomatic symptoms such as depression and anxiety as they transition from middle to high school, which is an especially vulnerable time of development (Fergusson & Woodward 2002; Rew et al., 2012), particularly for ethnic minority students, as they may be disproportionately affected as a result of having fewer resources (i.e., financial or social). Further, studies show that youth from minority and/or lower income families are more likely to struggle in school (Schaeffer et al., 2010) and have lower levels of self-esteem (Wadsworth et al., 2008). Adolescent minority girls who perceive their family as low- or lower-income have been reported at risk for developing depression (Goodman, McEwen, Dolan, Schafer-Kalkhoff, & Adler, 2005), yet there are limited efforts and programs for minority female urban youth (Chandra & Batada, 2006). Research supports that the presence of various academic stressors is more extreme for lower-income students who lack social resources and educational materials such as school supplies (Dornbusch, Erickson, Laird, & Wong, 2001).

Much of the current research has focused on White (Fleming, Kim, Harachi, & Catalano, 2002) or African American youth (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). According to the literature, future studies should be conducted to include a variety of ethnicities such as Hispanic/Latino, Asian American,

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and Indian American. The deterioration of adolescents' psychological well-being is more apparent as they move from childhood to young adulthood, and this decline is magnified for lower-income minority females (Goodman et al., 2005; Hjemdal, Vogel, Solem, Jagen, & Stiles, 2011). It is indicated through the research findings that the adolescent minority female population subgroup is particularly in need of supportive resources to bolster psychological well-being (Hjemdal et al., 2011).

Adolescence: Stress and Depression

Identifying the pervasive nature of psychological stress is essential when considering ways to improve the psychological well-being of adolescent girls. Previous research indicates that unaddressed and/or unmanaged stress during the adolescent years can lead to depression (Sawyer et al., 2001; Seng et al., 2005). There have been noted gender differences in the literature with regard to how girls and boys perceive both personal and environmental support. Girls and boys experience comparable levels of support from teachers and parents (Demaray & Malecki, 2002), yet girls report feeling more peer support when compared to boys (Lupart, Cannon, & Telfer, 2004). Girls also perceive significantly more support from their close friends than from their general peer group (i.e., classmates; Rueger, Malecki, & Demaray, 2008). Support from their fellow students has been linked to lower levels of depression and improved social skills in adolescent girls (Colarossi & Eccles, 2003; Rueger et al., 2008). Furthermore, in co-educational schools, older students (i.e., high school) report lower levels of school engagement and school connectedness than younger students (i.e., middle school; Lupart et al., 2004). Most of an adolescent's day is spent at school or within the school

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community. Therefore, utilizing this setting is valuable when identifying personal and environmental resources that encourage the healthy development and well-being of female adolescents.

Biological and hormonal influences do play a role in the discrepancies between the sexes, as girls are more vulnerable to the genetic transmission of depression than boys (Lau & Eley, 2008). There is also a difference between boys and girls in the way they manage and respond to stress. Female adolescents have a stronger tendency for internalizing behavior (i.e., depression and anxiety) than for externalizing behavior (i.e., aggression) when compared to adolescent males (Nolen-Hoeksema & Girgus, 1994). Furthermore, girls tend to report lower scores on psychological strengths such as resiliency when compared to boys (Backer, Baka, Bennet, & Pierce, 2000). Recent studies suggest that females experience a "triple threat" with regard to depressive symptoms when compared to their male counterparts (Seng et al., 2005; Von Soest, Mossinge, Stefansen, & Hjemdal, 2010). These three vulnerabilities include (a) chronic social stress, (b) greater likelihood of rumination when experiencing stressors, and (c) possessing a lower sense of personal control or mastery of life (Hjemdal et al., 2011). Researchers encourage adaptive coping skills for young girls during these transitional years as ways to at least manage, rather than fully master, life stressors. The stated findings in the literature direct further researchers to examine the relationship between these adaptive behaviors and other factors that may impact overall wellness in lower-income adolescent girls (Von Soest et al., 2010).

Positive Youth Development

The field of positive youth development focuses on "each and every child's unique talents, strengths, interests, and future potential" (Damon, 2004, p. 13). PYD has been defined as an intentional, pro-social approach that engages youth within their communities, schools, organizations, peer groups, and families in a dynamic way. At the core, PYD is a framework for utilizing and enhancing youths' strengths while promoting positive outcomes for young people by providing opportunities, fostering affirmative relationships, and supplying the support needed to build on individual strengths. Such opportunities include learning and participating at home, at school, in their neighborhoods, and in community-based programs (Lerner, Dowling, & Anderson, 2003). This framework is founded on a body of research that suggests certain supportive factors or positive influences help young people succeed and keep them from developing negative outcomes such as drug and alcohol use, poor attendance, and school dropout (FYSB, 2013). According to research on PYD, young people may have fewer behavioral problems and be better equipped for transitioning successfully through the adolescent years when they have a diverse support system. Specifically, the factors that protect youth and guide them on a path of achievement include family support, caring adults, positive interactions with peer groups, and having a strong sense of self-worth (Lerner et al., 2012).

Evidence gathered over the past decade supports the use of the PYD framework in adolescent settings (i.e., schools, youth centers, after-school care). According to the Family and Youth Services Bureau, PYD programs were most successful when they

provided youth with both psychological and emotional resources (FYSB, 2013).

Opportunities for growth allowed youth to expand their positive social values and norms

while building confidence in their unique skills and abilities. PYD enabled adolescents to

successfully navigate their environments with the support of their families, schools, and

communities.

Unfortunately, research reports that only four out of 10 young people are said to

be "doing well" and that a majority of youth in the United States are not hopeful,

engaged, or thriving (Luthar et al., 2000; Lopez, Agrawal, & Calderon, 2010). The

premise of PYD builds upon the positive attributes adolescents need in order to flourish

(Benson, Scales, Hamiliton, & Sesma, 2007), whereas traditional youth programs have

"focused on problems that some young people encounter while growing up" (Damon,

2004, p. 14). Such problems include learning disabilities, antisocial conduct,

psychosocial crises caused by puberty, risks of neglect, and economic deprivation

(Damon, 2004). This negative "problem-centered" approach toward young people has

prevailed among most of the adolescent development studies (Damon, 2004), yet over the

past two decades, the more affirmative approach of PYD has been utilized as a means for

enhancing adolescent improvement and success. This viewpoint focuses on the potentials

of young people rather than the speculative deficiencies, especially those youth from

impoverished families with troubled pasts. While crediting the strengths of young

people, researchers, practitioners, and funders determined that promoting positive skills

would ensure healthy adolescent development. As a result, the youth development field

began examining adolescents' personal and environmental resources and how these

resources can help the young person overcome adversity. These resources include, but are not limited to, family encouragement, nurturing adult mentorship, psychological strengths, supportive peer groups, and a strong sense of connection to both school and community. Young people possessing some of these attributes, including the personal characteristic of resiliency, are better able to rebound from challenging situations while experiencing more positive emotions and outcomes (Rew et al., 2012). Interactions involving "supportive peers, positive teacher influences, and opportunities for success," academic or otherwise, have been directly linked to resiliency in adolescents (Olsson et al., 2003, pp. 7-8). The role that positive emotions have on promoting pro-social behaviors and the powerful influences these emotions and behaviors exhibit on adolescent culture have been established (Froh, Sefick, & Emmons, 2008). In particular, the positive emotion of hope has been reported as the spark to positive youth development (Lopez & McKnight, 2002), such that hope ignites and sustains positive life energy and encourages reaching future life goals (Snyder, 2000). According to researchers, adolescents that have a variety of sources for personal and environmental support, have more future orientation and positive life trajectories (Benson et al., 2007). PYD is an appropriate framework for the present study in that it encompasses both the personal and environmental resources unique to adolescents during their developmental years.

Adolescent Resilience

While there is no unanimously agreed upon definition, resilience refers to the process of positive adaptation despite significant life adversities (Luthar, 2003) and has

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been described as a reduced vulnerability to environmental risk experiences, the overcoming of a stress or adversity, or a relatively good outcome despite risk experiences (Masten, 1994; Rutter, 2006). Further, resilience theory posits that youth who successfully adjust to their stressful situations and demanding environments do so because they have personal resources (Masten et al., 1995; Rew et al., 2012). Resiliency is a personal characteristic that can aid in lessening the impact of a negative outcome (Rutter, 2012).

Adolescent resilience research focuses on functionality, specifically behaviors of competence in youth who have experienced some kind of stress or have been exposed to risk (Olsson et al., 2003). After a great deal of cross-study variation in the diverse psychosocial outcomes that researchers deem an appropriate representation of resiliency during adolescence, the most commonly found are "good mental health, functional capacity, and social competence" (Olsson et al., 2003, p. 2). The most common resiliency characteristics include the adolescent and his or her own unique set of strengths (i.e., internal or personal), as well as the surrounding (i.e., external or environmental) factors that support adolescents. Some examples of these environmental factors include a nurturing family and home unit, a connected school setting with encouraging teachers, and a close-knit community (i.e., neighborhood, church, after-school programs; Garmezy, 1991; Werner, 1995; Colarossi & Eccles, 2003). Developing individual strengths while experiencing supportive interactions and relationships is what enables a young person's growth and ability to flourish. It is important to examine adolescents' use of their resources among the various social ecological realms (i.e., individual, family, school,

peers, and community), as they provide efficacy for interventions at the personal and environmental levels. These supportive relationships enable youth to broaden their skill set and build resources that may buffer inevitable adolescent stressors.

The Broaden-and-Build Theory of Positive Emotions

It is known by cognition and emotion theorists that emotions are short-lived experiences that prompt synchronized changes in individuals' thoughts, actions, and physiological responses (Lazarus & Folkman, 1984; Frijda, 1988; Lazarus, 1993; Levenson, 1994). During these experiences, precise action changes permeate both body and mind. While negative emotions have a narrowing effect on one's attention, focus, and cognition when handling an immediate problem (Carver, 2003; Cosmides & Tooby, 2000), positive emotions bring about expansive thoughts and actions that broaden and encourage new experiences (Fredrickson & Branigan, 2005). These two states of emotion are distinct yet complimentary. Researchers have proposed that positive emotions are evolutionary adaptations that function to build up lasting resources, a concept that is known as the broaden-and-build theory of positive emotions (Fredrickson & Cohn, 2008). This theory posits that positive emotions can actually assist in one's personal growth and development (Fredrickson & Cohn, 1998, 2001). Experiencing positive emotions, like interest or hope, prompts states of mind and modes of behavior that ultimately prepare an individual for upcoming times of challenge (Fredrickson & Joiner, 2002). These emotional experiences help develop personal resources (i.e., resiliency) and social resources (i.e., friendships and community connections) that over time can improve one's well-being (see Figure 2; Fredrickson, 1998, 2001).

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Figure 2.   The broaden-and-build theory of positive emotions demonstrating the regenerative or cyclical effect of positive emotions (Masten, 2001; Cohn & Fredrickson, 2009).
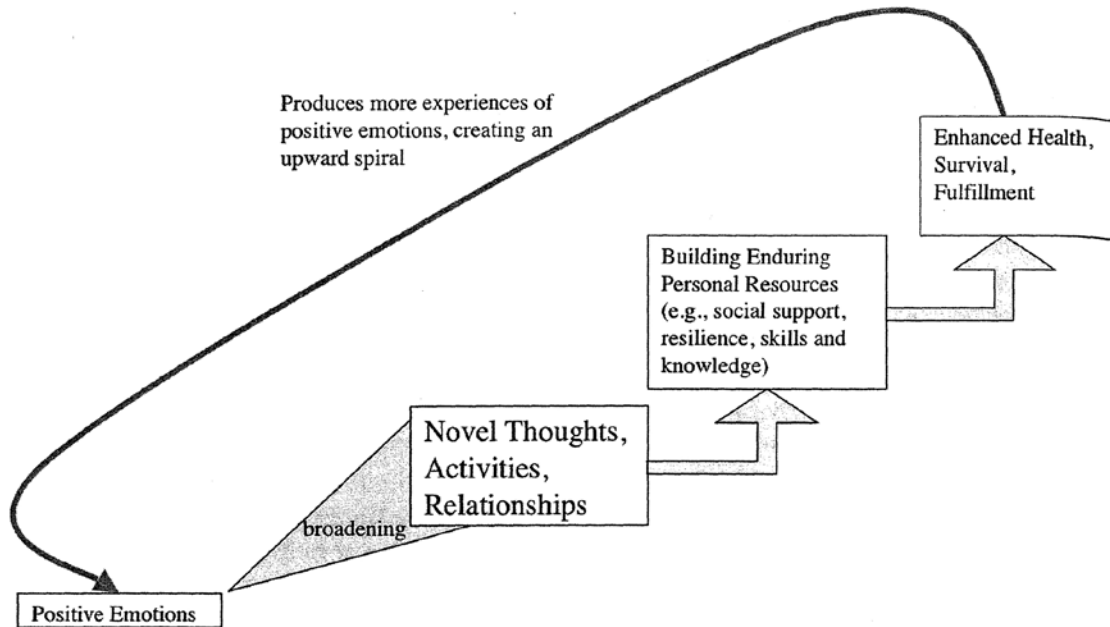
The Broaden Hypothesis

One central hypothesis of this theory is the broaden hypothesis. This hypothesis states that specific positive emotions can broaden the scope of cognition and attention leading to an expanded outlook of thoughts and actions of the mind (Fredrickson, 1998; Fredrickson & Branigan, 2001, 2005; Fredrickson & Cohn, 2008). The contrast to this broadening state is experienced with negative emotions (i.e., fear, worry) that narrow one's "thought-action repertoire" (Fredrickson, 1998). Positive emotions can open one's mind, thoughts, and possible options when dealing with a stressful situation. These broadened parameters provide a greater scope of options for navigating challenging experiences. While positive emotions can occur in stressful situations, the typical context

of experiencing positive emotions is in familiar and nonthreatening day-to-day settings like a school, home, or community setting.

The Build Hypothesis

The second tenet of this theory is the build hypothesis. It has been predicted that individuals who have increases to their experience of positive emotions will grow by building personal resources (Fredrickson, 1998, 2001, Fredrickson & Branigan, 2005). As an individual broadens his or her thoughts and outlook, that person is more likely to cultivate social resources like friends and personal resources like resiliency. It is further hypothesized that the expansion of these resources would allow individuals fuller life experiences while reducing mental and emotional fatigue such as depression (Fredrickson, Cohn, Coffey, Pek, & Finkel 2008; Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Cohn & Fredrickson, 2009). Healthy outlets for managing stressors include adaptive coping, positive reframing, and utilizing social support (Carver, 1997; Luthar et al., 2000; Hurd et al., 2013).

It is indicated through adolescent research that building both psychological and social connections can predict future well-being (Gillham et al., 2011; Hurd et al., 2013). Research findings support positive emotions' role in promoting pro-social behaviors and the powerful influences they have on the adolescent culture, school environment, and community (Froh, Sefick, & Emmons, 2008). Further, the social contact from supportive relationships generates more positive emotions, which in turn restrengthens bonds (Fredrickson, 2000), thus creating a powerful reciprocal effect. Individuals who are skilled at self-generating positive emotions are also more likely to have the personal

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characteristic of resiliency (Tugade & Fredrickson, 2004). This interpersonal upward spiral (see Figure 2) creates lasting reserves of positive emotions, psychological strengths, and social resources (Fredrickson, 2000; Cohn & Fredrickson, 2009).

Previous research findings suggest that students with higher levels of positive emotions such as hope and gratitude tend to have lower levels of depression and are better able to manage stressors (Snyder et al., 1997). It has been established that positive emotions are helpful in managing stress (Fredrickson, Tugade, Waugh, & Larkin, 2003; Folkman & Moskowitz, 2004) and can provide assistance during difficult times (Tennen & Affleck, 2002; Algoe & Stanton, 2009). It is further indicated through adolescent research that building psychological strengths such as resiliency can predict future well-being and may provide a buffering effect against potential stressors (Gillham et al., 2011).

The Positivity Ratio

Utilizing a mathematical model, researchers have calculated a ratio of positive-to-negative emotions that can predict different states of quality of life (viz., flourishing, languishing, and depression; Fredrickson & Losada, 2005). While there has been recent critique of the mathematical modeling of this ratio (Brown, Sokal, & Friedman, 2013), what is not debated is that flourishing is associated with higher positivity ratios than is nonflourishing (Fredrickson, 2013). Further, for nearly the past decade, this positivity ratio has been associated with general well-being such that higher ratios signify flourishing with personal growth and resiliency (Fredrickson & Losada, 2005; Losada & Heaphy, 2004).

The ratio of positive to negative emotions must be greater than 1 to 1 for humans to function optimally. The balancing act between positive and negative emotional states is founded on two psychological phenomena known as positivity offset and negativity bias. The first phenomenon is positivity offset, which states that individuals tend to experience everyday life occurrences as somewhat positive (Cacioppo et al., 1999). Daily human functioning has been determined as a ratio of approximately 2 to 1 (Fredrickson & Losada, 2005). The second psychological phenomenon is negativity bias, or the notion that "bad is stronger than good." This infers that more positive emotions must be experienced to surmount the detrimental effect of negative emotions (Baumeister et al., 2001).

Similarly, with the positivity offset and negative bias phenomena, the broaden-and-build theory utilizes a nonlinear dynamic mathematical model (Losada, 1999). This model infers that a ratio of approximately 3 positive emotions to every 1 negative emotion is the tipping point at which human flourishing manifests. Flourishing refers to the state of having a sense of fulfillment and the ability to adapt well to adversity. Individuals experiencing above a 3 to 1 ratio receive the benefits of positive emotions at a proportion that prompts the growth of personal characteristics of resiliency and creativity (Garland et al., 2010). Conversely, a positivity ratio below 3 to 1 designates an individual to be languishing, feeling unsatisfied or finding life unfulfilling (Fredrickson, 2008). Lastly, a positivity ratio less than 1 to 1 suggests an individual is experiencing clinical depression (Fredrickson, 2009).

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Each positive emotion (i.e., gratitude, pride, and joy) is a process and has the possibility to broaden individuals' mindsets and inspire the next positive emotion, thereby creating an upward spiral (Figure 2). By creating chains of affirmative events that carry encouraging meaning for others, positive emotions can spark "upward spirals that transform communities into more cohesive, moral, and harmonious social organizations" (Fredrickson, 2003, p. 335). Research findings suggest that human flourishing works in a multidimensional system in which one or more tipping points exist and can cause properties of the system to suddenly change. For adults, the tipping point of the positivity ratio has been previously established (Fredrickson 2003; Fredrickson & Losada, 2005), yet for adolescents, it is currently unknown at what ratio this tipping point exists.

Embracing the PYD framework as a foundation for introducing the broaden-and-build theory with its associated positivity ratio can maximize factors, such as personal and environmental resources, among the adolescent female population. It was hypothesized that the role of positive emotions, nurtured by personal and environmental resources, would support the management of inevitable adolescent life stressors and would lessen associated psychological challenges. One aim of this study was to examine whether personal and environmental resources differentiate students as flourishing, languishing, or depressed. It was expected that students with a flourishing positivity ratio would have higher rates of personal and environmental resources than students who have a languishing positivity ratio, and that languishing students would report more resources than students in the depressed positivity ratio category. Given the established foundation

of PYD with adolescent programs (Damon, 2004) and the successful use of the broaden-and-build theory in other populations (Fredrickson & Branigan, 2005; Fredrickson & Losada, 2005; Faulk et al., 2012), it was advantageous to couple PYD with the broaden-and-build theory in order to examine the interwoven relationships between adolescence, positive emotions, and supportive resources.

<center>**Personal and Environmental Resources**</center>

It has been well established that various personal and environmental resources buffer the effects of daily stressors on adolescent health (Cohen & Wills, 1985; Plancherel, Bolognini, & Halfon, 1998). Personal resources (i.e., resiliency) and environmental resources (i.e., social support) are known as supportive factors. Empirical findings report that the negative effects of stress, which deplete psychological well-being, are less detrimental for adolescents who have higher levels of personal and environmental sources of support compared to youth with fewer sources of support (Plancherel et al., 1998; Colarossi & Eccles, 2003; Rueger et al., 2010).

According to the social ecological model, health promotion interventions that diffuse among the individual level, the family/peer level, and the societal level are the most successful at reaching adolescents (Bronfenbrenner, 1994; Luthar et al., 2000; Goodman, Huang, Wade, & Kahn, 2003, Hurd et al., 2013). For the present study, three resources were used as markers for adolescent personal resources (viz., hope, resiliency, and percent adaptive coping), and three resources were used to account for environmental resources (viz., family/friend/significant other support, school connectedness, and

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community connectedness). Collectively, these resources serve as the dependent variables in Study I and are discussed further below.

Personal Resources

Personal resources are defined as resources that individuals believe they possess and are considered characteristics that provide the individual with an internal source of strength and steadfastness (Luthar et al., 2000). Previous research has identified such adolescent characteristics as internal motivation, temperament, autonomy, resiliency, and adaptive coping skills (Zolkoski & Bullock, 2012). It has been documented that adolescents who are particularly skilled at self-generating positive emotions, such as hope, also tend to report higher levels of resiliency (Tugade & Fredrickson, 2004). Past research findings have encouraged the examination of hope in adolescence, as it provides a sense of buoyancy for youth and is predictive of many positive outcomes like elevated levels of self esteem and autonomy (Snyder et al., 1997; You el al., 2008; Day, Hanson, Maltby, Proctor, & Wood, 2010). Further, when coupled with healthy coping outlets (i.e., positive reframing), hope has been correlated with lower depressive symptoms (Edwards, Rand, Lopez, & Snyder, 2002).

Resilience "refers to patterns of positive adaptation in the context of significant risk or adversity" (Luthar, 2003, p. 4). Successful adaptation is indicative of a greater set of helpful skills such as problem solving, self-sufficiency, and resource utilization. Examining percent adaptive coping is important, as it brings to light the amount of time an adolescent spends engaged in functional coping modalities as opposed to dysfunctional coping modalities. It has been noted that adolescents demonstrating

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maladaptive coping methods are more likely to display psychological concerns such as depressive symptoms and lower levels of perceived social support (Chen, Rubin, & Li, 1995).

Hope

According to Snyder's (1997) hope theory framework, hope represents ideas and vigor for one's future, a construct that provides direction and motivation for adolescent goals (Lopez et al., 2010). Hope is a "cognitive set involving the belief in one's capabilities to produce workable routes to goals (the pathways component), as well as the self-related beliefs about initiating and sustaining movement toward those goals (the agency component)" (Snyder et al., 1997, p. 401). Higher levels of hope reflect increasing levels of both pathway- and agency-thinking about particular goals. Both the pathway and the agency component must be assessed together in order to determine the overall sense of hope in youth (Snyder et al., 1997). This comprehensive definition offers the advantage of being built explicitly on the agency and pathways for which goals are established and pursued. Previous research points to hope's role in regulating emotions and coping with stress (Irving et al., 2004) and high levels of hope have been shown to promote well-being (You et al., 2008).

Positive psychology researchers have been directing more attention to the role that hope and life purpose have on individual thriving (Bronk, Hill, Lapsley, Talib, & Finch, 2009). Adolescents are psychologically "healthier" when they possess a sense of hope and future life direction than their peers who do not have this outlook (Shek, 1993). Erikson's (1968) early research provides the foundation for the idea that young people

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with hope are guided through the difficult period of adolescence. Hope assists

individuals' displaying resiliency in their ability to recover effectively from daily

stressors (Ong, Bergeman, Bisconti, & Wallace, 2006; Gilman, Dooley, & Florell, 2006).

When adolescents are exposed to challenges, youth with high levels of hope are

able to find pathways to reach their goals. They are also able to find positive outlets with

the encouragement of significant role models and supportive relationships (i.e., parents,

teachers, caregivers, or peers) while staying "mentally energized" for attaining their goals

(Kliewer & Lewis, 1995, p. 513; Froh et al., 2008). Studies report that low levels of hope

are predictive of depression (Kwon, 2000); conversely, high levels of hope have been

associated with lower levels of depression (Snyder et al., 1997; Edwards et al., 2002).

Previous research findings indicate that adolescents reporting high levels of hope are

positively correlated with psychological measures of positive adjustment (Snyder et al.,

1997; Edwards et al., 2002) and that hope is a psychological strength that can modify the

relationship between difficult life experiences and well-being (Valle, Huebner, & Suldo,

2006). According to Schmid and Lopez (2011), embedding hope within a theoretical

framework (viz., positive youth development) would allow researchers to examine the

mutually advantageous interactions between the developing adolescent and the

multilayered and interconnected levels of human psychosocial development.

Resiliency

Resiliency, a personal characteristic, can be a barometer for how successfully

youth cope with difficult times and may be indicative of their possessing other unique

skills and helpful resources. These associated attributes and adaptive processes include

"persistence, hopefulness, hardiness, goal directedness, healthy expectations, success orientation, achievement motivation, educational aspirations, a belief in the future, a sense of purpose, and a sense of coherence" (Bernard, 1991). Luthar (2003) refers to resilience as a general pattern one exhibit that displays positive adaptation to adverse situations, Masten (1994) notes resiliency as a reduced vulnerability to environmental risk experiences due to their personal resources, and Rutter (2012) describes resilience as a dynamic concept, one that is continually changing and evolving. This notion is particularly true during adolescence, as behaviors and general patterns are still being formed.

The resiliency framework includes personality, family, and social support systems for adolescents to express themselves and experience life (Zolkoski & Bullock, 2012). According to Luthar (2003), varying opinions circulate the resilience literature, yet the universal theme of resilience is that (a) youth have been exposed to or experienced some stressor or adverse situation, and (b) they have adapted positively. These youth are "able to lead more successful lives than expected despite being at greater risk than average for serious problems" (Brooks, 2006, p. 72).

Researchers Herman-Stahl and Peterson (1996) have proposed different categories for adolescents with regard to their personal level of resiliency, such as a well-adjusted category (low negative life events and low depression symptoms), a resilient category (high negative life events and low depression symptoms), and a vulnerable category (high negative life events and high depression symptoms). Their findings showed that the well-adjusted group reported higher levels of optimism, more active coping techniques, and

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healthier relationships than the other two groups (Herman-Stahl & Petersen, 1996). This study concluded that the personal resource of resiliency behaviors provides a stress-buffering outcome, thus protecting adolescents from the negative effects of stress on their psychological well-being.

Percent Adaptive Coping

Coping refers to a set of behaviors and attitudes that an individual may utilize to manage challenging internal or external demands (Siqueira, Diab, Bodian, & Rolnitzky, 2000). These coping strategies can be either adaptive or maladaptive. In adolescents, the "problem-solving" coping mode is considered functional or adaptive. Examples include seeking information or advice, accepting social support, and making efforts to solve the problem. Youth have expressed both adaptive (e.g., "confront the person stressing you") and maladaptive (e.g., "go to the nearest wall and hit it") coping responses to stress (Valentine, Buchanan, & Knibb, 2009, p. 257). In adolescents, as in adults, the "avoidant-coping" mode is considered dysfunctional or maladaptive, with behaviors including withdrawal or avoidance. Long-term maladaptive coping in adolescents has been linked to risky behaviors such as alcohol and substance abuse (Blumenthal, Leen-Feldner, Frala, Badour, & Ham, 2010) and psychological declines (Chen et al., 1995). Dysfunctional or maladaptive coping has been witnessed in adolescents with psychiatric concerns, depressive symptoms, low self-esteem, and low social-support satisfaction (Chen et al., 1995). Studies have investigated the coping behaviors of adolescents who are faced with large-scale stressors (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Hankin, 2005); however, less is known about how adolescents cope

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with normative, daily, or short-term stressors, such as stress from academic demands and relationships. In the present study, the association between perceived stress, personal and environmental resources, and psychological well-being was examined.

Environmental Resources

Given that adolescence is a time when young people are truly embedded in their environment, it is important to examine the role of the surroundings that impact youth. Adolescents spend much of their day at school and within the school community (Roeser, Eccels, & Sameroff, 2000), making this an ideal setting for infusing health-promoting programs among adolescents. Adolescent research findings report that environmental sources of social support provide a buffer against life stressors (McCorkle, Rogers, Dunn, Lyass, & Wan, 2008). Vulnerable youth who are connected with caring adults are protected from an array of poor developmental and health outcomes such as academic setbacks and a decline in feelings of self-worth (Shelton, 2003; Henrich, Brookmeyer, & Shahar, 2005; Appleyard, Egeland, & Sroufe, 2007; Hurd et al., 2013).

The social support realm is a multilayered construct that includes both the support received (i.e., informational, instrumental, and emotional) as well as the source of support given (i.e., family, friends, teachers). It has been established that adequate social support will offset or moderate the negative impact of stress on overall health, which is known as the stress-buffering effect (Plancherel et al., 1998). In adolescence, low levels of perceived social support have been associated with an increase in depressive symptoms (Compas, Slavin, Wagner, & Vannatta, 1986; Appleyard et al., 2007).

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Potential sources of supportive factors include the vast parameters of a youth's ecological circle, encompassing his or her "perceptions of family coherence, psychological sense of school membership, and community-level social support" (Haskett, Nears, Ward, & McPherson, 2006, p. 804). These positive relationships and emotional exchanges have benefits that extend beyond the individual. Previous research has shown that individuals experience more intense positive emotions when interacting with others (McIntyre, Watson, Clark, & Cross, 1991). The family network, school setting, and peer group are sources of support for adolescents as well as the adolescents' surrounding community.

Family/Friend/Significant Other Support

Interactions and experiences involving "supportive peers, positive teacher influences, and opportunities for success" were utilized as family/friend/significant other sources of support in the present study (Olsson et al., 2003, pp. 7-8). It is important to recognize that adolescents are embedded in many layers of social strata. A youth's environment is a broad system that sustains experiential resources of opportunities for growth and leadership, as well as human resources such as role models (Zimet et al., 1988; Hurd et al., 2013). These role models may include teachers and counselors within the school setting, as well as coaches, community center workers, helpful neighbors, church staff, and after-school leaders (Zolkoski & Bullock, 2012).

The literature is consistent in supporting the fundamental role parents play in the success of healthy adolescent development. Higher levels of parental and familial support have been correlated with lower depression levels (Colarossi & Eccles, 2003);

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conversely, lower levels of family or parental involvement have been linked to emotional troubles and psychological concerns (Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005). Further, research findings elucidate that peer support and parental/familial support are two distinct systems, and while both sources of support are valuable individually (Van Beest & Baerveldt, 1999), collectively they provide a more cohesive realm of social support.

The family-level factors, such as structure and cohesion (i.e., supportive parent-child interactions and stimulating environments; Zolkoski & Bullock, 2012) are foundational to youth development as children mature into adolescents. In addition to this, satisfaction with self and friends becomes increasingly important (Park, 2003). As an adolescent develops a closer relationship to another individual, this significant other can become a special person. This special person may be a best friend, a boyfriend/girlfriend, a teacher, or a counselor. Interactions with friends, peers, and significant others shape adolescent maturation as students develop caring and cooperative relationships with one another. By doing so, adolescents are reinforcing healthy connections and building a sense of community and support (Brendgen et al., 2013).

School Connectedness

School connectedness represents the students' experiences of closeness with others at their school and a sense of belonging. The association of school connectedness and the positive trajectory for youth development has been well established (Goodman et al., 2003; Loukas, Roalson, & Herrera, 2010; Bird & Markle, 2012). Some researchers suggest that being female, having minority status, lacking extracurricular activities,

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and/or being from an urban neighborhood have all been associated with lower rates of school connectedness (Bonny, Britto, Klostermann, Hornung, & Slap, 2000). Previous research states that students' level of connection to their school has been linked to fewer behavioral troubles (i.e., internalizing or externalizing; Brookmeyer, Fanti, & Henrich, 2006). The school environment has also been shown to buffer the negative impact of lower-income households on adolescent depressive symptoms by providing a sense of stability and routine (Goodman et al., 2003).

The partnership between the school and the family has been shown to be mutually beneficial (Davis & Lambie, 2005; Bryan & Henry, 2008). For example, families report feeling accepted into the school community and empowered to provide their children with necessary educational resources (Bryan & Henry, 2008). Familial support and parental involvement in their child's school has been shown to improve the quality of the school environment as well. Through the family-school partnership, teachers and faculty are able to motivate parents/guardians to be leaders in the school community, thus enabling them to take a proactive role in their child's education (Lindsey, Roberts, & Campbell-Jones, 2005).

A recent study found that students who practiced activating positive emotions, via hope and gratitude exercises, reported less negative feelings toward their school and a greater sense of connection to the school community (Bird & Markle, 2012). Since adolescents spend more time at school than they do in any other setting (Roeser et al., 2000), intervention efforts within this environment are advantageous. Previous findings suggest that future studies should incorporate nonparental adults, such as school

personnel and counselors, given the extent to which youth spend time in these educational locations (Rueger et al., 2010). Therefore, the school provides stable and supportive relationships that may not be present in a student's home life. Utilizing the PYD framework and the school community allows students to expand a sense of belonging and connectedness while building resources in a supportive environment (Pedrotti, Edwards, & Lopez, 2008).

Community Connectedness

Community connectedness is defined as support and a sense of belonging one feels toward his or her surrounding environment (i.e., neighborhood, school, church). Previous research has indicated this layer of the socioecological model as not thoroughly probed as a source of adolescent support (Leventhal & Brooks-Gunn, 2000; Goodman et al., 2003; Hurd et al., 2013). Neighborhood-level interventions promote positive youth outcomes, while neighborhood disorganization has been shown to negatively impact adolescent education and supportive parenting efforts (Bowen, Bowen, & Ware, 2002).

A phenomenon known as "neighborhood socioeconomic disadvantage" (NSD) has been correlated with young peoples' quality of life as they transition through the adolescent years (Drukker, Kaplan, Schneiders, Feron, and Os, 2013). Adolescents perceiving more NSD have lower levels of self-esteem, while adolescents perceiving less NSD have higher levels of self-esteem (Drukker et al., 2013). Within a stable and supportive neighborhood, adolescent involvement in the community can serve as a protector against stress and depressive symptoms (Dumont & Provost, 1999; Goodman et al., 2003), such that supportive communities and community relationships provide a

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buffer for at-risk adolescents, particularly among lower-income families (Hurd et al.,

2013).

CHAPTER THREE: STUDY I – PERSONAL AND ENVIRONMENTAL RESOURCES CHARACTERIZE FLOURISHING, LANGUISHING, AND DEPRESSED ADOLESCENT FEMALES

Abstract

Adolescence is a challenging time both developmentally and psychologically, particularly for girls. Utilizing the broaden-and-build theory, researchers have utilized a mathematical tipping point that predicts whether an individual is in a state of flourishing, languishing, or depression. This tipping point, known as the positivity ratio, was calculated as the ratio of one's experienced positive to negative emotions. Adolescent female students ($n = 484$) who were flourishing reported positivity ratios at or above a ratio of 3 to 1, while languishing students reported scores below 3 to 1, and students in the depressed positivity category reported a ratio below 1 to 1. Implementing the broaden-and-build theory within the positive youth development framework, this study was designed to examine the resources, both personal (viz., hope, resiliency, percent adaptive coping) and environmental (viz., family/friend/significant other support, school connectedness, community connectedness), that characterize three different levels of positivity (viz., flourishing, languishing, depression). Using a multivariate analysis of covariance (MANCOVA) after controlling for demographic variables, the students with the highest positivity scores considered to be in a state of "flourishing" reported the most personal and environmental resources. The students reporting a moderate amount of resources had positivity ratios that considered them to be "languishing," while students

reporting the lowest amounts of resources were found to be in a "depressed" ratio of positivity.

Keywords: adolescent, females, resiliency, hope, positive emotions, social support

Introduction

The adolescent years are a developmental period marked by rapid maturational changes, shifting societal expectations, and conflicting role demands. Adolescence includes the teenage years between 13 and 19 and can be considered a tumultuous transition period from childhood to adulthood (Cohen, Kasen, Chen, Hartmark, & Gordon, 2003). However, research suggests that puberty onset now begins prior to the teenage years, during ages 9-12, and this has been a normative shift occurring in preadolescence, particularly in females. The physical and psychological changes that occur in adolescence and preadolescence, or the pre-teen or "tween" years can be a time of both disorientation and discovery, as the transitional period can evoke issues of independence and self-identity (Cohen et al., 2003). These unfolding situations can be psychologically challenging, and many adolescents experience a decline in their general well-being (Dumont & Provost, 1999; Grant et al., 2004b; Duckworth, Kim & Tsukayama, 2013). Adolescent females have a greater risk for psychological challenges compared to their male counterparts during adolescence, and by the age of 15, girls are twice as likely to suffer from depression as boys (Brizendine, 2006).

Adolescent females from lower-income families with limited resources may be at greater risk of school failure and depressive symptoms (Garcia-Reid, 2007). According to the American Association of University Women Educational Foundation, this

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information is of particular significance during the school years, as adolescent females may come to school lacking the necessary resources for successful participation, which not only hampers their classroom interaction with peers and teachers, but also challenges their capacity to think critically about themselves and their place in society (AAUWEF, 2012). Further, minority adolescent females who dropped out of school were more likely to experience higher rates of unemployment, earn less when they were employed, and suffered disproportionately from mental health problems like depression when compared to non-minority adolescent girls (Garcia-Reed, 2007). However, it is suggested in the literature that when low-income minority females are assisted in developing themselves through active participation with positive school and family networks, they are encouraged to consider a wider set of educational and career choices (Garcia-Reed, 2007; Richards & Huppert, 2011; AAUWEF, 2012).

Researchers have evaluated many programs that address specific issues such as substance abuse prevention, school dropout, and behavioral issues, utilizing a PYD framework. There is confirmation that PYD programs can prevent a variety of risk behaviors among young people and improve social and emotional outcomes. Given the rise of adolescent depression rates among minority lower SES females, PYD provides a valuable framework for developing supportive relationships with the self and with others (Richards & Huppert, 2011). It has been concluded through the findings of this framework that adolescent well-being predicts positive adult well-being, and not just the "absence of mental ill-health" (Richards & Huppert, 2001, p. 75). This conclusion

strengthens the likelihood for a positive trajectory of flourishing youth to continue into adulthood.

The PYD framework posits that youth who cultivate their own unique resources and have access to resources in their surrounding environment experience more successful development. Resources from adolescents' environment include the school setting, supportive teachers, and positive connections with peers. This supportive youth perspective pairs nicely with the findings from the field positive psychology research over the past 20 years, which led to the development of the broaden-and-build theory (Fredrickson, 1998, 2003). This theory postulates that experiencing frequent positive emotions serves to broaden one's thoughts and behaviors, resulting in an accrual of resources, including coping resources, which provides the catalyst for creating upward spirals toward future well-being (Reschly et al., 2008). The broaden-and-build theory states that these resources are cultivated and supported within the individual and from his or her supportive environment.

Frederickson and colleagues have shown that positive emotions actually enhance one's psychological development, which is especially important during the adolescent years (Fredrickson, 2009). Specifically, individuals who are able to self-generate positive emotions are better at recovering from adversity (Luthar et al., 2000; Fredrickson, 2009). It would be worthwhile to further examine the role of personal resources among the adolescent population, such as positive emotions and the personal characteristics of resiliency. Fredrickson and colleagues' extensive research on the proportion of one's experienced positive and negative emotions, known as the positivity ratio, is predictive of

determining individuals who are flourishing, languishing, or depressed (Fredrickson & Losada, 2005; Fredrickson, 2008; Fredrickson, 2009). This ratio is calculated by using a mathematical tipping point in which positive to negative emotions are noted to establish flourishing or thriving (Fredrickson & Losada, 2005). While there has been recent critique of the mathematical modeling of this ratio (Brown, Sokal, & Friedman, 2013), what is not in question is that higher positivity ratios are indeed associated with many advantageous outcomes, including thriving psychological health (Fredrickson, 2013). Specifically, individual thriving or flourishing is in fact associated with higher positivity ratios than individual nonflourishing or nonthriving (Fredrickson, 2013). Further, for nearly the past decade, this positivity ratio has been associated with general well-being such that higher ratios signify flourishing with personal growth and resiliency (Losada & Heaphy, 2004).

The tipping point from languishing to flourishing occurs when positivity ratios are 3 to 1 or higher, at which point individuals report "bouncing back" from stress more effectively. Languishing individuals report ratios between 1 to 1 and up to 3 to 1 and tend to feel unsatisfied with their lives. Depressed individuals report positivity ratios at or below 1 to 1, experiencing negative emotions more frequently than positive emotions (Fredrickson & Losada, 2005). Cutoff scores for the positivity ratio subscales have yet to be validated in an adolescent population, so the thresholds commonly used for adult populations were implemented in the present study (Frederickson, 2003), as this was the first study to utilize the positivity ratio among adolescents.

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Unlike negative emotions that trigger a sudden change, positive emotions work over an extended period of time. Fredrickson (2005) found that while each positive emotion by itself would most likely not dramatically change a person's life, a steady daily "diet" of positive emotions could. As moments of positivity accumulate over time, these moments inspire creativity and open individuals to new situations and relationships, which align with the tenets of PYD. These cumulative and affirmative emotions broaden an individual's mindset and expand that person's worldview, which therefore makes that individual more apt to try new experiences (Fredrickson & Branigan, 2005). From these new experiences, individuals build resources that sustain even after the positive emotion has gone away. The individual has experienced the benefit of the emotion(s), which he or she can later bring to mind and receive the same benefit via the memory, thus increasing the ability to self-generate positive emotions. Adolescents who are able to self-generate positive emotions are also better at bouncing back from adversity (Reschly et al., 2008). As supported by the PYD literature, these positive experiences can help adolescents build up their reserves of personal resources, such as healthy coping patterns and behaviors, which will encourage their skill set to better react to hard times and grow from the challenge. When adolescents experience positive emotions via supportive relationships (i.e., family members, classmates, teachers) or feelings of accomplishment (i.e., pride, autonomy, self mastery), they are more receptive to other resources, both psychological and interpersonal. These resources fill the "life skills toolbox" which can be drawn upon during or prior to stressful situations or even in neutral situations (Park, 2004).

More investigating is necessary to uncover the application of the positivity ratio and the benefits it may provide to youth. There is limited use of the broaden-and-build theory with adolescents (Reschly et al., 2008), and no research has been collected implementing the positivity ratio criterion with adolescents. Previous research utilizing aspects of the broaden-and-build theory was implemented by exploring the role of positive emotions experienced during school time, the use of positive coping strategies, and student engagement among middle and high school students (Reschly et al., 2008). As the researchers hypothesized, "frequent positive emotions during the school day were associated with higher levels of student engagement, while frequent negative emotions were associated with lower levels of engagement" (Reschly et al., 2008, p. 419). Further, the positive emotions were associated with adaptive coping behaviors and stronger social relationships such as classmate connections, essentially confirming the broaden-and-build hypotheses. The present study was designed to expand on this research to include the positivity ratio criterion in differentiating students' levels of both personal and environmental sources of support.

The purpose of this study was to examine if the positivity ratio criterion would significantly differentiate levels of personal and environmental resources among groups of female students who are classified as flourishing, languishing, or depressed as categorized by the broaden-and-build theory of positive emotions using the aforementioned tipping points. It was hypothesized that students with a flourishing ratio would have higher levels of both personal (viz., hope, resiliency, and percent adaptive coping) and environmental (viz., family/friend/significant other, school connectedness,

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and community connectedness) resources compared to languishing and depressed

students. It was hypothesized that languishing students would have higher levels of

personal and environmental resources than would depressed students.

Methods

Participants

Participants were students at an all-girls public middle and high school. At the

times of this study, this public school enrolled just under 700 students in grades six

through 12, ranging in ages from 11 to 18 years. The ethnic distribution was

predominantly minority, with 55% Hispanic, 25% Caucasian, 17% African American,

and 3% Asian American. Further, 65% of the students qualified for free and reduced

meals. The sample selection method did not have any exclusion criteria. Five hundred

and ten students elected to participate from the initial 684 total student body, with 484

students reporting complete responses on all demographic variables and all six dependent

variables. The 26 participants omitted from the analyses did not provide enough

information on at least one of the study variables and were thus removed via the default

listwise deletion procedure employed by MANCOVA (SPSS 21). Table 1 shows the

participant rate in the survey and the corresponding grade level participation.

Table 1.
Survey Response Rate

Grade	6th	7th	8th	9th	10th	11th	12th
Total	130	140	113	96	91	57	52
Participated	99	118	95	57	65	40	36
Percent	76	84	84	59	71	70	69

Note: Study response rate: 71%; invited participants: $n = 684$; elected to participate $n = 510$, complete data: $n = 484$

Procedures

Data collection took place during the fall 2012 semester. A consent form was sent home with each student at the beginning of the semester requesting parental permission to participate in the survey. Consent forms were made available in both English and Spanish (Appendix A and B). An additional student assent form (Appendix C) was provided for each student. The teachers in each grade level worked with the principal and the researchers and chose a convenient time for all students in their respective grade level to take the survey during their advisory period. One week before data collection, a letter was placed in each teacher's box in the front office informing the teachers of the upcoming survey with the days and times for the different grade levels' participation (Appendix D). The school principal approved the data collection procedures prior to the study (Appendix E). Student participation was voluntary, and students did not receive extra credit for participating. Only those students with signed parental consent forms and student assent forms participated in the study.

Data were collected via a self-report survey (Appendix F) during two half-hour advisory periods, and this study was approved by the Institutional Review Board

(Appendix G). Students who did not receive parental consent and/or students who did

not give assent did not participate in the survey, yet remained in advisory. Each advisory

teacher distributed and collected the surveys, while the researcher and research staff were

available in the hallways. A small bottle of lotion valued at one dollar was given to all

students who turned in their parent consent forms. In addition, a small deck of 10

inspirational quote cards valued at one dollar was given to each student who completed

the survey. Teachers and substitute teachers were also given lotion and quote cards.

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Measures

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The survey assessed students' demographic characteristics, three personal

resources (viz., hope, resiliency, and percent adaptive coping), and three environmental

resources (viz., family/friend/significant other support, school connectedness, and

community connectedness). Each of these variables is further discussed in the following

sections, and a copy of the survey can be found in Appendix F.

Demographics

Participants were asked to report a variety of personal characteristics, including

age, grade level, perceived family income, and ethnicity. For perceived level of income,

students responded to the statement, "In terms of income, what best describes your

family's standard of living in the home *where you live most of the time*?" Possible

responses included "very well off," "living comfortably," "just getting by," "nearly

poor," and "poor." For ethnicity, students responded to the statement, "Which of the

following best describes you?" Possible response options included American Indian or

other Native American, Asian American or Pacific Islander, Black or African American, White (non-Hispanic), Hispanic or Latino, and Other.

Before data analysis, multiple-category variables were collapsed into binary variables in order to produce appropriately-sized groups for perceived level of socioeconomic status such that 0 = combined "very well off" and "living comfortably" to indicate higher income and 1 = "just getting by," "nearly poor," and "poor" to indicate lower income. For ethnicity, three categories were created to appropriately represent the student population such that 0 = White, 1 = Hispanic, and 2 = Other. The demographic variables of age, SES, and ethnicity served as continuous control variables as covariates in the data analysis.

Positivity Ratio

Students' positivity ratio was measured by their reported experienced positive and negative emotions using the Modified Differential Emotions Scale (mDES). The mDES consists of 20 statements assessing the frequency of experienced positive (10 statements) and negative emotions (10 statements) over the previous two weeks (Fredrickson, 2003). Sample items assessing positive emotional states included "In the past two weeks, I have felt amused, fun-loving, or silly," and "In the past two weeks, I have felt hopeful, optimistic, or encouraged." Sample items assessing negative emotional states included "In the past two weeks, I have felt sad, downhearted, or unhappy," and "In the past two weeks, I have felt angry, irritated and annoyed." Likert response options ranged from 1 (never) to 5 (most of the time).

To account for what is known as negativity bias and positivity offset, binary variables were created from the total positive emotions tally and the total negative emotions tally. The number of positive emotions experienced *some of the time* over the previous two weeks (> 3) and the number of negative emotions *hardly experienced* over the previous two weeks (> 2) were tallied with the different thresholds in place to account for negativity bias and positivity offset. Negativity bias is the concept that individuals weigh negative emotions more so than positive ones (Baumeister et al., 2001), while positivity offset refers to the notion that individuals are likely to feel at least mild positive emotions the majority of the time (Cacioppo et al., 1999). A positivity score was calculated by dividing the frequency of the positive emotion items by the frequency of the negative emotion items. According to previous research, the total scale items have demonstrated good reliability (α = .79). With regard to the internal reliability of the subscales, for the positive emotions subscale, the Cronbach's alpha was .78, while the negative emotions subscale reported an alpha of .69, both among an adult population (Fredrickson et al., 2003). An even greater reliability on both the positive (α = .91) and negative emotions subscales (α = .89) was demonstrated in the present study.

Cutoff scores for the positivity ratio subscales have yet to be validated in an adolescent population, so the thresholds commonly used for adult populations were implemented in this study (Frederickson, 2003). Utilizing the cutoff scores set by Fredrickson and Losada (2005), 484 positivity scores were trichotomoized with students classified as either flourishing (ratio $\geq$ 3 to 1), languishing (ratio 1 to $\leq$ 3), or depressed (ratio < 1). Preliminary analyses show that the distribution of this sample of adolescents

into the three positivity categories shares similarities with adult samples. For example, the majority of adults, approximately 80%, report positivity ratios below the flourishing point (Fredrickson, 2009). Similarly, most students (84%) were below the flourishing mark, specifically languishing (57.2%) and depressed (26.5%). While only 17-20% of the general population meets the criteria for flourishing (Keyes, 2002; Fredrickson & Losada, 2005), the findings from the present study were similar in that the remaining students (16.3%) were in the flourishing group. Therefore, using the adult threshold values proved sufficient for the current analysis, though it is suggested that future research explores this psychometric issue thoroughly.

Personal Resources

For the purpose of this study, three sources of personal support include: hope, resilience, and percent adaptive coping.

Hope. Adolescents' self-reported hope was assessed using six items from The Children's Hope Scale (CHS; Snyder et al., 1997). Assuming that adolescents are goal-orientated, it is believed that their thoughts are related to two components: agency and pathways. Agency thoughts imply that youths can initiate and sustain action toward their goals, while pathway thoughts reflect their perceived competence to produce routes to the goals. Therefore, hope represents the combination of agentic and pathway thinking toward reaching their goals. Adolescents responded on a four-item Likert scale ranging from 1 (none) to 4 (all of the time). Sample items include: "I am doing just as well as other kids my age," "When I have a problem, I can come up with lots of ways to solve it," and "I think the things I have done in the past will help me in the future." According

to previous research, the internal reliability of the CHS demonstrated satisfactory internal consistencies ($\alpha = .72 - .86$) and test-retest reliabilities with this population ($r = .71$ to .73; Snyder et al., 1997). The present study recorded an internal consistency reliability of $\alpha = .90$.

Resiliency. Students' individual resiliency was assessed using the Brief Resilience Scale (BRS; Smith et al., 2008) as a personal characteristic. On a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), students indicated the extent to which they agreed with statements that evaluated their personal resiliency. Sample statements include: "I tend to bounce back quickly after hard times," "It does not take me long to recover from a stressful event," and "I usually come through difficult times with little trouble." The score was calculated as the mean of the six items, with higher scores indicating higher levels of resiliency. This scale demonstrated good-to-excellent internal reliability when compared to previous studies with adolescent and adult populations, with Cronbach's alphas ranging from .80 to .91 (Smith et al., 2008); the scale in the present study was found to be reliable at $\alpha = .77$.

Percent adaptive coping. The Brief Coping Orientations to Problems Experienced (Brief COPE) scale was used to measure the students' utilization of different coping strategies (Carver, 1997). Students were asked to what extent they used particular coping strategies in the past month. Two scores were derived from the Brief COPE: (a) a summed score of strategies identified as adaptive coping (i.e., acceptance, planning, active coping, positive reframing, using instrumental support, and using emotional support), and (b) a summed score of strategies identified as maladaptive coping (denial,

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behavioral disengagement, self-distraction, self-blame, venting of emotions, and substance abuse). Percent adaptive coping was calculated by taking the score of adaptive coping, dividing it by the score of maladaptive coping, and multiplying the result by 100.

Each coping subscale was measured by two items, and participants were asked to report how often they have used certain coping strategies during stressful experiences, using a four-point response scale ranging from 1 (I haven't been doing this at all) to 4 (I've been doing this a lot). Examples of adaptive coping items include: "I try to see it in a different light, to make it seem more positive" (positive reframing), "I accept the reality of the fact that it happened" (acceptance), "I try to get emotional support from others" (emotional support), and "I try to get advice or help from other people about what to do" (instrumental support). Some sample maladaptive coping items include: "I turn to other activities to take my mind off things" (self-distraction), "I say to myself 'this isn't real'" (denial), and "I say things to let my unpleasant feelings escape" (venting). The adaptive and maladaptive coping scores have previously demonstrated good levels of reliability in adult populations (12 items for adaptive coping, $\alpha = .86$; 12 items for maladaptive coping $\alpha = .79$; Faulk, 2012). In the present study, good reliabitiy scores were found on the adaptive coping subscale ($\alpha = .90$), and similar reliability was found for the maladaptive coping subscale ($\alpha = .79$).

Environmental Resources

For the purposes of this study, three main environmental subgroups have been identified as resources: family/friends/significant other support, school connectedness, and community connectedness.

Family/friend/significant other support. The Multidimensional Scale of Perceived Social Support (MSPSS) was used to assess support from family, friends, and significant others (i.e., best friend, romantic partnership, supportive family member, teacher, etc.). All items on the MSPSS used a seven-point Likert scale with responses ranging from 1 (very strongly disagree) to 7 (very strongly agree). The scale has 12 items total, with four questions corresponding to the three groups. Sample items include family support ("My family really tries to help me"); support from a friend ("I can count on my friends when things go wrong"); and support from a significant other ("I have a special person who is a real source of comfort to me"; Zimet et al., 1988). Previous use of the MSPSS has shown good reliability (α = .93), and similar reliability was found in the current study (α = .94).

School connectedness. The School Connectedness Scale (SCS) was used to assess level of connectedness to the school. The SCS consists of five items drawn from the National Longitudinal Study of Adolescent Health adapted by Resnick et al. (1997). Students responded to items such as "I am happy to be at this school" and "I feel close to people at this school." The five items were scored on a five-point scale ranging from 1 (strongly agree) to 5 (strongly disagree). The scores were averaged so that higher scores reflect higher levels of school connectedness. Previous use of this scale in the adolescent population found a good reliability coefficient (α = .79; Resnick et al., 1997). Very good reliability was also recorded in present study (α = .85).

Community connectedness. Community connectedness is defined as support one receives from the larger support system of one's physical environment. This can

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include community centers, churches, parks, neighborhoods, and other factors in the built

environment (Gartland et al., 2010). The community connectedness subscale of the

Adolescent Resilience Questionnaire (ARQ) was used in the current study to measure

student perceptions of community connectedness. The scale has six items with Likert

response items ranging from 1 (almost never) to 5 (almost always). Sample items include

"I trust the people in my neighborhood" and "There is an adult in my neighborhood I

could talk to if I had a problem" (Gartland et al., 2010). Previous use of this scale in the

adolescent population indicated a good reliability coefficient ($\alpha = .88$; Gartland et al.,

2010). The scale was found to have a very good reliability coefficient in this study as

well ($\alpha = .91$).

Data Analysis

All analyses were completed using the Statistical Package for the Social Sciences

(SPSS) software, version 21. Twenty-six students failed to provide an entire set of

ratings for at least one of the six dependent variables and/or demographic variables,

listwise deletion employed by the analysis procedure prohibited the inclusion of their

data, yielding 484 complete sets of participant data (SPSS 21). Summated ratings for

each of the six dependent variables were used in the analyses, with person mean

substitution accounting for missing data (Downey & King, 1998).

Descriptive Statistics and Correlations

Mean values, standard deviations, minimum and maximum range values, and

zero-order correlations of all study variables were examined using descriptive statistics.

Pearson correlations were computed between continuous variables, and Point-Biserial correlations were computed between variables with included dichotomized values.

Multivariate Analysis of Covariance

A one-way between groups multivariate analysis of covariance (MANCOVA) was performed to examine differences among positivity groups with respect to the dependent variables: personal resources (viz., hope, resiliency, and percent adaptive coping) and environmental resources (viz., family/friend/significant other, school, and community). The independent grouping variable was positivity, classified into three groups (viz., flourishing, languishing, and depressed) according to the criterion established by Fredrickson and Losada (2005). Utilizing the procedures outlined by Pallant (2010), preliminary examinations of statistical assumptions were conducted to evaluate normality, univariate and multivariate outliers, linearity, sample size, singularity and multicollinearity, homogeneity of regression slopes, and homogeneity of variance-covariance matrices. Potential deviations from multivariate normality were observed in the dependent variables; however, the sample size conditions in the current analysis provide adequate protection against any threats to MANCOVA assumptions. Preliminary examinations suggest no other violations of assumptions. Post-hoc pairwise comparisons were analyzed using Tukey's Honestly Significant Difference (HSD) method. Cohen's d was calculated to estimate the standardized effect size of group differences.

Descriptive Analysis

  Data collection was conducted over a period of two weeks, and viable responses

from a final sample size of $n = 484$ students were included in the analyses. All female

participants ranged from 12 to 18 years with a mean age of 13 years and were in grades 6

through 12. Age was retained as a continuous covariate, as the analysis indicated grade

and age to be highly correlated ($r = .88$, $p < .01$). Further, preliminary analyses indicated

no significant differences in the set of dependent variables between middle school

students and high school students after controlling for age. With regard to race/ethnicity,

57.8% were Hispanic, and 23.7% were White (non-Hispanic), with the remaining 19%

comprised of 10.5% Black or African American, 4.3% Asian American or Pacific

Islander, less than 1% American Indian or other Native American, and 3.2% reported as

"other." The majority of the students reported their perceived level of family income as

"living comfortably" (67.5%), followed by "just getting by" (22.7%), "very well off"

(7.1%), "nearly poor" (1.4%), and "poor" (.8%).

  The relationships between the 6 continuous dependent variables indicate

significant linear correlations ranging from .23 to .55, $p < .01$ (see Table 2). Hope and

school connectedness (.55), hope and resiliency (.54), school connectedness and

family/friend/significant other (.54), and percent adaptive coping and

family/friend/significant other (.54) were the strongest correlations reported among the

six dependent variables. There was a significant negative association between age and all

of the dependent variables except for resiliency, such that older students reported fewer personal and environmental resources than younger students.

There was a significant association between perceived SES and all of the dependent variables, such that students who perceived lower SES also reported lower levels of personal and environmental resources. This relationship was strongest in magnitude for SES and community connectedness, with diminished community support reported by students in the lower perceived SES category.

Community connectedness was also differentially related to ethnicity in the sample. In fact, among the ethnicity groups, the only significant differences in dependent variable means were found for the community connectedness variable, such that White students reported higher levels of community connectedness than non-White students. Further, Hispanic students endorsed lower levels of community connectedness than non-Hispanics.

Table 2.
Means, Standard Deviations (SD), and Bivariate Correlations for all Variables (n = 484)

Variable	Mean	SD	H	R	PAC	MSPSS	SC	CC	Age	SES	Eth
H	24.71	6.31									
R	19.73	4.22	.54**								
PAC	66.16	15.52	.51**	.39**							
MSPSS	68.85	13.06	.52**	.33**	.54**						
SC	19.86	3.89	.55**	.37**	.45**	.54**					
CC	19.17	6.29	.41**	.23**	.34**	.43**	.37**				
Age	13.33	2.13	-.17**	-.02	-.15**	-.13**	-.20**	-.18**			
SES	25%	---	-.22**	-.14**	-.17**	-.24**	-.15**	-.33**	.07		
White	24%	---	.06	.01	.03	.08	.08	.22**	-.06	-.09	---
Hispanic	58%	---	-.07	-.03	-.07	.02	-.06	-.17**	.07	.03	---

Note: Hope (H), Resiliency (R), Percent Adaptive Coping (PAC), Multidimensional Scale of Perceived Social Support (MSPSS), School Connectedness (SC), Community Connectedness (CC), Socioeconomic Status (SES; Higher Income = 0, Lower Income = 1). *$p < .05$, **$p < .01$

Multivariate Analysis of Covariance

Significant differences were found among the flourishing, languishing, and depressed groups on the combined dependent variables ($F_{12, 942} = 24.36$, $p < .001$; Wilks' Lambda = .58; $n_p^2 = .24$) controlling for age, SES, and ethnicity. When the results for the dependent variables were individually examined using the tests of between-subjects effects, significant differences were found for all dependent variables of personal resources: hope ($p < .001$, $n_p^2 = .29$), resiliency ($p < .001$, $n_p^2 = .24$), and percent adaptive coping ($p < .001$, $n_p^2 = .18$), as well as the environmental resources: family/friend/significant other support ($p < .001$, $n_p^2 = .20$), school connectedness ($p < .001$, $n_p^2 = .21$), and community connectedness ($p < .001$, $n_p^2 = .11$).

As shown in Figures 3 and 4, the flourishing groups reported the highest levels of personal resources and environmental resources. In contrast, the depressed positivity group recorded the lowest levels of personal and environmental resources. As hypothesized, the languishing positivity group had scores in between the flourishing and depressed positivity groups across all six dependent variables. Results from pairwise comparisons between the categories of positivity (viz., flourishing vs. languishing, flourishing vs. depressed, and languishing vs. depressed) show statistically significant differences in the mean scores of all personal and environmental resources (see Tables 3 and 4). Further, a moderate to high practical significance was suggested in the Cohen's effect size values ($d = .43 – 1.99$). The comparisons yielding the highest practical difference are between the flourishing and depressed positivity groups in the personal resources hope ($d = 1.99$) and resiliency ($d = 1.78$).

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Figure 3. Means and standard errors, as estimated by a MANCOVA, of personal resources (viz., hope, resiliency, and percent adaptive coping) as reported by flourishing, languishing, and depressed adolescent females (*n* = 484) controlling for age, SES, and ethnicity.
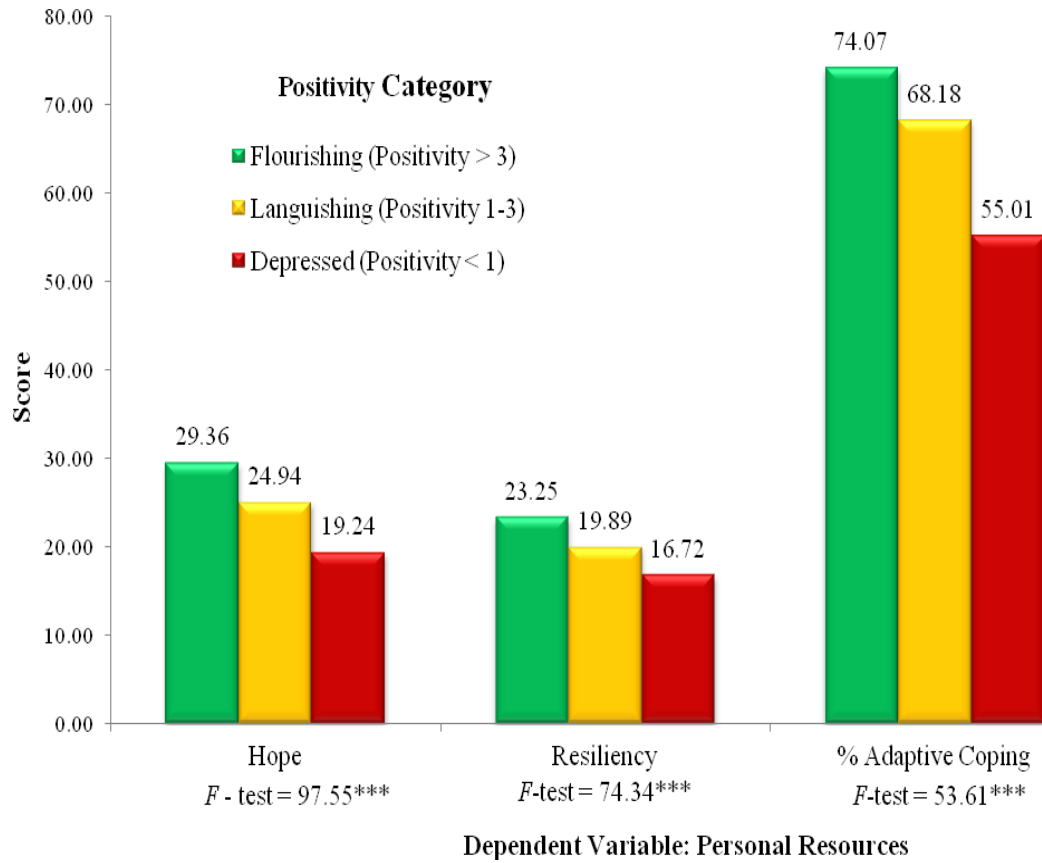
Table 3.

Pairwise Comparisons for Each Dependent Personal Resource Variable by Positivity Category

Dependent variable	Comparison of positivity categories	Mean difference	Standard error	Cohen's *d*
Hope	Flourishing vs. languishing	4.42***	.66	.87
	Flourishing vs. depressed	10.13***	.75	1.99
	Languishing vs. depressed	5.70***	.56	1.12
Resiliency	Flourishing vs. languishing	3.36***	.48	.92
	Flourishing vs. depressed	6.53***	.54	1.78
	Languishing vs. depressed	3.17***	.40	.86
% Adaptive coping	Flourishing vs. languishing	5.89**	1.81	.43
	Flourishing vs. depressed	19.05***	2.05	1.38
	Languishing vs. depressed	13.17***	1.51	.95

Note: Bonferroni adjustment was used for multiple comparisons. *$p < .05$, **$p < .01$, ***$p < .001$

Among the environmental resources, the comparisons yielding the highest practical difference are between the flourishing and depressed positivity groups found in the school connectedness resource ($d = 1.57$). The comparisons yielding the lowest practical difference are between the flourishing and languishing positivity groups found among the family/friend/significant other support and the community connectedness resources ($d = .47$).

Figure 4. Means and standard errors, as estimated by a MANCOVA, for environmental resources (viz., family/friend/significant other support, resilience, school connectedness, and community connectedness) as reported by flourishing, languishing, and depressed adolescent females ($n = 484$) controlling for age, SES, ethnicity.
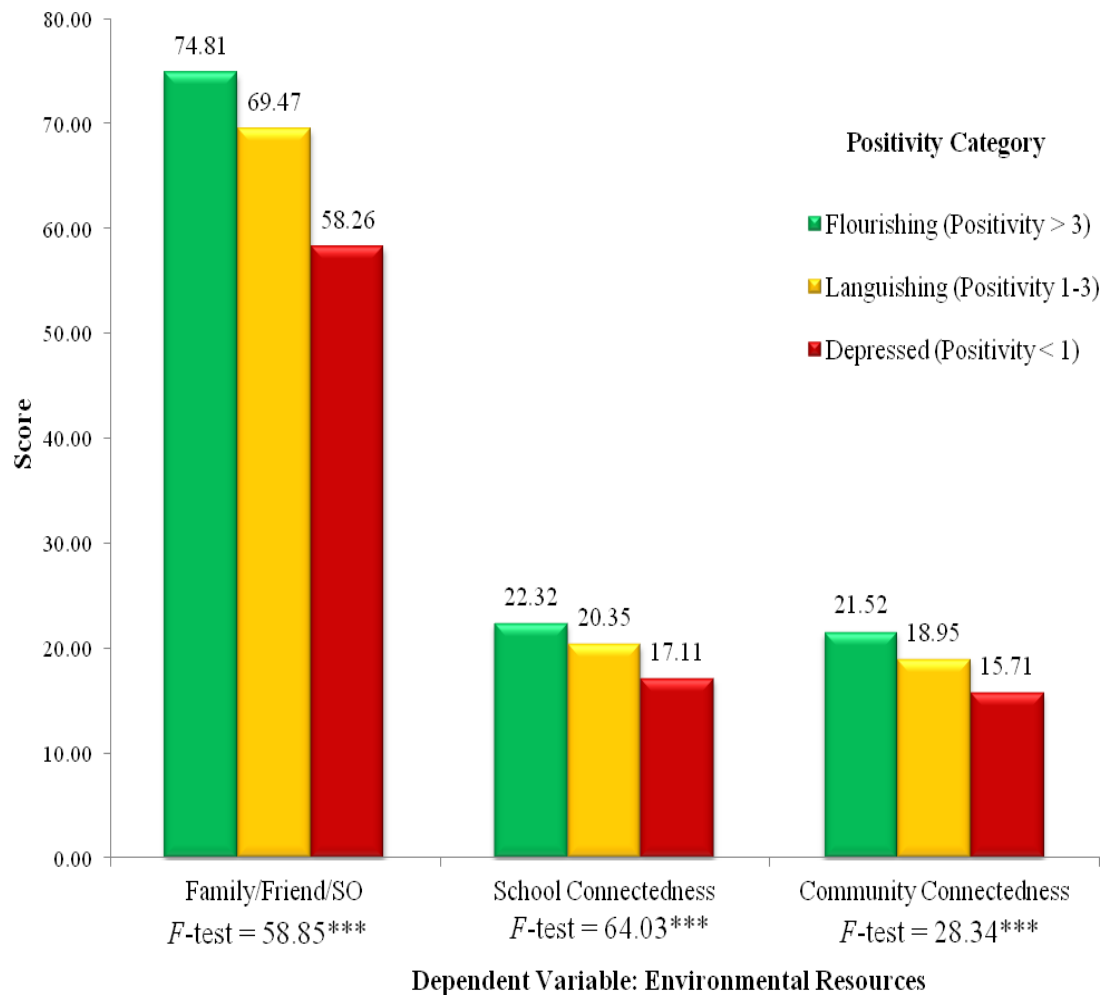
Table 4.

Pairwise Comparisons for Each Dependent Environmental Resource Variable By Positivity Category

Dependent variable	Comparison of positivity categories	Mean difference	Standard error	Cohen's *d*
Family/friend/SO	Flourishing vs. languishing	5.35***	1.48	.47
	Flourishing vs. depressed	16.56***	1.68	1.45
	Languishing vs. depressed	11.21***	1.24	.99
School connectedness	Flourishing vs. languishing	1.92***	.43	.58
	Flourishing vs. depressed	5.21***	.49	1.57
	Languishing vs. depressed	3.24***	.36	.97
Community connectedness	Flourishing vs. languishing	2.57***	.71	.47
	Flourishing vs. depressed	5.81***	.80	1.07
	Languishing vs. depressed	3.24***	.59	.60

Note: Bonferroni adjustment was used for multiple comparisons. *$p < .05$, **$p < .01$, ***$p < .001$

Discussion

Using a sample of $n = 484$ female students, the purpose of this study was to examine whether groups of flourishing, languishing, and depressed students would significantly differ from each other regarding scores of personal resources (viz., hope, resiliency, and percent adaptive coping) and environmental resources (viz., family/friend/significant other support, school connectedness, and community connectedness). Used in the present study were the PYD framework and the broaden-and-build theory to differentiate three positivity ratios among female middle and high school students. As hypothesized, flourishing students reported the highest levels of personal and environmental resources, followed by languishing students, and lastly depressed students. And as expected, among all three personal resources, the greatest difference was noted between the flourishing and depressed positivity categories. It is

interesting to note that resiliency did not show a significant decrease as student age increased, which may suggest resiliency's developing and cumulative role as a personal resource.

Among the environmental resources, school connectedness was found to have a significant difference, specifically between the flourishing and depressed positivity groups, such that students in the flourishing positivity category reported significantly more school connectedness than did the students in the depressed positivity category. Results of this study are consistent with reports of declining adolescent well-being over the past few years. Only four out of 10 young people are considered to be "doing well," and a Gallup Student Poll (Lopez et al., 2010) survey reported that a majority of youth in the United States are not hopeful, engaged, or thriving. Given that young minority females may be subject to more risk factors for psychological decline than non-Hispanic White females (Von Soest et al., 2010), attention is warranted to this particular subset of the adolescent population. Several oversight organizations (e.g., The Interagency Working Group on Youth Programs and the National Conference of State Legislature) support the use of PYD and have a history of strong support in the adolescent research (Richards & Huppert, 2011). There has been limited use of the broaden-and-build theory tenets in the adolescent realm (Reschly et al., 2008), and there is no research utilizing the positivity ratio criterion in an adolescent female population.

Post hoc comparisons reported significant differences between all possible pairs within each dependent variable, indicating the positivity ratio tipping points successfully represented significant differences among flourishing, languishing, and depressed

students. The data showed that approximately 16.3% of the students were in the flourishing positivity category, 57.2% were in the languishing positivity category, and 26.5% were in the depressed positivity category. According to the adult research of positive psychology, 20% or less of the population is considered to be flourishing, with the majority scoring below the flourishing ratio (Keyes, 2002; Keyes & Lopez, 2002). This study's findings within the adolescent realm appear to be similar to findings among the general population, with a majority of the students falling below the flourishing cutoff.

These findings provide motivation and direction in efforts to improve the health and well-being of adolescent females. Schools, families, and communities should promote programs that would (a) nurture students' unique personal attributes and skills and (b) provide opportunities for supportive relationships with caring adults because these avenues are supportive of flourishing. In particular, differences in hope and resiliency yielded a large amount of practical significance among the three positivity categories. Through the utilization of PYD framework, helpful and affirmative relationships where hope can be cultivated may become the foundation for young girls to foster positive behaviors. Specifically, hope has been shown as a very powerful personal characteristic that drives future life orientation (Erikson, 1968) and the perception that one's goals could be obtained (Frank 1975). Resiliency or resilient behaviors as a self-regulatory skill, such as coping, can set adolescent girls on a more positive trajectory where they can further develop pro-social behaviors (Dishion & Connell, 2006).

Efforts to probe the community as an environmental resource are lacking, according to some researchers (Leventhal & Brooks-Gunn, 2000). The relationship of parental education and neighborhood socioeconomic disadvantage (NSD) has been studied with regard to the connection to students' transitioning in their adolescent years (Drukker et al., 2006). In one study, NSD demonstrated a positive change in adolescent self-esteem and satisfaction for youth whose parents had lower levels of education. Conversely, NSD predicted a negative change in adolescents' self-esteem and satisfaction from parents with higher levels of education (Drukker et al., 2006). Working within the school and community to support constructive adolescent interactions can increase their sources of support, which not only benefits the adolescent, but may exert a ripple effect and also improve the family dynamics and other social exchanges (Drukker et al., 2006; Hurd et al., 2013).

According to findings from studies at the Search Institute, policies that enhance community resources that help families provide individual and ecological resources are needed (Lerner, Brentano, Dowling, & Anderson, 2002; Benson, 2003). Asset-enhanced communities would provide activities to support young people with resources needed to build and pursue lives that make productive contributions to self, family, and community. These include "a healthy start, a safe environment, education for marketable skills, the opportunity to serve the community" (Lerner, Fischer, & Weinberg, 2000, p. 16). According to previous research findings, adolescent thriving takes place when young people are supported by community programming that fosters positive adult relationships

and encourage opportunities for personal development (Benson, 2003). A decade ago,

lead PYD researcher Richard Lerner (2003) stated that in modern American society,

> a competent, confident, connected, caring youth who also possesses character will have the moral orientation and the civic allegiance to use his or her skills to enact in himself or herself and, when a parent, promote in his or her children behaviors that "level the playing field" for all individuals. (p. 179)

In the present study, however, the field is not level, particularly between the

depressed and flourishing positivity groups in the domain of school connectedness;

interventions targeting the depressed positivity group would be efficacious. Especially if

the student is lacking parental support at home, the school may serve as a reinforcement

of normalcy and healthy relationships (Loukas et al., 2010). Students who reported lower

scores of social support and community connection would benefit from the stability and

support of the school setting, which may help move students from the depressed to the

languishing positivity category, or from the languishing to flourishing positivity category

(Goodman et al., 2003). There is support for the family and peer relationships' role on

bolstering adolescent development (Leventhal & Brooks-Gunn, 2000), yet further

probing of the school and community is needed (Hurd et al., 2013). The school setting

and the surrounding community may provide even more support for those students who

may not have a supportive family unit and/or an unstable home environment (Hurd et al.,

2013).

Programs that teach students how to cope with stress in an innovative way by

increasing positive emotions are already in place (Moskowitz, 2013). One such program

is currently being piloted with high school students in San Francisco. The program,

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called Coping and Emotional Development for Adolescents to Reduce Stress (CEDARS), is implementing successful ways to partner with hospitals and community clinics. Along with other health-related questions, incorporating some questions about positive emotions could simply be: "What are three things that make you happy?" By inquiring about positivity, the adolescent is prompted to cognitively identify positive emotions. This program infuses basic positive emotion skills such as becoming aware of positive events, being grateful, practicing mindfulness, setting attainable goals, and performing acts of kindness (Moskowitz, 2013). The principles extend beyond the school realm, as students are given "homework" to apply these skills outside of the classroom with their friends, families, and community members. These venues serve as a means of diffusing positivity among adolescents to help them better cope with mounting modern stressors.

Results from the present study are recognized with some limitations, including the cross-sectional design with a one-time survey data collection, which does not allow for causality. As with all self-report surveys, common-methods variance (i.e., variance that is due to the measurement method instead of the constructs the measures represent) and recall bias are possible. While directionality and causality cannot be directly implied, the results of the study are illuminating. The students that possessed the most personal and environmental resources were also the students most likely to be in a flourishing positivity category. Conversely, those students that reported the least amount of these internal and external resources were the students found in the depressed positivity category. Therefore, based on the present study's results, there is a link with regard to the direction of the findings.

Some may argue that this school draws more "self-starter" students and that there is selection bias given that since this school requires more initiative to attend via its application process, there naturally would be more thriving or flourishing among the student population. Yet according to the study data, most of the students fell below the flourishing positivity category, which is similar to the general population. Another initial limitation could be stated for generalizability in that these findings may not be directly applied to private or coeducational schools. However, the present study does provide research to a growing educational movement of single-gender schooling. And while the surroundings (i.e., school) were not measured directly, the single-gender academic environment may provide more continuity for the students. Even though lower-income and/or minority adolescents may not be able to directly alter their home, neighborhood, and community surroundings, nurturing their awareness to positive receptiveness to their environment could be powerful enough that they in turn begin to change their surroundings.

In light of the above, the findings of this study are worthwhile. First, findings from this study support the efficacy of the broaden-and-build theory and the PYD framework in this adolescent population. Second, this study adds to the emergent literature within the single-gender public school education realm. Preliminary research of adolescents' perceived wellness at a single-gender school suggests the possibility that there is enhanced connectedness and social well-being in young girls at a single-gender school (Coffee, Raucci, Gloria, Faulk, & Steinhardt, 2013). Longitudinal studies are warranted to compare single-gender schools to coeducational schools with regard to

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overall well-being among female adolescents. Results from this study also provide

support for programs that enable, enhance, and encourage female adolescent positivity

with specific areas for intervention targeted among the school and community level, with

particular attention warranted for students in the depressed and languishing positivity

categories. Intervention programs would be advantageous to increase students'

experiences of positive emotions and/or decrease their experience of negative emotions

within the school community setting. Future efforts should examine the role that positive

emotions provide to the female adolescent population, with particular focus on students

who may be at risk for depressive symptoms.

CHAPTER FOUR: STUDY II – RESILIENCE BUFFERS THE EFFECT OF STRESS ON DEPRESSIVE SYMPTOMS IN ADOLESCENT FEMALES

Abstract

Adolescent depression is a significant public health concern. With regard to gender, adolescent females experience greater depressive symptoms than do adolescent males, with depression rates having grown significantly in the past several decades. Research has shown that stress is notably linked to a decline in mental health, namely depression, and when adolescents experience depressive symptoms, they are 10 times more likely to suffer with depression into their adult years. While stressors and depression rates have increased among adolescents, so have the study of resilience and its moderating role on the effects of stress on health and well-being. Through a sample of 510 middle and high school females at an ethnically diverse and lower-income public single-gender school, the present study was designed to examine whether (a) stress had a positive association with depressive symptoms, (b) resilience had a negative association with depressive symptoms, and (c) resilience moderated the impact of stress on depressive symptoms. The main effects for both stress (B= .88, $p < .001$) and resilience (B= -.61, $p < .001$) were significantly associated with depressive symptoms, and the interaction of stress and resilience revealed a significant buffering effect ($B = -.05$, p < .001) on depressive symptoms. These results suggest that students with higher levels of reported resilience appeared protected from the impact of stress, thus potentially explaining their lower scores for depressive symptoms compared to those students with

lower levels of reported resilience. Given the seriousness of this public health concern in youth and the compounding effects later into life, attention is warranted to address the mental health declines in adolescent females.

Keywords: adolescence, females, stress, depression, resilience

Introduction

The increase in adolescent depression and its extensive burden on society is disconcerting. Environmental stressors such as parental dissonance and disadvantaged neighborhoods have been reported to precede and contribute to prospective increases in adolescent depression (Hankin, 2005). The influence of stress on depression has been identified as a major contributor to this psychopathology (Siqueira et al., 2000). Daily life events are a primary source of stress for adolescents, and the negative impacts are especially problematic for those who are sensitive to depressive symptomology (Goodyer, 1994). It has been well established that negative life events such as parents divorcing or losing their jobs predict an increase in adolescent stress (Grant et al., 2004a). Increased levels of stress have been linked to unhealthy coping behaviors like smoking and substance abuse (Siqueira et al., 2000; Hankin, 2005). Increases in perceived stress have consequently been associated with declining psychological well-being such as depression (Kessler, Avenevoli, & Ries Merikanagas, 2001). Further, it has been established that females, older adolescents, and ethnic youths tend to report the highest levels of depressive symptoms among the adolescent population (Rushton, Forcier, & Schectman, 2002).

The World Health Organization (WHO, 2013) reports depressive disorders as the leading cause of ill health in adolescent girls aged 10-19 years. Depression often begins in adolescence and is the most prevalent of the psychiatric disorders. Up to one in four adolescents has identifiable mental health problems (Belfer, 2008; Sawyer et al., 2001). About half of Americans will fulfill the criteria for a diagnosable depressive disorder sometime in their lives, with the first onset usually in adolescence (Kessler et al., 2005). This alarming prevalence has strong implications for mental health concerns later in the life course, with approximately 75% of adult mental health disorders occurring by the age of 24.

In addition to the biological and physical changes that take place during adolescent development, gender differences are also noted in this transition period for mental health changes, with variability in prevalence rates among boys and girls (Patton & Viner, 2007). After developmental changes, mental health disorders are most prominent in girls (Costello et al., 2006; Mendle et al., 2010). Both in the community setting and in clinical studies, depression rates are higher among girls than boys by mid-adolescence (Cryanoski, Frank, Young, & Shear, 2000; Nolen-Hoeksema, 2001).

Globally, the World Health Organization reports that an estimated 10–20% of young people experience mental health problems (Ustun & Chatterji, 2001; Kieling et al., 2011). Epidemiologic studies using clinical interviews have reported adolescent depression rates from 2 to 8% among American youth (Choe, Emslie, & Mayes, 2012). Fortunately, many youth recover from the initial depressive episode; however, recurrence is common, with 40–70% of youth experiencing a relapse or recurrence within three to

five years (Birmaher, et al., 1996; Birmaher, Arbelaez, & Brent, 2002). According to a 2009 study, in the United States, as many as 20% of teenagers experience depression by the age of 18 (Jaycox, et al.), with nearly 40% of female high school students in Texas reporting depressive symptoms, feeling sad, or feeling hopeless (DHHS, 2005). The persistence of declining mental health continues into adulthood, with a clinical disorder diagnosis by the age of 24 (Kessler et al., 2005). Adolescent-onset depression has been strongly associated with chronic and recurrent depression in adulthood (Lewisohn, Klein, & Seeley, 1999; Rao, Hammen, & Daley; 1999), which is a leading cause of morbidity and mortality (Lopez, Mathers, Ezzati, Jamison, & Murray, 2006).

The primary demographic risk factors that have been established for adolescent depression include female gender, increasing age, lower socioeconomic status, ethnic background, and weaker family relationships (Saluja et al., 2004; Rushton et al., 2002). Adolescent girls are reported as most vulnerable to depressive symptoms for a number of reasons ranging from biological (i.e., hormonal fluctuations) to environmental (i.e., familial discord; Wade, Cairney, & Prevalin, 2002; Shanahan & Hofer, 2005). There is further variability among depressive predictors by ethnicity. For example, in early adolescence, developmental status is a better predictor of depressive symptoms than chronological age in White, but not African American or Hispanic, girls (Hayward, Gotlib, Shraedley, & Litt, 1999). With regard to the intersection of ethnicity and gender, the majority of adolescent mental health studies reported that females experience more depressive symptoms than do males in every ethnic group (Patton & Viner, 2007; Costello et al., 2006; Mendle et al., 2010).

Adolescent depression is a growing concern around the globe, yet it is a particular concern for American youth, as this group has the highest levels of depressive symptoms when compared with 28 other developed nations (Rushton et al., 2002). While there are discrepancies in the literature regarding which ethnicity experiences the highest levels of depressive symptoms (Roberts & Sobhan, 1992; Gore & Aseltine, 2003; Riolo, Nguyen, Greden, & King, 2005), it is consistently noted that youth from lower-income families (McLanahan & Casper, 1995) are most susceptible to depression. It has been reported in research findings that Hispanics in the United States are among the most impoverished members of society, with poverty rates being twice as high as those found among non-Hispanic Whites. Further, previous studies found that Hispanics reported more symptoms of depressed mood, independent of socioeconomic status, when compared to Whites, African Americans, or Asian Americans (DeNavas-Walt, Proctor, & Lee, 2005).

In addition, there appear to be discrepancies with regard to ethnicity for seeking treatment of depression among adolescents. For example, in a 2009 study, a majority of white teens reported readiness for treatment for depression, while African American and Hispanic teens reported readiness at lower rates (Jaycox, et al.). While in this particular study, Whites reported higher rates of receiving treatment when compared to Hispanic and African American students, these findings may be underrepresented if individuals are not seeking treatment and/or may not have access to treatment. Such differences among ethnicities may be attributed to social inequalities, especially in light of minority youths' overrepresentation in economically challenged communities and greater exposure to

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concentrated poverty in contrast to Whites (McLananhan & Casper, 1995; DeNavas-Walt et al., 2005; Murry et al., 2011).

Previous works have established a high correlation between daily life hassles and their perceived severity, such that adolescents appear to be quite irritated by the frequency of little stresses. The accumulation of these mounting stressors has been linked deleteriously to every aspect of psychological health (Rowlison & Felner, 1988; Weissman et al., 1999; Kessler, Avenevoli, & Ries Merikanagas, 2001). While the term "depression" is often used to describe a depressive mood, which may be transient, it also refers to a diagnosis of an illness known as clinical depression. Adolescence is a significant developmental time for the onset of depression and subclinical depressive symptoms to occur (Weissman et al., 1999; Kessler, Avenevoli, & Ries Merikanagas, 2001). Depressive symptoms in youth can interfere with normal developmental tasks such as forming friendships, mastering social and academic skills, and achieving independence (Gurian, 2012). This state of depressed mood or sadness has been linked to functional impairment, including increased difficulties with peer and family relationships, and substance abuse (Hankin, 2005). The recurrence of depression in later adolescence and adulthood is quite common (Birmaher et al., 2002), with consequences extending later in life.

Even with the above mental health challenges, it has also been established in the literature that psychological processes such as positive reframing can intercede between negative life events and the deleterious impact on adolescent development and general well-being (Cohen & Williamson, 1988). According to adolescent experts, the primary

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goal of adolescent resilience research is "to identify factors that might modify the negative effects of adverse life circumstances, and . . . to identify mechanisms or processes that might underlie associations found" (Luthar et al., 2006, p. 106). Resilience has been defined as a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma (Luthar et al., 2006), or simply the ability to successfully cope with change or misfortune (Wagnild & Young, 1993). Windle, Bennett, and Noyes (2011), after culling the literature and reviewing concept analyses, described resilience as the "process of negotiating, managing, and adapting to significant sources of stress or trauma" (p. 2). Further, unique assets and "resources within the individual, their life and environment facilitate this capacity for adaptation and 'bouncing back' in the face of adversity" (Windle et al., 2011, p. 2). Appropriate representation of resiliency during adolescent years has been described as a personal characteristic to include "good mental health, functional capacity, and social competence" (Olsson et al., 2003, p. 2).

Common supportive factors that are present within the adolescent, the family unit, and the surrounding society in which the adolescent interacts have been established in the literature (Werner, 1995; Luthar et al., 2006; Zolkoski, & Bullock, 2012). When these domains are expanded, the factors that unfold at the family, peer, school, and community level provide invaluable opportunities for interventions infusing buoyancy into adolescents' lives. Adolescent research suggests the moderating or buffering effect that resilience has on the negative effects of stress (Luthar et al., 2006; Smith et al., 2008) and promotes a more successful adaption to stress (Zolkoski, & Bullock, 2012). In particular,

when adolescents recall stressful situations they experienced in the past and remember overcoming those challenges, they can draw upon these successful memories to navigate their current and upcoming stressors. Given the growing national rates of adolescent depression among females, compounded with the escalating pressures of the modern economy and schools' precedence, it is worthwhile to maximize the potential that this internal strength provides today's young girls.

The purpose of this study was to examine the moderating role that resilience, the process of successfully navigating adversity, has on the relationship between stress and depressive symptoms. In the moderation analysis, it was hypothesized that resilience, the process of adapting to stressful situations, would have a buffering effect on stress to depressive symptoms. Further, it was hypothesized that (a) perceived stress would have a positive association with depressive symptoms, (b) resilience would have a negative relationship with depressive symptoms, and (c) resilience would moderate the association between perceived stress and depressive symptoms, such that high levels of resilience would offset the impact of stress on depressive symptoms. See Figure 5 for an illustration of the conceptual model.

Figure 5. Conceptual model of resilience moderating the relationship between stress and depressive symptoms.
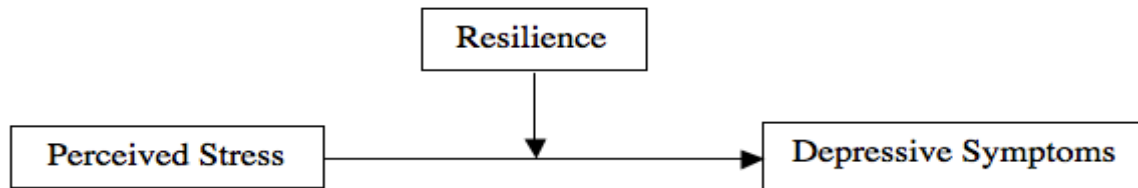
Methods

Participants

Participants were students at an all-girls middle and high school. At the time of this study, this public school enrolled just under 700 students in grades six through 12. Student age ranged from 11 to 18 years. The ethnic distribution was predominantly minority, with 55% Hispanic, 25% Caucasian, 17% African American, and 3% Asian American. Further, 65% of the students qualified for free and reduced meals. The sample selection method did not have any exclusion criteria. Five hundred and ten students elected to participate out of the 684 total student body. Table 5 shows the participant rate in the survey and the corresponding grade level participation.

Table 5.
Survey Response Rate

Grade	6th	7th	8th	9th	10th	11th	12th
Total	130	140	113	96	91	57	52
Participated	99	118	95	57	65	40	36
Percent	76	84	84	59	71	70	69

Note: Study response rate: 74%; invited participants: $n = 684$; surveys completed: $n = 510$

Procedures

Data collection took place during the fall 2012 semester. A consent form was sent home with each student at the beginning of the semester requesting parental permission to participate in the survey. Consent forms were made available in both English and Spanish (Appendix A and B). An additional student assent form (Appendix C) was provided for each student. One week before data collection, a letter was placed in each teacher's box in the front office, informing the teachers of the upcoming survey with the days and times for the different grade levels' participation (Appendix D). The school principal approved the data collection procedures prior to the study (Appendix E). Student participation was voluntary, and students did not receive extra credit for participating. Only those students with signed parental consent forms and student assent forms participated in the study.

The teachers in each grade level worked with the principal and the researchers and chose a convenient time for all students in their respective grade level to take the survey during their advisory period. Data were collected via a self-report survey (Appendix F) during two half-hour advisory periods, and this study was approved by the Institutional Review Board (Appendix G). Students who did not receive parental consent

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and/or students who did not give assent did not participate in the survey, yet remained in advisory. Each advisory teacher distributed and collected the surveys while the researcher and research staff were available in the hallways. A small bottle of lotion valued at one dollar was given to all students who turned in their parent consent forms. In addition, a small deck of 10 inspirational quote cards valued at one dollar was given to each student who completed the survey. Teachers and substitute teachers were also given lotion and quote cards.

Measures

Assessed in the survey were students' demographic characteristics, perceived stress, resiliency, and depressive symptoms. Each of these variables is further discussed in the following sections, and a copy of the survey can be found in Appendix F.

Demographics

Participants were asked to report a variety of personal characteristics, including age, grade level, perceived family income, and ethnicity. For perceived level of income, students responded to the statement, "In terms of income, what best describes your family's standard of living in the home *where you live most of the time*?" Possible responses included "very well off," "living comfortably," "just getting by," "nearly poor," and "poor." For ethnicity, students responded to the statement, "Which of the following best describes you?" Possible response options included American Indian or other Native American, Asian American or Pacific Islander, Black or African American, White (non-Hispanic), Hispanic or Latino, and Other.

Before data analysis, multiple-category variables were collapsed into binary variables in order to produce appropriately-sized groups; perceived level of socioeconomic status labeled 0 combined "very well off" and "living comfortably" to indicate higher income, and 1 combined "just getting by," "nearly poor," and "poor" to indicate lower income. Ethnicity was dichotomized as 0 = White and 1 = non-White. Demographic variables that were significantly correlated with the dependent variable were used as covariates in the regression analysis.

Stress

This variable was assessed using the 10-item Perceived Stress Scale (PSS; Cohen & Williamson, 1988), which measured the appraised stressfulness of the respondents' life situations. The scale items asked students to rate how often stressful events occurred during the past month on a five-point Likert scale ranging from 0 (never) to 4 (very often). Sample items included "How often have you felt that you were unable to control the important things in your life?" "How often have you felt nervous or "stressed?" and "How often have you been angered because of things that happened that were outside of your control?" Four of the 10 items were negatively phrased and reverse scored for the current analysis. The total stress score was calculated as the sum of the 10 items, ranging from 0 to 40, with higher scores representing higher levels of perceived stress. The PSS has been utilized in adolescent research studies (Siqueira et al., 2000) and demonstrates adequate reliability and validity (Cohen, Kamarck, & Mermelstein, 1983; Leung, Lam, & Chan, 2010), which was also found to be true in the present study ($\alpha = .85$).

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Resilience

Student resilience, defined as the process of positive or successful adaptation to adversity, was assessed using the six-item Brief Resilience Scale (BRS; Smith et al., 2008). On a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), students indicated the extent to which they agreed with statements that evaluated their personal resilience. Items 1, 3, and 5 were positively worded statements, and items 2, 4, and 6 were negatively worded statements. Sample statements included "I tend to bounce back quickly after hard times," "I have a hard time making it through stressful events," and "I usually come through difficult times with little trouble." The BRS was scored by reverse coding items 2, 4, and 6 and then calculated as the sum of the six items. Response options ranged from 1 to 5, with possible total scores ranging from 5 to 30. Higher scores represented higher levels of resilience. This scale demonstrated good-to-excellent internal reliability in previous studies with a variety of ages, including youth, with Cronbach's alphas ranging from .80 to .91 (Smith et al., 2008); the scale was found to be reliable in present study ($\alpha = .78$).

Depressive Symptoms

The Center for Epidemiologic Studies Depression (CES-D) scale was used to assess students' level of experienced depressive symptoms (Radloff, 1977). The CES-D consists of 20 items that assessed how often the students had felt different types of symptoms during the past week. Measured by a four-point scale ranging from 0 (rarely or none of the time; less than one day) to 3 (most or all of the time; five to seven days), students responded to statements such as "I had trouble keeping my mind on what I was

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doing," "I felt everything I did was an effort," and "I felt lonely." The CES-D score was

calculated as the sum of the 20 items, ranging from 0 to 60, with higher scores

representing higher levels of experienced depressive symptoms. The CES-D has good

psychometric properties when used with adolescents (Roberts, Lewinsohn, & Seeley,

1991; Rushton et al., 2001) and previous studies have shown that internal consistency for

youth was $\alpha = .89$ (Garber, Clarke, Weersing, Beardslee, & Brent, 2009). The internal

consistency of the CES-D ranged from very good to excellent ($\alpha = .85 - .90$; Radloff,

1977). Excellent reliability was also demonstrated in the present study ($\alpha = .91$).

Data Analyses

All analyses were completed using the Statistical Package for the Social Sciences

(SPSS) software, version 21, and mean substitution to account for missing data in the

dependent variables. Five participants were not included in the analyses due to missing

information in the ethnicity and SES covariates, resulting in a total of 505 viable

participant response patterns. Using the procedures outlined by Pallant (2010),

preliminary tests were performed to ensure that the statistical assumptions of normality,

linearity, outliers, multicollinearity, independence, and homoscedasticity were satisfied

before the regression analyses were conducted.

Descriptive Statistics and Correlations

Mean values, standard deviations, minimum and maximum range values, and

zero-order correlations of all study variables were examined using descriptive statistics,

Pearson correlations between continuous variables, and Point-Biserial correlations

between dichotomized variables.

Moderation Analysis

Following Aiken and West's (1991) interaction analysis method, hierarchical multiple regression was used to examine the moderating effect of resiliency on the relationship between stress and the dependent variable: depressive symptoms. Prior to the analysis, demographic variables (viz., age, SES, and ethnicity) that were significantly correlated to the dependent variable were identified and included in the model as covariates. Covariates were included to control for the effects of those variables and to increase the overall R^2 to increase power (Frazier, Tix, & Barron, 2004).

Before analysis, values of the continuous predictor variables were centered to prevent potential problems with multicollinearity (Aiken & West, 1991). The hierarchical process of the multiple regression analysis consisted of three steps. In the first step, the significant covariates (viz., age, SES, ethnicity) were entered in the regression of the dependent variable (depressive symptoms). The second step saw the addition of the main predictors, perceived stress, and resilience. Finally, a term representing the interaction between perceived stress and resilience was added in the third step. Post-hoc probing of the interaction and simple slopes as suggested by Aiken & West (1991) follows.

<div align="center">

Results

</div>

Descriptive Analysis

Data collection took place during the fall 2012 semester, and a sample size of $n =$ 505 students was obtained (74% response rate). Student age ranged from 10 to 18, with a mean age of 13. Approximately 24% of the students were White, and the remaining 76%

were non-White. Approximately 75% of the students were in the higher income category, and the remaining 25% were in the lower-income category. On average, students' perceived stress score for the present study was 18.24 (SD = 6.24). The PSS is not a diagnostic tool and thus provides no clinical cutoff scores; however, these results are similar to those reported in previous studies also utilizing adolescent samples. For example, median PSS values across nonclinical adolescent groups investigated in a 2000 study ranged from 18 to 22 (Siqueira et al., 2000). Further, resiliency scores were similar to scores from previous studies (21.18; SD = 4.08; Smith et al., 2008; Windle, Bennett, & Noyes, 2011). On average, students' resilience scores for the present study were 19.73 (SD = 4.22). As expected, stress and resilience were significantly negatively correlated.

Preliminary examinations of correlations among study variables showed that stress had a significant positive correlation with depressive symptoms, and resilience had a significant negative correlation with depressive symptoms. With regard to the control variables, age and stress were significantly related such that older students reported higher levels of stress. Age and resilience were also correlated, such that older students reported lower levels of resilience. Age had a significant positive correlation with depression, such that older students reported higher levels of depressive symptoms. Additionally, there was a significant correlation between SES and stress, such that students who perceived their SES to be low reported higher levels of stress. SES was significantly linked to resilience, such that students who perceived their SES to be low also had lower levels of resilience. Table 6 displays the means, standard deviations, and correlations for all study variables.

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Table 6.
Means, Standard Deviations (SD), and Bivariate Correlations for all Variables (n = 505)

Variable	Mean	SD	PS	R	DS	Age	SES	White
Perceived stress	18.24	6.28						
Resilience	19.73	4.23	-.55**					
Depressive symptoms	16.02	10.53	.67**	-.55**				
Age	13.31	2.12	.26**	-.02	.09*			
SES[a]	--	--	.26**	-.14**	.26**	.07		
White[b]	--	--	-.07	.01	-.00	-.06	-.09	--

Note: Perceived Stress (PS), Resilience (R), Depressive Symptoms (DS), [a]SES (Higher Income = 0, Lower Income = 1); [b]Ethnicity (White = 0, non-White = 1). *$p < .05$, **$p < .01$

Moderation Model

As displayed in Table 7, the demographic control variables (viz., age, SES, and ethnicity) were entered into Model 1, and they accounted for 8% of the total variance in depressive symptoms ($F_{3, 501} = 13.75$, $p < .001$). Following the addition of the focal predictors (viz., stress and resilience) in Model 2, an additional 43% of the variance in depression was accounted for ($F_{2, 499} = 216.24$, $p < .01$). In Model 3, main effects for both stress ($B = .87$, $p < .001$) and resilience ($B = -.61$, $p < .001$) were significantly associated with depressive symptoms, and the interaction term (stress x resilience) was included. Analysis revealed a significant interaction effect ($B = -.05$, $p < .001$), indicating that resilience moderated the relationship between perceived stress and depressive symptoms. The final model explained an additional 2% and accounted for a total of 53% of the variance in depressive symptoms ($F_{1, 498} = 22.17$, $p < .01$).

Table 7.

Unstandardized (B) and Standardized (β) Associations With Depressive Symptoms Among Middle and High School Females (n = 505)

	Model 1			Model 2			Model 3		
	B	SE *B*	β	*B*	SE *B*	β	*B*	SE *B*	β
Age	.39	.21	.08	-.24	.16	-.05	-.21	.16	-.04
SES[a]	6.34	1.05	.26	2.45	.80	.10	2.12	.78	.09
White	.61	1.07	.03	1.04	.78	.04	.76	.77	.03
Stress				.88	.07	.52	.87	.07	.52
Resilience				-.61	.10	-.25	-.61	.09	-.25
Stress x resiliency							-.05	.01	-.15
Model R^2			.08			.51			.53
F for change in R^2			13.75**			216.24*			22.17*

Note: [a]SES (Higher Income = 0, Lower Income = 1). *$p < .01$, **$p < .001$ (2-tailed)

Post-hoc probing of the significant interaction term (stress x resilience) was conducted according to methods outlined by Aiken and West (1991). Plotting the interaction was performed to illustrate the regression of depressive symptoms on varying levels of stress and resilience. As displayed in Figure 5, levels of stress and levels of resilience were approximated at one standard deviation below and one standard deviation above their respective mean scores. The graph illustrates the main effect of stress, where increasing levels of stress were associated with increasing levels of depressive symptoms. Given the effect of the interaction term, resilience appeared to have a moderating or buffering effect on the relationship between stress and depressive symptoms.

Specifically, the relationship between stress and depression differs in magnitude across different levels of resilience, such that the association of increasing stress on depressive symptoms is weakened for students reporting higher perceived resilience. In other words, high levels of resilience mitigate depressive symptoms if participants

perceive high stress. Further analysis of the simple slopes indicates a significant

relationship between stress and depressive symptoms at both high ($B = .659$, $t = 10.261$, p

< 0.001) and low ($B = 1.082$, $t = 17.359$, $p < 0.001$) levels of resilience. Figure 6 clearly

illustrates that the buffering effect of resilience is less evident at low stress levels, but the

degree of protection becomes more apparent as levels of stress increase.

Figure 6.   The moderating effect of resilience on the relationship between perceived
              stress and depressive symptoms.
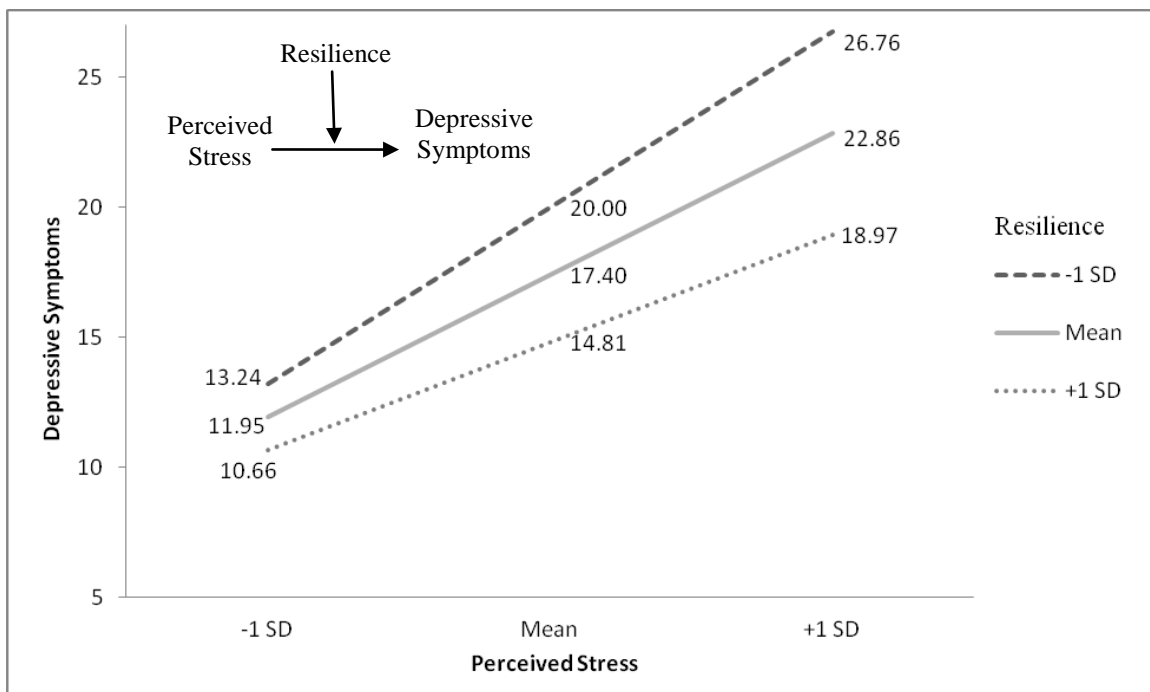
The mean depressive score for this student population was approximately 16

utilizing the CES-D; in the adolescent research, a score of 24 or greater has been

suggested as cutoff score for clinical depression (Roberts et al., 1991; Rushton, Forcier,

Schectman, 2001). Roberts et al. (1991) established three levels of depressive symptoms:

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"minimal" depressive symptoms (0-15), "mild" depressive symptoms (16-23), and "moderate/severe" depressive symptoms ($\geq$ 24). An epidemiologic study reported that over 9% of adolescents responded with moderate/severe depressive symptoms and females, older adolescents, and ethnic youths tended to report more depressive symptoms (Rushton et al., 2001). The majority of the students in the present study were in the minimal category ($n = 290$, 57%) for adolescent depression (CES-D score 0-15). A total of 104 students (21%) could be categorized in the mild category for adolescent depression scores. Approximately 22% of the students ($n = 113$) that participated in the survey fell into the moderate/severe category (CES-D score $\geq$ 24).

Considering the adolescent cut points provided by Roberts et al. (1991), and based on the results of Figure 6, for students who reported high levels of stress and high levels of resilience, their depression score was estimated at 18.97, which falls on the low end of the mild category for adolescent depression (CES-D score 16-23). The students who reported high stress and average resilience had an estimated depression score of 22.86, which falls on the very high end for mild depressive symptoms (CES-D score 16-23). And for students who reported high levels of stress and low levels of resilience, their estimated depression score was 26.76, which is categorized as moderate/severe for depression in adolescents (CES-D score $\geq$ 24). In conclusion, students with higher levels of reported resilience appeared to be sheltered from the impact of stress, potentially explaining their lower CES-D scores compared to those students with lower levels of resilience.

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Discussion

Using a sample of $n = 505$ students, the present study was conducted to examine the moderating role of resilience on the relationship between stress and depressive symptoms after controlling for a variety of demographic variables (viz., age, SES, ethnicity). As hypothesized, stress had a significant positive direct effect on depressive symptoms, resilience had a significant negative direct effect on depressive symptoms, and there was a significant interaction effect of resilience and stress on depressive symptoms. Specifically, as levels of perceived stress increased, it was expected that the buffering effect of resilience would become more prominent, which held true. Results from the moderation analysis confirm the hypothesized moderating or dampening effect that resilience exerts on the relationship between perceived stress and depressive symptoms in this particular population. In particular, the significant main effect of stress suggests that, in general, higher levels of stress are associated with higher levels of depressive symptoms; however, this relationship is tempered by resilience. The strength of this association is weakened as reported levels of resilience increase (Figure 6). The direct effect that perceived stress has on depressive symptoms is therefore tapered, such that there is less of an impact of stress on depressive symptoms for students who report higher levels of resilience.

While the stress of adolescence may be inescapable, positive relationships with caring adults encourage students' resilience behaviors. Resilience works to buffer difficult experiences when adolescents can draw upon how they handled previous stressful situations, and this recollection provides the mechanism of support for their

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current or upcoming stress(ors). Reports in preliminary studies characterize these supportive relationships as integral to successful intervention programs, although "more research on antecedents of good parenting" is needed, and seeking an answer to the question of "how to optimally use other adults, such as mentors or teachers, to promote resilience" is also warranted (Luthar et al., 2006, p. 113). Cultivating supportive relationships at school and providing opportunities for students to utilize resilient behaviors (i.e., positive reframing, seeking support, problem-solving situations) would be advantageous.

The present study's findings show that while the majority of students reported depression scores in the minimal category, nearly a quarter of the students reported scores in the moderate/severe category for depression. Though these data are alarming and align with national reports, thus generalizable, they also provide direction and motivation for schools to seek out ways to reinforce students' resilience. Successful interventions that span several levels of the social ecological model are most powerful (Bronfenbrenner, 1994). Garnering teacher and faculty support is crucial, with both a "top-down" approach to the students and lateral diffusion among the staff being most impactful (Pedrotti et al., 2008). Schools that embrace the power of positivity and resilience on their campus will have a much stronger force than schools whose key leaders lack proactive support and modeling for their campus and students. Schools offering in-service trainings for all personnel can provide ways of infusing messages of developing the personal characteristic of resiliency education into the school day via class lectures

and opportunities for practicing the process of resilience via team building activities (McDermott, Callahan, Gingerich, Hastings, & Gariglietti, 1997).

These results support the efforts of increasing resilience-enhancing programs and opportunities for students, as they would be expected to fare better in stressful situations by developing the personal characteristic of resiliency. The intent of incorporating programs in an all-girls school setting is supported by these results, such that these educational programs should be efficacious. Involving other community members can help carry the great task of providing this education to today's adolescent girls (Luthar et al., 2006). Therefore, it would behoove researchers to look at other schools to see if coeducational as well as private schools responded in this manner. Identifying any similarities or differences among coeducational schools to determine if mixed gender schools influence students' ability to navigate difficult situations could prove to be of interest. Also, it would be illuminating to compare an all-girls public school with an all-girls private school to examine sociocultural roles including SES, ethnicity, and neighborhood community. This research supports the function of resilience as a process of successful adaptation to stress(ors)/stressful situations, demonstrating the value of implementing resilience education programs and testing the intervention of any amplification aspect. An intervention could potentially show these results if researchers could manipulate adolescents' personal characteristic of resiliency levels to see different levels of stress and depressive symptoms.

There are currently successful resiliency education programs in place, which have been embraced in many schools nationwide and with efforts geared toward student and

teacher support. The Resiliency Education Program (REP) is aimed at school reform and

incorporates research, science, and application in the education field. This program

works with school and education agencies to meet the requirements of the No Child Left

Behind Act. The Program in Education, Afterschool, and Resiliency (PEAR) in Boston

area schools has partnered with Harvard University to create afterschool settings where

young people can be nurtured (Bernstein-Yamashiro & Noam, 2013). This particular

program integrates research, theory, and hands-on practice that offer synergistic

connections among youth development, school improvement, and mental health advances

in adolescents.

Previous research findings have been encouraging to programs that work with

teachers and faculty, enabling them to sustain their own personal resiliency and therefore

helping them to model such behaviors and attitudes to their students (Luthar et al., 2006).

Given the rise of teacher burnout (Gloria, Faulk, & Steinhardt, 2012), strengthening the

foundation of the school (viz., teachers, faculty, staff) will empower students in their

individual behaviors and processes of resilience. One such program is known as

Contemplative Teaching and Learning Initiative (CARE). This program was developed

by the Garrison Institute and works with K-12 teachers to help manage stressors and

restore their passion for education (Cohan & Honigsfeld, 2011).

The Institute of HeartMath and its partner, Clemson University in South Carolina,

provide training for educators called "The Resilient Educator: Skills for Personal and

Classroom Effectiveness." This program provides research-based tools and strategies to

strengthen physiological attributes while preventing the negative impact of stress (viz.,

mentally, physically, and emotionally). Teachers who report low levels of personal resiliency characteristics (i.e., positive reframing, adaptive coping, seeking support) are more strongly associated with student test anxiety and, as such, poorer test scores (HeartMath, 2012). This demonstrates the powerful social ecological ripple effect of the environment and the impact it has, not only on the students in the classroom, but also on the school, the district, and both local and national rankings. It would be efficacious then, to provide the school, teachers, and students with the tools and training necessary to bring buoyancy and potency to resiliency education programming.

These findings should be acknowledged in the presence of the following confines. Given this study used cross-sectional data, causality and directionality cannot be directly determined from the found associations among the variables. Also, it is possible that the survey data collected may be susceptible to common-methods bias and self-report inaccuracies. Further, there was no information gathered regarding the history of the students' or the parents' mental health status.

However, given the growth of single-gender public education around the globe (Sax, 2006; Madigan, 2009), the results of this study increase the literature in the single-gender academic realm. Specifically, these findings are applicable to other all-girls public schools at the middle and high school levels with similar demographics. And while these findings may not be directly applicable to private or coeducational schools, they do provide supportive research on an emergent educational movement. Although the environment (i.e., school) was not measured directly, the single-gender school setting and more cohesive backdrop may provide more continuity for the students. Even though

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lower-income and/or minority adolescents may not be able to directly alter their home, neighborhood, and community surroundings, nurturing their awareness to positive receptiveness to their surroundings could be powerful enough that they in turn begin to change their environment.

In conclusion, results from this study support the role of resilience in reducing the negative effects of stress on depressive symptoms in middle and high school girls. Results suggest that students, who have higher levels of resilience, regardless of their level of stress, will report lower levels of depressive symptoms. Therefore, in the present study, resilience dampened the effect of stress on depressive symptoms in adolescent girls. The mechanism through which resilience works involves remembering a previous stressful situation and how it was addressed. Therefore, to navigate a stressful situation with resilience, the individual must have experienced a previous challenging time and responded to the difficult situation in a manner of positive adaptation. Each preceding stressful encounter that is met head-on with the unique tools and skill set of the individual builds a deeper reservoir for that person to utilize in the future. Conversely, youth who have not experienced times of challenge or had the opportunity to "fall down and get back up" may not fare as well as those who have been exposed to more taxing situations. The recent notion of young people suffering from "affluence" demonstrates this point. Experiencing a little bit of challenge along the course of a person's life can help one develop "resiliency reserves." These reserves serve as assets that are then utilized to offset the negative impact of life stressors and buffer detrimental impact to psychological well-being.

The fact that half of all Americans will meet the requirements for a mental health disorder diagnosis sometime in their life, with the first inception occurring in adolescence, motivates health practitioners to implement interventions aimed at prevention or early treatment among youth. Given the rise of depression in adolescent girls and the continued increase of depression into adulthood, programs that foster resilience education in the school and community should be implemented.

CHAPTER FIVE: CONCLUSIONS

Two studies were conducted in this dissertation. The purpose of the first study was to examine whether personal (viz., hope, resiliency, and percent adaptive coping) and environmental (viz., family/friend/significant other, school connectedness, and community connectedness) resources differentiated three groups of positivity (viz., flourishing, languishing, and depressed) as categorized according to the broaden-and-build theory of positive emotions among adolescent minority females. The purpose of the second study was to explore the direct and interactive effects of perceived stress and resilience on depressive symptoms among adolescent minority females.

In Study I, the PYD framework was utilized, and use of the broaden-and-build theory of positive emotions was expanded in this population by utilizing the positivity ratio criterion. The study was designed to examine the role personal and environmental resources have in differentiating flourishing, languishing, and depressed female students. In Study II, the moderating role of resilience on the relationship of stress to depressive symptoms in adolescent females was examined. Both studies were conducted at an all-girls, ethnically diverse, public middle and high school. The main findings, limitations, and implications for future research and programs are discussed below.

Both research studies were conducted among an ethnically diverse population of lower-income, sixth to 12th grade female students. One objective of this dissertation was to utilize the broaden-and-build theory of positive emotions in the unique setting of an all-girls public school, while introducing the positivity ratio criterion. There is little

information regarding the broaden-and-build theory among adolescents (Reschly et al., 2008) and this is the first research study to apply the positivity ratio criterion among students at an all-girls public middle and high school population.

As hypothesized in the first study, students reporting higher positivity ratios are indeed also reporting more personal and environmental resources, as is supported by the PYD framework. The flourishing students, at a ratio of three positive emotions to every one negative emotion, had the highest levels of perceived personal (viz., hope, resiliency, percent adaptive coping) and environmental (viz., family/friends/significant other, school connectedness, community connectedness) resources. Furthermore, students in the depressed positivity category had the lowest levels of perceived resources, while the languishing students were clearly ranked in between the flourishing and depressed positivity groups. These findings not only maintain the use of the PYD framework, but also support the broaden-and-build theory of positive emotions in an adolescent female population. Hope and resiliency surfaced as the two most powerful personal resources, with the greatest difference of these two resources found between the flourishing and depressed positivity groups. Hope has been established in the adolescent literature as one of the most influential personal characteristics that links youth to successful outcomes via future orientation and life direction (i.e., graduating from high school and attending college). From the environmental resources category, school connectedness reflected the most prevailing impact between the flourishing and languishing positivity groups. The school environment has been shown to nurture hope in adolescents. These findings may provide direction for interventions that incorporate the school setting as a means of

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delivering resiliency education and providing personal characteristic development opportunities.

In Study II, the process of resilience was found to buffer the relationship of stress on depressive symptoms in this population. The relationship between stress and depression differed in magnitude across varying levels of perceived resilience. Specifically, the impact of increasing stress on depressive symptoms was lessened for students reporting higher levels of perceived resilience. Higher levels of resilience did indeed mitigate depressive symptoms when students reported higher levels of perceived stress. Study II's findings further support the role of resilience as a process of successfully managing the impact of stress on depressive symptoms when students are experiencing higher levels of stress. Given this population is most "at risk" for experiencing declines in mental health (Wade et al., 2002; Shanahan & Hofer, 2005), programs that provide opportunities for young girls to utilize resilient behaviors would be efficacious.

Study I – Personal and Environmental Resources Characterize Flourishing, Languishing, and Depressed Adolescent Females

Findings from this study provide further support for the PYD framework in schools and the use of the broaden-and-build theory of positive emotions with respect to the female adolescent population. Results suggest that students with higher positivity ratios also reported more personal and environmental sources of support. In order to strengthen students' flourishing positivity ratio, programs that develop students' personal and environmental resources should be implemented.

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According to a 2001 summary of findings from the World Health Organization, programs incorporating life skills, social and emotional learning, and early interventions to address potential emotional and behavioral problems, produce long-term benefits for young people. These benefits include enhanced emotional and social functioning, positive health behaviors, and improved academic performance (Durlak & Wells, 1997; Weare & Nind, 2011). Additionally, interventions that target not only the school's environmental factors, but also the adolescents' individual and internal modalities for managing life stressors, have proven efficacious (Shochet, Smyth, & Homel, 2007).

Yet the importance of positive emotions among adolescents in the school context has received limited research. Further investigation is needed to evaluate whether positive emotions predict future well-being in adolescent populations as suggested by the broaden-and-build theory. Findings of some studies suggest the importance of incorporating student emotions in comprehensive models of student development, including positive emotions, as well as the more typically assessed negative emotions and life stressors (Jimerson, Sharkey, Nyborg, & Furlong, 2004; Reschly et al., 2008). It would be expected that students' positivity ratio, the experience of positive to negative emotions, "is malleable and receptive to changes in the interpersonal and instructional environments" (Reschly et al., 2008, p. 429). The development of empirically based intervention strategies to increase students' positive emotions in schools, which in turn broaden their thinking, coping, social interactions, and school engagement, would be consistent with calls for positive psychology approaches to nurture adolescent well-being (Huebner & Gilman, 2003; Chafouleas & Bray, 2004).

Previous research findings direct attention to policies that would be developed to increase in communities the abilities of families to provide individual and environmental assets to young girls (Benson, 2003). In the policy context, resource-rich communities would endorse programs that supply young people with the skills necessary to build healthy lives (Lerner et al., 2003). Adolescent thriving will therefore be more likely to surface when youth develop skills and behaviors with the backing from policy and community action or program context. These programs would be harmonious with PYD and the broaden-and-build theory while expanding the literature on positive adolescent development.

Currently, the adult ratios are accepted for use in the adolescent population, even though there is very little information available among this young group. Therefore, further examination of the positivity ratio among adolescents is warranted. Specifically, determining whether adolescents require a greater ratio of positive to negative emotions to establish flourishing, as their psychological well-being is still in development, would be enlightening. The inclusion of coeducational public and private schools would expand the broaden-and-build theory saliency in adolescents. Also, given the discrepancy of depression rates between boys and girls, it would be informative to determine whether the positivity ratio differs by gender.

Study II – Resilience Buffers the Effect of Stress on Depressive Symptoms in Adolescent Females

By utilizing adolescent depression categories (viz., mild, minimal, moderate/severe), it was found that more than half of the students ($n = 290$, 57%) were in the "minimal"

category for adolescent depression. Twenty-two percent of the students ($n = 113$) were in the "moderate/severe" category, and 21% ($n = 104$) were in the "mild" category. These scores align with national norms for adolescent depression. Findings from the present study provide support for both the role of resilience in buffering or lessening the impact of stress on depressive symptoms and the theory that resilience-boosting educational programming in all-girls public middle and high schools could be efficacious. It is thought such programs would be especially beneficial for those students reporting higher depression scores.

Support for such programs are in good company as a recent study commissioned by the World Health Organization reviewed the success of interventions aimed at promoting the positive mental health of young people among various community-based settings (Barry, Clarke, Jenkins, & Patel, 2013). Findings from this study showed that school-based intervention outcomes were significant at bolstering the psychological well-being of young people, as were findings from the community-based interventions. These promising results are particularly supportive for the multifaceted programs of mental health and social well-being among adolescents. Efforts that include the family, school, and community are most efficacious, with the school being one of the most viable community settings for promoting mental health in young people (WHO, 2001). The school environment provides a basis for building social and emotional skills in addition to nurturing educational efforts, while reaching a significant number of young people who may be experiencing mental health challenges (Weak, 2000; Rowling, 2002; Zins, Weissberg, Wang, & Walberg, 2004; Payton et al., 2008).

There is evidence to support that psychological health promotion programs in schools adopting a "whole-student approach" lead to positive mental and emotional health outcomes, as well as improved social and educational behaviors (Tennant, Goens, Barlow, Day, & Stewart-Brown, 2007). The sustainability of such programs is most effective when policies are in place to support school- and community-led efforts. Community resiliency instruction programs are also beneficial, as educational opportunities throughout people's lives have been associated with improved mental health outcomes (WHO, 1998, 2001).

Incorporating similar methodologies as the established Coordinated Approach to Child Health (CATCH) program would be advantageous in the school for identifying psychological markers for adolescent depression. While the CATCH program currently addresses child and young adolescents (i.e., through middle school), including the mental health aspect would only strengthen its mission of promoting child and adolescent well-being. Assisting young people not only in their healthy eating and physical activity choices, but also by instilling in them positive emotional behaviors would be valuable given the rise in adolescent mental health concerns and the comorbidity rates with physical inactivity and obesity (WHO, 2013).

By utilizing the "Go, Slow, Whoa" approach via its terminology and "stop-light" color-coding used in the food-research studies, it would already be familiar to students, teachers, and school facilitators. The use of this technique could be applied in the psychological realm as well. For example, nurses, school counselors, and health promotion personnel could employ a similar color-coding to students' personal files that

identify students reporting mild depressive symptoms as green, students reporting

minimal depressive symptoms as yellow, and students reporting moderate/severe

depressive symptoms as red. Classroom activities and programming could also capture

the momentum from the already-in-use CATCH activities by incorporating various

positive affirmations and resiliency education efforts. Dovetailing with policies already

in place will increase the growth and success of programs to support young girls'

development of self and well-being.

Limitations

In summary of the present dissertation, the findings are recognized with some

limitations, including its cross-sectional design with a one-time survey data collection,

which does not allow for causality. Further, as with all self-report surveys, common-

methods and recall bias are possible. While directionality and causality cannot be

directly implied, the results of the study are illuminating. In Study I, the students that

reported the most personal and environmental resources were also the students most

likely to be in the flourishing positivity category. Conversely, those students that

reported the least amount of internal and external resources were the students found in the

depressed positivity category. Therefore, based on Study I results, there is a link with

regard to the direction of the findings.

While these results may not be directly applicable to private or coeducational

schools, they do provide information on a growing educational movement. Although the

environment (i.e., school) was not measured directly, the single-gender academic setting

may provide more continuity and cohesion for the students. Even though lower-income

and/or minority adolescents may not be able to directly alter their home, neighborhood, and community settings, nurturing their awareness to positive emotions and encouraging their receptiveness to their surroundings could be powerful enough that they in turn begin to change their environment.

Implications for Future Research and Practice

This dissertation provides a foundation for future studies to build upon in light of the above limitations. With the growing trend of single-sex public education, research should be conducted to identify the characteristics of this unique academic environment that may be a source of protection for young adolescent girls. Previous research reports the school itself is a protective entity for low-income, minority adolescents; this may be especially true for a single-sex school. Identifying how this particular environment enhances students' well-being would be useful in designing school programs.

Interventions that uphold the PYD framework, while at the same time encouraging positive emotions, will validate the findings of the present studies, which introduced the broaden-and-build theory among an adolescent population. Combining support from the school, family, and community with opportunities for resilient behavior would be effective to promote general well-being among adolescent females.

Summary

Taken together, the findings from this dissertation support the foundation of positive youth development while utilizing the broaden-and-build theory of positive emotions. The present studies also highlight the importance of personal and environmental resources for young females and how the individual as well as the school

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community provides protection against daily life stressors on psychological well-being. Future research should examine the efficacy of programs designed to increase students' positive emotions, resilient behaviors, and connectedness to their schools and communities. These programs may be instrumental in improving the overall well-being for the next generation of low-income and/or minority women.

APPENDICES

APPENDIX A

Parental Permission for Children Participation in Research

Parental Permission for Children Participation in Research

Title: The Effect of Positivity, Resilience, and Social Support on Attendance and Academic Achievement

Introduction

The purpose of this form is to provide you (as the parent of a prospective research study participant) information that may affect your decision as to whether or not to let your child participate in this research study. Read the information below and ask any questions you might have before deciding whether or not to give your permission for your child to participate. If you decide to let your child be involved in this study, this form will be used to record your permission.

Purpose of the Study

If you agree, your child will be asked to participate in a research study about the role of positive emotions, resilience, and social support on attendance and academic achievement. The purpose of this study is to determine if positive emotions buffer the effects of stress on students' academic achievement. Further, this study will examine the role personal and environmental resources have on the relationship between positivity and academic achievement.

What is my child going to be asked to do?
If you allow your child to participate in this study, she will be asked to complete a survey that will take approximately 60 minutes. There will be approximately 500 students in this study.

What are the risks involved in this study?

There are no foreseeable risks to participating in this study. The survey contains general questions about students' perception of the school environment and their perceived wellness, including two questions regarding drugs and alcohol use and one question regarding perceptions of family income. If you would like to view the survey items, please contact the researcher, Dr. Mary Steinhardt at 512-232-3535 or send an email to msteinhardt@austin.utexas.edu. You will be permitted to see your child's scores upon request.

What are the possible benefits of this study?

The possible benefits of participation are a further understanding of the impact of positive emotions, resilience, and environmental support (school, family, peers, teachers, and community) on school attendance and GPA. This study will allow the school and teachers to enhance the curriculum to include a resilience education component.

Does my child have to participate?

No, your child's participation in this study is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusing to participate will not affect their relationship with the Ann Richards School or with The University of Texas at Austin in anyway. You can agree to allow your child to be in the study now and change your mind later without any penalty.

This research study will take place during a one-hour period of your child's advisory teachers' choosing in the school cafeteria. However, if you do not want your child to participate, an alternate activity will be available. Students who choose not to

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participate will remain in their advisory class with their teacher and utilize that time to work on school assignments.

What if my child does not want to participate?

In addition to your permission, your child must agree to participate in the study. If your child does not want to participate, she will not be included in the study and there will be no penalty. If your child initially agrees to be in the study, she can change her mind later without any penalty. A university research assistant will be present during all testing and will verbally explain to the students that they can skip any question they may not want to answer or stop filling out the questionnaires at any time if they feel uncomfortable.

Will there be any compensation?

Neither you nor your child will receive any type of payment participating in this study. Students who turn in their parental consent form, regardless of their participation in the study, will receive a small bottle of lotion valued at one dollar. Students, who participate in the survey, will receive a small deck of 10 inspirational quote cards.

What are the confidentiality or privacy protections for my child's participation in this research study?

Participants will be assigned a research ID number that will identify all data collected. Upon completion of the survey, students will place their survey in an envelope that the researchers will collect. The researchers will be obtaining the students' academic and attendance records which will be kept confidential for the study. The researchers will be able to match the students' information via their research booklet number. A key file linking the research ID number with their actual identifying information will

be kept confidential and only accessible to the investigators of the study. All data will be stored and secured in a password-protected computer. The key file will be destroyed at the completion of the study. When data are shared outside the research team, only aggregate results will be provided without any identifying information. Parents will be permitted to see their child's scores upon request. By signing this consent form, you are giving permission for AISD to release your child's attendance and GPA information to the researchers. At the signature section of this consent form, your child will be assigned the corresponding student ID number that will allow the researchers to confidentially match your child with their attendance and GPA information.

Whom to contact with questions about the study?

Prior, during or after your participation you can contact the researcher, Dr. Mary Steinhardt at 512-232-3535 or send an email to msteinhardt@austin.utexas.edu. This study has been reviewed and approved by The University Institutional Review Board and the study number is 2012-02-0060.

Whom to contact with questions concerning your rights as a research participant?

For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board by phone at 512-471-8871 or email at orsc@uts.cc.utexas.edu.

Signature

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have decided to allow them to participate in the study. If you later decide that you wish to

withdraw your permission for your child to participate in the study you may
discontinue her participation at any time. You will be given a copy of this document.

_____   _____

Printed Name of Child   Student ID Number

_____   _____

Signature of Parent(s) or Legal Guardian   Date

_____   _____

Signature of Investigator   Date

APPENDIX B

Permiso de los Padres para la Participación de Niñas en una Investigación

Permiso de los Padres para la Participación de Niñas en una Investigación

Título: Estudio del efecto de Positivismo, la capacidad de recuperación emocional, y el apoyo de la comunidad con respecto a la asistencia y exito escolar.

Introducción

El propósito de este formulario es ofrecerle (a los padres de un posible participante en este estudio de investigación) información que pueda afectar su decisión sobre si desea o no que su hija participe en este estudio de investigación. La persona que realiza la investigación le describirá el estudio y responderá a todas sus preguntas. Por favor lea la siguiente información y haga cualquier pregunta antes de decidir si desea dar permiso para que su hija participe. Si usted decide permitir que su hija participe en este estudio, este formulario se utilizará para registrar su permiso.

Propósito del Estudio

Si usted está de acuerdo, se le preguntará a su hija si desea participar en un estudio de investigación acerca del papel de Positivismo, la capacidad de recuperación emocional, y el apoyo de la comunidad con respecto a la asistencia y éxito escolar. El propósito de este estudio es determinar si el apoyo emocional positivo reduce los efectos de la presión en los estudiantes para lograr el exito escolar. Ademas este estudio examinará el papel que los recursos personales y los de la comunidad tienen en relación con el Positivismo y éxito escolar.

¿Qué le van a pedir a mi hija que haga?

Si usted permite que su hija participe en este estudio, se le pedirá que complete una encuesta que tomará aproximadamente 60 minutos para completar. Hay 500 estudiantes en este estudio.

¿Cuáles son los riesgos involucrados en este estudio?

No hay riesgos predecibles en la participación de este estudio. Sin embargo, la encuesta contiene dos preguntas que se refieren al uso de las drogas y alcohol y una pregunta sobre la percepción de los ingresos de la familia. Si usted desea ver estos detalles de la encuesta, por favor póngase en contacto con la Dra. Mary Steinhardt al 512-232-3535 ó mande un correo a msteinhardt@austin.utexas.edu. Se le permitará ver la puntuación de su hija si usted lo pide.

¿Cuáles son los posibles beneficios de este estudio?

Los posibles beneficios de este estudio son, un entendimiento adicional del impacto de emociones positivas, capacidad de recuperacion, y el apoyo ambiental (escuela, familia, companeras/os, maestros) y su impacto en la asistencia a la escuela y el GPA (las calificaciones). Este estudio permitirá que la escuela y maestros mejoren el curriculum para incluir componentes en la educación que apoyen la capacidad de recuperación.

¿Tiene mi hija que participar?

No, la participación de su hija es voluntaria. Su hija puede decidir no participar ó puede dejar de participar en cualquier momento. El hecho de dejar de participar no afectará su relación con La Universidad de Texas en Austin de ningún modo. Usted inicialmente puede permitir que su hija participe en el estudio y luego cambiar de opinión sin ningún tipo de sanción. Este estudio de investigación se llevará a cabo durante un periodo de una hora en la cafeteria de la escuela, sin embargo, si usted no quiere que su hija participe, ella se quedará en el salón con la maestra y los estudiantes que no participaron y usaran este tiempo para completar su tarea.

¿Qué pasaría si mi hija no desea participar?

Además de su permiso, su hija debe estar de acuerdo con participar en el estudio. Si su hija no desea participar, no será incluida en el estudio y no habrá penalidad. Si su hija está inicialmente de acuerdo con participar en el estudio, puede cambiar de opinión más tarde sin ningún tipo de sanción. Durante la encuesta habrá un asistente universitario que explica que podrán omitir preguntas que pueden omitir preguntas que no quieran contestar, o dejar de contestar los cuestionarios en cualquier momento, si se sientar incómodas.

¿Habrá alguna compensación?

Ni usted ni su hija recibirán algún tipo de pago por su participación en este estudio. Estudiantes que entreguen la forma de autorización de los padres, sin importar si participan o no, recibirán una pequeña botella de crema y varias tarjetas con mensajes positivos y de motivación.

¿Qué protección hay con respecto a la privacidad y la confidencialidad de la participación de mi hija en este estudio de investigación?

Este estudio es confidencial y los nombres serán sustituidos por numeros. Cuando completa la encuesta, los estudiantes pondrán su cuestionario en un sobre que tomará y sellará el investigador universitario. Despues de la encuesta, la información va está descartada. Los investigadores van a poder emparejar la información de los estudiantes con el número del folleto de investigación. El documento que mantenga el número de investigación relacionado con la información de la estudiante se va mantener confidencial y accesible solamente por los investigadores. Todos los datos estarán guardados y asegurados en una computadora con contraseña. Los documentos serán borrados cuando se concluya el estudio. Cuando se comparten los datos, la información va estar generalizada sin dar información personal. Padres podrán pedir los datos de sus hijas. Al firmar esta forma, usted le esta dando permiso a AISD para que compartan datos de asistencia y calificaciones con los

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investigadores. En la sección de la firma, el número de investigación va estar asignado correspondiendo con los datos de cada estudiante confidencialmente.

¿A quién contactar con preguntas acerca del estudio?

Antes, durante, o después de su participación, usted puede contactar a la investigadora, Mary

Steinhardt al 512-232-3535 o enviar un correo electrónico a msteinhardt@austin.utexas.edu. Este estudio ha sido revisado y aprobado por La Junta de Revisión Institucional de la Universidad y el número del estudio es 2012-02-0060.

¿A quién contactar con preguntas con respecto a sus derechos como participante de la investigación?

Si usted tiene alguna pregunta acerca de sus derechos o si tiene cualquier descontento con cualquier parte de este estudio, puede contactar, anónimamente si así desea, a la Junta de Revisión Institucional al (512) 471-8871, o al correo electrónico, orsc@uts.cc.utexas.edu.

Firma

Usted está tomando una decisión acerca de permitir que su hija participe en este estudio. Su firma indica que usted ha leído la información presentada anteriormente y ha decidido permitir que su hija participe en el estudio. Si más adelante decide que desea retirar su permiso para que su hija participe en el estudio, puede descontinuar su participación en cualquier momento. A usted se le entregará una copia de este documento.

_____   _____

Nombre del Niña en letra de molde   Estudiante ID nombre

_____   _____

Firma del padre/madre o tutor legal   Fecha

_____   _____

Firma del Investigador   Fecha

APPENDIX C

Student Assent for Participation in Research

Student Assent for Participation in Research

Title: The Effect of Positivity, Resilience, and Social Support on Attendance and Academic Achievement

Introduction

You have been asked to be in a research study about the role of personal and environmental resources on attendance and academic achievement. This study was explained to your mother/father/parents/guardian and she/he/they said that you could be in it if you want to. We are doing this study to explain the role of positive emotions and resilience has on lessening the impact of stress on school attendance and academic achievement.

What am I going to be asked to do?

If you agree to be in this study, you will be asked to complete a survey that will take approximately 60 minutes. There will be approximately 500 students in this study.

What are the risks involved in this study?

There are no foreseeable risks to participating in this study.

Do I have to participate?

No, participation is voluntary. You should only be in the study if you want to. You can even decide you want to be in the study now, and change your mind later. No one will be

upset. A university research assistant will be present during all testing and will verbally explain to you that you can skip any question you may not want to answer or stop filling out the questionnaire at any time if you feel uncomfortable. If you would like to participate, please sign this form and turn it in to your advisory teacher. You will receive a copy of this form so if you want to you can look at it later.

Will I get anything to participate?

You will not receive any type of payment participating in this study. You will receive a small bottle of lavender lotion when you return your parent consent form. If you participate in the study, you will receive a small deck of 10 inspirational quote cards.

Who will know about my participation in this research study?

The records of this study will be kept confidential. Your responses may be used for a future study by these researchers or other researchers.

Writing your name on this page means that you read this form or it has been read to you and that you agree to be in the study. If you have any questions before, after or during the study, ask the person in charge. If you decide to quit the study, all you have to do is tell the person in charge.

_____   _____

Printed Name   Date

_____

Signature of Participant

APPENDIX D

Letter to Teachers

Letter to Teachers

Dear ARS Teachers,

Once again, thank you for your assistance with the resiliency project. We know your time is valuable and greatly appreciate your help. The survey will take place next week over two advisory class periods as follows:

October 8th and 9th: Grades 11 and 12
October 10th and 11th: Grades 6, 7, 8, 9, 10

Please find in your box the following items:

1) The Resiliency Survey and advisory roster of which students are participating
2) Brief instructions for administering the survey
3) Pencils for each student to complete the survey (and keep)
4) A small set of inspirational quote cards for each student that turns in her completed survey
5) Extra student assent forms for any student that would like to participate and has not yet completed one (assuming the student has turned in a parent consent form)

Please make sure each student keeps their Post-It note on their survey to ensure on day two they are completing their original survey. You can use the attached advisory roster to make sure the student is matched with their survey serial number. On day two, please place all completed surveys in the folder and return to the front office in the box labeled "completed forms and surveys".

Please read the following aloud to the participating students:

"You and your parents have given permission to participate in this survey. Please respond to each question with the response that best fits how _you_ feel. There are no wrong or right answers. Just be honest and answer each question to the best of your ability. Make sure to bubble in your information on the front of the survey packet. (Twelfth grade, leave the grade bubbles blank). Thank you for your participation!"

If there are any questions, comments, or concerns, please do not hesitate to contact either of us at any time. We look forward to sharing the survey results with you!

Sincerely,

Katherine Coffee, M.Ed. (512-501-0041)

Mary Steinhardt, Ed.D., L.P.C. (512-567-1204)

APPENDIX E

Letter From Principal

APPENDIX E

Letter From Principal

February 10, 2012

We are pleased to submit this letter of request to join the University of Texas' College of Education with presiding professor Mary Steinhardt and UT's Kinesiology and Health Education doctoral student, Katherine Coffee to gather data on the degrees of resiliency among our students.

We are interested in working with our university partners to assess the resiliency of our students and then to use that information to design and implement a curriculum on resiliency.

Sincerely,

Jeanne Goka
Principal

APPENDIX F

Resiliency Survey

Resiliency Survey

Resiliency Survey

MARKING INSTRUCTIONS

- Use a No. 2 pencil only
- Completely fill in the responses
- Erase all changes cleanly

CORRECT ●

INCORRECT ⊠ ☑ ◐ ◓

What is your age?

What is your grade?
- ○ Six
- ○ Seven
- ○ Eight
- ○ Nine
- ○ Ten
- ○ Eleven

In terms of income, what best describes your family's standard of living in the home where you live most of the time? Would you say your family is:

○ Very well off   ○ Living comfortably   ○ Just getting by   ○ Nearly poor   ○ Poor

Which of the following best describes you? Please mark just one:

○ American Indian or other Native American   ○ White (non-Hispanic)

○ Asian American or Pacific Islander   ○ Hispanic or Latino

○ Black or African American   ○ Other

PLEASE DO NOT WRITE IN THIS AREA

SERIAL #

During the _past month_, how often have you experienced the following:	NEVER	ALMOST NEVER	SOME TIMES	FAIRLY OFTEN	VERY OFTEN
1. In the past month, how often have you been upset because of something that happened unexpectedly?	①	②	③	④	⑤
2. In the past month, how often have you felt that you were unable to control the important things in your life?	①	②	③	④	⑤
3. In the past month, how often have you felt nervous or "stressed"?	①	②	③	④	⑤
4. In the past month, how often have you felt confident about your ability to handle personal problems?	①	②	③	④	⑤
5. In the past month, how often have you felt that things were going your way?	①	②	③	④	⑤
6. In the past month, how often have you found that you could not cope with all the things that you had to do?	①	②	③	④	⑤
7. In the past month, how often have you been able to control irritations in your life?	①	②	③	④	⑤
8. In the past month, how often have you felt that you were on top of things?	①	②	③	④	⑤
9. In the past month, how often have you been angered because of things that happened that were outside of your control?	①	②	③	④	⑤
10. In the past month, how often have you felt difficulties were piling up so high that you could not overcome them?	①	②	③	④	⑤

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer next to that word. Indicate to what extent you have felt this way during the past few weeks:

	VERY SLIGHTLY OR NOT AT ALL	A LITTLE	MODERATELY	QUITE A BIT	EXTREMELY
1. Interested	①	②	③	④	⑤
2. Sad	①	②	③	④	⑤
3. Frightened	①	②	③	④	⑤
4. Excited	①	②	③	④	⑤
5. Ashamed	①	②	③	④	⑤
6. Upset	①	②	③	④	⑤
7. Happy	①	②	③	④	⑤
8. Strong	①	②	③	④	⑤
9. Nervous	①	②	③	④	⑤
10. Guilty	①	②	③	④	⑤
11. Energetic	①	②	③	④	⑤
12. Scared	①	②	③	④	⑤
13. Calm	①	②	③	④	⑤
14. Miserable	①	②	③	④	⑤
15. Jittery	①	②	③	④	⑤
16. Cheerful	①	②	③	④	⑤
17. Active	①	②	③	④	⑤
18. Proud	①	②	③	④	⑤
19. Afraid	①	②	③	④	⑤
20. Joyful	①	②	③	④	⑤
21. Lonely	①	②	③	④	⑤
22. Mad	①	②	③	④	⑤
23. Disgusted	①	②	③	④	⑤
24. Delighted	①	②	③	④	⑤
25. Blue	①	②	③	④	⑤
26. Gloomy	①	②	③	④	⑤
27. Lively	①	②	③	④	⑤

3/8" SPINE PERF

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Think back to how you've felt during the past two weeks.
Indicate how often you've felt each of the following emotions:

	NEVER	HARDLY	SOME OF THE TIME	OFTEN	MOST OF THE TIME
1. In the past two weeks, I have felt **amused, fun-loving,** or **silly.**	①	②	③	④	⑤
2. In the past two weeks, I have felt **angry, irritated,** or **annoyed.**	①	②	③	④	⑤
3. In the past two weeks, I have felt **ashamed, humiliated,** or **disgraced.**	①	②	③	④	⑤
4. In the past two weeks, I have felt **awe, wonder,** or **amazement.**	①	②	③	④	⑤
5. In the past two weeks, I have felt **contemptuous, scornful,** or **disdainful.**	①	②	③	④	⑤
6. In the past two weeks, I have felt **disgust, distaste,** or **revulsion.**	①	②	③	④	⑤
7. In the past two weeks, I have felt **embarrassed, self-conscious,** or **blushing.**	①	②	③	④	⑤
8. In the past two weeks, I have felt **grateful, appreciative,** or **thankful.**	①	②	③	④	⑤
9. In the past two weeks, I have felt **guilty, repentant,** or **blame-worthy.**	①	②	③	④	⑤
10. In the past two weeks, I have felt **hate, distrust,** or **suspicion.**	①	②	③	④	⑤
11. In the past two weeks, I have felt **hopeful, optimistic,** or **encouraged.**	①	②	③	④	⑤
12. In the past two weeks, I have felt **inspired, uplifted,** or **elevated.**	①	②	③	④	⑤
13. In the past two weeks, I have felt **interested, alert,** or **curious.**	①	②	③	④	⑤
14. In the past two weeks, I have felt **joyful, glad,** or **happy.**	①	②	③	④	⑤
15. In the past two weeks, I have felt **love, closeness,** or **trust.**	①	②	③	④	⑤
16. In the past two weeks, I have felt **proud, confident,** or **self-assured.**	①	②	③	④	⑤
17. In the past two weeks, I have felt **sad, downhearted,** or **unhappy.**	①	②	③	④	⑤
18. In the past two weeks, I have felt **scared, fearful,** or **afraid.**	①	②	③	④	⑤
19. In the past two weeks, I have felt **serene, content,** or **peaceful.**	①	②	③	④	⑤
20. In the past two weeks, I have felt **stressed, nervous,** or **overwhelmed.**	①	②	③	④	⑤

Below is a list of the ways you might have felt or behaved.
Please mark how often you have felt this way during the past week:

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	①	②	③	④
2. I did not feel like eating; my appetite was poor.	①	②	③	④
3. I felt that I could not shake off the blues even with help from my family or friends.	①	②	③	④
4. I felt I was just as good as other people.	①	②	③	④
5. I had trouble keeping my mind on what I was doing.	①	②	③	④
6. I felt depressed.	①	②	③	④
7. I felt that everything I did was an effort.	①	②	③	④
8. I felt hopeful about the future.	①	②	③	④
9. I thought my life had been a failure.	①	②	③	④
10. I felt fearful.	①	②	③	④
11. My sleep was restless.	①	②	③	④
12. I was happy.	①	②	③	④
13. I talked less than usual.	①	②	③	④
14. I felt lonely.	①	②	③	④
15. People were unfriendly.	①	②	③	④
16. I enjoyed life.	①	②	③	④
17. I had crying spells.	①	②	③	④
18. I felt sad.	①	②	③	④
19. I felt that people dislike me.	①	②	③	④
20. I could not get "going."	①	②	③	④

3/8" SPINE PERF

SERIAL #

Mark the number that best describes how you generally feel:

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1. I tend to bounce back quickly after hard times.	①	②	③	④	⑤
2. I have a hard time making it through stressful events.	①	②	③	④	⑤
3. It does not take me long to recover from a stressful event.	①	②	③	④	⑤
4. It is hard for me to snap back when something bad happens.	①	②	③	④	⑤
5. I usually come through difficult times with little trouble.	①	②	③	④	⑤
6. I tend to take a long time to get over set-backs in my life.	①	②	③	④	⑤

Mark the number that best describes how you feel:

	STRONGLY DISAGREE	DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT 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

Mark the number that best describes how often you feel:

	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 am doing just as well as other kids my age.	①	②	③	④	⑤	⑥
3. I can think of many ways to get the things in life that are most important to me.	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

How strongly do you agree or disagree with the following statements:

	STRONGLY DISAGREE	DISAGREE	NEITHER DISAGREE NOR AGREE	AGREE	STRONGLY AGREE
1. I feel safe in my school.	①	②	③	④	⑤
2. The teachers at this school treat students fairly.	①	②	③	④	⑤
3. I am happy to be at this school.	①	②	③	④	⑤
4. I feel like I am a part of this school.	①	②	③	④	⑤
5. I feel close to people at this school.	①	②	③	④	⑤

SERIAL # ○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○◯

Mark the number that best describes how you feel:

	STRONGLY DISAGREE	DISAGREE	SOMEWHAT DISAGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT AGREE	AGREE	STRONGLY AGREE
1. There is a special person who is around when I am in need.	①	②	③	④	⑤	⑥	⑦
2. There is a special person with whom I can share my joys and sorrows.	①	②	③	④	⑤	⑥	⑦
3. My family really tries to help me.	①	②	③	④	⑤	⑥	⑦
4. I get the emotional help and support I need from my family.	①	②	③	④	⑤	⑥	⑦
5. I have a special person who is a real source of comfort to me.	①	②	③	④	⑤	⑥	⑦
6. My friends really try to help me.	①	②	③	④	⑤	⑥	⑦
7. I can count on my friends when things go wrong.	①	②	③	④	⑤	⑥	⑦
8. I can talk about my problems with my family.	①	②	③	④	⑤	⑥	⑦
9. I have friends with whom I can share my joys and sorrows.	①	②	③	④	⑤	⑥	⑦
10. There is a special person in my life who cares about my feelings.	①	②	③	④	⑤	⑥	⑦
11. My family is willing to help me make decisions.	①	②	③	④	⑤	⑥	⑦
12. I can talk about my problems with my friends.	①	②	③	④	⑤	⑥	⑦

These items deal with ways you've been coping with the stress in your life. Each item says something about a particular way of coping. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can:

	I HAVEN'T BEEN DOING THIS AT ALL	I'VE BEEN DOING THIS A LITTLE BIT	I'VE BEEN DOING THIS A MEDIUM AMOUNT	I'VE BEEN DOING THIS A LOT
1. I've been turning to school or other activities to take my mind off things.	①	②	③	④
2. I've been concentrating my efforts on doing something about the situation I'm in.	①	②	③	④
3. I've been saying to myself "this isn't real".	①	②	③	④
4. I've been using alcohol or other drugs to make myself feel better.	①	②	③	④
5. I've been getting emotional support from others.	①	②	③	④
6. I've been giving up trying to deal with it.	①	②	③	④
7. I've been taking action to try to make the situation better.	①	②	③	④
8. I've been refusing to believe that it has happened.	①	②	③	④
9. I've been saying things to let my unpleasant feelings escape.	①	②	③	④
10. I've been getting help and advice from other people.	①	②	③	④
11. I've been using alcohol or other drugs to help me get through it.	①	②	③	④
12. I've been trying to see it in a different light, to make it seem more positive.	①	②	③	④

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These items deal with ways you've been coping with the stress in your life. Each item says something about a particular way of coping. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can:

		I HAVEN'T BEEN DOING THIS AT ALL	I'VE BEEN DOING THIS A LITTLE BIT	I'VE BEEN DOING THIS A MEDIUM AMOUNT	I'VE BEEN DOING THIS A LOT
13.	I've been criticizing myself.	①	②	③	④
14.	I've been trying to come up with a strategy about what to do.	①	②	③	④
15.	I've been getting comfort and understanding from someone.	①	②	③	④
16.	I've been giving up the attempt to cope.	①	②	③	④
17.	I've been looking for something good in what is happening.	①	②	③	④
18.	I've been making jokes about it.	①	②	③	④
19.	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	①	②	③	④
20.	I've been accepting the reality of the fact that it has happened.	①	②	③	④
21.	I've been expressing my negative feelings.	①	②	③	④
22.	I've been trying to find comfort in my religion or spiritual beliefs.	①	②	③	④
23.	I've been trying to get advice or help from other people about what to do.	①	②	③	④
24.	I've been learning to live with it.	①	②	③	④
25.	I've been thinking hard about what steps to take.	①	②	③	④
26.	I've been blaming myself for things that happened.	①	②	③	④
27.	I've been praying or meditating.	①	②	③	④
28.	I've been making fun of the situation.	①	②	③	④

This questionnaire is about you, your family, friends, school, and neighborhood. The following statements may or may not be true for you. Mark the number closest to how it is for you:

About you...

		ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
1.	My life has a sense of purpose.	①	②	③	④	⑤
2.	I worry about the future.	①	②	③	④	⑤
3.	I am easily frustrated with other people.	①	②	③	④	⑤
4.	I take it easy on myself when I am not feeling well.	①	②	③	④	⑤
5.	My feelings are out of my control.	①	②	③	④	⑤
6.	I feel good about myself.	①	②	③	④	⑤
7.	If I have a problem I can work it out.	①	②	③	④	⑤
8.	I dwell on the bad things that happen.	①	②	③	④	⑤
9.	I am patient with people who can't do things as well as I can.	①	②	③	④	⑤
10.	I look for what I can learn out of bad things that happen.	①	②	③	④	⑤
11.	I tend to think the worst is going to happen.	①	②	③	④	⑤
12.	I feel helpless when faced with a problem.	①	②	③	④	⑤
13.	I feel hopeful about my life.	①	②	③	④	⑤
14.	When I am feeling down, I take extra special care of myself.	①	②	③	④	⑤
15.	I can express my opinions when I am in a group.	①	②	③	④	⑤
16.	If I can't handle something I find help.	①	②	③	④	⑤
17.	I get frustrated when people make mistakes.	①	②	③	④	⑤
18.	I am confident that I can achieve what I set out to do.	①	②	③	④	⑤
19.	I am a person who can go with the flow.	①	②	③	④	⑤
20.	I can't stop worrying about my problems.	①	②	③	④	⑤

This questionnaire is about you, your family, friends, school, and neighborhood. The following statements may or may not be true for you. Mark the number closest to <u>how it is for you</u>:

About you...

		ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
21.	I find it hard to express myself to others.	①	②	③	④	⑤
22.	I feel confident that I can handle whatever comes my way.	①	②	③	④	⑤
23.	I am able to let go of things I can't control.	①	②	③	④	⑤
24.	I have trouble explaining how I am feeling.	①	②	③	④	⑤
25.	I push myself too hard to do what everyone else does.	①	②	③	④	⑤
26.	I can change my feelings by changing the way I see things.	①	②	③	④	⑤
27.	I try to find meaning in the things that happen to me.	①	②	③	④	⑤
28.	I expect people to live up to my standards.	①	②	③	④	⑤
29.	I find it easy talking to people my age.	①	②	③	④	⑤
30.	When things go wrong, I tend to give myself a hard time.	①	②	③	④	⑤
31.	I am a shy person.	①	②	③	④	⑤
32.	I just can't let go of bad feelings.	①	②	③	④	⑤
33.	I can share my personal thoughts with others.	①	②	③	④	⑤
34.	I find it hard to make important decisions.	①	②	③	④	⑤
35.	I think about other people's feelings before I say things.	①	②	③	④	⑤
36.	If I have a problem, I know there is someone I can talk to.	①	②	③	④	⑤
37.	Other people's feelings are easy for me to understand.	①	②	③	④	⑤
38.	If something upsets me it affects how I feel about everything.	①	②	③	④	⑤
39.	I feel confident to do things by myself.	①	②	③	④	⑤
40.	I think things through carefully before making decisions.	①	②	③	④	⑤

About family...

		ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
41.	I do fun things with my family.	①	②	③	④	⑤
42.	I get to spend enough time with my family.	①	②	③	④	⑤
43.	My family understands my needs.	①	②	③	④	⑤
44.	We do things together as a family.	①	②	③	④	⑤
45.	My family listens to me.	①	②	③	④	⑤
46.	People in my family expect too much of me.	①	②	③	④	⑤
47.	There is someone in my family that I feel particularly close to.	①	②	③	④	⑤
48.	I enjoy spending time with my family.	①	②	③	④	⑤
49.	My family helps me to believe in myself and my abilities.	①	②	③	④	⑤
50.	There is someone in my family I can talk to about anything.	①	②	③	④	⑤
51.	If I have a problem there is someone in my family I can talk to.	①	②	③	④	⑤

About friends...

		ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
52.	When I am down I have friends that help cheer me up.	①	②	③	④	⑤
53.	I find it hard making friends.	①	②	③	④	⑤
54.	I have a group of friends that I keep in touch with regularly.	①	②	③	④	⑤
55.	Making new friends is easy.	①	②	③	④	⑤
56.	I feel left out of things.	①	②	③	④	⑤
57.	I have friends who make me laugh.	①	②	③	④	⑤
58.	I am happy with my friendship group.	①	②	③	④	⑤
59.	I find it hard to stay friends with people.	①	②	③	④	⑤
60.	I prefer to do things on my own.	①	②	③	④	⑤
61.	I get to spend enough time with my friends.	①	②	③	④	⑤
62.	I wish I had more friends I felt close to.	①	②	③	④	⑤
63.	I enjoy being around people my age.	①	②	③	④	⑤
64.	I feel shy around people my age.	①	②	③	④	⑤

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This questionnaire is about you, your family, friends, school, and neighborhood. The following statements may or may not be true for you. Mark the number closest to how it is for you:

About friends...

	ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
65. I have a friend I can trust with my private thoughts and feelings.	①	②	③	④	⑤
66. I feel confident around people my age.	①	②	③	④	⑤

About school...

	ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
67. My teachers are caring and supportive of me.	①	②	③	④	⑤
68. I have a teacher that I feel looks out for me.	①	②	③	④	⑤
69. I hate going to school.	①	②	③	④	⑤
70. I try hard in school.	①	②	③	④	⑤
71. My teachers provide me with extra help if I need it.	①	②	③	④	⑤
72. I join in class discussions.	①	②	③	④	⑤
73. There is an adult at school I could talk to if I had a personal problem.	①	②	③	④	⑤
74. My teachers expect too much of me.	①	②	③	④	⑤
75. I participate in class.	①	②	③	④	⑤
76. I enjoy going to school.	①	②	③	④	⑤
77. I get involved with school activities.	①	②	③	④	⑤
78. I feel that what I say counts at school.	①	②	③	④	⑤
79. At school students help to decide and plan things like school activities and events.	①	②	③	④	⑤
80. I am bored at school.	①	②	③	④	⑤
81. My teachers notice when I am doing a good job and let me know.	①	②	③	④	⑤
82. Getting good grades is important to me.	①	②	③	④	⑤

About the area you live in, your neighborhood or community...

	ALMOST NEVER	NOT OFTEN	SOMETIMES	MOST OF THE TIME	ALMOST ALWAYS
83. I trust people in my neighborhood.	①	②	③	④	⑤
84. I like my neighborhood.	①	②	③	④	⑤
85. There is an adult in my neighborhood I could talk to about a problem.	①	②	③	④	⑤
86. People in my neighborhood are caring.	①	②	③	④	⑤
87. The people in my neighborhood treat other people fairly.	①	②	③	④	⑤
88. The people in my neighborhood look out for me.	①	②	③	④	⑤

Thank you for participating in this survey.

PLEASE DO NOT WRITE IN THIS AREA

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SERIAL #

APPENDIX G

Approval From the Institutional Review Board

APPENDIX G

Approval From the Institutional Review Board

OFFICE OF RESEARCH SUPPORT

THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 · Mail Code A3200
(512) 471-8871 · FAX (512) 471-8873

FWA # 00002030

Date: 04/20/12

PI: Mary A Steinhardt

Dept: Kinesiology and Health Education

Title: The Effect of Positive Emotions, Resilience, and Social
Support on Attendance and Academic Achievement

Re: IRB Expedited Approval for Protocol Number 2012-02-0060

Dear Mary A Steinhardt:

In accordance with the Federal Regulations the Institutional Review Board (IRB) reviewed the above referenced research study and found it met the requirements for approval under the Expedited category noted below for the following period of time: 04/20/2012 to 04/19/2013 . *Expires 12 a.m. [midnight] of this date.* If the research will be conducted at more than one site, you may initiate research at any site from which you have a letter granting you permission to conduct the research. You should retain a copy of the letter in your files.

Expedited category of approval:

☐ 1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met. (a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review). (b) Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.

☐ 2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows: (a) from healthy, non-pregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or (b) from other adults and children2, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.

☐ 3) Prospective collection of biological specimens for research purposes by non-invasive means. Examples:
    (a) Hair and nail clippings in a non-disfiguring manner.
    (b) Deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction;
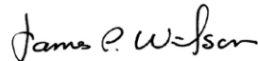   (c) Permanent teeth if routine patient care indicates a need for extraction.

    (d) Excreta and external secretions (including sweat).
    (e) Uncannulated saliva collected either in an un-stimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue.
    (f) Placenta removed at delivery.
    (g) Amniotic fluid obtained at the time of rupture of the membrane prior to or during labor.
    (h) Supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques.
    (i) Mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings.
    (j) Sputum collected after saline mist nebulization.

☐ 4) Collection of data through non-invasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications).
Examples:
    (a) Physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy.
    (b) Weighing or testing sensory acuity.
    (c) Magnetic resonance imaging.
    (d) Electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography.
    (e) Moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.

☐ 5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis).
Note: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.

☐ 6) Collection of data from voice, video, digital, or image recordings made for research purposes.

☒ 7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.
Note: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.

☒ Use the attached approved informed consent document(s).

☐ You have been granted a Waiver of Documentation of Consent according to 45 CFR 46.117 and/or 21 CFR 56.109(c)(1).

☐ You have been granted a Waiver of Informed Consent according to 45 CFR 46.116(d).

Responsibilities of the Principal Investigator:

1. Report immediately to the IRB any unanticipated problems.

2. Submit for review and approval by the IRB all modifications to the protocol or consent form(s). Ensure the proposed changes in the approved research are not applied without prior IRB review and approval, except when necessary to eliminate apparent immediate hazards to the subject. Changes in approved research implemented without IRB review and approval initiated to eliminate apparent immediate hazards to the subject must be promptly reported to the IRB, and will be reviewed under the unanticipated problems policy to determine whether the change was consistent with ensuring the subjects continued welfare.

3. Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to participate.

4. Ensure that only persons formally approved by the IRB enroll subjects.

5. Use only a currently approved consent form, if applicable.
    Note: Approval periods are for 12 months or less.

6. Protect the confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of subjects and their information.

7. Submit a Continuing Review Application for continuing review by the IRB. Federal regulations require IRB review of on-going projects no less than once a year a reminder letter will be sent to you two months before your expiration date. If a reminder is not received from Office of Research Support (ORS) about your upcoming continuing review, it is still the primary responsibility of the Principal Investigator not to conduct research activities on or after the expiration date. The Continuing Review Application must be submitted, reviewed and approved, before the expiration date.

8. Upon completion of the research study, a Closure Report must be submitted to the ORS.

9. Include the IRB study number on all future correspondence relating to this protocol.

If you have any questions contact the ORS by phone at (512) 471-8871 or via e-mail at orsc@uts.cc.utexas.edu.

Sincerely,

James P. Wilson

James Wilson, Ph.D.
Institutional Review Board Chair

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REFERENCES

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Algoe, S. B., & Stanton, A. L. (2009). Is benefit finding good for individuals with chronic disease? In C. L. Park, S. C. Lechner, M. H. Antoni, & A. L. Stanton (Eds.), *Medical illness and positive life change: Can crisis lead to personal transformation?* (pp. 173-193). Washington, DC: American Psychological Association.

American Association of University Women Educational Foundation (AAUWEF). (2012). *Single-sex schools and adolescent female education*.

The Annie E. Casey Foundation (AECF). (2003). *Kids count 2003 data book online* Retrieved from http://www.aecf.org/upload/publicationfiles/data%20book%202003.pdf

Appleyard, K., Egeland, B., & Sroufe, L. A. (2007). Direct social support for young high risk children: Relations with behavioral and emotional outcomes across time. *Journal of Abnormal Psychology, 35*(3), 443-457. doi:10.1007/s10802-007-9102-y

Backer, J. H., Bakas, T., Bennet, S. J., & Pierce, P. K. (2000). Coping with stress: Programs of nursing research. In V. H. Rice (Ed.), *Handbook of stress, coping, and health: Implications for nursing research, theory, and practice* (pp. 223-263). Thousand Oaks, CA: Sage.

Barry, M. M., Clark, A. M., Jenkins, R., & Patel, V. (2013). A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health, 13*, 1-23. doi:10.1186/1471-2458-13-835

Barton, P. E., & Coley, R. J. (2009). Parsing the achievement gap II. *Educational Testing Service Policy Information Center Report*, 1-35.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology, 5*(4), 323-370.

Belfer, M. L. (2008). Child and adolescent mental disorders: The magnitude of the problem across the globe. *Journal of Child Psychology and Psychiatry, 49*(3), 226-236. doi:10.1111/j.1469-7610.2007.01855.x/

Benoit, A., Lacourse, E., & Claes, M. (2013). Pubertal timing and depressive symptoms in late adolescence: The moderating role of individual, peer, and parental factors.

Development and Psychopathology, 25(2), 455-471. doi:10.1017/S0954579412001174

Benson, P. L. (2003). Developmental assets and asset-building communities: Conceptual and empirical foundations. In R. M Lerner & P. L. Benson (Eds.), *Developmental assets and asset-building communities: Implications for research, policy, and practice* (pp. 19-43). Norwell, MA: Kluwer.

Benson, P. L., Scales, P. C., Hamiliton, S. F., & Sesma Jr., A. (2007). Positive youth development: Theory, research, and applications. *Theoretical Models of Human Development*. doi:10.10002/9780470147658.chpsy0116.

Bernard, B. (1991). *Fostering resiliency in kids: Protective factors in the family, school and community*. San Francisco, CA: Western Regional Center for Drug Free Schools and Communities, Far West Laboratory.

Bernard, B. (1995). *Fostering resilience in children*. ERIC Digest. http://www.ed.gov/databases/ERIC_Digests/ed386237html

Bernstein-Yamashiro, B., & Noam, G. G. (2013). Teacher-Student Relationships: Toward Personalized Education. *New Directions for Youth Development*, *137*, 1-15.

Bird, J. M., & Markle, R. S. (2012). Subjective well-being in school environments: Promoting positive youth development through evidence-based assessment and intervention. *American Journal of Orthopsychiatry, 82*(1), 61-66. doi:10.1111/j.1939-0025.2011.01127.x

Birmaher, B., Arbbelaez, C., & Brent, D. (2002). Course and outcome of child and adolescent major depressive disorder. *Child and Adolescent Psychiatry Clinics of North America, 11*(3), 619-637. doi:10.1016/S1056-4993(02)00011-1

Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D., & Kaufman, J. (1996). Childhood and Adolescent Depression: A Review of the Past 10 years. Part II. *Journal of the American Academy of Child & Adolescent Psychiatry, 35*(12), 1575-1583.

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246-263. doi:10.1111/j.1467-8624.2007.00995.x

Blumenthal, H., Leen-Felder, E. W., Frala, J. L., Badour, C. L., & Ham, L. S. (2010). Social anxiety and motives for alcohol use among adolescents. *Psychology of Addictive Behaviors, 24*(3), 529-534. doi:10.1037/a0019794

Bonny, A., Britto, M. T., Klostermann, B. K., Hornung, R. W., & Slap, G. B. (2000). School disconnectedness: Identifying adolescents at risk. *Pediatrics, 106*(5)*,* 1017-1021. doi:10.1542/peds.106.5.1017

Bowen, N. K., Bowen, G. L., & Ware, W. B. (2002). Neighborhood social disorganization, families, and the educational behavior of adolescents. *Journal of Adolescent Research, 17*(5)*,* 468-490. doi:10.1177/0743558402175003

Brendgen, M., Vitaro, F., Bukowski, W. M., Dionne, G., Tremblay, R. E., & Boivin, M. (2013). Can friends protect genetically vulnerable children from depression? *Development and Psychopathology, 25*(2), 277-289. doi:10.1017/S0954579412001058

Brizendine, L. (2006). *The female brain*. New York, NY: Morgan Road Books.

Bronfenbrenner, U. (1994). Ecological models of human development. *International Encyclopedia of Education, 3*(2), 1643-1647.

Bronk, K. C., Hill, P. L., Lapsley, D. K., Talib, T. L., & Finch, H. (2009). Purpose, hope, and life satisfaction in three age groups. *The Journal of Positive Psychology, 4*(6), 500-510. doi:10.1080/17439760903271439

Brookmeyer, K. A., Fanti, K. A., & Henrich, C. (2006). Schools, parents, and youth violence: A multilevel, ecological analysis. *Journal of Clinical Child and Adolescent Psychology, 35*, 504-514. doi:10.1207/s15374424jccp3504_2

Brooks, J. E. (2006). Strengthening resilience in children and youths: Maximizing opportunities in the schools. *Children and Schools, 28*(2)*,* 69-76. doi:10.1093/cs/28.2.69

Brown, N. J. L., Sokal, A. D., & Friedman, H. L. (2013). The Complex Dynamics of Wishful Thinking; The Critical Positivity Ratio. *American Psychologist, 68*(9), 801-813. doi:10.1037/a0032850

Bryan J., & Henry, L. (2008). Strengths-based partnerships: A school-family-community partnership approach to empowering students. *Professional School Counseling, 12*(2), 149-156. doi:10.5330/PSC.n.2010-12.149

Cacioppo, J. T., Gardner, W. L., & Bernston, G. G. (1999). The affect system has parallel and integrative processing components form follows function. *Journal of Personality and Social Psychology, 76*(5), 839-855. doi:10.1037/0022-3514.76.5.839

Caldwell, C. H., Kohn-Wood, L. P., Schmeelk-Cone, K. H., Chavous, T. M., & Zimmerman, M. A. (2004). Racial discrimination and racial identity as risk or protective factors for violent behaviors in African American young adults.

American Journal of Community Psychology, 33(1/2), 91-105. doi:10.1023/B:AJCP.0000014321.02367.dd

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, *4*(1), 92-100. doi:10.1207/s15327558ijbm0401_6

Carver, T. (2003). Gender and international relations. *International Studies Review, 5*(2), 287-302. doi:10.1111/1521-9488.5020221

Chafouleas, S. M., & Bray, M. A. (2004). Introducing positive psychology: Finding a place within school psychology. *Psychology in the Schools, 41*(1), 1-6. doi:10.1002/pits.10133/

Chandra, A., & Batada, A. (2006). Exploring stress and coping among urban African American adolescents: The shifting lens study. *Prevention Chronic Disease. 3*(2), A40.

Chen, X., Rubin, K. H., & Li, B. (1995). Social and school adjustment of shy and aggressive children in China. *Development and Psychopathology, 7*(2)*,* 337-349. doi:10.1017/S0954579400006544

Choe, C. J., Emslie, G. J., & Mayes, T. L. (2012). Depression. *Child and Adolescent psychiatric clinics of North America, 21*(4)*,* 807-829. doi:10.1016/j.chc.2012.07.002

Coffee, K., Raucci, C., Gloria, C., Faulk, K., & Steinhardt, M. (2013). Perceptions of adolescent wellness at a single-sex school. *International Journal of Health Promotion and Education, 51*(6), 300-311. doi:10.1080/14635240.2013.829980

Cohan, A., & Honigsfeld, A. (2011). Breaking the mold of preservice and inservice teacher education: Innovative and successful practices for the twenty-first century. Lanham, MD: R&L Education.

Cohen, P., Kasen, S., Chen, H., Hartmark, C., & Gordon, K. (2003). Variations in patterns of developmental transitions in the emerging adulthood period. *Developmental Psychology, 39*(4), 657-669.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4)*,* 385-396. doi:10.2307/2136404

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacaapan & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on applied social psychology*. Newbury Park, CA: Sage.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357. doi:10.1037/0033-2909.98.2.310

Cohn, M. A., & Fredrickson, B. L. (2009). Positive emotions. In C. R. Snyder & S. J. Lopez (Eds.), *Oxford handbook of positive psychology* (2nd ed.). New York, NY: Oxford.

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

Colarossi, L. G., & Eccles, J. S. (2003). Differential effects of support providers on adolescents' mental health. *Social Work Research, 27*(1), 19-30. doi: 10.1093/swr/27.1.19

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*(1)*,* 87-127. doi:10.1037/0033-2909.127.1.87

Compas, B. E., Wagner, B. M., Slavin, L. A., & Vannatta, K. (1986). A prospective study of life events, social support, and psychological symptomatology during the transition from high school to college. *American Journal of Community Psychology, 14*(3), 241-257. doi:10.1007/BF00911173

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety, 18*(2), 76-82. doi:10.1002/da.10113

Cosmides, L., & Tooby, J. (2000). Evolutionary psychology and the emotions. In M. Lewis & J. M. H. Jones (Eds.), *Handbook of emotions* (pp. 91-115). New York, NY: Guilford Press.

Costello, J., Erkanli, A., & Angold, A. (2006). Is there an epidemic of child or adolescent depression? *Journal of Child Psychology & Psychiarty*, *47*(12), 1263-1271. doi:10.11 11/j.1469-7610.2006.01682.x.

Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry, 60*(8), 837-844. doi:10.1001/archpsyc.60.8.837

Cote, M., Mullins, L., Hartman, V., Hoff, A., Balderson, B., Chaney, J., & Domek, D. (2003). Psychosocial correlates of health care utilization for children and adolescents with type 1 diabetes mellitus. *Children's Health Care, 32*(1), 1-16. doi:10.1207/S15326888CHC3201_1

Cryanoski, J. M., Frank, E., Young, E., & Shear, M. K. (2000). Adolescent onset of the gender difference in the lifetime rates of major depression. *Archives of General Psychiatry, 57*(1), 21-27. doi:10.1001/archpsyc.57.1.21

Damon, W. (2004). What is positive youth development? *The American Academy of Political and Social Science, 591*(1)*,* 13-24. doi:10.1177/0002716203260092

Davis, K. M., & Lambie, G. W. (2005). Family engagement: A collaborative, systemic approach for middle school counselors. *Professional School Counseling, 9*(2), 144-151.

Day, L., Hanson, K., Maltby, J., Proctor, C., & Wood, A. (2010). Hope uniquely predicts objective academic achievement above intelligence, personality, and previous academic achievement. *Journal of Research in Personality, 44*(4), 550-553. doi:10.1016/j.jrp.2010.05.009

Demaray, M. K., & Malecki, C. K. (2002). The relationship between perceived social support and maladjustment for students at risk. *Psychology in the Schools, 39*(3), 305-316. doi:10.1002/pits.10018/

Demaray, M. K., Malecki, C. K., Davidson, L. M., Hodgson, K. K., & Rebus, P. J. (2005). The relationship between social support and student adjustment: a longitudinal analysis. *Psychology in the Schools, 42*(7), 691-706. doi:10.1002/pits.20120

DeNavas-Walt, C., Proctor, B. D., & Lee, C. H. (2005). Income, poverty, and health insurance coverage in the United States: 2004. *Current Population Reports, Consumer Income.* U. S. Department of Commerce, U. S. Census Bureau, August 2005.

Dornbusch, S. M., Erickson, K. G., Laird, J., & Wong, C. A. (2001). The relation of family and school attachment to adolescent deviance in diverse groups and communities. *Journal of Adolescent Research, 16*(4), 396-422. doi:10.1177/0743558401164006

Drukker, M., Kaplan, C., Schneiders, J., Feron, F. J. M., & Os, J. V. (2006). The wider social environment and changes in self-reported quality of life in the transition from late childhood to early adolescence: A cohort study. *BMC, 6*(1)*,* 133-143. doi:10.1186/1471-2458-6-133

Duckworth, A. L., Kim, B., & Tsukayama, E. (2013). Life stress impairs self-control in early adolescence. *Frontiers in Psychology*, *3*, 1-12. doi:10.3389/fpsyg.2012.00608

Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress on depression. *Journal of Youth and Adolescence, 28*(3), 343-363.

Durlak, J. A. (1998). Common risk and protective factors in successful prevention programs. *American Journal of Orthopsychiatry, 68*(4), 512-520. doi:10.1037/h0080360

Durlak, J. A., & Wells, A. M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. *The American Journal of Community Psychology, 25*(2), 115-152.

Edwards, L. M., Rand, K. L., Lopez, S. J., & Snyder, C. R. (2002). Understanding hope: A review of measurement and construct validity research. In Ong, A., & Van Dulmen, M. (Eds.), *Handbook of methods in positive psychology* (pp. 83-95). New York, NY: Oxford Press.

Egeland, B. R., Carlson, E., & Sroufe, L. A. (1993). Resilience as process. *Development and Psychopathology, 5(4)*, 517-528. doi:10.1017/S0954579400006131

Erikson, E. H. (1968). *Identity: Youth and crisis.* New York, NY: W. W. Norton & Company.

Family and Youth Services Bureau (FYSB). (2013). *Positive youth development*. U.S. Department of Health and Human Services.

Faulk, K. E. (2012). The role of positive emotions in reducing depressive symptoms among military wives. *Journal of Marriage and Family*, in review.

Faulk, K. E., Gloria, C. T., Steinhardt, M. A., & Cance, J. D. (2012). Depressive symptoms among U.S. military spouses during deployment: The protective effect of positive emotions. *Armed Forces & Society, 38*(3), 373-390. doi:10.1177/0095327X11428785

Fergus, S., & Zimmerman, M. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review Public Health, 26*(1)*,* 399-419. doi:10.1146/annurev.publhealth.26.021304.144357

Fergusson, D. M., & Woodward, L. J. (2002). Mental health, educational, and social role outcomes of adolescents with depression. *Archives of General Psychiatry, 59*(3)*,* 225-231. doi:10.1001/archpsyc.59.3.225

Fleming, C. B., Kim, H., Harachi, T. W., & Catalano, R. F. (2002). Family processes for children in early elementary school as predictors of smoking initiation. *Journal of Adolescent Health, 30*(3), 184-189. doi:10.1016/S1054-139X(01)00327-5

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology, 55*(1), 745-774. doi:10.1146/annurev.psych.55.090902.141456

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*(1), 115-134. doi:10.1037/0022-0167.51.1.115

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*(3), 300-319. doi:10.1037/1089-2680.2.3.300

Fredrickson, B. L. (2000). Cultivating research on positive emotions: A response. *Prevention & Treatment, 3*(1)*,* 1-5. doi:10.1037/1522-3736.3.1.37r

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218-226. doi:10.1037/0003-066X.56.3.218

Fredrickson, B. L. (2003). The value of positive emotions. *American Scientist, 91*(4)*,* 330-335. doi:10.1511/2003.4.330

Fredrickson, B. L. (2008). Promoting positive affect. In M. Eid, & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 449-468). New York, NY: Guilford Press.

Fredrickson, B. L. (2009). *Positivity*. New York, NY: Crown Publishers.

Fredrickson, B. L. (2013). Updated thinking on positivity ratios. *American Psychologist*. Advance online publication. doi:10.1037/a0033584

Fredrickson, B. L., & Branigan, C. (2001). Positive emotions. In G. A. Bonanno & T. J. Mayne (Eds.), *Emotions: Current issues and future directions*. (pp. 123-151). New York, NY: Guilford Press.

Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion, 19*(3), 313-322. doi:10.1080/02699930441000238

Fredrickson, B. L., & Cohn, M. A. (2008). Positive emotions. In M. Lewis, J. Haviland, & L. F. Barret (Eds.), *Handbook of emotions* (3rd ed.). New York, NY: Guilford Press.

Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open heart build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology, 95*(5), 1045-1062. doi:10.1037/a0013262

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13*(2), 172-175. doi:10.1111/1467-9280.00431

Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist, 60*(7), 678-686. doi:10.1037/0003-066X.60.7.678

Fredrickson, B. L., Mancuso, R. A., Braningan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion, 24*(4), 237-258.

Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology, 84*(2), 365-376. doi:10.1037/0022-3514.84.2.365

Frijda, N. H. (1988). The laws of emotion. *American Psychologist, 43*(5), 349-38. doi:10.1037/0003-066X.43.5.349

Froh, J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*(2), 213-233. doi:10.1016/j.jsp.2007.03.005

Garber, J., Clarke, G. N., Weersing, V. R., Beardslee, W. R., Brent, D. A., Tracy, R. G., … Iyengar, S. (2009). Prevention of depression in at-risk adolescents: A randomized controlled trial. *The Journal of the American Medical Association, 301*(21), 2215-2224. doi:10.1001/jama.2009.788

Garcia-Reid, P. (2007). Examining social capital as a mechanism for improving school engagement among low income Hispanic girls. *Youth & Society, 39*(2), 164-181. doi:10.1177/0044118X07303263

Garland, E. L., Fredrickson, B. L., Kring, A. M., Johnson, D. P., Meyer, P. S., & Penn, D. L. (2010). Upward spirals of positive emotions counter downward spirals of negativity: Insights from the broaden-and-build theory and affective neuroscience on the treatment of emotion dysfunctions and deficits in psychopathology. *Clinical Psychology Review, 30*(7), 849-864. doi:10.1016/j.cpr.2010.03.002

Garmezy, N. (1991). Resilience in children's adaptation to negative life events and stressed environments. *Pediatric Annals, 20*(9), 459-466.

Gartland, D., Bond, L., Olsson, C. A., Buzwell, S., & Sawyer, S. M. (2011). Development of a multi-dimensional measure of resilience in adolescents: The adolescent resilience questionnaire. *BMC Medical Research Methodology, 11*(134) 1-10. doi:10.1186/1471-2288-11-134

Gillham, J., Adams-Deustch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M., . . . Seligman, M. E. P. (2011). Character strengths predict subjective well-being during adolescence. *The Journal of Positive Psychology, 6*(1), 31-44. doi:10.1080/17439760.2010.536773

Gilman, R., Dooley, J., & Florell, D. (2006). Relative levels of hope and their relationship with academic and psychological indicators among adolescents. *Journal of Social & Clinical Psychology, 25*(2), 166-178. doi:10.1521/jscp.2006.25.2.166

Gloria, C. T., Faulk, K. E., & Steinhardt, M. A. (2012). Positive affectivity predicts successful and unsuccessful adaptation to stress. *Motivation and Emotion, 37*(1), 185-193. doi:10.1007/s11031-012-9291-8

Goodman, E., Huang, B., Wade, T. J., & Kahn, R. S. (2003). A multilevel analysis of the relation of socioeconomic status to adolescent depressive symptoms: Does school context matter? *Journal of Pediatrics, 143*(4), 451-456. doi:10.1067/S0022-3476(03)00456-6

Goodman, E., McEwen, B. S., Dolan, L. M., Schafer-Kalkhoff, T. & Adler, N. E. (2005). Social disadvantage and adolescent stress. *Journal of Adolescent Health*, *37*(6), 484-492. doi:10.1016/j.jadohealth.2004.11.126

Goodyer, I. (1994). Les evenements existentiels dans l'enfance et l' adolescence. In M. Bolognini, B. Plancherel, R. Nunez, & W. Bettschart (Eds.), *Preadolescence, theorie, recherche et clinique* (pp. 89-105). Paris, France: ESF.

Gore, S., & Aseltine, R. H. (2003). Race and ethnicity differences in depressed mood following the transition from high school. *Journal of Health and Social Behavior, 44*(3), 370-389. doi:10.2307/1519785

Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., & Gipson, P. (2004a). Stressors and child and adolescent psychopathology: Measurement issues and prospective effects. *Journal of Clinical Child and Adolescent Psychology, 33*(2), 412-425. doi:10.1207/s15374424jccp3302_23

Grant, K. E., Katz, B. N., Thomas, K. J., O'Koon, J. H., Meza, C. M., DiPasquale, A. M., . . . Bergen, C. (2004b). Psychological symptoms affecting low-income urban youth. *Journal of Adolescent Research, 19*(6), 613-634. doi:10.1177/0743558403260014

Greene, R. R. (2002). Human behavior theory: A resilience orientation. In R. R. Greene (Ed.), *Resiliency: An integrated approach to practice, policy, and research* (pp. 1-27). Washington, DC: NASW Press.

Gurian, A. (2012). Girls with low self-esteem: How to raise girls with healthy self-esteem. Education.com. Retrieved from http://www.education.com/reference/article/Ref_Mirror_Wall/

Hankin, B. L. (2005). Adolescent depression: Description, causes, and interventions. *Epilepsy & Behavior, 8*(1)*,* 102-114. doi:10.1016/j.yebeh.2005.10.012

Haskett, M. E., Nears, K., Ward, C. S., & McPherson, A. V. (2005). Diversity in adjustment of maltreated children: Factors associated with resilient functioning. *Clinical Psychology Review, 26*(6), 796-812. doi:10.1016/j.cpr.2006.03.005

Hayward, C., Gotlib, I. H., Schraedley, P. K., & Litt, I. F. (1999). Ethnic differences in the association between pubertal status and symptoms of depression in adolescent girls*. Journal of Adolescent Health, 25*(2)*,* 143-149. doi:10.1016/S1054-139X(99)00048-8

HeartMath (2012). *HeartMath Resilience Program, spring 2012*. The Institute of HearthMath.

Henrich, C. C., Brookmeyer, K. A., & Shahar G. (2005). Weapon violence in adolescence: Parent and school connectedness as protective factors. *Journal of Adolescent Health, 37*(4)*,* 306-312. doi:10.1016/j.jadohealth.2005.03.022

Herman-Stahl, M., & Petersen, A. C. (1996). The protective role of coping and social resources for depressive symptoms among young adolescents. *Journal of Youth and Adolescence, 25*(6), 733-753. doi:10.1007/BF01537451

Hjemdal, O., Vogel, P. A., Solem, S., Jagen, K., & Stiles, T. C. (2011). The relationship between resilience and levels of anxiety, depression, and obsessive-compulsive symptoms in adolescents. *Clinical Psychology and Psychotherapy, 18*(4)*,* 314-321. doi:10.1002/cpp.719

Huebner, E. S., & Gilman, R. (2003). Toward a focus on positive psychology in school psychology. *School Psychology Quarterly, 18*(2), 99-102. doi:10.1521/scpq.18.2.99.21862

Hurd, N., Stoddard, S. A., & Zimmerman, M. A. (2013). Neighborhoods, social support, and African American adolescents' mental health outcomes: A multilevel path analysis. *Child Development, 84*(3), 858-874. doi:10.1111/cdev.12018

Irving L. M., Snyder, C. R., Gravel, L., Hanke, J., Hilberg, P., & Nelson, N. (2004). The relationship between hope and outcomes at the pretreatment, beginning, and later phases of psychotherapy. *Journal of Psychotherapy Integration, 14*(4), 419-443. doi:10.1037/1053-0479.14.4.419

Jaycox, L. H., Stein, B. D., Paddock, S. M., Miles, J. N. V., Chandra, A., Meredith, L., Tanielian, T., Hickey, S., & Burnam, A. (2009). Impact of Teen Depression on Academic, Social, and Physical Functioning. *Pediatrics, 124*(4), 596-605.

Jimerson, S. R., Nyborg, V., & Furlong, M. (2004). Strength-based assessment and school psychology: A summary and synthesis. *The California School Psychologist, 9*(1), 9-19. doi:10.1007/BF03340903

Kajantie, E., & Phillips, D. I. W. (2006). The effects of sex and hormonal status on the physiological response to acute psychosocial stress. *Psychoneuroendocinology, 31*(2), 151-178. doi:10.1016/j.psyneuen.2005.07.002

Kessler, R. C., Avenevoli, S., & Ries Merikangas, K. (2001). Mood disorders in children and adolescents: An epidemiologic perspective. *Biological Psychiatry, 49*(12), 1002-1014. doi:10.1016/S0006-3223(01)01129-5

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 593-602. doi:10.1001/archpsyc.62.6.593

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43*(2), 207-222. doi:10.2307/3090197

Keyes, C. L. M., & Lopez, S. J. (2002). Toward a science of mental health: Positive directions in diagnosis and interventions. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 45-59). New York, NY: Oxford University Press.

Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., . . . Rahman, A. (2011). Child and adolescent mental health worldwide: Evidence for action. *The Lancet, 378*(9801), 1515-1525. doi:10.1016/S0140-6736(11)60827-1

Kirby, L. D., & Fraser, M. W. (1997). Risk and resilience in childhood. In M. W. Fraser (Ed.), *Risk and resilience in childhood: An ecological perspective* (pp. 10-33). Washington, DC: NASW Press.

Kliewer, W., & Lewis, H. (1995). Family influences on coping processes in children with sickle cell disease. *Journal of Pediatric Psychology, 20*(4), 511-525. doi:10.1093/jpepsy/20.4.511

Kwon, P. (2000). Hope and dysphoria: The moderating role of defense mechanisms. *Journal of Personality, 68*(2), 199-233. doi:10.1111/1467-6494.00095

Lau, J. Y. F., & Eley, T. C. (2008). Attributional style as a risk marker of genetic effects for adolescent depressive symptoms. *Journal of Abnormal Psychology, 117*(4), 849-859. doi:10.1037/a0013943

Lazarus, R. S. (1993). From psychological stress to the emotions: A history of a changing outlook. *Annual Review of Psychology, 44*(1)*,* 1-21. doi:10.1146/annurev.ps.44.020193.000245

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.

Lerner, J. V., Bowers, E. P., Minor, K., Boyd, M. J., Mueller, M. K., Schmid, K. L., . . . Lerner, R. (2012). *Positive youth development: Processes, philosophies, and programs*. doi:10.1002/9781118133880.hop206015

Lerner, R. M., Brentano, C., Dowling, E. M., & Anderson, P. M. (2002). Positive youth development: Thriving as the basis of personhood and civil society. In R. M. Lerner, C. S. Taylor, & A. von Eye (Eds.), *New directions for youth development: Theory, practice, research: Pathways to positive development among diverse youth* (Vol 95; G. Noam, Series Ed., pp. 11-33). San Francisco, CA: Jossey-Bass.

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

Lerner, R. M., Fisher, C., & Weinberg, R. (2000). Toward a science for and of the people: Promoting civil society through the application of developmental science. *Child Development, 71*(1)*,* 11-20. doi:10.1111/1467-8624.00113

Levenson, R. W. (1994). Human emotions: A functional view. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 123-126). New York, NY: Oxford University Press.

Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin, 126*(2), 309-337. doi:10.1037/0033-2909.126.2.309

Leung, D. Y. P., Lam, T., & Chan, S. S. C. (2010). Three versions of perceived stress scale: Validation in a sample of Chinese cardiac patients who smoke. *BMC Public Health, 10*(1)*,* 513. doi:10.1186/1471-2458-10-513

Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., & Andrews, J. A. (1993). Adolescent psychopathology: I. Prevalence and incidence of depression and other *DSM-III-R* disorders in high school students. *Journal of Abnormal Psychology, 102*(1)*,* 133-144. doi:10.1037//0021-843X.102.1.133

Lewinsohn, P. M., Redner, J., & Seeley, J. (1991). The relationship between life satisfaction and psychosocial variables: New perspectives. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being: An interdisplinary perspective* (pp. 141-172). Oxford, UK: Pergamon.

Lindsey, R., Roberts, L., & Campbell-Jones, F. (2005). *The culturally proficient school*: *An implementation guide for school leaders*. Thousand Oaks, CA. Corwin Press.

Lopez, A. D., Mathers, C. D., Ezzati, M., Jamison, D. T., & Murray, C. J. (2006). Global and regional burden of disease and risk factors, 2001: Systematic analysis of population health data. *The Lancet, 367*(9524), 1747-1757. doi:10.1016/S0140-6736(06)68770-9

Lopez, S. J., Agrawal, S., & Calderon, V. J. (2010). *The Gallup Student Poll technical report*. Washington, DC: Gallup.

Lopez, S. J., & McKnight, C. G. (2002). Moving in a positive direction: Toward increasing the utility of positive youth development efforts. *Prevention & Treatment, 5*(1), 1-7. doi:10.1037/1522-3736.5.1.519c

Losada, M. (1999). The complex dynamics of high performance teams. *Mathematical and Computer Modeling, 30*(9-10), 179-192. doi:10.1016/S0895-7177(99)00189-2

Losada, M., & Heaphy, E. (2004). The role of positivity and connectivity in the performance of business teams: A nonlinear dynamics model. *American Behavioral Scientist, 47*(6), 740-765. doi:10.1177/0002764203260208

Loukas, A., Roalson, L. A., & Herrera, D. E. (2010). School connectedness buffers the effects of negative family relations and poor effortful control on early adolescent conduct problems. *Journal of Research on Adolescence, 20*(1), 13-22. doi:10.1111/j.1532-7795.2009.00632.x

Lupart, J. L., Cannon, E., & Telfer, J. (2004). Gender differences in adolescent academic achievement, interests, values, and life-role expectations. *High Ability Studies, 15*(1), 25-42. doi:10.1080/1359813042000225320

Luthar, S. (2003). *Resilience and vulnerability: Adaptation in the context of childhood adversities*. Cambridge, UK: Cambridge University Press.

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

Luthar, S. S., Sawyer, J. A., & Brown, P. J. (2006). Conceptual issues in studies of resilience; past present and future research. *New York Academy of Sciences, 1094*(1), 105-115. doi:10.1196/annals.1376.009

Luthar, S. S., & Zigler, E. (1991). Vulnerability and competence: A review of research on resilience in childhood. *American Journal of Orthopsychiatry, 61*(1), 6-22. doi:10.1037/h0079218

Madigan, J. (2009). The education of girls and women in the United States: A historical perspective. *Advances in Gender and Education, 1*, 11-13.

Masten, A. S. (1994). Resilience in individual development: Successful adaptation despite risk and adversity. In M. C. Wang & E. W. Gordon (Eds.), *Educational resilience in inner-city America: Challenges and prospects* (pp. 3-25). Hillsdale, NJ: Lawrence Erlbaum.

Masten, A. S. (2001). Ordinary magic-resilience processes in development. *American Psychologist, 56*(3), 227-238. doi:10.1037//0003-066X.56.3.227

Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist, 53*(2), 205-220. doi:10.1037/0003-066X.53.2.205

Masten, A. S., Coatsworth, J. D., Neeman, J., Gest, S. D., Tellegen, A., & Garmezy, N. (1995). The structure and coherence of competence from childhood through adolescence. *Child Development, 66*(6), 1635-1659. doi:10.2307/1131901

McCorkle, B. H., Rogers, E. S., Dunn, E. C., Lyass, A., & Wan, Y. M. (2008). Increasing social support for individuals with serious mental illness: Evaluating the compeer model of intentional friendship. *Community Mental Health Journal 45*(5), 359-366. doi:10.1007/s10597-008-9137-8

McDermott, D., Callahan, B., Gingerich, K., Hastings, S., & Gariglietti, K. (1997, March). *Working together to bring hope to our children.* Presentation at the annual convention of the Kansas Counselors Association, Hutchinson.

McIntyre, C. W., Watson, D., Clark, L. A., & Cross, S. A. (1991). The effect of induced social interaction on positive and negative affect. *Bulletin of the Psychonomic Society, 29*(1), 67-70. doi:10.3758/BF03334773

McLanahan, S. S., & Casper, L. (1995). Growing diversity and inequality in the American Famiy. In R. Fraley (Ed.), *State of the Union: Americans in the 1990s – Vol. 2*: Social Trends (pp. 1-45). New York, NY: Russell Sage.

Mendle, J., Harden, K. P., Brooks-Gunn, J., & Garber, J. A. (2010). Development's tortoise and hare: Pubertal timing, pubertal, tempo, and depressive symptoms in boys and girls. *Developmental Psychology, 46*(5)*,* 1341-1353. doi:10.1037/a0020205

Moskowitz, J. (2013). Can positive emotion reduce the impact of stress in teens? *Osher Center for Integrative Medicine*. San Francisco, CA: University of California.

Murry, V. M., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. *Journal of Research on Adoelscence, 21*(1), 114-128. doi:10.1111/j.1532-7795.2010.00718.x/abstract

National Alliance for Mental Illness. (2011). *What Families Need to Know About Adolescent Depression*. Retrieved from http://www.nami.org/Content/Microsites316/NAMI_PA,_Cumberland_and_Perry _Cos_/Discussion_Groups559/No_Active_Discussion_Groups_for_this_Site/Fam ilyGuideDepression.pdf

National Household Survey on Drug Abuse (NHSDA). (2013). *The NHSDA report*. http://www.samhsa.gov/oas/2k3/school/school.htm

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions Psychological Sciences, 10*(5), 173-176. doi:10.1111/1467-8721.00142

Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychology Bulletin, 115*(3), 424-443. doi:10.1037//0033-2909.115.3.424

O'Hare, W., & Mather, M. (2003). The growing number of kids in severely distressed neighborhoods: Evidence from the 2000 census. Baltimore, MD: Annie E. Casey Foundation and the Population Reference Bureau. http://www.aecf.org/kidscount/distressed_neighborhoods.pdf

Olsson, C. A., Bond, L., Burns, J. M., Vella-Broderick, D. V. A., & Sawyer, S. M. (2003). Adolescent resilience: A concept analysis. *Journal of Adolescence, 26*(1), 1-11. doi:10.1016/S0140-1971(02)00118-5

Ong, A. D., Bergeman, C. S., Bisconti, T. L., & Wallace, K. A. (2006). Psychological resilience, positive emotions, and successful adaptations to stress in later life. *Journal of Personality and Social Psychology, 91(4)*, 730-749. doi:10.1037/0022-3514.91.4.730

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using the SPSS program* (4th ed.) New York, NY: Open University Press.

Park, N. (2003). *Developmental stability and changes on the structure and level of life satisfaction among Korean children and youth* (Unpublished doctoral dissertation). University of Rhode Island, RI.

Park, N. (2004). The role of subjective well-being in positive youth development. *The Annals of the American Academy of Political and Social Science, 59*(1), 25-39. doi:10.1177/0002716203260078

Patton, G. C., & Viner, R. (2007). Pubertal transitions in health. *The Lancet, 369*(9567), 1130-1139. doi:10.1016/S0140-6736(07)60366-3

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). *The positive impact of social and emotional learning*

for kindergarten to eight-grade students: Findings from three scientific reviews. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

Pedro-Carroll, J. (2001). The promotion of wellness in children and families: Challenges and opportunities. *American Psychologist, 56*(11), 993-1104. doi:10.1037/0003-066X.56.11.993

Pedrotti, J. T., Edwards, L. M., & Lopez, S. J. (2008). Promoting hope: Suggestions for school counselors. *Professional School Counseling, 12*(2)*,* 100-107. doi:10.5330/PSC.n.2010-12.100

Phinney, J. & Haas, K. (2003). The process of coping among minority and immigrant first-generation college freshmen: A narrative approach. *Journal of Social Psychology, 143*(6) 707-726.

Plancherel, B., Bolognini, M., & Halfon, O. (1998). Coping strategies in early and mid-adolescence: Differences according to age and gender in a community sample. *European Psychologist, 3*(3), 192-201. doi:10.1027/1016-9040.3.3.192

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385-401. doi:10.1177/014662167700100306

Rak, C. F., & Patterson, L. E. (1996). Promoting resilience in at-risk children. *Journal of Counseling and Development, 74*(4), 368-373. doi:10.1002/j.1556-6676.1996.tb01881.x

Rao, U., Hammen, C., & Daley, S. (1999). Continuity of depression during the transition to adulthood: A 5-year longitudinal study of young women. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*(7)*,* 908-915. doi:10.1097/00004583-199907000-00022

Reschly, A., Huebner, E. S., Appleton, J. J., Antaramian, S. (2008). Engagement as flourishing: The contribution of positive emotions and coping to adolescents' engagement at school and with learning. *Psychology in the Schools, 45*(5), 419-431. doi:10.1002/pits.20306

Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., & Jones, J., . . . Udry, J. R. (1997). Protecting adolescents from harm: Findings from the national longitudinal study on adolescent health. *Journal of the American Medical Association, 278*(10), 823-832. doi:10.1001/jama.278.10.823

Rew, L., Grady, M. W., & Spoden, M. (2012). Childhood predictors of adolescent competence and self-worth in rural youth. *Journal of Childhood and Adolescent Psychiatric Nursing, 25*(4), 169-177. doi: 10.1111/jcap.12013.

Rew, L., & Horner, S. D. (2003). Youth Resilience Framework for reducing health-risk behaviors in adolescents. *Journal of Pediatric Nursing, 18*(6)*, 331-340. doi:10.1016/S0882-5963(03)00162-3

Rew, L., Tyler, D., Fredland, N., & Hannah, D. (2012). Adolescents' concerns as they transition through high school. *Advances in Nursing Science, 35*(3)*, 205-221. doi:10.1097/ANS.0b013e318261a7d7

Richards, M., & Huppert, F. A. (2011). Do positive children become positive adults? Evidence from a longitudinal birth cohort study. *The Journal of Positive Psychology, 6*(1), 75-87. doi:10.1080/17439760.2011.536655

Richardson, L. A., Keller, A. M., Selby-Harrington, M. L., & Parrish, R. (1996). Identification and treatment of children's mental health problems by primary care providers: A critical review of research. *Archives of Psychiatric Nursing*, *10*(5), 293-303. doi:10.1016/S0883-9417(96)80038-0

Riolo, S. A., Nguyen, T. A., Greden, J. F., & King, C. A. (2005). Prevalence of depression by race/ethnicity: Findings from the National Health and Nutrition Examination Survey III. *American Journal of Public Health, 95*(6), 998-1000. doi:10.2105/AJPH.2004.047225

Roberts, R. E., Lewinsohn, P. M., & Seeley, J. R. (1991). Screening for adolescent depression: A comparison of scales. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(1), 58-66. doi:10.1097/00004583-199101000-00009

Roberts, R. E., & Sobhan, M. (1992). Symptoms of depression in adolescence: A comparison of Anglo, African, and Hispanic Americans. *Journal of Youth and Adolescence, 21*(6)*, 639-651. doi:10.1007/BF01538736

Roeser, R. W., Eccles, J. S., & Sameroff, A. J. (2000). School as a context of early adolescents' academic and social-emotional development: A summary of research findings. *The Elementary School Journal, 100*(5), 443-471. doi:10.1086/499650

Rowling, L. (2002). Mental health promotion. In L. Rowling (Ed.), *Mental health promotion and young people: concepts and practice* (pp. 10-23). Australia: McGraw-Hill.

Rowlison, R. T, & Felner, R. D. (1988). Major life events, hassles, and adaptation in adolescence: Confounding in the conceptualization and measurement of life stress and adjustment revisited. *Journal of Personality and Social Psychology. 55*(3), 432-444.

Rudolph, K. D. (2008). Adolescent depression. In I. H. Gotlib & C. L. Hammen (Eds.) *Handbook of depression* (2nd ed., pp. 444-446). New York, NY: The Guilford Press.

Rueger, S. Y., Malecki, C. K., & Demaray, M. K. (2008). Gender differences in the relationship between perceived social support and student adjustment during early adolescence. *School Psychology Quarterly, 23*(4), 496-514. doi:10.1037/1045-3830.23.4.496

Rushton, J. L., Forcier, M., & Schectman, R. M. (2002). Epidemiology of depressive symptoms in the National Longitudinal Study of Adolescent Health. *Journal of the American Academy of Child and Adolescent Psychiatry, 4*(11), 99-205. doi:10.1097/00004583-200202000-00014

Rutter, M. (2012). Resilience as a dynamic concept. *Developmental and Psychopathology, 24*(2), 335-344. doi:10.1017/S0954579412000028

Ryan-Wegner, N. A., Sharrer, V. W., & Campbell, K. K. (2005). Changes in children's stressors over the past 30 years. *Pediatric Nursing, 31*(4), 282-291.

Saluja, G., Iachan, R., Scheidt, P. C., Overpeck, M. D., Sun, W., & Giedd, J. N. (2004). Prevalence of and risk factors for depressive symptoms among young adolescents. *Archives of Pediatric and Adolescent Medicine, 158*(8), 760-765. doi:10.1001/archpedi.158.8.760

Sawyer, M. G., Arney, F. M., Baghurst, P. A., Clark, J. J., Graetz, B. W., Kosky, R. J., . . . Zubrick, S. R. (2001). The mental health of young people in Australia: Key findings from the child and adolescent component of the national survey of mental health and well-being. *Australian & New Zealand Journal of Psychiatry*, *35*(6), 806-814. Retrieved from http://handle.uws.edu.au:8081/1959.7/34978

Sax, L. (2010). *Girls on the Edge*. New York, NY: Basic Books.

Schaeffer, K., Akos, P., & Barrow, J. (2010). A phenomenological study of high school counselor advocacy as it relates to the college access of underrepresented students. *Journal of School Counseling, 8*(2), 1-35. Retrieved from http://files.eric.ed.gov/fulltext/EJ885027.pdf

Schmid, K. L., & Lopez, S. (2011). Positive pathways to adulthood: The role of hope in adolescents' constructions of their futures. *Advances in Child Development and Behavior*, 41, 67-85. doi:10.1016/B978-0-12-386492-5.00004-X

Seng, J. S., Graham-Bermann, S. A., Clark, K., McCarthy, A. M., & Ronis, D. L. (2005). Posttraumatic stress disorder and physical comorbidity among female children adolescents: Results from service-use data. *Pediatrics, 116*(6), e767-e776. doi:10.1542/peds.2005-0608

Shanahan, M., & Hofer, S. (2005). Social context in gene-environment interactions: Retrospect and prospect. *Journal of Gerontology Series B: Psychological Sciences and Social Sciences, 60*(1), 65-76. doi:10.1093/geronb/60.Special_Issue_1.65

Shek, D. T. (1993). The Chinese purpose-in-life test and psychological well-being in Chinese college students. *International Forum for Logotherapy, 16*(1), 35-42.

Shelton, E. N. (2003). Faculty support and student retention. *Journal of Nursing Education, 42*(2), 68-76.

Shochet, M. I., Smyth, T., & Homel, R. (2007). The impact of parental attachment on adolescent perception of the school environment and school connectedness. *Australian & New Zealand Journal of Family Therapy, 28*(2), 109-118. doi:10.1375/anft.28.2.109

Siqueira, L., Diab, M., Bodian, C., & Rolnitzky, L. (2000). Adolescents becoming smokers: The roles of stress and coping methods. *Journal of Adolescent Health, 27*(6), 399-408. doi:10.1016/S1054-139X(00)00167-1

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine, 15*(3), 194-200. doi:10.1080/10705500802222972

Smrtnik-Vitulic, H., & Zupancic, M. (2011). Personality traits as a predictor of academic achievement in adolescents. *Educational Studies, 37*(2), 127-140. doi:10.1080/03055691003729062

Snyder, C. R. (Ed.). (2000). *Handbook of hope*. San Diego, CA: Academic Press.

Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M., . . . Stahl, K. J. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology, 22*(3), 399-421. doi:10.1093/jpepsy/22.3.399

Stahl, A., Finnegan, T., & Kang, W. (2002). *Easy access to juvenile court statistics: 1985-2000.* http://ojjdp.ncjrs.org/ojstabb/ezajcs/asp/Display.asp?display_type=Count&export_file=&p

Tennant, R., Goens, C., Barlow, J., Day, C., & Stewart-Brown, S. (2007). A systematic review of reviews of interventions to promote mental health and prevent mental health problems in children and young people. *Journal of Public Mental Health, 6*(1), 25-32. doi:10.1108/17465729200700005

Tennen, H., & Affleck, G. (2002). Benefit-finding and benefit-reminding, In C. R. Snyder (Ed.), *Handbook of positive psychology* (pp. 584-597). New York, NY: Oxford University Press.

Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology, 86*(2), 320-333. doi:10.1037/0022-3514.86.2.320

U.S. Department of Health and Human Services (DHHS). (2003). *Child and adolescent mental health*. http://www.ed.gov/PressReleases/05-2002/05312002.html

Ustun, T. B., & Chatterji, S. (2001). Global burden of depressive disorders and future projections. In A. Dawson, & A. Tyleee (Eds.), *Depression: Social and Economic Time-bomb.* London, England: BMJ Books.

Valentine, A., Buchanan, H., & Knibb, R. (2010). A preliminary investigation of 4 to 11-year-old children's knowledge and understanding of stress. *Patient Education Counseling, 79*(2), 255-257. doi:10.1016/j.pec.2009.08.011

Valle, M., Huebner, E. S., & Suldo, S. M. (2006). An analysis of hope as a psychological strength. *Journal of School Psychology, 44*(5), 393-406. doi:10.1016/j.jsp.2006.03.005

Van Beest, M., & Baerveldt, C. (1999). The relationship between adolescents' social support from parents and from peers. *Adolescence, 34*(133), 193-201.

Von Soest, T., Mossinge, S., Stefansen, K., & Hjemdal, O. (2010). A validation study of the Resilience Scale for Adolescents. *Journal of Psychopathology and Behavioral Assessment, 32*(2), 215-225. doi:10.1007/s10862-009-9149-x

Wade, T. J., Cairney, J. & Prevalin, D. J. (2002). Emergence of gender differences in depression during adolescence: National panel results from three countries. *Journal of American Academy of Child and Adolescent Psychiatry, 41*(2), 190-198. doi:10.1097/00004583-200202000-00013

Wadsworth, M. E., Raviv, T., Reinhard, C., Wolff, B., Santiago, C. D., & Einhorn, L. (2008). An indirect effects model of the association between poverty and child functioning: The role of children's poverty-related stress. *Journal of Loss & Trauma, 13*(2-3), 156-185. doi:10.1080/15325020701742185

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*(2), 165-178.

Weak, K. (2000). *Promoting mental, emotional, and social health: A whole school approach.* London, UK: Routledge.

Weare, K., & Nind, M. (2011). Mental health promotion and problem prevention in schools: what does the evidence say? *Health Promotion International, 26*(1), 129-169. doi:10.1093/heapro/dar075

Weissman, M. M., Wolk, S., Goldstein, R. B., Moreau, D., Adams, P., Greenwald, S., . . . Wickramaratne, P. (1999). Depressed adolescents grown up. *Journal of the American Medical Association, 281*(18), 1707-1713. doi:10.1001/jama.281.18.1707

Werner, E. E. (1995). Resilience in development. *Current Directions in Psychological Science, 4*(3), 81-85. doi:10.1111/1467-8721.ep10772327

Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. New York, NY: Cornell University Press.

Wickrama, K. A. S., Noh, S., & Bryant, C. M. (2005). Racial differences in adolescent distress: Differential effects of the family and community for Blacks and Whites. *Journal of Community Psychology, 33*(3), 261-282. doi:10.1002/jcop.20053

Wight, R. G., Sepulveda, J. E., & Aneshensel, C. S. (2004). Depressive symptoms: How do adolescents compare with adults? *Journal of Adolescent Health, 34*(4), 314-323. doi:10.1016/j.jadohealth.2003.05.003

Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes, 9*(8), 1-18. doi:10.1186/1477-7525-9-8

Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality, 71*(6), 1197-1232. doi:10.1111/1467-6494.7106012

World Health Organization (WHO). (1998). *WHO's Global School Health Initiative: Health promoting schools.* Geneva, Switzerland: World Health Organization.

World Health Organization (WHO). (2001). *Mental health: New understanding, new hope – the World Health Report*. Geneva, Switzerland: World Health Organization.

World Health Organization (WHO). (2013). Women's health Fact sheet No. 334 (updated September, 2013). Retrieved from http://www.who.int/mediacentre/factsheets/fs334/en/

You, S., Furlong, M. J., Felix, E., Sharkey, J. D., Tanigawa, D., & Green, J. G. (2008). Relations among school connectedness, hope, life satisfaction, and bully victimization. *Psychology in the Schools, 45*(5)*,* 446-460. doi:10.1002/pits.20308

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30-41. doi:10.1207/s15327752jpa5201_2

Zins, J., Weissberg, R., Wang, M., Walberg, H. (2004). *Building academic success on social and emotional learning: What does the research say?* Columbia University New York and London: Teachers College Press.

Zolkoski, S. M., & Bullock, L. M. (2012). Resilience in children and youth: A review. *Children and Youth Services Review, 34*(12)*,* 2295-2303. doi:10.1016/j.childyouth.2012.08.009