

THESIS

THE SOCIAL AND EMOTIONAL RESOURCES INVENTORY: A COMPREHENSIVE
MEASURE OF PROTECTIVE FACTORS

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ABSTRACT

THE SOCIAL AND EMOTIONAL RESOURCES INVENTORY: A COMPREHENSIVE MEASURE OF PROTECTIVE FACTORS

Most children experience mild to moderate risk factors in their lives (Lamb-Parker, LeBuffe, Powell & Halpern, 2008) and do well in spite of their early adversity, but it was not until 40 years ago that researchers began investigating how even children who have experienced severe risk often achieved satisfactory outcomes in spite of their early adverse experiences (Prince-Embury, 2010). This concept has been labeled resilience, and one application of resiliency research is to look at what characteristics counteract risk to produce successful outcomes. These characteristics are referred to as protective factors, which can occur in three domains: individual (e.g. intelligence, sociability, self-esteem), family (e.g. authoritative parenting, socioeconomic advantage) and community (attending effective schools, access to quality health care). Despite the amount of research on potential protective factors, there is a need for a more effective and comprehensive way to measure protective factors. This study describes the development of a comprehensive measure of protective factors, the Social and Emotional Resources Inventory (SERI). Results indicated that the SERI has a 12-factor internal structure and good to excellent reliability. The 12 factors that emerged from the analysis are: Intelligence, Parenting Practices, Parent Connections, Self-Esteem, Talent, Faith, Money, Prosocial Adults, Kin Connections, Good Schools, Prosocial Organizations and Resources. This measure was also found to have good psychometrics and will be useful for researchers and clinicians who wish to gain a comprehensive view of the protective factors operating in an individual's life.

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CHAPTER I

Introduction

Most children experience mild to moderate risk factors in their lives (Lamb-Parker, LeBuffe, Powell & Halpern, 2008) and do fine. Forty years ago, however, researchers began looking at how some children achieved successful outcomes despite facing multiple and severe risks (Prince-Embury, 2010). The concept of resilience, or the achievement of satisfactory outcomes in the face of significant risk, grew directly out of this research (Masten, Best & Garmezy, 1990). One application of this area of study has been to identify those variables that counteract risk to avoid negative outcomes. These have been labeled protective factors, and despite the numerous research studies on possible protective factors, there are relatively few ways to measure them comprehensively. This study seeks to describe the development of the Social and Emotional Resources Inventory (SERI; Shirley, 2010), a revised version of the Social and Emotional Influences Inventory (Cole, Rosén & Malach, 2007, 2008). This study also seeks to assess how the structure of this measure may differ according to gender.

Research on the risks that children experience is extensive. These risks can vary from life stressors, such as parental divorce, to conditions interfering with adequate development, such as poverty and poor housing quality (Chaskin, 2008; Lamb-Parker, LeBuffe, Powell & Halpern, 2008). The greatest threats to children, however, are often those that negatively affect basic human protective mechanisms, such as early brain development (Masten, Cutuli, Herbers & Reed, 2009). Such threats may include inadequate prenatal child care and poor early childhood education and schools. With the presence of such threats known, there is a need to further investigate how to help children become resilient in the face of these threats.

One way psychology has addressed the need to help children become resilient in the face of risk is through the emergence of specific interventions that foster resilience (Lamb-Parker et

al., 2008). Guided by the concept of resilience, which Masten et al. (1990) define as “the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances” (p. 426), these approaches tend to focus on the strengths of the child and his or her environment instead of the maladaptive symptoms that the child displays. In most cases, resilience appears to be a common phenomenon that typically results from basic human adaptational systems operating within the child (Masten, 2001).

Resiliency Research

The term “resilience” has typically been used to describe three situations (Masten et al., 1990). The first is the achievement of successful outcomes despite having a high-risk status, or “overcoming the odds” (Masten et al. 1990, p. 426). Research in this area investigates risk factors, protective factors, and the association between the two. The second situation is the achievement and maintenance of success while under threat, and primarily relates to stress resistance. Resilience here refers to effective coping, and research in this area investigates coping styles and outcomes. The third situation is trauma recovery. The focus here is on severe and/or prolonged exposure to risk, and resilience is defined as recovery from such exposure.

In any investigation of resilience, there are two qualifications that need to be met: identification of a threat or risk and criteria used to evaluate the outcome (Masten, 2001). Evaluating the presence of a risk or threat often involves looking at cumulative risk, which can be divided into distal and proximal risk factors (Masten et al., 1990). Distal risk factors are those factors not directly experienced by the child, such as social class. Proximal risk factors are those experienced directly by the child (such as abuse and neglect).

Also essential in establishing the presence of resilience is the identification of criteria used to evaluate a successful outcome (Masten, 2001). These criteria often reflect cultural norms,

and usually involve an evaluation of behaviors displayed by the child, including the presence of desirable behaviors, the absence of undesirable behaviors, and the display of developmentally appropriate tasks (Masten et al., 2009). Typically, measures tend to examine multiple indicators of successful outcomes, such as academic achievement, conduct, peer acceptance and friendships, level of pathology, and engagement in age-appropriate activities (Masten et al., 2009). One of the most common ways to measure a successful outcome involves the concept of general developmental competence, which can be defined as effective adaptation to the environment (Masten & Coatsworth, 1998). Competence is often measured by looking at whether or not the child succeeds with developmental tasks in specific domains, such as academics or social skills, and at specific ages. For example, competence for children in elementary school would involve the presence of rule-governed behavior, academic achievements, participation in athletics, and good relationships with peers. However, there is currently no consensus on what criteria should be used to define a successful outcome, and the criteria chosen often depend on the research question or hypotheses.

Although there are multiple methods to define and measure outcomes associated with resilience, there are only two primary theoretical models of resilience: variable-focused, and person-focused (Masten, 2001). Variable-focused models of resilience use statistics to investigate relationships between risk, protective factors, and outcome. For example, a variable-focused approach might look at models of mediation and moderation, where protective factors are exerting an influence over the relationship between risk and outcome. Person-focused models of resilience, on the other hand, compare individuals with different life experiences to a set of criteria to see what characteristics may differentiate children who are considered resilient from those who are not. For instance, a person-focused approach might look at a group of children

who have experienced parental divorce and determine what characteristics differentiate a resilient child (e.g., a child that is successful despite experiencing the divorce) from a child that is not resilient (e.g., a child who struggles with school or with peers as a result of the divorce). While both models have contributed to a greater understanding of protective factors and how they operate, each model is limited. Moreover, each model's limitation is a strength of the other model. Whereas variable-focused models of resilience fail to take into account the importance of individual and family differences, person-focused models do; person-focused models of resilience cannot investigate the interaction of risk, outcome, and protective factors, variable-focused models can.

There are also two conceptual views of resilience. The first is the view of resilience as merely the opposite of poor mental health outcomes (Sroufe, 1997). The second is the view of resilience as something more than the absence of pathology and vulnerability (Carver, 1998). In both views, the concept of resilience and psychopathology are interconnected (Friborg, Hjemdal, Martinussen & Rosenvinge, 2009). Both constructs emphasize the effects of stress; resilience as a process that ameliorates the stress and psychopathology as a process that intensifies the stress. However, Friborg and colleagues (2009) empirically demonstrate the view of Carver (1998); that resilience is a distinct construct, instead of merely the "counterpart" to psychopathology and vulnerability. This idea that resilience is more than the absence of vulnerability and psychopathology warrants investigation of the factors that contribute to resilience.

Protective Factors

Protective factors "moderate the effects of individual vulnerabilities or environmental hazards so that the adaptational trajectory is more positive than would be the case if the protective factor were not operational" (Masten et al., 1990, p. 426). Characteristics considered

protective in one situation, however, may not be protective in another (Blum, McNeely & Nonnemaker, 2002). For instance, family closeness may be protective in a low family conflict environment, but not in a high family conflict environment. In a low conflict family environment, family closeness may result in stronger bonds between family members and a sense of family cohesion. Family closeness in a high family conflict environment, however, may exacerbate the effects of the conflict.

Protective processes are typically divided into three different areas or contexts: individual, familial, and community (Blum et al., 2002). Research on individual protective factors has generated a list of characteristics that have been found to be associated with adverse life events and positive outcomes. Perhaps the most important individual protective factors supported by empirical research are problem solving skills and emotional self-regulation (Masten et al., 2009). These protective factors refer to a child's ability to effectively cope with potential problems and to regulate emotions. Other individual protective factors include good intellectual functioning (Luthar, 1991; Masten & Coatsworth, 1998), sociability (Masten & Coatsworth, 1998) self esteem and self-efficacy (Howard, Dryden & Johnson, 1999; Moran & Eckenrode, 1992; Werner, 2005), having talents (Masten & Coatsworth, 1998; Shapiro & Friedman, 1996), and having faith (Masten & Coatsworth, 1998; Valentine & Feinauer, 1993). Additionally, research has found that having an internal locus of control (Bolger & Patterson 2001; Garnezy, 1981; Luthar, 1991), greater education and flexibility (Benzies & Mychasiuk, 2009) an easy temperament (Perry, 2002), a sense of meaning in life and having a positive outlook on life (Masten et al., 2009) are all protective.

Familial protective factors (e.g., having positive relationships with family members and opportunities for personal growth within the family) have also been identified as important

protective factors for children experiencing adverse life events (Jackson, Sifers & Warren, 2003). Authoritative parenting, or parenting that provides warmth, structure and high expectations (Howard, Dryden & Johnson, 1999; Masten & Coatsworth, 1998) socioeconomic advantage (Masten & Coatsworth, 1998), and connections to supportive extended family are all protective factors as well (Masten & Coatsworth, 1998). Lastly, a family environment including optimism and a sense of humor, spirituality, flexibility, open emotional expression, and shared family recreation time have also been found to function protectively in children who have experienced adverse life events (Black & Lobo, 2008).

Protective factors also operate within a community context, as community is one of the basic adaptational systems that can promote resilience in individuals (Chaskin, 2008). Research in this area has suggested that connections to prosocial adults outside of the family (Luthar & Zigler, 1991; Masten & Coatsworth, 1998; Powell, 2003), connections to prosocial organizations (Masten & Coatsworth, 1998; Howard, Dryden & Johnson, 1999), and attending effective schools (Masten & Coatsworth, 1998) are all protective. Furthermore, safe neighborhoods and access to good health care are both associated with more positive outcomes for children experiencing adversity (Benzies & Mychasiuk, 2009; Masten & Powell, 2003).

Gender and Developmental Differences in Resilience and Protective Factors

There is also evidence that gender influences the outcome of resilience and what coping strategies or protective factors a child may have available. Research in this area, however, is sparse, as more attention has focused on studying how gender influences the impact of risk factors (Hartman, Turner, Daigle, Exum & Cullen, 2008). Nevertheless, there is a trend that suggests that whether or not a child will display resilience is influenced by the gender of the child. For example, Shirley (2011) found that in a sample of abused and neglected college

students, the men were more resilient than the women, despite both genders having the same number of prior protective factors. However, women in the sample experienced more negative life events in general. These results suggest that there may be an interaction between the child's gender and their environment that influences not only how many and what types of negative life events the child will experience, but also what coping strategies or protective factors the child has available.

The research on gender differences in protective factors is primarily guided by the idea that men and women have different personality traits, and these different personality traits influence coping styles. For instance, boys tend to use less communication, empathy, and help-seeking behavior, whereas girls tend to use not only more communication, empathy, and help-seeking behavior, but they also have more positive connections with adults and peers (Sun & Stewart, 2007). Broadly, this suggests that women may have more familial and community protective factors available, whereas men may have more individual protective factors available. In general, research tends to support this prediction. For example, Chandy, Blum and Resnick (1996) found that supportive relationships with parents and higher emotional attachment are more associated with resilience in women.

With regard to specific protective factors, however, the research does not support such a clean distinction between women using more community and familial protective factors and men using more individual protective factors. For example, it has been reported that girls tend to score significantly higher on measures of initiative and self-control (Ogg, Brinkman, Dedrick & Carlson, 2010) than do boys, although both of these are individual protective factors. In some instances, however, women do tend to utilize more community and familial protective factors than men. For instance, religiosity and a positive school environment have been found to

significantly predict resiliency in girls but not in boys (Hartman et al., 2008). Additionally, gender differences in adults show that women tend to report higher levels of social support than men, whereas men tend to report higher levels of personal competence (Friborg et al., 2003). While the research suggests gender differences in a few specific areas, it is important to remember that women still utilize individual protective factors, and men still utilize community and familial protective factors.

Developmental level has been shown to influence what protective factors or coping strategies a child may use. For example, utilization of school support, prosocial peers, autonomy experiences, and meaningful participation in activities decrease significantly with age (Sun & Stewart, 2007). Sun and Stewart (2007) reported an interaction between gender and developmental level in which boys showed a greater decrease in utilizing these strategies than did girls. In terms of within-gender differences, girls in adolescence used less communication, had less self-esteem and empathy, sought less from others, and had fewer goals and aspirations than younger girls. Furthermore, adolescent girls reported feeling less school support, had less prosocial peers, participated less in school, and reported less autonomy than younger girls. Adolescent boys, on the other hand, scored lower than younger boys on communication, empathy, help seeking, school support, autonomy, and connections to prosocial peers. Younger participants in general scored higher on communication, empathy, help-seeking, school support, prosocial peers, and meaningful participation in school. Older students in general had lower scores on all individual characteristics and protective factors. This research highlights another methodological issue in studying resilience and protective factors: resilience and protective factors function differently across contexts, genders, and developmental levels.

Measuring Resilience and Protective Factors

Resilience is a difficult construct to measure. In general, resilience is a complex interaction of person and environment variables that are often mediated by other variables, such as internal mechanisms (Prince-Embury, 2010). It is a process that unfolds over time, and in this way, it is hard for researchers to operationally define the construct. This not only makes resilience difficult to measure, but more specifically, difficult to measure in a way that is easily utilized. For this reason, there is a need for measurements of resilience that are brief, easy to administer and age appropriate (Prince-Embury, 2010; Werner, 2000).

Moreover, there is an even greater need for a comprehensive measure of protective factors. Often in research, the selection of which protective factors to study depends on the research question or the hypotheses being tested. This results in measures designed for specific types of protective factors, or for use with specific populations. For example, measures have been developed that specifically focus family protective factors (e.g., the Inventory of Family Protective Factors; Gardner, Huber, Steiner, Vazquez & Savage, 2008), and that measure protective factors in maltreated populations (e.g., the Protective Factors Survey; Counts, Buffington, Chang-Rios, Rasmussen & Preacher, 2010). Measures have also been developed that assess specific domains of protective factors. For example, The Resilience Scale looks at the domains of personal competence and acceptance of self and life (Wagnild & Young, 1993). Moreover, the Connor-Davidson Resilience Scale, which is best described with a one factor model, looks at resilience in a way that is independent of affect (Burns & Anstey, 2010). In this way, clinicians or researchers wanting to measure multiple protective factors or look at multiple domains may be required to use multiple measures (Counts et al., 2010).

While specific measures are appropriate in research, there is evidence to suggest that a comprehensive measure of protective factors would have clinical utility. For example, research has demonstrated that resilience skills can be strengthened and learned (Alvord & Grados, 2005). This is especially true for protective factors such as effective problem solving skills and emotional expression, as these are two skills that can be easily targeted in a therapeutic setting. In this domain, a clinician may help brainstorm with a child more effective ways to handle conflict or to recognize and express emotions. Therefore, a comprehensive measure of protective factors would allow a clinician, school counselor, or other mental health professional to assess a child's strengths, in terms of protective factors, and to target possible areas for improvement with one comprehensive instrument.

Additionally, protective factors models (strength based models) and clinicians' ability to measure protective factors have three distinct advantages over risk-focused models: more potential to reach parents, to be accepted by parents, and to expand the number of people involved in the child's treatment (Counts et al., 2010). Mainly, protective factors models are less stigmatizing, and are therefore more readily described to parents and more readily accepted by parents. Also, since protective factors models take into account the child's family and environment, interventions are more likely to include important people in the child's life (e.g., parents and other family members) and expand the number of prosocial adults in the child's life. Given the advantages of protective factors models and the need and clinical utility of measures of protective factors, there have been a number of attempts at developing them. A review of current protective factors instruments used with adolescents and adults follows, and demonstrates the need for a broadly applicable and comprehensive measure of protective factors for this population.

Baruth Protective Factors Inventory (BPFI; Baruth & Carroll, 2002). The BPFI is a 16-item self-administered instrument designed to measure four protective factors: adaptable personality, supportive environments, fewer stressors and compensating experiences. Items are rated on a five point Likert-type scale and the instrument also includes several reverse scored items. Although reliability and validity need further testing, the authors report internal consistency for the total scale (.83), and each subscale: adaptive personality (.76), supportive environments (.98), fewer stressors (.55), and compensating experiences (.83). Although the scale is brief and includes reverse scored items, it has two main limitations. The first is that it only looks at four protective factors and fails to take into account several other important protective factors that may contribute to resilience. The second is that there are no applications of this scale in the literature, suggesting that the instrument's lack of comprehensiveness may be a barrier for its use in research.

Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003). The CD-RISC is a 25-item self-administered instrument designed to measure protective factors that contribute to resilience. Items are rated on a five point Likert-type scale with higher scores reflecting greater resilience. Internal consistency for the full scale is estimated to be .89. Convergent validity is supported by positive correlations with hardiness measures (e.g., Kobasa hardiness measure) and negatively correlated with stress measures (e.g., Perceived Stress Scale). The CD-RISC has been tested in both the general population and clinical settings. However, the scale only includes individual protective factors.

Resilience Scale for Adults (RSA; Friborg et al., 2003). The RSA is a 37-item self-administered instrument designed to measure protective factors that contribute to adult resilience. Items are rated on a 5-point scale, and the instrument measures five factors: personal

competence, social competence, family coherence, social support, and personal structure. Internal consistency estimates for the full scale ranges from .67 to .90 and test-retest reliability estimates (four months) range from .69 to .84. Convergent validity is supported by the positive correlations between the RSA and the Sense of Coherence Scale whereas discriminant validity is evidenced by negative correlations between the RSA and the Hopkins Symptom Check List-25. Although the scale has demonstrated adequate reliability and validity, it was developed and tested on adults in Norway, therefore limiting its generalizability.

Adolescent Resilience Scale (Oshio et al., 2002). The Adolescent Resilience Scale is a 21-item self-administered instrument designed to measure three protective factors that contribute to resilience in adolescents: novelty seeking, emotional regulation and positive future orientation. Internal consistency estimates range from .72 to .75 and convergent and discriminant validity are supported by positive correlations between the Adolescent Resilience Scale and self-esteem measures and negative correlations between the Adolescent Resilience Scale and negative life events. Despite demonstrating adequate reliability and validity, the scale was designed and developed using Japanese adolescents, again limiting the generalizability of the instrument.

Brief Resilient Coping Scale (BRCS; Sinclair & Wallston, 2004). The BRCS is a 4-item self-administered instrument designed to measure tendencies to cope with stress adaptively. The BRCS uses a 5-point rating scale, and because of its brevity, meets only minimum standards for reliability and validity. The authors report that internal consistency estimates are acceptable, ranging from .69 to .76. Although this instrument is easily administered, it is limited in its scope and the richness of information it provides.

Resilience Scale (RS; Wagnild & Young, 1993). The RS is a 25-item self-administered instrument designed to measure two protective factors that contribute to resilience: personal

competence and acceptance of life and self. Internal consistency reliability for the full scale is estimated to be .91. Convergent validity for the RS is supported by positive correlations between the RS and life satisfaction and physical health and discriminant validity is supported by negative correlations between the RS and measures of depression. However, the initial wording of the items was compiled from a qualitative investigation of women. Therefore, items may be biased, and more research on the item wording needs to be conducted before the scale can be generalized and used with men.

Inventory of Family Protective Factors (IFPF; Gardner et al., 2008). The IFPF is a 16-item self-administered instrument designed to assess what protective factors contribute most to family resilience. Participants are asked to rate each protective factor on a 5 point Likert-type scale, with 5 indicating a high degree of the protective factor. The IFPF is composed of four family protective scales: fewer stressors, adaptive appraisal, social support, and compensating experiences. Fewer stressors refers to a family's experience of having more positive experiences than problems in areas such as health and finances. Adaptive appraisal refers to a family's belief system, specifically with regards to optimism and resourcefulness. Social support refers to a family's networks, such as extended family/friends. Finally, compensating experiences refers to a family's experience of control within the context of adversity. Internal consistency estimates for the full-scale range from .77 to .87. Although this scale has adequate psychometric properties and scope, it is not designed specifically to assess individuals.

Communities that Care Youth Survey (Arthur et al., 2002). The Communities that Care Youth Survey is a 121-item self-administered instrument designed to assess broad risk and protective factors across all three domains. It is designed for use with adolescents 11-18 in a school setting. Although this scale does include items that assess protective factors, it is

primarily a risk behavior assessment. Moreover, the protective factors that were selected are ones that are predictive of drug and alcohol use specifically. The Communities that Care Youth Survey has 29 scales, and reliability estimates for all of these scales exceed .70 (with the exception of one: opportunities for school involvement). Although the scale is broad and assesses risk and protective factors, its specificity in terms of drug and alcohol use limits its usefulness with a general population.

Individual Protective Factors Index (IPFI; Springer & Phillips, 1995). The IPFI is a 71-item self-administered instrument designed to measure individual protective factors that contribute to resilience. The instrument has 10 subscales with median coefficient alpha estimates of .58 for the subscales and .93 for the total scale. THE IPFI is primarily used to evaluate prevention programs. Although the scale is widely used in prevention research, it does not include items assessing family and community protective factors, such as attachment, or access to adequate schools.

Response to Stressful Experiences Scale (RSES; Johnson et al., 2011). The RSES is a 22-item self-administered validated with a sample of active duty and reserve military personnel. The RSES focuses on how an individual responds both during and after stressful events and provides a more comprehensive measure of individual protective factors. Items are rated on a 5-point Likert-type scale where 0 is *not all like me* and 4 is *exactly like me*. Seven day test-retest reliability is estimated to be .87 and the authors also provide evidence for convergent and discriminant validity (e.g., by correlations between the RSES the CD-RISC and the RESES and PTSD symptoms). However, despite adequate psychometric properties, the scale also fails to address family and community protective factors.

Protective Factors Survey (PFS; Counts et al., 2010). The PFS is a 22-item self-administered instrument designed to measure protective factors that contribute to resilience. The PFS has four subscales: family functioning, nurturing and attachment, emotional support and concrete support, with coefficient alpha estimates for all of the subscales except for concrete support above .80. The authors also report evidence of convergent and discriminant validity through positive and negative correlations with measures of social support and child abuse respectively. The PFS is primarily used for child maltreatment, and thus the protective factors included are those that specifically guard against abuse and neglect. Although this is useful, a comprehensive measure of protective factors that is not specific to a certain population would be more useful.

The Global Assessment Tool (GAT; Peterson, Park & Castro, 2011). The GAT is a 105-item self-report questionnaire designed by the military as part of the Comprehensive Soldier Fitness program (CSF), a program implemented to improve the mental health of soldiers. The GAT measures four domains: emotional fitness, including life satisfaction, optimism and coping styles, social fitness, including connections to the army and to an individual's particular unit, family fitness, including both interpersonal and familial relationships, and spiritual fitness, including a sense of meaning and purpose in life. The GAT functions in two ways: to monitor the mental health of members of the Army as well as to function as a selection tool to help place soldiers into different training programs. Preliminary evidence for the reliability of the GAT demonstrated that internal consistencies exceeded .80 for each domain, and preliminary evidence for discriminant validity is supported by negative correlations between the GAT and screening instruments for PTSD and depression. The GAT also suggests the usefulness of having a

comprehensive measure of protective factors. However, since it is designed specifically for use in the military, it may not be as applicable to a general population.

Current Study

Considering the lack of comprehensiveness and applicability of previous measures of protective factors, and the clinical need of such a measure, this study describes the development and factor structure of the SERI (Shirley, 2010), the only comprehensive measure of protective factors. This measure has a distinct advantage over previous measures: clinicians or researchers will not have to choose which protective factors to measure. In this way, they will be able to form a more comprehensive view of strengths and possible areas of improvement regarding resiliency. Also, a comprehensive measure of protective factors will make it so clinicians and researchers will not have to use multiple measures in order to assess an individual.

Investigations of the structure of a previous version, the Social and Emotional Influences Inventory (SEII), revealed a 9 factor structure, with factors being: Positive Caregiving, Faith, Intelligence, Financial Resources, Self-Esteem, Talent, Family Connections, Good Schools, and Parental Expectations. (Cole et al., 2007, 2008). Eigenvalues for the factors ranged from 9.86 to 1.22. Due to the low eigenvalues of some of the factors on the SEII, the SERI sought to change the wording of items (for example, using the word spirituality to make the faith items less religious) and added items in order to improve the measure and help explain more of the variance in resilience. Furthermore, the present study sought to assess gender differences in terms of the presence of social and emotional resources. Although few research studies have investigated gender differences and protective factors, based on Sun and Stewart (2007) it is hypothesized that women will report greater presence of community and familial protective factors.

CHAPTER II

Method

Participants

Participants for this study included 301 students from introductory psychology classes who received class credit for participation. Participants came from a large western United States university and included 163 (54.2%) females and 138 (45.8%) males with an average age of 18.69 years ($SD = 1.45$). Among the 301 participants, 222 (73.8%) of the participants were freshman, 49 (16.3%) were sophomores, 20 (6.6%) were juniors, 7 (2.3%) were seniors and 3 (1%) were in their fifth year or above. Furthermore, 14 (4.7%) identified as African American/Black, 13 (4.3%) as American Indian/Native American, 7 (2.3%) as Asian American/Asian, 23 (7.6%) as Hispanic/Latino, 2 (<1%) as Native Hawaiian/Pacific Islander, 236 (78.4%) as White non-Hispanic, and 6 (2%) reported Other.

Construction of the Social and Emotional Resources Inventory

Construction of the SERI generally followed a 7-step process similar to Loevinger (1957). In the first step, the construct to be measured was determined and existing scales and research on the construct was reviewed. In the second step, an operational definition of the construct was defined. In this case, social and emotional resources were defined as individual, community, and protective factors that were present in participants' lives growing up. In the third step, a pool of items were written based on a theoretical/rational basis and reviewed by subject matter experts (SME's). In the fourth step, the newly developed measure was administered to participations. In the fifth step, the data was analyzed by examining the factor structure of the items and removing any weak, unnecessary or problematic items. Based on Worthington and Wittaker (2006) the factor structure was uncovered using Exploratory Factor Analysis and then

Confirmatory Factor Analysis. In the sixth step, reliability analyses, in the form of internal consistency, were conducted on the refined measure. It is the hope that a future study would complete the seventh step, which will correlate scores from the newly developed measure with preexisting measures to establish validity.

Instrumentation

All participants in this study filled out the Social and Emotional Resources Inventory (SERI), designed to assess individual, community, and family factors that may have been present in the participant's lives. Initially, the SERI included 80-items measuring 15 domains:

Intellectual Functioning (5 items), Warm Parenting (5 items), Prosocial Adults (6 items), Good Schools (5 items), Temperament (6 items), Parent Expectations (5 items), Self-Esteem (5 items), Good Neighborhood (4 items), Talent (7 items), Kin Connections (5 items), Faith (6 items), Parent Connections (5 items), Money (5 items), Prosocial Organizations (5 items), and Coping (6 items). Each item was rated on a five-point Likert-type scale ranging from not true to completely true. Example items include "when I was growing up I was intelligent", "when I was growing up I received warm parenting" and "when I was growing up I had a strong sense of faith or spirituality" (see Appendix A). For the original measure, Cole et al. (2008) reported a coefficient alpha of .91 for the full scale and internal reliabilities ranging from .75 to .91 for the subscales.

Means and Standard deviations for each of the items is displayed in Table 1.

Procedure

All participants received an informed consent form detailing the study and potential risks, and were assured of confidentiality and anonymity. Participants were then given a packet of measures including a demographic form and the SERI. After participants filled out the packets, they received a written debriefing form and were thanked for their participation.

Data Analysis

Since the SERI has been revised in this study to include new protective factors and new items, Exploratory Factor Analysis (EFA) was used in order to identify the factor structure of the SERI and Confirmatory Factor Analysis (CFA) was used to refine this structure. Due to the sample size, simple linear regression (SLR) and independent samples t-tests were conducted in order to determine if gender significantly predicted the presence of social and emotional resources in participants' lives, and what, if any, protective factors were present for men and women in differential amounts growing up.

CHAPTER III

Results

The data were primarily analyzed using a factor analytic approach. Although the items for the SERI were generated theoretically, Worthington and Wittaker (2006) argue that scale development and validation with only Confirmatory Factor Analysis (CFA) yields several problems (e.g., in order to replicate, another CFA would have to be conducted). Additionally, they state that reporting the results of a single CFA is no more informative than conducting a single Exploratory Factor Analysis (EFA). Thus, their suggestion is to conduct both an EFA and a CFA, and following their suggestion, both of these approaches were used in this analysis. EFA was employed to assess the number of factors, factor loadings, and correlation coefficients between factors. CFA was then used to construct the measurement model and remove extraneous factors and variables. Mean replacement was used to account for missing data, although the number of missing data cases was less than 10.

The second step of data analysis involved investigating gender differences in social and emotional resources and the types of social and emotional resources reported by each gender. In order to do this, Simple Linear Regression (SLR) was used to determine if gender significantly predicted the presence of social and emotional resources. Then, independent samples t-tests were conducted to determine what, if any, social and emotional resources are reported more by women than men.

Factor Analysis of the SERI

Exploratory Factor Analysis of the SERI

Since the SERI is a newly developed instrument, it necessitated the use of EFA to explore the number and structure of factors. The SERI was subjected to a maximum likelihood analysis

with oblique rotation (see Table 2). An oblique rotation was selected based on an analysis of the item correlations, which ranged from .003 to .899. This range in item correlations suggests that an oblique rotation is most appropriate for this data. Theoretically, the SERI was originally designed to measure 15 factors: Intelligence, Warm Parenting, Prosocial Adults, Good Schools, Temperament, Parent Expectations, Self-Esteem, Good Neighborhood, Talent, Kin Connections, Faith, Parent Connections, Money, Prosocial Organizations, and Coping. Factors were retained based on five criteria. First, factors were retained based on whether or not they had an eigenvalue greater than 1 (Kaiser, 1958). In this case, all 15 factors had an eigenvalue greater than 1 (see Table 3). Second, factors were retained based on factor loadings, and items with loadings below .50 were deleted (Watson, Clark, and Tellegen, 1988). Next, factors were retained based on approximating simple structure (McDonald, 1985). This method focuses on item loadings across factors, suggesting that items should load strongly on only one factor and have small (e.g. less than .32) correlations with other factors. Items that loaded greater than .32 on multiple factors were subsequently deleted. Fourth, factors were retained based on Tabachnick and Fidell's (2001) recommendation that a factor should not be retained if it has fewer than three variables. Lastly, factors were retained if they were theoretically interpretable. After deleting items, the factor structure decreased to 10. This structure remained intact when the remaining items were subjected to maximum likelihood analyses with oblique rotation.

In order to assess what the extracted factors represented, the rotated loadings were examined. The first factor, comprised of 4 items, most accurately reflected the domain of Intelligence, with representative items including "I was intelligent" and "I did well academically". The second factor most accurately describes Parent Connections and Practices, with the 9 items including "I felt connected to a parent/or guardian" and "My parents were

loving”. The third factor is best classified as Self-Esteem, and was comprised of 5 items, including “I had high self-esteem”. The fourth factor, Financial Resources, was composed of 6 items, including “My family had access to adequate healthcare” and “My parents made enough money at their job for my family to be able to live comfortably”. The fifth factor, comprised of 6 items, is best described as Faith, and includes items such as “I had a strong sense of faith and spirituality”. The sixth factor, which included 6 items, best characterizes the domain of Talent, with items such as “I was skilled in at least one activity”. The seventh factor can be classified as Good Schools, and one out of the four items includes “My school met students’ academic needs”. The eighth factor, comprised of 4 items, can best be classified as Prosocial Adults, with a representative item being “An adult outside of my family motivated me to succeed”. The ninth factor, or Kin Connections, included 5 items such as “I had positive connections to my extended family”. Lastly, the tenth factor, comprised of 3 items, most accurately described Prosocial Organizations, with items such as “I was involved in groups that served others”.

Confirmatory Factor Analysis of the SERI

In order to determine how well the hypothesized 10-factor structure fit the data and remove extraneous factors, CFA was employed. In order to analyze model fit, four fit indices were used. While it is common to report the chi-square statistic, this fit index is sensitive to sample size and model complexity, such that a significant chi square may not necessarily describe poor model fit (Bentler & Bonett, 1980). In the present analysis, the chi-square statistic was used along with the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). According to Bentler and Bonett (1980), CFI and TLI values greater than .90 are indicative of acceptable fit. According to Hu and Bentler (1999), SRMR values of less than or

equal to .08 and RMSEA values less than or equal to .06 are indicative of acceptable model fit. The results of the model indicated that it was marginally acceptable (CFI = 0.89, TLI = 0.89, RMSEA = 0.07, SRMR = 0.05, $\chi^2(1229) = 2917.69$; $p < .001$) (see Table 4)

Although the factor loadings obtained from the EFA and CFA were both high, the 10-factor model was only approaching acceptable fit. According to Floyd and Widamin (1995), this may happen because of differences in analytic techniques of exploratory and confirmatory factor analysis, causing different conclusions to be drawn from the same data. Additionally, using the results of an EFA is not the only way to derive a hypothesized factor structure. Hypothesized structures can also come from theory (Kahn, 2006). Therefore, an alternative model was tested based on both the initial results of the EFA and the theoretical structure that the SERI was created with. The results of the EFA suggested that the Parent Connections and Practices factor contained 9 items. Based on how the items were theoretically written, this factor was split into two: Parenting Practices and Parent Connections. Parenting Practices included items such as “My parents were loving” and “my parents were emotionally available” whereas parent connections included items such as “I felt connected to a parent/guardian”. Additionally, the Financial Resources factor seemed to encompass two factors theoretically, and were split into Money and Resources. Money included items such as “My family was financially comfortable” and Resources included items such as “My family had access to adequate healthcare”. Thus, a 12-factor and 50 item structure was tested. The results of this model revealed good model fit and are summarized in Table 5 (CFI = 0.91, TLI = 0.90, RMSEA = 0.06, SRMR = 0.05, $\chi^2(1109) = 2451.51$; $p < .001$). The 12 factors retained from this CFA included: Intelligence, Parenting Practices, Self-Esteem, Money, Faith, Talent, Good Schools, Prosocial Adults, Kin Connections,

Prosocial Organizations, Parent Connections, and Resources. The factors and their corresponding items are displayed in Appendix C.

Reliability Analysis

The internal consistency of the SERI was determined by using inter-item correlations. According to George and Mallery (2003), a Cronbach's alpha (α) above .7 is acceptable, above .8 is good, and above .9 is excellent. Coefficient alpha's for the 12 individual subscales of the SERI ranged from .84 to .97, demonstrating good to excellent internal consistency (see Table 6). Coefficient alpha for the full scale was .95, demonstrating excellent internal consistency.

Gender and Social and Emotional Resources

In order to determine if gender predicted greater presence of social and emotional resources, a simple linear regression (SLR) was performed where gender was entered into the equation as the predictor variable. Results revealed that gender did not significantly predict the presence of social and emotional resources in participants' lives, although the results approached significance, $b = -5.34$, $t(299) = -1.95$, $p = .052$ in favor of women reporting experiencing greater presence of social and emotional resources than men. Despite the finding that gender did not significantly predict the presence of social and emotional resources, previous research has suggested that men and women utilize different protective factors (e.g. Hartman et al., 2008). Therefore, independent samples t-tests were conducted for each subscale based on gender. Overall, it was found that men and women differ in three areas: Parenting Practices, $t(299) = 2.35$, $p < .05$, $d = .27$. Parent Connections $t(299) = 2.70$, $p < .01$, $d = .31$, and Prosocial Organizations $t(299) = 3.61$, $p < .01$, $d = .42$. However, since 12 independent samples t-tests were run, there was an increased likelihood of family-wise error rate, or obtaining a false positive. In order to address this, a Bonferroni correction was implemented, and the p value (.05)

was divided by the number of comparisons (12), yielding a new p value of .004. Once this correction was applied to the data, only the Prosocial Organizations comparison remained significant.

Thus, these results suggest that females reported higher levels of emotional closeness and warm parenting growing up, but that results were not statistically significantly higher than men. However, women did report statistically significantly higher levels of involvement in prosocial organizations compared to men. Moreover, according to Cohen (1992), this was a small to moderate effect. Conceptually, these findings seem to fit with the idea that men and women have different coping strategies, which leads them to report different protective factors in such a way that women would turn to more familial and community protective factors and men would report more individual protective factors. These findings provide some support for this, since the only areas where differences arose were in three of the community and familial protective factors subscales. Specifically, the finding that women reported higher levels of emotional closeness and warm parenting growing up, as compared to men, is consistent with previous empirical research (e.g., Chandy et al., 1996) that has demonstrated that supportive relationships with parents and higher emotional attachment were more associated with resilience in women. Despite the fact that these results were not statistically significant and yielded a small effect, they may have practical significance in terms of interventions to increase resiliency.

CHAPTER IV

Discussion

The primary purpose of this study was to develop a comprehensive measure of protective factors. An analysis of existing resiliency scales revealed that there was currently no scale that combined all three domains of protective factors in a way that applied to a general population. Therefore, the SERI sought to do this in one psychometrically sound and clinically useful instrument. Results suggested a 12- factor structure for the SERI, and the 12 subscales do in fact reflect all three domains of protective factors: individual, community, and familial. Model fit was found to be acceptable and reliability appeared to range from good to excellent.

The importance of having a comprehensive measure of protective factors is necessitated by the increase in the implementation of strength-based models. Currently, the U.S. military is implementing strength-based approaches aimed at assessing soldiers' strengths and psychological fitness through a program they call the Comprehensive Soldier Fitness program (CSF). In a description of the program and the assessment tool developed for the CSF program (the GAT) Peterson, Park, and Castro (2011) argue that comprehensiveness is key, as it provides a common vocabulary for talking about not only what is wrong, but also what is right. A comprehensive measure of protective factors that can be used with a general population will be an important step in being able to talk about what is not only wrong with individuals, but also what is right.

The process of uncovering the factor structure of the SERI followed the recommendations of Worthington and Wittaker (2006) and Kahn (2006). Although the SERI was constructed theoretically to be composed of 15 factors, Worthington and Wittaker discuss the drawbacks and potential problems with only conducting a CFA (e.g., the need to conduct another

CFA on a separate sample). Therefore, an EFA was employed to assess the number of factors, factor loadings, and correlation coefficients between factors. Factors were retained based on four criteria: eigenvalues greater than 1, factor loadings above .5, approximating simple structure, and theoretical relevance. After these criteria were applied, the EFA suggested a 10-factor structure, with standardized factor loadings ranging from 0.71 to 0.96.

Interestingly, the coping and temperament items did not load strongly onto any one factor, and were subsequently deleted from the analyses. While this could reflect poorly written items, or items that did not adequately capture the constructs of coping and temperament, it could also be that coping and temperament relate to other protective factors and to resiliency in general in a unique way. Of all of the scales reviewed, only three measured coping and temperament: the Adolescent Resilience Scale, the BRCS, and the RSES. Both the BRCS and the RSES focus exclusively on elements of coping. The Adolescent Resilience Scale, on the other hand, focuses on a specific element of coping and temperament: emotional regulation. It could be that more items need to be written about emotion regulation in general in order to tap into the constructs of coping and temperament.

After items and factors were dropped, a CFA was then conducted in order to determine how well this newly uncovered factor structure fit the data. The CFA was also used to remove extraneous factors. It was found that the model was approaching acceptable fit overall (CFI = 0.89, TLI = 0.89, RMSEA = 0.07, SRMR = 0.05, $\chi^2(1229) = 2917.69$; $p < .001$), although the SRMR was within acceptable ranges. Based on the CFA, the 10 subscales included Intelligence, Parent Connections and Practices, Self-Esteem, Financial Resources, Faith, Talent, Good Schools, Prosocial Adults, Kin Connections, and Prosocial Organizations.

However, an alternative model was also constructed. Given the high factor loadings obtained from both the EFA and CFA, and the large amount of items comprising the Parent Connections and Practices scale, a second CFA was conducted based on theory. In this model, items from the Parent Connections and Practices factor were split into two factors: Parenting Practices and Parent Connections. Additionally, upon further investigation of the Financial Resources Factor, it made theoretical sense to split that into two factors as well: Money and Resources. This 12 factor model demonstrated good fit (CFI = .91, TLI = .90, RMSEA = .06, SRMR = .05, $\chi^2(1109) = 2451.51.69$; $p < .001$). The final scale consisted of these 12 factors and 50 items.

A second purpose of this study was to investigate gender differences in the presence of protective factors growing up. No significant differences were found in the presence of protective factors each gender reported experiencing growing up. In other words, protective factors seemed to have been equally present for both men and women. This is consistent with previous research (e.g. Shirley, 2011).

With regards to how men and women differ in which protective factors they report experiencing growing up, significant gender differences were found on three of the SERI subscales: Parenting Practices, Parent Connections and Prosocial Organizations. These results suggested that women reported feeling significantly closer and more connected with their parents and significantly more involved in organizations in their community. The former is consistent with previous research on gender differences and resiliency (e.g., Chandy et al., 2006; Sun & Stewart, 2007), while the latter is a relatively new finding. These gender differences have implications for intervention design and effectiveness for at-risk youth.

Limitations and Future Directions

One of the biggest limitations to this research is sample size. The literature varies in the satisfactory number of participants to conduct an EFA. While Comrey (1973) recommends at least 300 cases for factor analysis, other research argues for at least five participants per item (e.g. Gorsuch, 1983). Based on the criteria used, this sample size may be adequate or inadequate. Additionally, utilizing both an EFA and a CFA on the same sample presents another methodological limitation. Additional studies will have to be conducted with this hypothesized 12-factor model on another sample in order to better understand the factor structure of the SERI. Additionally, it was found that the coping and temperament items did not load strongly enough onto any factor. In this way, it may be important to re-write some of these items and test them on a different population. With regards to coping, more items may need to be written about emotion regulation in particular. With regards to temperament, more items may need to be written (i.e., more than the 6 written for this study) or re-worded in order for them to load on a factor. Analyses of gender differences in social and emotional resources were also limited by the sample size. Some research has directly assessed the moderating role of gender in model construction and fit (e.g. Cole et al., 2008). However, based on the number of parameters and subjects in this sample, this analysis could not be conducted. It may be helpful for future studies to investigate this, by conducting separate CFAs for each gender and comparing model fit through multigroup analyses.

Implications

The results of this study suggest that the Social and Emotional Resources Inventory is representative of the three domains of protective factors: individual, community, and familial. As such, this is the first comprehensive measure of protective factors that may be applied to a

general population, and has the potential to be useful in both research and clinical settings. This measure would be especially useful for researchers or clinicians looking to measure multiple domains or outcomes. Currently, if this is the goal, researchers and clinicians have to combine several measures that may or may not include all areas of interest.

A few interesting gender differences were also found. It was found that women reported feeling higher levels of emotional closeness and warm parenting growing up. Women also reported significantly higher levels of involvement in prosocial organizations growing up. While women's reports of more emotional closeness and warm parenting may be the result of how parents are socialized to raise boys and girls, it seems like support from external sources like community organizations may be an area that can and should be targeted in interventions for at risk youth. It could be that connections to community organizations function as an extended social support network, and research suggests that support networks for at-risk youth serve a protective function and help contribute to global self-worth (McMahon, Felix & Nagarajan, 2011). However, research on interventions designed to increase resilience in at-risk males through increasing their connections to prosocial organizations is much more sparse, and may represent an area for future investigation.

Conclusion

The concept of resiliency, or the achievement of positive outcomes despite facing risk, has been studied extensively over the past 30 years. One of the most common methods of investigating resilience currently is in looking at protective factors, or variables that help to counteract the effects of experiencing risk and lead to a more positive outcome. Research in this area has divided protective factors into three different areas: individual, familial, and community

(Blum et al., 2002). However, an investigation of current resiliency measures indicates that there is no way to measure resiliency that combines all three of these protective factors.

The present study sought to fill this gap in the literature by detailing the development of the SERI, a comprehensive measure of protective factors. Through both EFA and CFA the SERI was determined to have a 12-factor structure: Intelligence, Parent Connections, Parenting Practices, Self-Esteem, Money, Resources, Faith, Talent, Good Schools, Prosocial Adults, Kin Connections and Prosocial Organizations. Although the sample size was small, the CFA suggested that model fit for the SERI was good, and the reliability for the subscales ranged from .84 to .97. Future research should focus on testing this model on additional samples.

This study also sought to investigate gender differences in the presence of protective factors. While it was found that the presence of protective factors did not differ for men and women, there were differences in men and women's experience of protective factors. Women reported experiencing significantly higher emotional connections with their parents growing up. Women also reported significantly more involvement in prosocial organizations in their community. These findings are consistent with previous research, but have implications for intervention effectiveness and design for at risk youth, and particularly at-risk males. Overall, the SERI provides a comprehensive, reliable way to measure protective factors that may prove useful in both a clinical and research setting.

Table 1

Means and Standard Deviations for SERI Items

Item	<i>M</i>	<i>SD</i>
1. I was intelligent		
2. I received warm parenting	4.30	0.66
3. There was an adult outside my family who took an interest in my welfare	4.56	0.69
4. My school met students' academic needs	4.00	1.14
5. I had an easygoing disposition	4.32	0.79
6. My parents had high expectations for me	4.11	0.88
7. I had a strong self-confidence	4.66	0.59
8. I lived in a good neighborhood	3.76	1.16
9. I had a talent (i.e., talented in sports, music, drama, academics, etc.)	4.44	0.90
10. I had positive connections to my extended family (e.g. grandparents, aunts, uncles, etc.)	4.37	0.92
11. I had a strong sense of faith or spirituality	4.37	0.93
12. I felt connected to a parent/guardian	3.32	1.38
13. My family did not have to worry excessively about money	4.54	0.83
14. I was involved in an organized group (e.g. church group, boy-scouts, school-related group...)	3.71	1.23
15. When problems came up, I would deal with them head on	4.19	1.20
16. I was smart	3.75	0.98
17. My parents were loving	4.38	0.67
18. I had an adult mentor other than my parents	4.70	0.64
19. I received a good education	3.81	1.29
20. I was laid-back	4.60	0.68
21. My parents believed I was capable	4.07	1.00
22. I felt positively about myself	4.78	0.51
23. My community was safe (i.e., little violence, few crimes, etc.)	3.96	1.10
24. I was skilled in at least one activity	4.40	0.89
25. I had a close relationship with family members other than my parents/guardians and siblings	4.58	0.73
26. My faith or spirituality was important to me	4.13	1.17
27. A parent/guardian in the home looked out for me	3.24	1.47
28. My family was financially comfortable	4.71	0.62
29. I was involved in extra-curricular activities (including school-related and non-school related activities)	3.89	1.21
30. I would think about how to take control of problems instead of trying to ignore them	4.50	0.94

31. I was bright	3.83	0.95
32. I was emotionally close to my parents	4.41	0.61
33. An adult outside of my family motivated me to succeed	4.24	1.02
34. My school had skilled teachers	4.06	1.14
35. Few things in my life got me too worked up or excited	4.22	0.85
36. My parents expected me to succeed	3.15	1.19
37. I had high self-esteem	4.74	0.54
38. My family had access to adequate health care	3.74	1.14
39. Others noticed my special ability in an activity (e.g. sports, music, drama, academics, etc.)	4.49	0.90
40. I could depend on family members other than my parents and siblings	4.32	0.94
41. Religion/spirituality was a central part of my life	4.16	1.15
42. I had a parent/guardian I could rely on	3.01	1.49
43. My family was able to afford the things we needed	4.67	0.65
44. I was involved in groups that served others	4.33	0.96
45. I would sit down and plan out how to overcome problems	4.01	1.18
46. I got good grades in school	3.32	1.12
47. My parents were emotionally available	4.48	0.69
48. There was an adult outside my family who cared about me	4.36	0.93
49. I learned a lot at school	4.20	1.09
50. I was able to deal well with stress	4.35	0.73
51. My parents encouraged me to achieve goals	3.67	1.11
52. I believed in myself	4.73	0.61
53. My family and I had access to good health services	4.09	1.00
54. I had a skill that I was proud of	4.46	0.93
55. I felt that my extended family was there for me	4.40	0.92
56. I attended religious services	4.14	1.18
57. I was connected to my family	3.21	1.57
58. My family always had food and shelter	4.47	0.87
59. I was involved in a group that did good things for the community	4.81	0.50
60. I would pretend there weren't any problems even when there really were	3.92	1.27
61. I did well academically	3.07	1.25
62. My parents cared about me	4.48	0.67
63. Someone other than family made sure that I was okay	4.73	0.60

64. I went to a good school	4.21	1.05
65. I wasn't much of a worrier	4.41	0.81
66. My parents wanted me to reach my full potential	3.32	1.23
67. I viewed myself as a capable individual	4.80	0.53
68. I felt that there was something special I could do (i.e., I was talented at something)	4.29	0.92
69. My extended family was there for me when my parents couldn't be	4.28	0.97
70. I believed in a higher power or spiritual energy	3.95	1.25
71. I felt like part of my family unit	3.50	1.46
72. My parent(s) made enough money at their job for my family to be able to live comfortably	4.47	0.91
73. I was involved with a group or organization that focused on helping others	4.34	1.03
74. I would put off dealing with problems until later	3.87	1.25
75. An adult "believed" in me	2.96	1.10
76. I was seen as a "talented kid"	4.53	0.80
77. I took comfort in my faith or spirituality	4.23	0.95
78. I would try to avoid dealing with problems if they came up	3.22	1.51
79. I was good at things I "set my mind to"	3.20	1.13
80. I worried a lot about things	4.51	0.63
	3.07	1.26

Table 2a

Exploratory Factor Analysis Results for the SERI Using a Maximum Likelihood Method (n = 301)

Factor Loadings							
Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
SERI 1	0.89	-0.08	-0.02	0.03	-0.01	0.03	-0.07
SERI 2	0.02	0.79	-0.09	0.04	0.05	-0.01	0.04
SERI 3	0.05	0.03	0.04	-0.06	-0.01	0.00	0.58
SERI 4	0.04	-0.10	-0.05	0.02	0.02	0.05	0.08
SERI 5	0.16	0.12	0.07	0.05	0.00	0.13	0.07
SERI 6	0.02	-0.01	0.00	0.03	0.04	0.00	0.15
SERI 7	-0.05	0.00	0.02	0.02	0.87	0.01	0.07
SERI 8	-0.08	-0.04	0.14	-0.02	0.09	0.40	-0.05
SERI 9	0.07	-0.08	0.78	0.02	0.10	0.01	0.02
SERI 10	0.00	0.05	0.04	-0.08	-0.06	-0.01	-0.04
SERI 11	0.00	-0.03	0.00	0.93	0.08	-0.05	-0.04
SERI 12	0.01	0.73	0.08	0.04	-0.10	-0.02	-0.01
SERI 13	-0.02	0.01	0.00	0.06	0.04	0.57	0.01
SERI 14	0.02	-0.01	0.21	0.17	-0.11	0.05	0.02
SERI 15	0.05	0.00	0.09	0.04	0.23	-0.02	0.03
SERI 16	0.92	-0.08	0.08	0.03	0.02	-0.01	-0.02

SERI 17	-0.07	0.83	0.04	-0.03	0.05	-0.04	0.01
SERI 18	0.01	-0.02	0.00	0.04	0.07	-0.05	0.68
SERI 19	0.07	0.11	0.10	0.01	-0.04	0.01	0.01
SERI 20	-0.02	0.14	0.15	-0.05	0.03	-0.05	0.04
SERI 21	0.09	0.51	0.04	0.03	0.01	-0.02	0.06
SERI 22	0.07	0.01	0.02	-0.02	0.82	0.00	0.03
SERI 23	-0.11	0.02	0.03	0.04	0.12	0.36	-0.02
SERI 24	-0.02	0.07	0.75	0.02	0.05	0.05	-0.13
SERI 25	0.05	0.01	0.16	0.95	0.01	-0.01	0.14
SERI 26	0.02	0.04	0.03	0.06	0.01	0.00	0.01
SERI 27	0.09	0.68	-0.03	0.00	-0.12	0.07	-0.05
SERI 28	-0.01	-0.01	0.00	-0.07	0.02	0.66	0.03
SERI 29	-0.05	-0.03	0.37	0.06	0.03	0.16	0.05
SERI 30	0.04	0.09	0.04	0.00	0.22	-0.01	-0.02
SERI 31	0.88	0.02	0.04	-0.03	0.00	0.00	-0.04
SERI 32	0.02	0.60	0.02	0.04	0.06	0.00	0.07
SERI 33	0.00	0.00	0.10	0.02	-0.08	-0.05	0.80
SERI 34	0.09	0.03	-0.01	-0.04	-0.09	0.01	0.12
SERI 35	0.01	-0.12	0.07	0.01	-0.05	0.09	0.11

SERI 36	0.02	0.04	0.03	0.01	-0.06	0.01	-0.03
SERI 37	0.00	-0.01	0.00	0.01	0.86	0.04	0.04
SERI 38	0.00	-0.01	-0.02	0.07	0.00	0.96	0.01
SERI 39	0.00	-0.03	0.78	-0.04	-0.02	0.03	0.08
SERI 40	0.03	0.02	0.05	0.94	0.04	0.02	0.24
SERI 41	0.02	0.00	-0.03	0.01	-0.03	-0.01	0.06
SERI 42	-0.01	0.85	-0.05	0.00	0.01	0.08	-0.03
SERI 43	0.07	0.06	-0.02	0.01	-0.03	0.68	0.01
SERI 44	0.01	0.04	0.03	0.01	0.05	-0.02	0.00
SERI 45	-0.04	-0.01	0.05	-0.03	0.08	-0.01	0.02
SERI 46	0.59	0.05	-0.01	-0.04	0.11	-0.01	0.12
SERI 47	-0.01	0.67	0.04	0.01	0.02	0.01	0.04
SERI 48	0.01	0.02	0.01	-0.06	0.02	0.04	0.83
SERI 49	0.40	0.03	0.00	0.00	0.05	0.10	0.21
SERI 50	0.03	0.00	-0.03	-0.01	0.27	0.06	0.06
SERI 51	0.01	0.46	0.07	0.04	0.04	0.01	0.01
SERI 52	0.08	0.06	0.05	0.00	0.81	0.03	-0.04
SERI 53	0.01	0.03	-0.04	-0.01	0.00	0.95	0.01
SERI 54	0.01	0.08	0.81	0.06	0.05	0.02	-0.05

SERI 55	-0.01	0.02	0.00	0.81	-0.01	0.06	0.13
SERI 56	-0.04	-0.04	-0.09	0.03	0.00	0.03	-0.10
SERI 57	0.03	0.54	0.00	0.01	0.04	0.03	-0.03
SERI 58	0.12	0.35	0.03	0.01	-0.08	0.48	0.03
SERI 59	0.03	0.01	-0.01	-0.04	0.04	-0.02	0.03
SERI 60	-0.02	0.03	-0.10	-0.02	0.01	0.06	-0.02
SERI 61	0.70	0.01	-0.05	-0.01	0.10	-0.04	0.10
SERI 62	-0.07	0.86	-0.07	0.01	0.03	0.02	0.00
SERI 63	-0.09	0.05	-0.05	0.01	0.10	0.03	0.59
SERI 64	-0.03	0.04	-0.01	0.04	0.02	-0.05	-0.01
SERI 65	-0.01	0.02	0.01	-0.09	0.18	0.02	0.05
SERI 66	0.00	0.47	-0.01	0.01	0.00	0.01	-0.03
SERI 67	0.14	0.06	0.11	0.00	0.70	-0.01	-0.09
SERI 68	-0.02	0.12	0.63	0.05	0.10	-0.05	0.02
SERI 69	-0.06	-0.07	-0.04	0.05	0.06	-0.01	0.25
SERI 70	0.00	0.03	0.03	0.85	0.02	0.03	0.02
SERI 71	-0.05	0.49	0.03	0.04	0.02	0.03	0.03
SERI 72	-0.01	0.02	0.07	-0.02	0.02	0.75	-0.05
SERI 73	0.07	0.04	0.06	0.06	-0.05	-0.01	0.02

SERI 74	-0.02	0.04	0.03	0.01	-0.03	-0.09	-0.03
SERI 75	0.10	0.31	0.07	0.01	-0.06	0.11	0.31
SERI 76	0.12	0.01	0.64	-0.01	-0.04	-0.03	0.09
SERI 77	-0.01	0.03	0.08	0.88	0.00	0.01	0.06
SERI 78	0.02	-0.09	-0.03	-0.03	-0.05	0.09	-0.06
SERI 79	0.29	0.09	0.20	-0.03	0.04	-0.04	0.06
SERI 80	0.02	-0.03	-0.04	0.01	0.08	-0.13	-0.04

Note. Factor loadings above .5 are indicated in bold.

Table 2b

Exploratory Factor Analysis Results for the SERI Using a Maximum Likelihood Method (n = 301)

Factor Loadings

Item	Factor 8	Factor 9	Factor 10	Factor 11	Factor 12	Factor 13	Factor 14	Factor 15
SERI 1	-0.02	0.04	-0.02	0.03	-0.03	0.03	0.04	-0.07
SERI 2	0.06	0.03	0.05	-0.01	0.02	0.00	-0.02	-0.07
SERI 3	0.08	0.00	0.01	-0.01	-0.01	0.03	0.06	-0.06
SERI 4	0.68	0.15	-0.03	0.02	-0.03	-0.01	-0.01	0.07
SERI 5	0.14	0.01	-0.11	0.00	0.06	-0.04	0.33	-0.09
SERI 6	-0.05	0.01	-0.03	0.66	0.11	-0.10	0.00	-0.11
SERI 7	-0.07	-0.03	0.05	0.03	0.01	0.07	0.04	-0.09
SERI 8	0.33	-0.09	0.08	0.06	-0.01	0.05	0.14	0.03
SERI 9	-0.02	-0.07	0.10	0.04	-0.03	0.04	-0.07	-0.02
SERI 10	0.03	0.76	0.17	0.03	-0.02	0.09	0.04	-0.04
SERI 11	0.00	0.06	0.05	0.02	0.01	-0.03	-0.03	0.02
SERI 12	-0.04	0.01	0.03	0.05	-0.04	0.04	-0.02	0.34
SERI 13	-0.05	0.01	0.66	0.04	0.05	0.00	-0.02	-0.03
SERI 14	0.11	-0.08	-0.01	0.03	0.02	0.49	0.04	0.08
SERI 15	0.02	-0.01	-0.02	0.01	0.48	0.15	0.07	-0.04
SERI 16	-0.03	0.02	0.01	0.01	-0.02	-0.02	0.06	0.02

SERI 17	0.05	0.04	0.00	-0.04	0.08	-0.09	0.01	-0.05
SERI 18	0.05	0.05	0.08	-0.01	-0.02	0.03	-0.06	0.07
SERI 19	0.72	0.03	0.02	0.03	0.05	-0.03	-0.06	0.01
SERI 20	0.00	-0.02	-0.05	-0.04	-0.02	0.04	0.49	-0.05
SERI 21	0.00	-0.09	0.04	0.37	-0.10	-0.01	0.02	-0.06
SERI 22	0.02	0.00	0.00	0.00	-0.03	0.04	0.05	0.12
SERI 23	0.37	-0.05	0.04	0.08	-0.05	0.05	0.17	0.02
SERI 24	0.07	0.05	-0.09	0.02	-0.04	0.03	0.06	0.08
SERI 25	0.03	0.61	-0.03	-0.10	-0.05	-0.05	0.06	0.23
SERI 26	-0.03	0.01	-0.01	-0.05	0.04	-0.02	-0.01	-0.03
SERI 27	0.03	-0.01	0.02	-0.02	0.11	0.03	0.00	0.04
SERI 28	0.01	0.00	0.67	-0.02	0.01	-0.01	-0.03	0.02
SERI 29	0.08	0.02	-0.04	0.09	0.10	0.35	-0.08	-0.01
SERI 30	0.05	0.02	0.00	0.00	0.62	0.12	0.02	-0.06
SERI 31	-0.01	0.03	0.03	0.02	0.01	0.02	0.07	-0.08
SERI 32	-0.06	0.01	-0.01	-0.07	0.06	-0.01	-0.01	0.42
SERI 33	0.00	0.04	0.01	0.00	0.00	0.01	0.05	0.17
SERI 34	0.70	0.01	-0.03	-0.03	-0.01	0.05	0.06	-0.01
SERI 35	-0.03	-0.01	0.03	-0.01	0.13	0.03	0.22	0.00

SERI 36	0.06	0.04	0.04	0.73	0.08	0.05	0.00	0.02
SERI 37	-0.04	-0.01	0.03	0.00	0.02	0.05	0.05	0.01
SERI 38	-0.03	0.02	-0.05	0.00	0.00	0.02	-0.02	0.02
SERI 39	-0.05	0.01	0.02	0.01	0.04	0.10	-0.07	0.03
SERI 40	-0.04	0.70	0.05	-0.05	0.03	0.03	0.02	0.01
SERI 41	-0.01	-0.02	0.02	0.00	0.04	0.01	0.01	0.06
SERI 42	-0.05	0.00	-0.08	0.08	-0.06	0.09	0.04	0.07
SERI 43	0.03	0.02	0.40	-0.01	-0.02	0.00	0.07	0.01
SERI 44	0.01	0.13	0.03	-0.02	0.01	0.84	-0.03	-0.04
SERI 45	0.01	0.01	-0.04	0.00	0.66	0.21	-0.06	0.04
SERI 46	0.04	-0.09	-0.01	0.04	0.04	0.06	-0.13	0.11
SERI 47	0.04	0.03	0.07	0.00	-0.05	0.03	0.05	0.31
SERI 48	0.01	0.13	-0.01	0.00	-0.02	0.03	0.02	-0.01
SERI 49	0.35	-0.05	-0.04	-0.08	0.05	0.00	-0.04	0.04
SERI 50	0.03	0.08	0.03	0.04	0.31	0.00	0.40	0.00
SERI 51	0.02	-0.06	-0.02	0.58	-0.06	0.00	0.00	0.09
SERI 52	0.05	0.03	0.03	-0.02	0.03	-0.10	0.00	0.01
SERI 53	-0.03	0.05	-0.07	0.02	0.03	0.00	-0.03	-0.02
SERI 54	0.01	0.08	-0.02	0.00	0.00	0.04	0.01	0.03

SERI 55	0.00	0.79	0.00	0.02	0.01	0.02	-0.08	0.08
SERI 56	0.10	0.03	-0.01	0.05	-0.02	0.14	0.01	-0.01
SERI 57	-0.01	0.17	-0.02	0.02	0.04	0.07	0.00	0.45
SERI 58	0.07	-0.04	0.05	-0.03	0.00	-0.02	-0.03	-0.10
SERI 59	-0.04	0.02	-0.03	-0.02	0.02	0.93	0.03	0.02
SERI 60	-0.03	0.00	0.05	-0.03	0.43	-0.01	0.23	0.15
SERI 61	0.07	-0.04	0.00	0.06	-0.01	0.07	-0.10	0.12
SERI 62	0.05	-0.03	-0.02	0.07	0.06	0.03	-0.03	0.00
SERI 63	0.11	0.27	-0.03	0.04	-0.01	0.13	0.02	-0.06
SERI 64	0.89	0.02	0.04	0.00	0.04	0.00	0.00	0.02
SERI 65	-0.04	0.05	-0.06	-0.01	0.01	-0.03	0.72	0.03
SERI 66	0.02	0.05	-0.01	0.64	-0.04	-0.02	0.03	-0.04
SERI 67	0.06	0.10	-0.08	0.01	0.05	-0.12	-0.02	0.08
SERI 68	0.01	0.01	0.02	-0.03	0.06	-0.03	0.07	0.02
SERI 69	0.00	0.71	0.00	0.07	0.05	0.01	0.01	0.02
SERI 70	0.01	0.03	-0.07	-0.01	-0.02	0.02	0.00	-0.12
SERI 71	0.07	0.06	-0.01	0.01	0.06	-0.03	0.10	0.45
SERI 72	0.09	0.04	0.34	-0.04	-0.04	-0.04	0.04	0.04
SERI 73	0.00	0.05	0.03	-0.04	0.01	0.87	0.00	0.01

SERI 74	-0.09	-0.03	0.01	0.01	0.51	-0.06	0.15	0.03
SERI 75	-0.06	0.13	-0.01	0.13	0.06	-0.04	-0.02	0.06
SERI 76	-0.01	0.03	0.08	0.05	0.07	-0.01	0.09	-0.10
SERI 77	0.01	-0.07	0.02	-0.02	-0.03	0.02	0.02	0.02
SERI 78	0.02	-0.01	0.04	0.00	0.47	0.01	0.19	0.06
SERI 79	0.07	0.03	0.02	-0.04	0.21	-0.08	-0.04	-0.03
SERI 80	0.05	0.01	0.06	0.09	0.07	0.02	0.69	0.12

Note. Factor loadings above .5 are indicated in bold.

Table 3

Eigenvalues and Percentage of Variance Explained by Original SERI Factors

Factor	Eigenvalue	% of Variance Explained	Cumulative %
1	23.13	28.92	28.92
2	5.80	7.25	36.17
3	5.00	6.25	42.42
4	3.87	4.84	47.26
5	3.75	4.69	51.95
6	3.38	4.22	56.17
7	2.71	3.93	60.10
8	2.16	2.70	62.80
9	1.97	2.46	65.26
10	1.80	2.25	67.51
11	1.57	1.96	69.47
12	1.48	1.85	71.32
13	1.22	1.52	72.84
14	1.14	1.42	74.26
15	1.03	1.30	75.56

Table 4a
Standardized Loadings for Confirmatory Model of the SERI

Item	Factor				
	Intelligence	Parent Practices	Self-Esteem	Financial Resources	Faith
1	0.86 (.02)				
16	0.95 (.01)				
31	0.91 (.01)				
61	0.73(.03)				
2		0.77 (.03)			
12		0.82 (.02)			
17		0.79 (.02)			
32		0.79 (.03)			
42		0.85 (.02)			
47		0.86 (.02)			
57		0.85 (.02)			
62		0.83 (.02)			
71		0.80 (.02)			
7			0.89 (.02)		
22			0.92 (.01)		
37			0.91 (.01)		

52	0.90 (.01)		
67	0.84 (.02)		
13		0.84 (.02)	
28		0.90 (.01)	
38		0.80 (.02)	
43		0.88 (.02)	
53		0.80 (.20)	
72		0.92 (.01)	
11			0.94 (.01)
26			0.96 (.01)
41			0.96 (.01)
56			0.83 (.02)
70			0.86 (.02)
77			0.91 (.01)

Note. CFI = 0.89; TLI = 0.89; RMSEA = 0.07; $\chi^2(1229) = 2917.69; p < .01$.

Table 4b
Standardized Loadings for Confirmatory Model of the SERI

Item	Factor				
	Talent	Good Schools	Prosocial Adults	Kin Connections	Prosocial Organizations
9	0.81 (.02)				
24	0.81 (.02)				
39	0.86 (.02)				
54	0.91 (.01)				
68	0.77 (.03)				
76	0.74 (.03)				
4		0.72 (.03)			
19		0.85 (.02)			
34		0.76 (.03)			
64		0.89 (.02)			
18			0.75 (.03)		
33			0.85 (.02)		
48			0.94 (.01)		
63			0.90 (.02)		
10				0.74 (.03)	
25				0.81 (.02)	

40	0.90 (.01)	
55	0.90 (.01)	
69	0.86 (.02)	
44		0.91 (.01)
59		0.95 (.01)
73		0.95 (.01)

Note. CFI = 0.89; TLI = 0.89; RMSEA = 0.07; $\chi^2(1229) = 2917.69$; $p < .01$.

Table 5a

Standardized Loadings for 12-Factor Confirmatory Model (n = 301)

Item	Intelligence	Parenting Practices	Self-Esteem	Money	Faith
1	.86 (.02)				
16	.95 (.01)				
31	.91 (.01)				
61	.72 (.03)				
2		.82 (.02)			
17		.83 (.02)			
42		.87 (.02)			
47		.83 (.02)			
62		.87 (.02)			
7			.88 (.02)		
22			.92 (.01)		
37			.91 (.01)		
52			.90 (.01)		
67			.84 (.02)		
28				.87 (.02)	
43				.87 (.02)	
72				.95 (.01)	

11	.94 (.01)
26	.96 (.01)
41	.96 (.01)
56	.83 (.02)
70	.86 (.02)
77	.91 (.01)

Note. CFI = .91, TLI = .90, RMSEA = .06, SRMR = .05, $\chi^2(1109) = 2451.51.69$; $p < .001$.

Table 5b

Standardized Loadings for 12-Factor Confirmatory Model (n = 301)

Item	Talent	Good Schools	Prosocial Adults	Kin Connections
9	.81 (.02)			
24	.81 (.02)			
39	.86 (.02)			
54	.91 (.01)			
68	.77 (.03)			
76	.74 (.03)			
4		.72 (.03)		
19		.85 (.02)		
34		.76 (.03)		
64		.89 (.02)		
18			.75 (.03)	
33			.85 (.02)	
48			.94 (.01)	
63			.86 (.02)	
10				.74 (.03)
40				.88 (.02)
55				.90 (.01)
69				.88 (.02)

Note. CFI = .91, TLI = .90, RMSEA = .06, SRMR = .05, $\chi^2(1109) = 2451.51.69$; $p < .001$.

Table 5c

Standardized Loadings for 12-Factor Confirmatory Model (n = 301)

Item	Prosocial Organizations	Parent Connections	Resources
44	.90 (.01)		
59	.95 (.01)		
73	.95 (.01)		
12		.85 (.02)	
32		.82 (.02)	
57		.87 (.02)	
13			.62 (.04)
38			.96 (.01)
53			.96 (.01)

Note. CFI = .91, TLI = .90, RMSEA = .06, SRMR = .05, $\chi^2(1109) = 2451.51.69$; $p < .001$.

Table 6
Coefficient Alphas for SERI Subscales

Subscale	α
Intelligence	0.92
Parenting Practices	0.92
Self-Esteem	0.95
Money	0.92
Faith	0.97
Talent	0.92
Good Schools	0.88
Prosocial Adults	0.91
Kin Connections	0.91
Prosocial Organizations	0.96
Parent Connections	0.88
Resources	0.84

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Appendix A

SERI

The following statements describe things that may or may not have been true of you while you were growing up. **Please use the rating scale below to indicate how accurately each statement describes your childhood.** Please read each statement carefully, and then circle the number that corresponds to how accurately the statement describes you.

Response Options

- 1: Very Inaccurate
- 2: Moderately Inaccurate
- 3: Neither Inaccurate nor Accurate
- 4: Moderately Accurate
- 5: Very Accurate

When I was growing up:	Very Inaccurate			Very Accurate	
1. I was intelligent	1	2	3	4	5
2. I received warm parenting	1	2	3	4	5
3. There was an adult outside my family who took an interest in my welfare	1	2	3	4	5
4. My school met students' academic needs	1	2	3	4	5
5. I had an easygoing disposition	1	2	3	4	5
6. My parents had high expectations for me	1	2	3	4	5
7. I had strong self-confidence	1	2	3	4	5
8. I lived in a good neighborhood	1	2	3	4	5
9. I had a talent (i.e., talented in sports, music, drama, academics, etc.)	1	2	3	4	5
10. I had positive connections to my extended family (e.g., grandparents, aunts, uncles, etc.)	1	2	3	4	5
11. I had a strong sense of faith or spirituality	1	2	3	4	5
12. I felt connected to a parent/guardian	1	2	3	4	5
13. My family did not have to worry excessively about money	1	2	3	4	5
14. I was involved in an organized group (e.g., church group, school-related group, Girl or Boy Scouts, etc.)	1	2	3	4	5
15. When problems came up, I would deal with them head on	1	2	3	4	5
16. I was smart	1	2	3	4	5

17. My parents were loving	1	2	3	4	5
18. I had an adult mentor other than my parents	1	2	3	4	5
19. I received a good education	1	2	3	4	5
20. I was laid-back	1	2	3	4	5
21. My parents believed I was capable	1	2	3	4	5
22. I felt positively about myself	1	2	3	4	5
23. My community was safe (i.e., little violence, few crimes, etc.)	1	2	3	4	5
24. I was skilled in at least one activity	1	2	3	4	5
25. I had a close relationship with family members other than my parents/guardians and siblings	1	2	3	4	5
26. My faith or spirituality was important to me	1	2	3	4	5
27. A parent/guardian in the home looked out for me	1	2	3	4	5
28. My family was financially comfortable	1	2	3	4	5
29. I was involved in extra-curricular activities (including school-related and non school-related activities)	1	2	3	4	5
30. I would think about how to take control of problems instead of trying to ignore them	1	2	3	4	5
31. I was bright	1	2	3	4	5
32. I was emotionally close to my parents	1	2	3	4	5
33. An adult outside of my family motivated me to succeed	1	2	3	4	5
34. My school had skilled teachers	1	2	3	4	5
35. Few things in my life got me too worked up or excited	1	2	3	4	5
36. My parents expected me to succeed	1	2	3	4	5
37. I had high self-esteem	1	2	3	4	5
38. My family had access to adequate health care	1	2	3	4	5
39. Others noticed my special ability in an activity (e.g., sports, music, drama, academics, etc.)	1	2	3	4	5
40. I could depend on family members other than my parents and siblings	1	2	3	4	5
41. Religion/spirituality was a central part of my life	1	2	3	4	5
42. I had a parent/guardian I could rely on	1	2	3	4	5
43. My family was able to afford the things we needed	1	2	3	4	5
44. I was involved in groups that served others	1	2	3	4	5

45. I would sit down and plan out how to overcome problems	1	2	3	4	5
46. I got good grades in school	1	2	3	4	5
47. My parents were emotionally available	1	2	3	4	5
48. There was an adult outside my family who cared about me	1	2	3	4	5
49. I learned a lot at school	1	2	3	4	5
50. I was able to deal well with stress	1	2	3	4	5
51. My parents encouraged me to achieve goals	1	2	3	4	5
52. I believed in myself	1	2	3	4	5
53. My family and I had access to good health services	1	2	3	4	5
54. I had a skill that I was proud of	1	2	3	4	5
55. I felt that my extended family was there for me	1	2	3	4	5
56. I attended religious services	1	2	3	4	5
57. I was connected to my family	1	2	3	4	5
58. My family always had food and shelter	1	2	3	4	5
59. I was involved in a group that did good things for the community	1	2	3	4	5
60. I would pretend there weren't any problems even when there really were	1	2	3	4	5
61. I did well academically	1	2	3	4	5
62. My parents cared about me	1	2	3	4	5
63. Someone other than family made sure that I was okay	1	2	3	4	5
64. I went to a good school	1	2	3	4	5
65. I wasn't much of a worrier	1	2	3	4	5
66. My parents wanted me to reach my full potential	1	2	3	4	5
67. I viewed myself as a capable individual	1	2	3	4	5
68. I felt that there was something special I could do (i.e., I was talented at something)	1	2	3	4	5
69. My extended family was there for me when my parents couldn't be	1	2	3	4	5
70. I believed in a higher power or spiritual energy	1	2	3	4	5
71. I felt like part of my family unit	1	2	3	4	5
72. My parent(s) made enough money at their job for my family to be able to live comfortably	1	2	3	4	5

73. I was involved with a group or organization that focused on helping others	1	2	3	4	5
74. I would put off dealing with problems until later	1	2	3	4	5
75. An adult “believed” in me	1	2	3	4	5
76. I was seen as a “talented kid”	1	2	3	4	5
77. I took comfort in my faith or spirituality	1	2	3	4	5
78. I would try to avoid dealing with problems if they came up	1	2	3	4	5
79. I was good at things I “set my mind to”	1	2	3	4	5
80. I worried a lot about things	1	2	3	4	5

Appendix B

Factors and Items Included Based on the 10-Factor CFA

Intelligence

- 1. I was intelligent
- 16. I was smart
- 31. I was bright
- 61. I did well academically

Parent Connections and Practices

- 2. I received warm parenting
- 12. I felt connected to a parent/guardian
- 17. My parents were loving
- 32. I was emotionally close to my parents
- 42. I had a parent/guardian I could rely on
- 47. My parents were emotionally available
- 57. I was connected to my family
- 62. My parents cared about me
- 71. I felt like part of my family unit

Self-Esteem

- 7. I had strong self-confidence
- 22. I felt positively about myself
- 37. I had high self-esteem
- 52. I believed in myself
- 67. I viewed myself as a capable individual

Financial Resources

- 13. My family did not have to worry excessively about money
- 28. My family was financially comfortable
- 38. My family had access to adequate healthcare
- 43. My family was able to afford the things we needed
- 53. My family and I had access to good health services
- 72. My parents made enough money at their job for my family to be able to live comfortably

Faith

- 11. I had a strong sense of faith and spirituality
- 26. My faith or spirituality was important to me
- 41. Religion/spirituality was a central part of my life
- 56. I attended religious services
- 70. I believed in a higher power of spiritual energy
- 77. I took comfort in my faith or spirituality

Talent

- 9. I had a talent
- 24. I was skilled in at least one activity
- 39. Others noticed my special ability in an activity
- 54. I had a skill that I was proud of
- 68. I felt that there was something special I could do
- 76. I was seen as a “talented” kid

Good Schools

- 4. My school met students’ academic needs
- 19. I received a good education
- 34. My school had skilled teachers
- 64. I learned a lot at school

Prosocial Adults

- 18. I had an adult mentor other than my parents
- 33. An adult outside of my family motivated me to succeed
- 48. There was an adult outside of my family who cared about me
- 63. Someone other than my family made sure that I was okay

Kin Connections

- 10. I had positive connections to my extended family
- 25. I had a close relationship with family members other than my parents/guardians and siblings
- 40. I could depend on family members other than my parents and siblings
- 55. I felt that my extended family was there for me when my parents couldn’t be
- 69. My extended family was there for me when my parents couldn’t be

Prosocial Organizations

- 44. I was involved in groups that served others
- 59. I was involved in a group that did good things for the community
- 73. I was involved with a group or organization that focused on helping others

Appendix C

Final Factor Structure and Items Included on the SERI

Intelligence

- 1. I was intelligent
- 16. I was smart
- 31. I was bright
- 61. I did well academically

Parenting Practices

- 2. I received warm parenting
- 17. My parents were loving
- 42. I had a parent/guardian I could rely on
- 47. My parents were emotionally available
- 62. My parents cared about me

Parent Connections

- 12. I felt connected to a parent/guardian
- 32. I was emotionally close to my parents
- 57. I was connected to my family

Self-Esteem

- 7. I had strong self-confidence
- 22. I felt positively about myself
- 37. I had high self-esteem
- 52. I believed in myself
- 67. I viewed myself as a capable individual

Money

- 28. My family was financially comfortable
- 43. My family was able to afford the things we needed
- 72. My parents made enough money at their job for my family to be able to live comfortably

Resources

- 13. My family did not have to worry excessively about money
- 38. My family had access to adequate healthcare
- 53. My family and I had access to good health services

Faith

- 11. I had a strong sense of faith and spirituality
- 26. My faith or spirituality was important to me
- 41. Religion/spirituality was a central part of my life
- 56. I attended religious services
- 70. I believed in a higher power of spiritual energy
- 77. I took comfort in my faith or spirituality

Talent

- 9. I had a talent
- 24. I was skilled in at least one activity
- 39. Others noticed my special ability in an activity
- 54. I had a skill that I was proud of
- 68. I felt that there was something special I could do
- 76. I was seen as a “talented” kid

Good Schools

- 4. My school met students’ academic needs
- 19. I received a good education
- 34. My school had skilled teachers
- 64. I learned a lot at school

Prosocial Adults

- 18. I had an adult mentor other than my parents
- 33. An adult outside of my family motivated me to succeed
- 48. There was an adult outside of my family who cared about me
- 63. Someone other than my family made sure that I was okay

Kin Connections

- 10. I had positive connections to my extended family
- 40. I could depend on family members other than my parents and siblings
- 55. I felt that my extended family was there for me when my parents couldn’t be
- 69. My extended family was there for me when my parents couldn’t be

Prosocial Organizations

- 44. I was involved in groups that served others
- 59. I was involved in a group that did good things for the community
- 73. I was involved with a group or organization that focused on helping others