

2011

Assessing social support in children: development and initial validation of the social support questionnaire for children

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ASSESSING SOCIAL SUPPORT IN CHILDREN: DEVELOPMENT AND INITIAL
VALIDATION OF THE SOCIAL SUPPORT QUESTIONNAIRE FOR CHILDREN

A Dissertation

Submitted to the Graduate School Faculty of
Louisiana State University and
Agriculture and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

In

The Department of Psychology

by
Arlene Tayag Gordon
B.S., University of Houston, 2003
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August, 2011

ACKNOWLEDGEMENTS

I would like to thank my mentor and academic advisor, Dr. Mary Lou Kelley, as well as my dissertation committee for their support and guidance throughout this process. I would also like to thank my colleagues at Louisiana State University who all played an integral part in the fruition of this project, which remains near and dear to my heart. I am extremely grateful to the schools and clinics in East Baton Rouge, New Orleans, and surrounding parishes whose personnel appreciate the value of research and thus, diligently worked with me, allowing me to enter their facilities to recruit participants. I would like to thank my wonderful husband, Javoris Hollingsworth, family, and friends for being the best cheering squad and encouraging me always. I am forever indebted to you; this is your accomplishment as well as mine. Finally and most importantly, I would like to thank God for opening doors and providing opportunities like this.

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ABSTRACT

Research examining risk and protective factors associated with Posttraumatic Stress Disorder (PTSD) in children has established social support as one of the strongest predictors of psychological health and overall adjustment post-traumatic event (Vigil & Geary, 2008). Greater perceived social support, generally, has been related to more positive outcomes in children (Borja & Callahan, 2008; Cryder, Kilmer, Tedeschi, & Calhoun, 2006; Pina, Villalta, Ortiz, Gottschall, Costa, & Weems, 2008). Understanding the impact of social support on coping with traumatic events such as natural disasters or exposure to community violence is limited by the lack of psychometrically sound measures. The current study addresses this limitation. The Social Support Questionnaire for Children (SSQC) is a 50 item self-report measure designed to examine children's social support via five sources: Parents, relatives, non-relative adults, siblings, and peers. Analyses revealed that the SSQC has high internal consistency for the 50-items and all subscales. In addition, the SSQC was shown to have good factorial and construct validity; confirmatory factor analysis found that the proposed five factor model exhibited an adequate fit and accounted for a large portion of the variance in the sample. Concurrent and convergent validity were also examined; as displayed in the literature, social support as assessed by the SSQC was positively correlated with children's overall adjustment and positive coping behaviors and inversely correlated with PTSD symptom level and negative coping behaviors in a sample of children exposed to Hurricane Katrina. A moderate correlation was found when assessing the scale's convergent validity, which is likely attributable to structural differences of the SSQC versus the measure of comparison. Overall, the SSQC appears to be a psychometrically sound measure of children's social support.

INTRODUCTION

Social support is conceptualized as a multidimensional construct that encompasses physical and instrumental assistance, attitude transmission, resource and information sharing, and emotional and psychological support (Lopez & Salas, 2006). Heaney and Israel (2008) identified four types of social support: emotional support, instrumental support, informational support, and appraisal support. Emotional support is defined as expressions of empathy, love, trust, and care, instrumental support is defined as tangible aid and provided services, informational support is defined as advice, suggestions, and provision of general information, and appraisal support is defined as information useful for self appraisal (Heaney & Israel, 2008). The former two are the most widely researched and understood. The robust body of social support literature provides sound evidence that in times of distress social support promotes and protects psychological well being and leads to better overall adjustment; this conclusion was first reached in 1976 by social epidemiologist John Cassel after observing a multitude of animal and human studies (Heaney & Israel, 2008). After decades of duplicated findings, social support as an important protective factor has been accepted as theory (Sandler, Miller, Short, & Wolchik, 1989).

Trauma is psychological disturbance resulting from exposure to a traumatic event (Fletcher, 2003). Traumatic events are systematically defined as events that are considered to be outside of the range of usual human experience and would be markedly distressing to most individuals; examples include natural disasters, motor vehicle accidents, violence exposure, and acts of terrorism (Fletcher, 2003). Traumatic events often involve perceived threat to life or safety. According to Vigil and Geary, social support is among the strongest predictors of long-term mental health and physical functioning following a traumatic event. Cryder, Kilmer,

Tedeschi, and Calhoun contend that social support sources aid in adjustment by encouraging expression of feelings, providing nonjudgmental validation of event-related thoughts and feelings, and assisting with more instrumental aspects of support when needed. Social support is believed to act as a buffer that heightens the tolerance of inopportune life occurrences (Norris & Kaniasty, 1996; Schumm, Briggs-Phillips, & Hobfoll, 2006).

Two junctures have been identified where social support can display its buffering effect: between stressor and distress and between stress and health or mental health outcome (Armstrong, Bernie-Lefcovitch, & Ungar, 2005). According to Armstrong and colleagues, social support is transactional. The nature of the distressing event, individual characteristics and other qualities of the social support recipient, and the types and sources of social support available influence how social support functions. Heaney and Israel maintain that social support exerts its buffering effect by influencing individual coping resources and awareness and utilization of community resources.

Research focusing on assessed social support pre and post-trauma has found that trauma itself has the ability to gravely alter the perception and availability of social support. These findings spurred development of the deterioration model of social support, which recognizes the potential of stressors to curtail social support (Kaniasty & Norris, 1995). According to Kaniasty and Norris, the deterioration of perceived social support is one path through which trauma exerts its adverse effects on psychological well-being, as inadequate levels of social support are associated with greater distress. By and large, the perception of adequate social support is necessary if social support is to exude its beneficial effects (Bonanno, Galea, Bucciarelli, & Vlahov, 2007).

Previous Research Focusing on Child Social Support and Adjustment

There is an extensive body of research investigating the impact of social support on children's adjustment following trauma or stressors. The vast majority of these studies examine victims of such traumatic incidents as maltreatment, community violence, medical affliction, and bereavement. In a study investigating the impact of violence exposure on inner-city youth, Berman, Kurtines, Silverman, and Serafini (1996) found evidence supporting the buffer effect of social support; greater social support was associated with better adjustment. Similar conclusions were reached by Flores, Cicchetti, and Rogosch (2005) who found that positive interpersonal relationships significantly predicted adaptive functioning in maltreated Latino children. LeGreca, Silverman, Vernberg, and Prinstein (1996) examined several variables believed to be predictive of children's Post Traumatic Stress Disorder (PTSD) symptom severity, including degree of exposure to the traumatic event, individual characteristics, coping, and social support in youth who encountered Hurricane Andrew. Findings suggested that a lack of social support was predictive of child PTSD 7 to 10 months post-disaster (LeGreca et al, 1996). Similarly, Cryder and colleagues observed social support and adjustment in children after Hurricane Floyd and found a significant relationship between supportive social environments and children's positive competency beliefs, characteristic of posttraumatic growth. Perceived social support appeared to consistently discriminate those children who adapted well from those who exhibited difficulties (Cryder et al., 2006). In children experiencing multiple negative events, social support was found to be inversely related with symptoms of acute stress symptoms such as depression and anxiety (Cluver, Fincham, & Seedat, 2009). An overall commonality these studies hold is that they corroborate the importance of social support in coping with distressing events and in the prediction of victims' adjustment.

Social Support and Coping Behaviors

Coping has long been studied alongside social support. In 1984, Lazarus and Folkman conceptualized the transactional stress model, which asserts that social support influences outcomes post-stressor by impacting an individual's appraisal of negative events; the appraisal of events then facilitates coping, which generates various outcomes. Higher levels of social support are believed to spur use of better coping strategies, resulting in more positive outcomes (Lazarus & Folkman, 1984; Schwarzer & Knoll, 2007). According to DeLongis and Holtzman (2005), social support may influence coping in a number of ways, including social referencing and direct provision of information related to the efficacy of particular coping strategies. Studies suggest that individuals who endorse greater satisfaction with perceived social support also endorse greater use of more adaptive ways of coping (DeLongis & Holtzman, 2005). In regards to specific types of coping, research indicates that negative and hostile coping responses, as well as coping characterized by disengagement, are related to maladjustment following stressful situations (Calvete & Connor-Smith, 2006).

Social Support in Ethnic Minority Populations

Few studies have evaluated the relationship between social support and psychological adjustment in ethnic minority children. Researchers interested in the relation between social support and positive outcomes suggest that the weight assigned to sources of support may vary due to ethnic or cultural differences. For example, in African American children support offered by extended family and community members may be of greater value than that from other sources (Bost, Vaughn, Boston, Kazurs, & O'neal, 2004). Taylor, Casten, and Flickinger (2003) conducted a study investigating the relation between "kinship social support" or social support encompassing immediate and extended family and adolescent adjustment. Findings suggested

that greater kinship social support is positively associated with better adjustment and higher levels of adolescent reported self-reliance. In conjunction with this finding, Kana 'Iaupuno, Donato, Thompson-Colon, and Stainback (2005) examined social support among Mexican American families and found that social support networks containing larger numbers of extended family members and community ties were associated with greater perceived social support and more positive child outcomes, with the biggest differences seen in highly impoverished households. According to White, Bruce, Farrell, and Kliewer (1998), based on the existing data, the definition of social support must be broadened to include extended family and community members to accurately assess the construct of social support within ethnic minority populations.

Interventions Targeting Social Support

Heaney and Israel suggested five typologies of interventions aimed at enhancing social support: (a) enhancing existing network ties, (b) developing new social network linkages, (c) use of indigenous natural helpers and community health workers, and (d) enhancing social support through community capacity building and problem solving. Interventions geared toward enhancing existing networks focus on changing the attitudes and behaviors of either the support recipient, the support provider, or both through activities designed to build skills for the effective mobilization, provision, and receipt of support (Heaney & Israel, 2008). A problem with this approach can be indentifying existing sources of support that are committed and have the necessary resources to be faithful providers (Heaney & Israel, 2008). The second typology, which involves developing new social network linkages, is most useful when support networks are too small, overburdened, or unable to supply effective support (Heaney & Israel, 2008). With this approach, new social ties, including mentors, advisors, “buddies”, self-help or mutual aid groups, and internet-based support groups are introduced in response to a major life transition

or traumatic event; existing sources of support generally lack the experience and specialized knowledge to provide adequate support (Heaney & Israel, 2008). Intervening through use of indigenous natural helpers and community health workers entails identifying individuals within a child's community, based on communication with community members, who are well known for mentoring and providing effective and plentiful support to children in the neighborhood who are troubled or in need (Heaney & Israel, 2008). The last intervention typology, enhancing community capacity building and problem solving, is best suited for groups of individuals with shared experience of a negative event (e.g., natural disaster, school shooting) and involves use of community organizing techniques with the goals of strengthening community bonds and increasing the community's capacity and ability to resolve problems (Heaney & Israel, 2008).

Research provides evidence that interventions targeting social support have been effective at producing desired outcomes (Pulgaron, Salamon, Patterson, & Barakat, 2010). A study conducted by Pulgaron and colleagues targeted the development of new social network linkages in children diagnosed with persistent asthma. The researchers found that involvement in a pediatric summer camp emphasizing team activities resulted in increased social support and improved overall adjustment in children three months post-camp (Pulgaron et al., 2010). Similar results were observed in a study examining the impact of STARBRIGHT World, an innovative computer network designed for hospitalized children; the program allowed children to connect with other children online (Hazzard, Celano, Collins, & Markov, 2002). In a study designed to enhance existing network ties through development of more efficient social skills (e.g., empathy) a subsequent increase in social support was associated with more positive outcomes, including improved body image, locus of control, self-efficacy, and self-esteem in adolescent girls (Steese, Dollette, Phillips, Hossfeld, Matthews, & Taormina, 2006). Collectively, these findings indicate

that interventions targeting social networks and the delivery of socially supportive behaviors can be beneficial; however, proper assessment of social support in children afflicted by inopportune events is essential to identify children and their families in need of these interventions.

Measuring Social Support in Children

Social Support Scale for Children (SSSC, Harter, 1985). The SSSC is the most widely cited measure utilized to assess social support among children. The measure examines children's perceived social support from four sources: parent, teacher, close friend, and classmate. In the only known validation study to date, conducted by Harter, the measure was validated with use of a predominantly middle class, Caucasian sample (Harter, 1985). This methodological flaw has produced skepticism when utilizing the SSSC with non-Caucasian populations, as utility of the measure with ethnic minority samples is unknown. This is particularly relevant given research showing that the value attributed to varying social support sources may differ for ethnic minority families (Taylor, Casten, & Flickinger, 1993).

In a study conducted by Gordon, Thompson, Kelley, and Vigna (2011) the psychometric properties and utility of the SSSC were evaluated in a sample of predominantly low income, African American youth exposed to Hurricane Katrina from New Orleans and neighboring parishes. Results revealed several weaknesses of the SSSC. The SSSC was found to have poor factorial validity, in addition to poor criterion-related validity; only social support provided by the source parent was predictive of PTSD post-disaster. Social support as a whole (summation of social support provided by all sources) and the other sources assessed by the SSSC were not predictive of PTSD (Gordon et al., 2011).

A possible explanation for the poor performance of the SSSC in this sample may be the limited types of social support sources assessed by the measure. As mentioned, literature examining social support in ethnic minority populations emphasizes the contribution of extended

family and community members as sources of support (Taylor et al., 1993), which were not included in the SSSC.

Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2000). The CASSS is a 60-item self-report measure that assesses social support in youth. Malecki and colleagues distinguished between four types of social support: Emotional, informational, appraisal, and instrumental. Studies purport that the CASSS has good reliability and validity (Malecki & Demaray, 2002; 2003). However, as with the SSSC, the CASSS was validated in a primarily Caucasian, middle to high class sample and is limited in scope as it only examines social support from the following five sources: Parent, teacher, classmate, close friend, and school (all school personnel outside of teachers).

Social Support Appraisal Scale (SSAS; Dubow & Ullman, 1989). The SSAS is another widely used measure of social support consisting of 31 Likert scale type items. Again, sources of social support examined by this measure are limited; the SSAS only assesses support provided by family (immediate), peers, and teachers. However, research has indicated that the measure has good internal consistency and convergent validity, including one study that examined the scale in a sample of Hispanic adolescents (Frauenglass, Routh, Pantin, & Mason, 1997).

Kinship Support Scale (KSS; Taylor, Casten, & Flickinger, 1993). The KSS was developed by Taylor and Colleagues to assess social support provided to the families of adolescents, with primary focus placed on extended family and community members. The adolescent-report measure consists of 13-items rated on a 4-point Likert scale. Although the scale assesses support provided from sources overlooked in many of the widely used measures, it does not explicitly examine child perceived social support and has no psychometric support to

date. Unfortunately, the KSS is the only measure available specifically designed to assess the commonly excluded sources of social support identified as particularly valuable for ethnic minority populations.

Purpose of the Study

The current study is designed to develop and validate a psychometrically sound measure of children's social support that can be used with youth of varied ethnicities. As stated, social support plays a significant role in understanding the human response to inopportune circumstances and trauma; it is a protective factor that by some means acts as a buffer against negative outcomes. Thus, the need for reliable and valid assessment tools of children's social support is undeniable. In order to develop a sound measure of children's social support that is sensitive to all ethnic populations, careful consideration will be placed on the types of social support sources identified as valuable for each population while adhering to the conceptualization of children's social support best supported by the literature.

Hypotheses

1. The SSQC will be assessed to have good psychometric properties, including reliability (e.g., internal consistency) and validity (e.g., construct, factorial, concurrent, convergent).
2. In alignment with the literature, social support as assessed by the SSQC will have a significant positive relationship with personal adjustment.
3. In alignment with the literature, social support as assessed by the SSQC will have a significant negative or inverse relationship with PTSD symptomatology.
4. Social support, as measured by the SSQC, will have a significant positive relationship with more adaptive coping behaviors and a significant negative relationship with maladaptive coping behaviors.

5. The sources of support assessed by the SSQC (i.e., parent, relative, non-relative adult, sibling, and peer) will be sensitive to differences associated with ethnicity and the value of utilized sources in Caucasian versus non-Caucasian samples. This will be evaluated by analyzing these samples separately and examining the ability of the assessed sources to predict personal adjustment in the two different populations.

PHASE 1: ITEM GENERATION

The purpose of the initial phase was to develop a pool of items related to child social support; particularly, the various sources of social support commonly utilized by children and the types of social support behaviors typically provided by these sources to children between the ages of 8 and 18 years.

Method

Items were generated from several sources including review of the literature and items on other scales of social support, as well as expert, parent, and child input.

Participants. The participants included 26 parent-child dyads consisting of children between the ages of 8 and 18 years recruited through general medical and psychology clinic waiting rooms. According to parent report, primarily mother (92%), the average child's age was 12 and the majority of the children were in sixth grade or higher. The sample was fairly balanced in regards to child gender; however, the sample was comprised primarily of Caucasians (85%). The remainder of the sample was African American (11%) and other (4%). The average reported household income was between \$50,000 and \$75,000. Detailed demographic data are available in Appendix A.

In addition, five child psychology specialists reviewed and assisted in the generation of additional items. These professionals consisted of one licensed clinical psychologist with over twenty years of experience working with child populations and four doctoral-level graduate students with concentrations in child clinical psychology; all individuals had previous experience conducting research in areas highly associated with social support and were relatively familiar with the literature.

Demographic Questionnaire. Parents or primary caregivers provided demographic information about their child including age, grade, gender, race, and household income (see Appendix E).

Parent Survey of Children's Social Support. A survey designed to examine commonly utilized sources of child social support (e.g., parent, sibling) and the types of social support provided by these sources (e.g., instrumental versus emotional) as a means to generate items (see Appendix F). Under specified categories, parents or primary caregivers were asked to list the individuals their children rely on for social support and their relation to the child. They were also asked to describe the types of social support behaviors provided to their child by these individuals. For the purpose of clarification, examples of social support sources and social support behaviors were provided.

Child Survey of Social Support. A survey designed to mirror the *Parent Survey of Children's Social Support* described above as a means to generate items (see Appendix G). Under specified categories, children were asked to list the individuals they rely on for social support and the individual's relation to them. They were also asked to describe the types of social support behaviors provided by these individuals. For the purpose of clarification, examples of social support sources and social support behaviors were provided.

Procedure. Upon obtaining Institutional Review Board approval and permission to collect data at general medical and psychology outpatient clinics located in East Baton Rouge Parish, parents of youth were approached in waiting rooms regarding participation. After consenting, parents completed the Parent Survey of Children's Social Support. (see Consent, Appendix C) Assenting children completed the Student Survey of Social Support. (see Assent, Appendix D)

Meanwhile, the child social support literature was thoroughly perused by the child psychology specialists; in addition, previous measures of children's social support with published evidence of adequate psychometric properties were observed.

Results of Phase 1

Item Generation. Over 300 items were generated via the multiple methods. Items were reviewed by the child psychology specialists and eliminated based on content redundancy and theoretical logic. The child psychology specialists also made suggestions for word choice. The final item pool consisted of 108 items assessing emotional, instrumental, and informational support behaviors and social support provided by five identified sources: parent, relative, non-relative adult, sibling, and peer. Appraisal support items were not included, as this particular type of support is reported to be less influential on adjustment in child populations (Malecki & Demaray, 2003). Operational definitions of each source and type of assessed social support are provided in Table 1. Items only assessed perceived social support, as research implies that perceived social support is a better predictor of adjustment post-negative event or trauma than the reported amount of social support actually received (Berman, 1996; Norris & Kaniasty, 1996; Lakey & Cassady, 1990). The 108 items were randomly arranged using a random assignment generator. The initial SSQC had a fourth grade reading level based on the Flesch-Kincaid Reading Level formula.

Table 1.

Operational Definitions of Sources and Types of Social Support

<u>Source</u>	
Parent	Primary caregiver, including biological, step, foster, and adoptive parents.
Relative	Individuals related by blood or marriage, including aunts, uncles, grandparents, etc.
Adult (Non-Relative)	Adults involved in the life of children who are not related by marriage or blood. Examples include next door neighbors, teachers, and community and church leaders.
Sibling	Biological, step, foster, and adoptive brothers and sisters.
Peer	Individuals close in age, including classmates, teammates, and friends
<u>Type</u>	
Emotional	Support provided in the form of communicated affection, care, and/or love through behaviors or perceived accessibility
Instrumental	Provision of goods and services (e.g., transporting to activities, lending money)
Informational	Provision of information or advice

PHASE 2: ITEM SELECTION

The purpose of the second phase was to reduce the item pool based on empirically and theoretically derived reasons in order to develop a more concise measure of children's social support with high internal consistency and appropriate face and content validity.

Method

Participants. Child participants (n = 416) were recruited from public schools. Children were proportionate in regards to gender and ranged in age from 8-18 years with a mean age of 13. The sample was primarily Caucasian (59%), with 35% African American and the remaining 6% comprised of other ethnicities. The average reported annual income was between \$50,000 and \$75,000. (see Appendix B)

In addition, the five child psychology specialists utilized during Phase 1 assisted in the item elimination and measure shortening process. A psychologist with expertise in measure development was consulted and asked to view the pilot measure at the conclusion of the item selection phase, alongside the child psychology specialists, to give input on the perceived face and content validity of the scale and items.

Demographic Questionnaire. Same as phase 1 (see Appendix E).

Social Support Questionnaire for Children (SSQC). The initial version of the SSQC consisted of 108 items generated during phase 1 (See Appendix H). As previously discussed, the SSQC was designed to assess five potential sources of social support: parent, relative, non-relative adult, sibling, and peer, in addition to instrumental, informational, and emotional support. Children between the ages of 8 and 18 were asked to rate items using a 4-point Likert scale ranging from 0-3 as "Never or Rarely True", "Sometimes True", "Often or Very True", or "Always True." An example item is as follows: "I enjoy spending time with a sibling."

Procedure. Upon school district approval, students were sent home with study recruitment packets containing a consent (see Appendix C) and demographic questionnaire (see Appendix E) to be completed by a parent or primary caregiver. Children whose parent consented to their participation gave assent (see Appendix D) and completed the social support questionnaire in its pilot form at their school. Questionnaires were read to younger children and children with reading difficulties. Compensation was not provided by the investigator; however, many schools rewarded students with incentives for their participation.

Results of Phase 2

Item Selection. Descriptive analysis was conducted to examine item means, frequencies, and response distribution. The following criteria was utilized to identify items that were considered for elimination: a) extreme item means, on either end, from the mean of all possible responses 1.5 (≤ 1.0 or $\geq 2.5-2.75$), b) item-total correlations less than .20, c) inter-item correlations greater than or equal to .80 to avoid redundancy, d) based on observation of the final Exploratory Factor Analysis (EFA) model, poor correlation with intended factor or loading onto unintended factor, and e) an increase in alpha resulting from item deletion (DeVellis, 2003).

Item Frequency. The frequency of each possible rating was computed for each of the 108 items. (see Appendix I)

Item Means. Item means ranged from 1.51 to 2.76. For the purpose of item elimination, special attention was given to means in the lower extreme (≤ 1.0), as many items were expected to be strongly endorsed based on the nature of the construct under investigation. However, items with means greater than or equal to 2.5 (2.75 for parent scale items) were also considered for elimination. Nine items were considered for removal based on this criterion. (see Appendix J)

Item-Scale Correlations. Item-total correlations were computed and examined. Items with item-total correlations less than .2 were considered for removal. Item-total correlations ranged from .41 - .87. Thus, none of the items were candidates for elimination based on this criterion. (see Appendix J)

Inter-item correlations were calculated for each item. Items with inter-item correlations greater than .80 were considered for elimination; no inter-item correlations were observed to exceed this cutoff. Items were not removed utilizing this criterion.

Exploratory Factor Analysis. Exploratory Factor Analysis (EFA) was conducted using PASW Statistical Package 17. The Maximum Likelihood extraction method was utilized alongside the varimax rotation method (Costello & Osbourne, 2005). Missing values were replaced with item means (Tabachnick & Fidell, 2007). Factor solutions were based on the following criteria: eigenvalues of 1.0 or greater, factor loadings of .50 or greater, and simple structure (Cattell, 1978; DeVellis, 2003). Initial EFA yielded 14 factors. The majority of items merged onto five factors, corresponding with the postulated factor structure. Items that loaded onto factors outside of the five had loadings of less than .50, with the exception of one item. As a means to “clean up” the model, a scree test was conducted to determine the number of factors retained in the scale; results suggested that 5-factor or 6-factor models were the most appropriate fit (DeVellis, 2003; see Appendix K). Both models were explored. A factor analysis forcing five factors produced the cleanest factor structure for the 108-item scale; this final solution accounted for 54.49 percent of the variance. In total, this criterion resulted in the removal of 13 items. (see Appendix L)

Refining Content and Shortening the Scale. Criteria for item elimination resulted in removal of 19 items total; three items that were contemplated for deletion were retained (i.e., “I

have an adult who really cares about me”, “I have a peer I can count on”, and “I have a peer I can talk to”; see Appendix M). The remaining 89 items were reviewed by the expert panel and eliminated based on content redundancy and theoretical logic, with careful regard for alpha. This resulted in the removal of 39 items. The final measure was comprised of 50-items. Addition of a “Not Applicable” option for sibling items was added to better assure that weaker endorsements by participants was based on that assessed type of support not being provided, as opposed to not having a brother or sister. This modification was made based on examination of item frequencies and observations during measure administration (e.g., inquiry on what to answer for sibling items if an only child). (see Appendix N for a conclusive list of all eliminated items; see Appendix O for final items organized by subscale; see Appendix P for the final, shortened measure)

The final 50-item, 5-scale measure was presented to a psychologist with many years of experience and proficiency in measure development; the scale was judged to have good face and content validity. The five-factor solution reflected the following latent constructs: Parent, Relative, Non-Relative Adult, Sibling, and Peer; retained items corresponded exceptionally well with these factors forming five empirically derived subscales containing 10-items each. Example items from each subscale are as follows: Parent subscale, “A parent shows me how to do things”; Relative Subscales, “A relative helps me when I need it”; Non-Relative Adult, “An adult gives me good advice”; Sibling, “I have a sibling I can trust to keep a secret”; and Peer, “A peer accepts me for who I am.”

Based on the literature, the scale was developed to embody three types of social support: instrumental, informational, and emotional (Malecki & Demaray, 2003). Instrumental and informational support behaviors were combined together, as they both reflect tangible and

physical actions of assistance. Thus, the final scale also consisted of two theoretically derived supplemental subscales: Instrumental/Informational Support and Emotional Support. The Instrumental/Informational Support subscale consists of 14 items, while the Emotional Support subscale consists of 36 items. The utility and psychometric properties of these supplemental subscales will be more thoroughly explored during the third phase of measure development.

Reliability. Internal consistency of the measure was explored. Cronbach’s alphas were calculated for the 50-item measure and each of the five primary subscales, as well as the two supplemental subscales. The measure was shown to have high internal consistency as a whole ($\alpha = .96$) and when observing each subscale in isolation (Primary subscales: parent, $\alpha = .87$; relative, $\alpha = .91$; adult, $\alpha = .92$; sibling, $\alpha = .98$; and peer, $\alpha = .93$; Supplemental subscales: instrumental/informational, $\alpha = .89$ and emotional, $\alpha = .97$). (see Table 2)

Table 2.

Internal Consistency of the 108-item SSQC

<u>Factor</u>	<u>Coefficient α</u>
Total Scale	.96
Parent	.87
Relative	.91
Adult	.92
Sibling	.98
Peer	.93
Instrumental/Informational Support	.89
Emotional Support	.97

PHASE 3: VALIDATION AND EXAMINATION OF RELIABILITY

Method

The purpose of the third phase of the study was to assess the initial psychometric properties of the SSQC, including internal consistency, reliability, and validity. Concurrent validity was examined by observing the relationships between children's social support, as assessed by the SSQC, and PTSD symptom level, which was evaluated utilizing the UCLA PTSD Reaction Index (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998), positive adjustment, which was evaluated utilizing the Personal Adjustment subscale of the Behavior Assessment Scale for Children, Second Edition (BASC-2-SRP; Reynolds & Kamphaus, 2004), and coping behaviors, which was evaluated utilizing the Youth Coping Responses Inventory (YCRI; Hernandez, Vigna, & Kelley, 2010). Convergent validity was explored by observing the relationship between the SSQC and Harter's scale (SSSC). In addition, the utility of the SSQC was examined; the SSQC was compared to the Harter's scale (SSSC), particularly its predictive ability with concurrent variables. The performance of the scale in varying populations was also explored.

Participants. Two separate samples were utilized during this phase of the study. The first sample was recruited for the primary purpose of conducting confirmatory factor analysis (CFA) and other statistical tests designed to further assess the SSQC's psychometric properties. The second sample was utilized to further explore the validity and examine the utility of the scale. This sample could not be included in the CFA as they were also examined during phase 2 of this study. Furthermore, unlike the first sample, participants from the second sample experienced an identifiable traumatic event (i.e., Hurricane Katrina) and completed additional measures of personal adjustment, PTSD, and coping.

Sample A: Baton Rouge Sample. The Baton Rouge sample consisted of 263 children between the ages of 8 and 18 years recruited from schools and pediatric waiting rooms. The sample was 68% female, 55% were Caucasian, 31% were African American, and the remaining were from varying ethnicities. The mean age was 13 and the average household income was between \$35,000 and \$49,999. (see Appendix Q)

Sample B: New Orleans Sample. The New Orleans sample consisted of 99 children between the ages of 12 and 18 years, involved in an ongoing longitudinal studying investigating the after-effects of Hurricane Katrina. Participants were initially recruited from public schools in New Orleans and neighboring parishes. The sample was fairly evenly distributed in regards to gender; 47.5 % were male. The mean age was 14. The sample was 62% African American, 32% Caucasian, 3% Asian, and 1% Hispanic; 1% of the sample endorsed their child being “other” when inquired about race. The average reported household income was between \$25,000 and \$34,999. This sample participated in this study at two time points, phase 2 (item selection) during which they completed the SSQC alongside other measures typically administered in the longitudinal study of enrollment and phase 3 (initial validation) during which they completed the SSQC a second time, as well as the SSSC, UCLA PTSD Reaction Index, and YCRI with standard measures. (see Appendix Q)

Demographic Questionnaire. Same as phase 1 and 2 (see Appendix E). Completed by both the Baton Rouge and New Orleans samples.

Social Support Questionnaire for Children (intermediate version; SSQC). The intermediate version of the SSQC consisting of 50 items refined during phase 2 was used in the validation phase of scale development (see Appendix P). The SSQC is a self-report measure for children ages 8-18 years comprised of seven subscales with each yielding a raw score; five of the

subscales are based on the delineated sources of social support: parent, relative, non-relative adult, sibling, and peer and two are based on the types of social support provided: instrumental/informational support and emotional support. Subscale raw scores are calculated by summing corresponding items. Total score is computed by summing all measure items. This measure was completed by the Baton Rouge and New Orleans samples.

Harter's Social Support Scale for Children (SSSC; Harter, 1985). The SSSC is a 24-item self-report measure with four subscales: parent, teacher, classmate, and close friend. Using both the Baton Rouge and New Orleans samples, Cronbach's alphas were: parent ($\alpha = .71$), teacher ($\alpha = .66$), classmate ($\alpha = .65$), and close friend ($\alpha = .70$). Completed by both the Baton Rouge and New Orleans samples.

Youth Coping Responses Inventory (YCRI; Hernandez, Vigna, & Kelley, 2010). The YCRI is a 44-item self-report measure of youth coping behavior. The YCRI has three subscales: a) Diversion (diverting attention from the stressor through involvement in school or home routines, family support, spirituality, and positive thinking; $\alpha = .86$), b) Ameliorative Coping (entails problem-focused and emotion-focused attempts to ameliorate distress caused by a situation; $\alpha = .90$), and c) Destructive Coping (which involves use of destructive behaviors as a means to cope such as damaging of property and self-destructive behaviors; $\alpha = .86$). The raw score for each subscale was computed and utilized. Completed by the New Orleans sample only.

UCLA PTSD Reaction Index Revised (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998). The UCLA PTSD Reaction Index Revised is the most widely utilized measure of children's PTSD. This instrument is a revised version of the Child PTSD Reaction Index (CPTSD-RI; Nader, Pynoos, Fairbanks, & Frederick, 1990). the measure examines reactions to trauma and is based on the DSM-IV-TR diagnostic criteria for PTSD, assessing 17

associated symptoms of the disorder. It is a 22-item screening tool that assesses for PTSD in children and adolescents. The UCLA PTSD Reaction Index has demonstrated exceptional psychometric properties (Pynoos, Goenjian, & Steinberg, 1998; Steinberg, Brymer, Decker, & Pynoos, 2004). The Continuous Index Summary Score will be utilized to evaluate child-reported PTSD symptomatology. Cronbach alpha was .93. Completed by the New Orleans sample only.

Behavior Assessment System for Children, Second Edition- Self-Report of Personality (BASC-2-SRP; Reynolds & Kamphaus, 2004). The BASC-2 SRP is a self-report measure of emotional and behavioral problems in youth ages 8-21. The BASC-2 SRP yields sixteen subscales and five composite scores. For the purpose of this study, only the Personal Adjustment composite score will be utilized. The Personal Adjustment scale consists of 33 items and is comprised of the following primary scales: Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance. Sample items include: “I am slow to make new friends” and “I am good at making decisions.” Studies purport good reliability ($\alpha = .83$); Vigna, Hernandez, Paasch, Gordon, & Kelley, 2009). Completed by the New Orleans sample only.

Procedures. For the Baton Rouge sample, children were recruited through their schools or while awaiting an appointment with their pediatrician. Parents of children recruited from schools were provided with a description of the study, demographic questionnaire, and a consent form. Children of consenting parents completed the assent form, SSQC, and SSSC individually or in small groups under the supervision of trained graduate researchers and research assistants at their schools. Arrangement for compensation was not made; however, schools independently chose to reward children with incentives for participation.

Parents recruited from their pediatricians’ waiting rooms were approached about participation. Interested parents completed the consent form and the demographic questionnaire.

Assenting children completed the SSQC and the SSSC. Upon completion of the questionnaires, children were provided with pencils and stickers as an incentive for their participation. Water and healthy snacks were also provided to participating families. For data collection at both schools and clinics, questionnaires were read to younger children and children with reading difficulties.

For the New Orleans sample, participants were parent-child dyads from the New Orleans and nearby parishes exposed to Hurricane Katrina who are participants in an ongoing National Institute of Mental Health (NIMH)/Department of Homeland Security (DHS) longitudinal study investigating the after-effects of natural disasters on children. Participants were recruited from public schools three to seven months post-Hurricane Katrina. Children were in regular education classrooms in fourth through eighth grades. At the time of recruitment, child participants ranged in age from 8 to 16 years. Consent, assent, and demographic information for this sample had already been obtained. Children were visited at their schools where they completed the SSQC, SSSC, UCLA PTSD Reaction Index, YCRI, and items of the BASC-2-SRP Personal Adjustment scale individually or in small groups under the supervision of trained graduate researchers and research assistants. Questionnaires were read to younger children and children with reading difficulties.

Results of Phase 3

Item Characteristics. Item means, item variances, item-total correlations, and inter-item correlations were computed for both samples combined. Item means ranged from 1.99 – 2.71, item variances ranged from .40 – 2.56, item-total correlations ranged from .42 - .87, and inter-item correlations ranged from .17 - .76 (higher inter-item correlations were demonstrated primarily for sibling items).

Reliability. The internal consistency of the 50-item scale, 5 primary subscales, and 2 supplemental subscales was examined amongst both samples combined utilizing Cronbach alpha. The measure demonstrated high internal consistency as a whole (SSQC 50-items, $\alpha = .96$). The primary and supplemental subscales demonstrated high internal consistency with coefficient alphas ranging from .88 to .97. According to the literature, coefficient alphas that far exceed .90 may indicate overreliability or redundancy in content (DeVellis, 2003). This phenomenon was observed for the Total Scale and Sibling subscale. According to DeVellis, such findings generally suggest that further shortening of the measure and subscales may be an appropriate action upon further exploration. Coefficient alphas are presented in Table 3.

Table 3.

Internal Consistency of the 50-item SSQC in the Combined Sample

<u>Factor</u>	<u>Coefficient α</u>
Total Scale	.96
Parent	.93
Relative	.92
Adult	.93
Sibling	.97
Peer	.91
Instrumental/Informational Support	.88
Emotional Support	.95

The 50-item scale was organized utilizing a random assignment generator. To assess the internal consistency of the first and latter half of the measure split-half reliability analysis was

conducted. Findings indicated that both halves have excellent internal consistency ($\alpha = .93$; Part 2, $\alpha = .94$) and as expected, are highly correlated ($r = .89$).

Validity. To assess construct validity, Confirmatory Factor Analysis (CFA) was conducted on SSQC data with use of Amos 17.0 alongside PASW Statistical Package 17; maximum likelihood estimation procedures were utilized. In the analyses, performed on data from the Baton Rouge sample only (New Orleans sample participated in EFA conducted during Phase 2 and thus, could not be included in the CFA), 50 observed variables, the SSQC items, were utilized to replicate the proposed five factor model; the factors were allowed to correlate with one another. To test the model, variables were allowed to load on only one factor. In addition, one variable factor loading was fixed to 1.0; all remaining factor loadings, residual variances, and correlations among latent factors were freely estimated (Brown, 2006; Tabachnick & Fidell, 2007). The following fit indices were utilized to determine model fit with data: a) $\chi^2 p \geq .05$ (with regard for sample size), b) $RMSEA \leq .60$, c) $CFI \geq .90$, and d) $SRMR < .08$ (Hu & Bentler, 1999; Weiner, Freedheim, Schinka, & Velicer, 2003). Although the chi square statistic was significant ($\chi^2 = 2259.538$, $df = 1165$, $p < .001$), other fit indices were reviewed, as it was determined that the large sample may have contributed to this finding (e.g., degrees of freedom were double the chi square value); studies provide evidence that the chi square may not be the best statistic to utilize when determining fit because of its sensitivity to violations of normality and sample size (Cole, 1987). CFA revealed that the proposed five factor model exhibited a mediocre fit in the sample ($RMSEA = .060$, $CFI = .876$, $SRMR = .053$). In the sample, three factors correlated strongly with one another (parent and relative, $r = .72$; parent and adult, $r = .73$; and adult and relative, $r = .78$), suggesting that items lacked discriminatory power. These strong correlations were somewhat expected, as these scales all assess authoritative, adult

sources of support that may to some extent play a caregiver or nurturing role. All other subscale correlations were acceptable. Overall, findings indicate that the SSQC has acceptable factorial and construct validity. (see Figure 1)

Convergent Validity. Convergent validity was assessed utilizing Pearson product-moment coefficient correlations and the SSQC and SSSC. Data from both the Baton Rouge and New Orleans samples were examined. Total scores from the two scales were positively correlated (.50) as were the parent subscales (.52). Combining the close friend and classmate scores of the SSSC (Vigna et al., 2009), the SSQC and SSSC peer subscales were also positively associated (.49).

Concurrent Validity. The New Orleans sample was used exclusively for the remaining analyses. Correlation analysis was conducted to examine the associations between concurrent variables and social support, as assessed by the SSQC. As hypothesized, the SSQC total score was strongly and positively correlated with the BASC-2 SPR Personal Adjustment T-score ($r = .81, p < .001$).

The second hypothesis posited that social support would have a significant inverse relationship with child PTSD symptomatology. Child PTSD symptomatology was measured utilizing the Continuous Index Summary Score of the UCLA PTSD Reaction Index . As hypothesized, a significant inverse relationship was obtained between the SSQC total score and the UCLA PTSD Continuous Index Summary Score ($r = -.26, < .05$). Although in the predicted direction, the correlation between these variables was fairly weak, suggesting that other variables, in addition to social support, (e.g., coping style) likely influence the development of PTSD in children post-trauma.

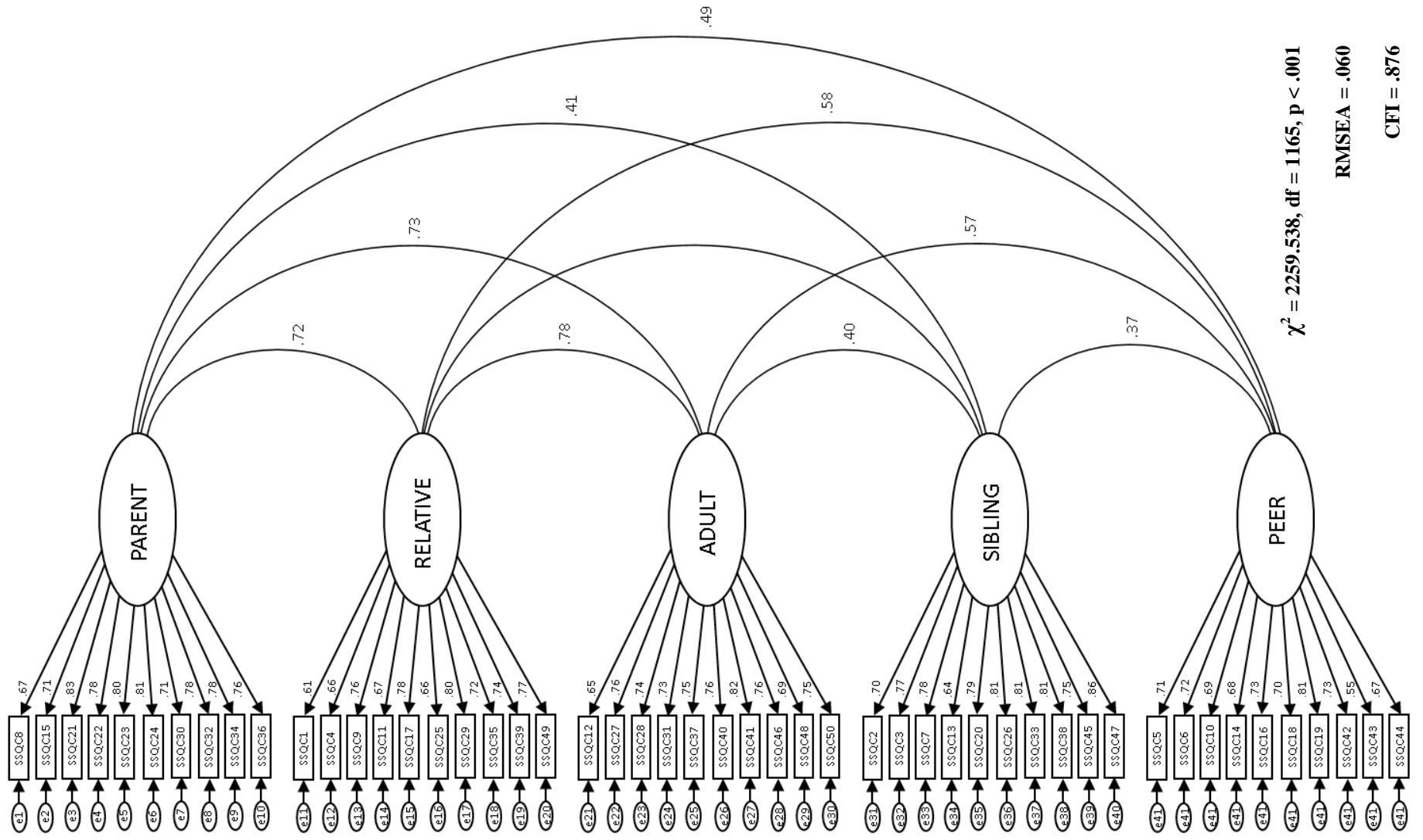


Figure 1. Five Factor Model for SSQC Confirmatory Factor Analysis

To better understand the relationship between social support and outcome, the relationship between various coping strategies and social support was examined. Research suggests that children who have more social support may employ more positive coping strategies in the aftermath of experiencing a traumatic experience than children with less support (Heaney & Israel, 2008). It was hypothesized that more perceived social support would be positively associated with adaptive forms of coping, while less social support would be negatively associated with maladaptive forms of coping. The relation between coping through diversion, use of ameliorative strategies, and destructive behavior and social support was examined. The results indicated that the SSQC total score was significantly and positively related to coping through diversion ($r = .37, <.01$) and use of ameliorative strategies ($r = .35, <.01$). A significant inverse relationship was found between social support and destructive coping ($r = -.33, <.01$).

A similar relationship was found between social support provided by single sources (e.g., parent) and the separately examined types of coping behaviors. All sources of support with the exception of sibling support were significantly correlated with all three styles of coping. Correlation coefficients are presented in Table 4.

Comparative Utility of the SSQC and the SSSC. The ability of the SSQC to predict child outcomes post-trauma was compared to the ability of the SSSC, the current gold standard measure of children's social support. In the New Orleans sample, correlation analyses revealed that the SSQC was significantly related to both personal adjustment and PTSD symptomatology. The SSSC was not found to have significant relationships with either variable in the tested sample (BASC-2 SRP Personal Adjustment T-Score: $r = -.09, p = .39$; UCLA PTSD Continuous Index Summary Score: $r = -.09, p = .64$). (see Table 5)

Table 4.

Correlation Coefficients of the SSQC and Validation Measures

	SSQC Parent	SSQC Relative	SSQC Adult	SSQC Sibling	SSQC Peer	SSQC Total	SSQC Instrum./ Inform.	SSQC Emotional
Validation Measures								
BASC-2 SRP								
Personal Adjustment T-score	.71**	.55**	.61**	.41**	.65**	.81**	.68**	.75**
UCLA PTSD Reaction Index								
Continuous Index Summary	--	--	--	--	--	-.26*	--	--
YCRI								
Diversions	.38**	.35**	.34**	--	.30**	.37**	.37**	.36**
Ameliorative	.30**	.39**	.26*	--	.37**	.35**	.35**	.35**
Destructive	-.36**	-.23**	-.23*	--	-.23*	-.33**	-.26*	-.33**
SSSC								
Parent	.52**	.39**	.36**	.26**	.27**	.44**	.46**	.42**
Teacher	.25**	.21**	.38**	.17**	.25**	.34**	.28**	.33**
Peer	.27**	.21**	.27**	.30**	.49**	.37**	.35**	.37**
Total	.46**	.36**	.43**	.33**	.48**	.50**	.49**	.49**

Note: Vales reported are Pearson r Correlation Coefficients

* Correlation Significant at $p < .05$; ** Correlation Significant at $p < .01$

Table 5.

SSQC versus the SSSC

Predictive Measure	Measure of Children's Social Support	
	SSQC	SSSC
BASC-2 SRP Personal Adjustment T-Score	.81**	-.09
UCLA PTSD Continuous Index Summary Score	-.26*	-.05

Note: Vales reported are Pearson r Correlation Coefficients

* Correlation Significant at $p < .05$; ** Correlation Significant at $p < .01$

Ethnic Sensitivity of the SSQC. One purpose of the study was to develop a measure of social support sensitive to possible ethnic or cultural differences. To examine whether the SSQC was sensitive to ethnic differences in social support, the ability of the SSQC was used to predict

personal adjustment in Caucasian versus non-Caucasian samples. Correlation coefficients showed that social support as a whole and support from parents, non-relative adults, and peers were strongly correlated with personal adjustment in a sample of Caucasian children. Similar findings were attained in a sample of non-Caucasian, primarily African American children; however, perceived support from relatives was also highly correlated with personal adjustment in this population. (see Table 6)

Table 6.

SSQC in Caucasian versus Non-Caucasian Samples

	SSQC Parent	SSQC Relative	SSQC Adult	SSQC Sibling	SSQC Peer	SSQC Total	SSQC Instrum./ Inform.	SSQC Emotional
<u>Caucasian</u> Personal Adjustment	.70**	--	.76**	--	.68**	.79**	.66**	.74**
<u>Non-Caucasian</u> Personal Adjustment	.72**	.56**	.51**	--	.65**	.86**	.69**	.76**

Note: Vales reported are Correlation Coefficients $r > .50$; Personal Adjustment was assessed via BASC-2 SRP Personal Adjustment T-Score

** Correlation Significant at $p < .01$

Coefficients of Determination for the SSQC and Concurrent Variables

Given the supported hypotheses, coefficients of determination were computed to establish the amount of variance shared between variables described in each hypothesis with an objective of better understanding the likelihood of specified outcomes. Adjusted r^2 s were calculated for the SSQC total score, BASC-2 SRP Personal Adjustment Scale, UCLA PTSD Continuous Index Summary Score, and the diversion, ameliorative, and destructive subscales of the YCRI. Analyses revealed that the largest amount of variance was shared between the SSQC total score and the BASC-2 SRP Personal Adjustment Scale, indicating that these constructs are

highly related. The SSQC total score and the coping behaviors assessed by the YCRI were less closely related. Adjusted r^2 values suggest that the SSQC total score and the UCLA PTSD Continuous Index Summary Score are variables that are fairly independent of one another. (see Table 7)

Table 7.

Coefficients of Determination (Adjusted r^2)

Measures	SSQC Total
BASC-2 SRP Personal Adjustment	.65
UCLA PTSD Continuous Index Summary Score	.00
YCRI	
Diversion	.12
Ameliorative	.11
Destructive	.10

Discussion

The Social Support Questionnaire for Children (SSQC) was developed to offer researchers and clinicians a psychometrically sound and culturally sensitive measure of social support for children. Previously developed measures lacked adequate psychometric support and limited the sources of support relevant to children of varying ethnicities. The SSQC is a 50-item self-report measure for children ages 8-18. The measure has five factors representing distinct sources of support: parents, relatives (e.g., uncles, grandparent), non-relative adults (e.g., coaches, teachers), siblings, and peers (e.g., classmates, close friends). Additionally, the measure has two factors measuring instrumental/informational and emotional support.

The results of the study indicated that the SSQC has high internal consistency for the five subscales, two supplemental subscales, and the Total scale with Cronbach's alphas ranging from .84 - .98.

Confirmatory factor analysis showed the SSQC to have adequate factorial and construct validity. High correlations were found between all items and corresponding factors. Three factors exhibited high covariances, particularly, the parent, relative, and adult subscales. High correlations between these factors suggest commonalities, which are reasonably expected, given that all of these sources are adult, authoritative figures that may exhibit caregiver qualities. Overall, the five factor model exhibited an acceptable fit in the sample and the factors were retained in the confirmatory analysis.

As hypothesized, the SSQC was positively correlated with children's personal adjustment in a sample of youth exposed to Hurricane Katrina. Children who endorsed higher levels of social support reported greater personal adjustment than those with less support. Additionally, social support was shown to be inversely correlated with PTSD symptom severity; lower levels of social support were associated with higher levels of PTSD symptom severity. Lastly, social support was positively associated with adaptive coping and negatively associated with maladaptive coping. Children with greater perceived support endorsed using ameliorative coping strategies such as talking about their problems with friends and brainstorming to find solutions. They also endorsed more use of diversion techniques, such as reengaging in family life or school as a means of diverting their attention from negative events. Children disclosing lower levels of social support were more likely to endorse use of destructive behaviors to cope such as blaming others and destroying belongings. This is an essential finding, as coping is postulated to be one of the mechanisms by which social support buffers the impact of negative life events (Heaney & Israel, 2008).

Convergent validity of the SSQC was supported. Moderate correlations were obtained with the total, parent, and peer scales of the SSQC with corresponding scores on the Harter's

Social Support Scale for Children (SSSC), a widely used measure of social support in children. The less than excellent correlation exhibited between the SSQC and SSSC can most likely be accounted for by the differences in the structure and content of the measures. The SSQC assesses additional sources of support not examined by the SSSC, the items of the SSQC are written in a different format than the SSSC, and the length of the SSQC is longer.

The SSQC was shown to be sensitive in identifying important sources of social support in varying samples. Correlation analyses performed in Caucasian and non-Caucasian samples indicated that social support as a whole and support provided by parents, peers, and adults were associated with higher degrees of personal adjustment in a Caucasian sample. Similar results were found in a non-Caucasian, primarily African American sample; however, support provided by relatives was also related to higher degrees of personal adjustment. This finding provides evidence that inclusion of additional sources on the SSQC may be beneficial and provide valuable information not accessible through other scales.

Limitations of this current study include use of primarily self-report measures (Constantine & Ponterotto, 2006). In the future, collecting observational and performance data (e.g., school records of conduct problems or counselor referrals, observation of children in social settings, one-on-one child interviews) may provide an additional means to assess the SSQC's criterion-related validity. In addition, ratings from other informants may have provided valuable information on examined predictive variables. Another potential flaw of this study is use of primarily Caucasian and female samples (Phase 2 and Phase 3, Baton Rouge sample), as well as inadequate distribution by age. Results may vary with utilization of more heterogeneous samples or characteristic specific samples (e.g., all Hispanic, all elementary aged); thus, it is extremely important for the SSQC to be further validated in other samples of youth. Correlation

coefficients in the high .90s suggest that further shortening of the SSQC should be considered, pending further evaluation of the SSQC's psychometric properties in future studies. In addition, more exploration of the types of social support assessed by the SSQC is needed to better understand the function of distinguished behaviors within these factors. Lastly, further evaluation of the SSQC by experts in the field of psychology is needed as a means to provide further feedback on the content and structure of the SSQC. Collectively, results of the study provide support that the SSQC is a psychometrically sound measure that has been shown to have good reliability, as well as validity.

REFERENCES

- Armstrong, M. I., Birnie-Lefcovitch, S., & Ungar, M. T. (2005). Pathways between social support, family well being, quality of parenting, and child resilience: what we know. *Journal of Child and Family Studies, 14*, 269-281.
- Berman, S. L., Kurtines, W. M., Silverman, W. K., & Serafini, L. T. (1996). The impact of exposure to crime and violence on urban youth. *American Journal of Orthopsychiatry, 66*, 329-336.
- Bonanno, G. A.; Galea, S.; Bucciarelli, A.; & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology, 75*, 671-682.
- Borja, S. E. & Callahan, J. L. (2008). Recovery following Hurricane Rita: a pilot study of preexisting and modifiable aspects of positive change. *Traumatology, 14*, 12-19.
- Bost, K. K., Vaughn, B. E., Boston, A. L., Kazura, K. L., & O'Neal, C. (2004). Social support networks of African American children attending Head Start: A longitudinal investigation of structural and supportive network characteristics. *Social Development, 13*, 393-412.
- Brown, T. A. (2006). *Confirmatory Factor Analysis For Applied Research*. New York, NY: Guilford Press.
- Calvete, E. & Connor-Smith, J. K. (2006). Perceived social support, coping, and symptoms of distress in American and Spanish students. *Anxiety, Stress, and Coping, 19*, 47-65.
- Cattell, R. B. (1978). *The Use of Factor Analysis in Behavioral and Life Sciences*. New York: Plenum.
- Cluver, L., Fincham, D. S., & Seedat, S. (2009). Posttraumatic stress in AIDS-orphaned children exposed to high levels of trauma: the protective role of perceived social support. *Journal of Traumatic Stress, 22*, 106-112.
- Cole, D. A. (1987). Methodological contributions to clinical research: Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology, 55*, 584-594.
- Constantine, M. G. & Ponterotto, J. G. (2006). Evaluating and selecting psychological measures for research purposes. In Leong, F. T. & Austin, J. T. (eds.), *The Psychology Research Handbook* (pp. 104-113). Thousand Oaks, CA: Sage Publications, Inc.
- Costello, A. B. & Osbourne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, & Evaluation, 10*, 1-9.
- Cryder, C. H., Kilmer, R. P., Tedeschi, R. G., & Calhoun, L. G. (2006). An exploratory study of posttraumatic growth in children following a natural disaster. *American Journal of Orthopsychiatry, 76*, 65-69.

- DeLongis, A. & Holtzman, S. (2005). Coping in context: the role of stress, social support, and personality in coping. *Journal of Personality, 73*, 1633-1656.
- DeVellis, R. F. (2003). *Scale Development: theory and applications* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Dubow, E. P. & Ullman, D. G. (1989). Assessing social support in elementary school children: The Survey of Children's Social Support. *Journal of Clinical Child Psychology, 18*, 52-64.
- Fletcher, K. E. (2003). Childhood Posttraumatic Stress Disorder. In Mash, E. J. & Barkley, R. A. (Eds.), *Child Psychopathology* (pp. 330-371). New York, NY: The Guilford Press.
- Flores, E., Cicchetti, D., & Rogosch, F. A. (2005). Predictors of resilience in maltreated and nonmaltreated Latino children. *Developmental Psychology, 41*, 338-351.
- Frauenglass, S., Routh, D. K., Pantin, H. M., & Mason, C. A. (1997). Family support decreases influence of deviant peers on Hispanic adolescents substance use. *Journal of Clinical Child Psychology, 26*, 15-23.
- Gordon, A. T., Thompson, J. E., Kelley, M. L., & Vigna, J. (2010). *Psychometric properties of the Harter's Social Support Scale for Children: an examination of social support in youth affected by Hurricane Katrina*. Manuscript submitted for publication.
- Harter, S. (1985). *Manual for the Social Support Scale for Children*. Denver, CO: Author.
- Hazzard, A., Celano, M., Collins, M., & Markov, Y. (2003). Effects of STARBRIGHT World on knowledge, social support, and coping in hospitalized children with sickle cell disease and asthma. *Children's Health Care, 31*, 69-86.
- Heaney, C.A. & Israel, B. A. (2008). Social networks and social support. In Glanz, K., Rimer, B. K., & Viswanath, K. (eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (pp. 189-207). San Francisco, CA: John Wiley & Sons.
- Hernandez, B. C., Vigna, J. F., & Kelley, M. L. (2010). The Youth Coping Responses Inventory: development and initial validation. *Journal of Clinical Psychology, 66*, 1008-1025.
- Hu, L. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Kana 'Iaupuno, S. M., Donato, K. M., Thompson-Colon, T. & Stainback, M. (2005). Counting on kin: social networks, social support, and child health status. *Social Forces, 83*, 1137-1164.
- Kaniasty, K. & Norris, F. H. (1995). Mobilization and deterioration of social support following natural disasters. *Current Directions in Psychological Science, 4*, 94-98.
- La Greca, A. M., Silverman, W. K., Vernberg, E. M., & Prinstein, M. J. (1996). Symptoms of posttraumatic stress after Hurricane Andrew: A prospective study. *Journal of Consulting and Clinical Psychology, 64*, 712-723.

- Lakey, B. & Cassady, P. B. (1990). Cognitive processes in perceived social support. *Journal of Personality and Social Psychology, 59*, 337-343.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, New York: Springer.
- Lopez, E. J. & Salas, L. (2006). Assessing social support in Mexican American high school students: a validity study. *Journal of Hispanic Higher Education, 5*, 97-106.
- Malecki, C. K., Demaray, M. K., & Elliott, S. N. (2000). *The child and adolescent social support scale*. DeKalb, IL: Northern Illinois University.
- Malecki, C. K. & Demaray, M. K. (2002). Measuring perceived social support: Development of the child and adolescent social support scale (CASSS). *Psychology in the Schools, 39* (1), 1-18.
- Malecki, C. K. & Demaray, M. K. (2003). What type of support do they need? Investigating student adjustment as related to emotional, informational, appraisal, and instrumental support. *School Psychology Quarterly, 18* (3), 321-252.
- Nader, K., Pynoos, R., Fairbanks, L., & Frederick, C. (1990). Children's PTSD reactions one year after a sniper attack at their school. *American Journal of Psychiatry, 147*, 1526-1530.
- Norris, F. H. & Kaniasty, K. (1996). Received and perceived social support in times of stress: a test of the social support deterioration deterrence model. *Journal of Personality and Social Psychology, 71*, 498-511.
- Pina, A. A., Villalta, I. K., Ortiz, C. D., Gottschall, A. C., Costa, N. M., & Weems, C. F. (2008). Social support, coping, and discrimination as predictors of posttraumatic stress reactions in youth survivors of Hurricane Katrina. *Journal of Child and Adolescent Psychology, 37*, 564-574.
- Pulgaron, E. R., Salamon, K. S., Patterson, C. A., & Barakat, L. P. (2010). A problem-solving intervention for children with persistent asthma: a pilot of a randomized trial at a pediatric summer camp. *Journal of Asthma, 47*, 1031-139.
- Pynoos, R. S., Goenjian, A. K., & Steinberg, A. M. (1998). A public mental health approach to the postdisaster treatment of children and adolescents. *Child and Adolescent Psychiatric Clinics of North America, 7*, 195-210.
- Reynolds, C. R., & Kamphaus, R. W. (1998). *BASC: Behavior Assessment System for Children Manual*. Circle Pines, MN: American Guidance Service.
- Sandler, I. N., Miller, P., Short, J., & Wolchik, S. A. (1989). Social support as a protective factor for children in stress. In Belle, D. *Social Networks and Social Supports*. Oxford, UK: Wiley.

- Schumm, J. A., Briggs-Phillips, M., & Hobfoll, S. E. (2006). Cumulative interpersonal traumas and social support as risk and resiliency factors in predicting PTSD and depression among inner-city women. *Journal of Traumatic Stress, 19*, 825-836.
- Schwarzer, R. & Knoll, N. (2007). Functional roles of social support within the stress and coping process: a theoretical and empirical overview. *International Journal of Psychology, 42*, 243-252.
- Steinberg, A. M., Brymer, M. J., Decker, K. B., & Pynoos, R. S. (2004). The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index. *Current Psychiatry Reports, 6*, 96-100.
- Steese, S., Dollette, M., Phillips, W., Hossfeld, E., Matthews, G., & Taormina, G. (2006). Understanding Girls' Circle as an intervention on perceived social support, body image, self-efficacy, locus of control, and self-esteem. *Adolescence, 41*, 55-74.
- Tabachnick, B. G., and Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.) Boston, MA: Allyn and Bacon.
- Taylor, R. D., Castesn, R., & Flickinger, S. M. (1993). Influence of kinship social support on parenting experiences and psychosocial adjustment of African American adolescents. *Developmental Psychology, 29*, 382-388.
- Vigil, J. M. & Geary, D. C. (2008). A preliminary investigation of family coping styles and psychological well-being among adolescent survivors of Hurricane Katrina. *Journal of Family Psychology, 22*, 176-180.
- Vigna, J. F., Hernandez, B. C., Paasch, V., Gordon, A. T., & Kelley, M. L. (2009). Positive adjustment in youth post-Katrina: The impact of child and maternal social support and coping. In K. E. Cherry (Ed.), *Lifespan Perspectives on Natural Disasters: Coping with Katrina, Rita, and Other Storms* (pp. 45-64). New York, NY: Springer.
- Weiner, I. B., Freedheim, D. K., Schinka, J. A., & Velicer, W. F. (2003). *Handbook of psychology*. New York : Wiley.
- White, K. S., Bruce, S. E., Farrell, A. D., & Kliwer, W. (1998). Impact of exposure to community violence on anxiety: a longitudinal study of family social support as a protective factor for urban children. *Journal of Child and Family Studies, 7*, 187-2

APPENDIX A

DEMOGRAPHIC CHARACTERISTICS OF PHASE 1 ITEM GENERATION SAMPLE

	<u>Frequency</u> (n=26)	<u>Percentage</u>
Parent Gender		
Male	2	7.7
Female	24	92.3
Parent Martial Status		
Single	23	88.5
Married	2	7.7
Divorced	1	3.8
Child Gender		
Male	11	42.3
Female	15	57.7
Child Age		
	M=12.1	
8	3	11.5
9	1	3.8
10	2	7.7
11	4	15.5
12	5	19.1
13	4	15.5
15	7	26.9
Child Race		
Caucasian	22	84.7
African American	3	11.5
Other	1	3.8
Household Income		
\$15,000-24,999	1	3.8
\$25,000-34,999	2	7.7
\$35,000-49,999	5	19.2
\$50,000-74,999	14	53.8
\$75,000-99,999	4	15.5

APPENDIX B

DEMOGRAPHIC CHARACTERISTICS OF PHASE 2 ITEM SELECTION SAMPLE

	<u>Frequency</u> (n=416)	<u>Percentage</u>
Child Gender		
Male	169	40.6
Female	247	59.4
Child Age	M=13.5	
8	16	3.9
9	8	1.9
10	15	3.6
11	34	8.2
12	54	13.0
13	65	15.7
14	79	19.1
15	56	13.5
16	53	12.8
17	27	6.5
18	7	1.7
Child Race		
Caucasian	242	59.3
African American	145	35.5
Hispanic	11	2.7
Asian	6	1.5
Native American	1	.2
Other	3	.7
Household Income		
\$0-4,999	21	5.6
\$5,000-9,999	10	2.7
\$10,000-14,999	16	4.3
\$15,000-24,999	34	9.1
\$25,000-34,999	29	7.8
\$35,000-49,999	43	11.6
\$50,000-74,999	57	15.3
\$75,000-99,999	50	13.4
\$100,000 and up	112	30.1

APPENDIX C

IRB APPROVED PARENT CONSENT

1. **Study Title:** Development and Initial Validation of the Children's Social Support Questionnaire
2. **Performance Sites:** Children and their parents will be recruited on a voluntary basis from private physician waiting rooms, LSU, and public and private East Baton Rouge, Orleans, and Jefferson Parish Schools.
3. **Names and Telephone Numbers of Investigators:** The following investigator is available for questions about this study, M-F, 8:00 a.m.-4:30 p.m:

Mary Lou Kelley, Ph.D. (225)578-4113
Arlene Gordon, M. A. or Julia Thompson (225) 578-8745
4. **Purpose of the Study:** The purpose is to develop a measure of children and adolescents' social support.
5. **Participant Inclusion:** Fathers, mothers, or caregivers and children (8-17).
6. **Number of Participants:** 300 children and adolescents (ages 8-17) for item elimination and validation.
7. **Study Procedures:** Mothers, fathers and caregivers will be asked to participate. Only those with signed consent forms will be included in the study. Parents will spend approximately 5 minutes completing a demographic questionnaire. Children whose parents have consented will also be asked to provide assent and to complete a survey about possible sources of social support. This survey should take no more than 30 minutes. Researchers will provide assistance for participants who present difficulty reading questionnaire items.

The study is confidential and you will not be linked to the data in any way. You have the option of providing your email address if you would like to be contacted about future research opportunities, or if you would like to be contacted about the results of the study. This is optional and is not required. You will have no further obligation after you complete the questionnaires.
8. **Benefits:** Completion of this project will help us understand children's sources of social support. This will aid us in developing ways to increase beneficial forms of social support in families to improve emotional and psychological functioning.
9. **Risks/Discomforts:** There are no known risks associated with participation. Should you experience distress during participation in the study, the investigators can provide mental health and preventative services referrals to children and their families.
10. **Right to Refuse:** Participants may choose not to participate or to withdraw from the study at any time without penalty.
11. **Right to Privacy:** Results of the study may be published, but no names or identifying information will be included in the publication. Your information will be identified by code rather than name. Any records with your name or your child's name will be maintained in a locked file cabinet in

the research lab of Dr. Kelley at Louisiana State University. Participant identity will remain confidential unless disclosure is required by law.

This study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about participants' rights or other concerns, I can contact Robert C. Matthews, Chairman, LSU Institutional Review Board at (225) 578-8692. I agree to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

Signature of Parent Participant

Date

The study participant has indicated to me that he/she is unable to read. I certify that I have read this consent form to the participant and explained that by completing the signature line above, the participant has agreed to participate.

Signature of Reader

Date

APPENDIX D

IRB APPROVED CHILD ASSENT

1. **Study Title:** Development and Initial Validation of the Children’s Social Support Questionnaire
2. **Performance Sites:** Children and their parents who are waiting for their doctor’s appointment, or who go to private or public schools in East Baton Rouge, Orleans, and Jefferson Parish Schools will be asked to participate.
3. **Names and Telephone Numbers of Investigators:** If you have any questions or worries about the project, you and your parent can call us Monday-Friday 8:00am-4:30pm

Mary Lou Kelley, Ph.D. Arlene Gordon, M. A. or Julia Thompson (225) 578-8745
4. **Purpose of the Study:** The purpose is to develop a measure of how different people support children.
5. **Participant Inclusion:** Children ages 8-17 and their parent or caregiver.
6. **Number of Participants:** 300 children and adolescents (8-17) who will complete the social support questionnaire.
7. **Study Procedures:** You and your parent will be asked to complete a questionnaire about how different people help you and support you in your day-to-day life. Filling out this questionnaire should not take more than 30 minutes. No one but the researchers will see your answers. We also will remove your name from your answers, so that your answers cannot be identified.
8. **Benefits:** You will be helping us understand the different ways your family and friends help and support you. We hope this will help us find better ways to improve how you think and how you feel.
9. **Risks/Discomforts:** We do not expect that you will feel anything bad when completing questionnaire. If you do become upset, we can give you and your parent the names and phone numbers of clinics that can assist you.
10. **Right to Refuse:** You can refuse to participate before, during or after completing the questionnaire without any problem.
11. **Right to Privacy:** This study may be published, but you and your parent’s names will not be included in the publication.

Child’s Name

Child’s Signature

Witness

Date

APPENDIX E

DEMOGRAPHIC QUESTIONNAIRE

Social Support Questionnaire for Children
Louisiana State University ♦ Department of Psychology

Today's Date: _____

Child Sex: _____ Child Race/Ethnicity _____ Child Age: _____ Child Grade: _____

Parent's Relationship to Child (Mom, Dad, Grandparent): _____

Parent Age: _____ Parent Race/Ethnicity _____ Parish/County you live in: _____

Email Address (optional): _____

(If you would like for us to email you the results of the study please list an email address above. Otherwise, please leave the line blank.)

What is your current marital status?

married divorced widowed single living with partner

Currently, what is the highest level of education you have completed?

<u>Yourself</u>	<u>Your Spouse/ Live-in Partner</u>
<input type="checkbox"/> 1. Sixth grade or less	<input type="checkbox"/> 1. Sixth grade or less
<input type="checkbox"/> 2. Junior high school (7 th , 8 th , 9 th grade)	<input type="checkbox"/> 2. Junior high school (7 th , 8 th , 9 th grade)
<input type="checkbox"/> 3. Partial high school (10 th , 11 th grade)	<input type="checkbox"/> 3. Partial high school (10 th , 11 th grade)
<input type="checkbox"/> 4. High school graduate	<input type="checkbox"/> 4. High school graduate
<input type="checkbox"/> 5. Partial college (at least 1 year) or specialized training	<input type="checkbox"/> 5. Partial college (at least 1 year) or specialized training
<input type="checkbox"/> 6. Standard college or university graduate	<input type="checkbox"/> 6. Standard college or university graduate
<input type="checkbox"/> 7. Graduate professional degree (Master's, Doctorate)	<input type="checkbox"/> 7. Graduate professional degree (Master's, Doctorate)

What is the total and **CURRENT** annual income of your household? (The income of all people living in your house right now as well as any government assistance.)

<input type="checkbox"/> \$0-4,999	<input type="checkbox"/> \$15,000-24,999	<input type="checkbox"/> \$50,000-74,999
<input type="checkbox"/> \$5,000-9,999	<input type="checkbox"/> \$25,000-34,999	<input type="checkbox"/> \$75,000-99,999
<input type="checkbox"/> \$10,000-14,999	<input type="checkbox"/> \$35,000-49,999	<input type="checkbox"/> \$100,000 and up

APPENDIX F

PARENT SURVEY OF CHILDREN'S SOCIAL SUPPORT

To the parent:

We are in the process of developing a questionnaire about the many ways in which **children** receive social support. We are asking you to help generate items that may be included in this questionnaire. Your help is greatly appreciated.

SOCIAL SUPPORT is all of the ways in which we find comfort, advice, guidance, support, and assistance with physical needs. Most people receive social support on a daily basis.

Examples of Social Support provided to **children** include:

- I talk to a teacher when someone bothers me at school.
- My parent listens when something bad has happened to me.
- A relative (not parent) helps me get places.
- If I have a problem I can talk to one of my church leaders.
- My parent helps make sure I have everything I need for the day.
- My basketball coach takes time to listen to my problems.

PLEASE DESCRIBE the people and types of support **your child** receives from the following. Sometimes it may be only occasional assistance and at other times it may be a daily form of social support.

Parents

Examples:

- My child talks to her mother and father when she has a problem.
- My child enjoys being hugged by her parents when she is upset.

1. _____
2. _____
3. _____
4. _____
5. _____

Relatives

- My child enjoys spending time with her grandmother.
- My child shares her worries with her grandmother or grandfather.

1. _____
2. _____
3. _____
4. _____

5. _____

Brothers and Sisters

My child turns to her older brother or sister for advice and support.

1. _____

2. _____

3. _____

4. _____

5. _____

School

Examples:

My child gets special help from the teacher.

My child talks to the guidance counselor when a problem occurs.

1. _____

2. _____

3. _____

4. _____

5. _____

Other Children

Examples:

My child confides in a close friend.

My child gets homework help from a friend.

1. _____

2. _____

3. _____

4. _____

5. _____

Neighbors

Examples:

My family borrows things we need from our neighbors.

My neighbors look after our house when we are not home.

1. _____

2. _____

3. _____

4. _____

5. _____

Church

Example:

My child receives support and guidance from a church leader (e.g., Sunday school teacher).

1. _____

2. _____

3. _____

4. _____

5. _____

Community

Examples:

A police officer who frequents our community will assist my child in an emergency.

My child will ask a neighbor if he is in need of help.

1. _____

2. _____

3. _____

4. _____

5. _____

APPENDIX G

CHILD SURVEY OF SOCIAL SUPPORT

To the child:

We are in the process of developing a questionnaire about the many ways in which **children** receive social support. We are asking you to help generate items that may be included in this questionnaire. Your help is greatly appreciated.

SOCIAL SUPPORT is all of the ways in which we find comfort, advice, guidance, support, and assistance with physical needs. Most people receive social support on a daily basis.

Examples of Social Support provided to **you may** include:

- I talk to a teacher when someone bothers me at school.
- My parent listens when something bad has happened to me.
- A relative (not parent) helps me get places.
- If I have a problem I can talk to one of my church leaders.
- My parent helps make sure I have everything I need for the day.
- My basketball coach takes time to listen to my problems.

PLEASE DESCRIBE the people and types of support **you** receive from the following. Sometimes it may be only occasional assistance and at other times it may be a daily form of social support.

Parents

Examples:

- I talk to mother and father when I have a problem.
- I enjoy being hugged by my parents when I am upset.

1. _____
2. _____
3. _____
4. _____
5. _____

Relatives

Examples:

- I enjoy spending time with my grandmother.
- I share my worries with my grandmother or grandfather.

1. _____
2. _____
3. _____

4. _____

5. _____

Brothers and Sisters

Example:

I turn to my older brother or sister for advice and support.

1. _____

2. _____

3. _____

4. _____

5. _____

School

Examples:

I get special help from the teacher.

I talk to the guidance counselor when a problem occurs.

1. _____

2. _____

3. _____

4. _____

5. _____

Other Children

Examples:

I confide in a close friend.

I get homework help from a friend.

1. _____

2. _____

3. _____

4. _____

5. _____

Neighbors

Examples:

My family borrows things we need from our neighbors.

My neighbors look after our house when we are not home.

1. _____

2. _____

3. _____

4. _____

5. _____

Church

Examples:

I know my church leader will be there for me.

If something really bad happens, my church will take care of me.

1. _____

2. _____

3. _____

4. _____

5. _____

Community

Examples:

I believe that the police will help me if I have an emergency.

I know that if I need food, people in my community will help me.

1. _____

2. _____

3. _____

4. _____

5. _____

APPENDIX H

108-ITEM SOCIAL SUPPORT QUESTIONNAIRE FOR CHILDREN (PILOT)

PARENT: An adult who lives with you and takes care of you most of the time (ex. Mom, dad, grandparent, step-parent).

RELATIVE: An **ADULT** who is related to you by blood or marriage, someone other than a parent.

ADULT: Refers to a teacher, coach, religious leader, club leader, neighbor, close family friend or other person **over the age of 18 who you do not live with, and you are not related to.**

PEER: Anyone around your age who you associate with such as a friend, classmate, or teammate.

SIBLING: A full (biological), half, or step-brother or sister.

SOCIAL SUPPORT: Emotional Comfort and assistance given to us by another person that lets us know we are cared for and valued.

Directions: Please read each item and rate how often each statement is true.

		Never or Rarely True	Sometimes True	Often or Very True	Always True
1.	I have a relative who gives me good advice.	0	1	2	3
2.	I enjoy spending time with a sibling.	0	1	2	3
3.	I have a peer who explains things I don't understand.	0	1	2	3
4.	I have an adult in my life who I can trust to keep a secret.	0	1	2	3
5.	I have a sibling who treats me fairly.	0	1	2	3
6.	I enjoy spending time with my parent.	0	1	2	3
7.	A relative helps me feel good about myself.	0	1	2	3
8.	I have a relative who shows me affection.	0	1	2	3
9.	An adult accepts me for who I am.	0	1	2	3
10.	I have a parent who supports my choices.	0	1	2	3
11.	A sibling praises me when I've done something well.	0	1	2	3
12.	A relative helps me when I am sick or injured.	0	1	2	3
13.	I have a parent who accepts me for who I am.	0	1	2	3
14.	A peer comforts me when I am upset.	0	1	2	3
15.	A peer cares about me and makes me feel wanted.	0	1	2	3
16.	An adult teaches me about teamwork or leadership.	0	1	2	3
17.	A sibling helps me when I need it.	0	1	2	3
18.	An adult helps me with my schoolwork.	0	1	2	3
19.	A parent takes me to my activities.	0	1	2	3
20.	An adult encourages me.	0	1	2	3
21.	A peer gives me affection (hugs, pats me on the back).	0	1	2	3
22.	A parent comforts me when I am upset.	0	1	2	3
23.	A peer helps me feel good about myself.	0	1	2	3
24.	A peer calls me just to see how I am doing.	0	1	2	3
25.	A parent shows me affection.	0	1	2	3
26.	An adult supports my decisions.	0	1	2	3
27.	A relative is there when I need them.	0	1	2	3
28.	A relative cares about my feelings.	0	1	2	3
29.	A peer gives me good advice.	0	1	2	3

PARENT: An adult who lives with you and takes care of you most of the time (ex. Mom, dad, grandparent, step-parent).

RELATIVE: An **ADULT** who is related to you by blood or marriage, someone other than a parent.

ADULT: Refers to a teacher, coach, religious leader, club leader, neighbor, close family friend or other person **over the age of 18 who you do not live with, and you are not related to.**

PEER: Anyone around your age who you associate with such as a friend, classmate, or teammate.

SIBLING: A full (biological), half, or step-brother or sister.

SOCIAL SUPPORT: Emotional Comfort and assistance given to us by another person that lets us know we are cared for and valued.

30.	A parent takes care of me when I'm sick or injured.	0	1	2	3
31.	I have a relative who shows me how to do things.	0	1	2	3
32.	I have an adult in my life who really cares about me.	0	1	2	3
33.	A sibling will let me borrow money if needed.	0	1	2	3
34.	A peer accepts me for who I am.	0	1	2	3
35.	A relative will let me borrow money if I need it.	0	1	2	3
36.	A parent makes sure I have what I need.	0	1	2	3
37.	I enjoy spending time with a relative.	0	1	2	3
38.	I have a parent who explains things I don't understand.	0	1	2	3
39.	A peer supports my decisions.	0	1	2	3
40.	I enjoy spending time with a peer.	0	1	2	3
41.	A relative helps me when I need it.	0	1	2	3
42.	I have a relative who understands me.	0	1	2	3
43.	I have a peer I can count on.	0	1	2	3
44.	I have a sibling who understands me.	0	1	2	3
45.	A sibling encourages me.	0	1	2	3
46.	I have a parent who I can trust to keep a secret.	0	1	2	3
47.	A relative makes sure I have what I need.	0	1	2	3
48.	I have a peer I can trust to keep a secret.	0	1	2	3
49.	A peer encourages me.	0	1	2	3
50.	A sibling comforts me when I am upset.	0	1	2	3
51.	A parent helps me feel good about myself.	0	1	2	3
52.	I think I am important to a peer.	0	1	2	3
53.	An adult praises me when I've done something well.	0	1	2	3
54.	I have a parent who encourages me.	0	1	2	3
55.	A parent praises me when I do something well.	0	1	2	3
56.	I have a parent who understands me.	0	1	2	3
57.	I have a parent who treats me fairly.	0	1	2	3
58.	I have a sibling who I can talk to.	0	1	2	3
59.	A parent helps me when I need it.	0	1	2	3
60.	A parent gives me good advice.	0	1	2	3
61.	A relative explains things I don't understand.	0	1	2	3
62.	I have a sibling who supports my decisions.	0	1	2	3
63.	A sibling gives me good advice.	0	1	2	3
64.	I have an adult who understands me.	0	1	2	3
65.	An adult treats me like a person who really matters.	0	1	2	3
66.	An adult comforts me when I am upset.	0	1	2	3

PARENT: An adult who lives with you and takes care of you most of the time (ex. Mom, dad, grandparent, step-parent).

RELATIVE: An **ADULT** who is related to you by blood or marriage, someone other than a parent.

ADULT: Refers to a teacher, coach, religious leader, club leader, neighbor, close family friend or other person **over the age of 18 who you do not live with, and you are not related to.**

PEER: Anyone around your age who you associate with such as a friend, classmate, or teammate.

SIBLING: A full (biological), half, or step-brother or sister.

SOCIAL SUPPORT: Emotional Comfort and assistance given to us by another person that lets us know we are cared for and valued.

67.	A relative takes me to my activities.	0	1	2	3
68.	An adult spends time with me when I need it.	0	1	2	3
69.	A relative comforts me when I am upset.	0	1	2	3
70.	A parent shows me how to do things.	0	1	2	3
71.	An adult treats me fairly.	0	1	2	3
72.	A parent takes care of things when I can't do it alone.	0	1	2	3
73.	I have an adult in my life who I can really count on.	0	1	2	3
74.	I have an adult who explains things I don't understand.	0	1	2	3
75.	I have a parent that I can count on.	0	1	2	3
76.	A relative accepts me for who I am.	0	1	2	3
77.	A peer buys me things.	0	1	2	3
78.	An adult listens when I want to talk.	0	1	2	3
79.	A sibling gives me affection.	0	1	2	3
80.	I have an adult in my life who gets me what I need.	0	1	2	3
81.	A parent cares about my feelings.	0	1	2	3
82.	A relative listens when I want to talk.	0	1	2	3
83.	A parent listens when I want to talk.	0	1	2	3
84.	An adult will offer me a place to stay for awhile.	0	1	2	3
85.	I have a peer who treats me fairly.	0	1	2	3
86.	An adult shows me how to do things.	0	1	2	3
87.	I have a sibling who cares about me.	0	1	2	3
88.	A relative helps take care of things I can't do alone.	0	1	2	3
89.	I have a peer who I can talk to.	0	1	2	3
90.	An adult helps me when I need it.	0	1	2	3
91.	I have a sibling who buys me things.	0	1	2	3
92.	A relative praises me when I've done something well.	0	1	2	3
93.	An adult helps me feel good about myself.	0	1	2	3
94.	I have a peer who understands me.	0	1	2	3
95.	A parent helps me cope with my problems.	0	1	2	3
96.	I have a peer who will lend me money if I need it.	0	1	2	3
97.	A peer helps me when I need it.	0	1	2	3
98.	I have a sibling I can count on.	0	1	2	3
99.	A peer praises me when I've done something well.	0	1	2	3
100.	I have a sibling I can trust to keep a secret.	0	1	2	3
101.	An adult gives me good advice.	0	1	2	3
102.	A sibling accepts me for who I am.	0	1	2	3
103.	An adult shows me affection.	0	1	2	3

PARENT: An adult who lives with you and takes care of you most of the time (ex. Mom, dad, grandparent, step-parent).

RELATIVE: An **ADULT** who is related to you by blood or marriage, someone other than a parent.

ADULT: Refers to a teacher, coach, religious leader, club leader, neighbor, close family friend or other person **over the age of 18 who you do not live with, and you are not related to.**

PEER: Anyone around your age who you associate with such as a friend, classmate, or teammate.

SIBLING: A full (biological), half, or step-brother or sister.

SOCIAL SUPPORT: Emotional Comfort and assistance given to us by another person that lets us know we are cared for and valued.

104.	A relative helps me cope with my problems.	0	1	2	3
105.	An adult cares about my feelings.	0	1	2	3
106.	An adult will take care of me if my parents can't.	0	1	2	3
107.	A sibling helps me feel good about myself.	0	1	2	3
108.	I have a relative who encourages me.	0	1	2	3

APPENDIX I

SSQC ITEM FREQUENCIES

Subscale/Items	Response Percentages			
	Never or Rarely True	Sometime True	Often or Very True	Always True
Parent				
I enjoy spending time with my parent	1.3	14.2	35.2	49.2
A parent supports my decisions	3.0	13.5	25.6	58.0
I have a parent who accepts me for who I am	1.6	7.0	14.2	77.2
A parent takes me to activities	2.2	8.1	25.9	63.9
A parent comforts me when I'm upset	1.6	9.5	23.4	65.5
A parent shows me affection	2.2	8.3	20.4	69.1
A parent takes care of me when I am sick or injured	0.0	3.5	17.3	79.1
A parent makes sure I have what I need	0.8	4.6	16.4	78.2
A parent explains things I don't understand	1.6	10.5	25.8	62.1
I have a parent I can trust to keep a secret	7.5	10.2	23.7	58.6
A parent helps me feel good about myself	1.9	8.1	22.6	67.4
I have a parent who encourages me	0.5	6.7	17.5	75.3
A parent praises me when I've done something well	1.9	7.0	19.4	71.8
I have a parent who understands me	2.2	11.8	23.9	62.1
I have a parent who treats me fairly	1.9	11.1	23.2	63.9
I have a parent who helps me when I need it	0.8	8.9	21.8	68.5
A parent gives me good advice	1.6	11.0	24.7	62.6
A parent shows me how to do things	1.6	7.5	27.2	63.7
A parent helps take care of things I can't do alone	1.9	10.0	27.2	60.9
I have a parent who I can count on	0.5	7.0	18.5	73.9
A parent cares about my feelings	0.5	8.8	18.3	72.6
A parent listens when I want to talk	1.6	10.0	21.8	66.3
A parent helps me cope with my problems	1.9	12.1	25.1	60.9
Relative				
I have a relative who gives me good advice	2.2	14.5	33.9	49.5
A relative helps me feel good about myself	2.4	15.4	32.2	50.0
A relative shows me affection	1.9	9.4	28.8	59.9
A relative helps me when I am sick or injured	3.5	11.3	21.3	63.9
I have a relative who is there when I need them	2.4	16.2	25.3	56.1
A relative cares about my feelings	1.1	8.1	27.7	63.2
I have a relative who shows me how to do things	2.1	14.7	34.6	48.5
A relative will let me borrow money if I need it	6.5	17.8	30.5	45.3
I enjoy spending time with a relative	1.1	11.3	33.5	54.2
A relative helps me when I need it	1.3	10.8	29.4	58.5
I have a relative who understands me	2.7	12.5	26.6	58.2
I have a relative who makes sure I have what I need	3.2	13.9	27.9	55.0
A relative explains things I don't understand	4.3	15.5	38.0	42.1
A relative takes me to activities	8.6	25.4	24.9	41.1
A relative comforts me when I am upset	4.3	18.2	24.1	53.4

I have a relative who accepts me for who I am	1.1	7.5	25.2	66.2
A relative listens when I want to talk	2.4	14.0	32.3	51.3
A relative helps me take care of things I can't do alone	1.6	16.1	30.6	51.7
A relative praises me when I've done something well	2.1	13.1	30.8	53.9
A relative helps me cope with my problems	3.2	16.4	29.6	50.7
I have a relative who encourages me	1.3	11.3	24.7	62.7
Adult				
I have an adult I can trust too keep a secret	9.7	17.2	20.2	53.0
I have an adult who accepts me for who I am	1.3	9.4	20.2	69.0
An adult teaches me about teamwork or leadership	3.2	17.0	35.0	44.7
An adult helps me with my schoolwork	7.3	19.7	31.5	41.5
An adult encourages me	1.6	8.6	28.6	61.2
An adult supports my decisions	1.9	12.9	32.1	53.1
I have an adult who really cares about me	1.9	7.9	17.3	72.9
An adult praises me when I have done something well	0.3	10.5	28.9	60.3
I have an adult who understands me	2.7	13.4	28.7	55.2
An adult treats me like a person who really matters	1.1	9.8	27.1	62.1
An adult comforts me when I'm upset	1.9	15.8	27.9	54.4
An adult spends time with me when I need it	6.5	20.8	25.3	47.4
An adult treats me fairly	1.6	9.7	29.4	59.3
I have an adult in my life who I can count on	2.2	11.1	25.3	61.5
An adult explains things I don't understand	2.4	12.4	32.6	52.6
An adult listens when I want to talk	1.9	13.9	34.0	50.1
I have an adult who gets me what I need	1.1	15.0	25.5	58.4
An adult will offer me a place to stay for a while	13.2	16.2	24.3	46.2
An adult shows me how to do things	0.8	12.6	31.4	55.2
An adult helps me when I need it	0.5	12.1	29.8	57.6
An adult helps me feel good about myself	2.4	14.0	29.8	53.8
An adult shows me affection	3.5	12.1	27.2	57.3
An adult cares about my feelings	1.9	12.3	30.3	55.5
An adult will take care of me if my parents can't	4.6	12.3	24.4	58.7
An adult gives me good advice	0.5	14.5	30.1	54.8
Sibling				
I enjoy spending time with a sibling	11.9	23.8	33.2	31.1
I have a sibling who treats me fairly	15.3	21.0	28.3	35.4
A sibling praises me when I've done something well	19.8	24.7	32.5	23.0
A sibling helps me when I need it	14.3	21.1	33.0	31.6
A sibling will let me borrow money if I need it	23.6	19.5	27.6	29.3
I have a sibling who understands me	13.4	19.9	27.5	39.2
A sibling encourages me	12.2	21.7	27.2	38.9
A sibling comforts me when I am upset	13.4	23.4	23.7	39.5
I have a sibling I can talk to	15.5	20.9	22.6	41.0
I have a sibling who supports my decisions	15.0	20.8	28.7	35.5
A sibling gives me good advice	18.7	20.3	27.1	33.9
A sibling shows me affection	16.1	21.0	25.1	37.9
I have a sibling who cares about me	10.3	12.7	22.2	54.7

I have a sibling who buys me things	24.7	25.0	23.9	26.4
A sibling accepts me for who I am	11.7	13.0	23.4	51.9
A sibling helps me feel good about myself	14.2	16.9	22.3	46.6
I have a sibling I can count on	13.4	17.5	22.4	46.7
I have a sibling I can trust to keep a secret	22.9	15.5	19.6	42.0
Peer				
A peer explains things I don't understand	6.7	26.9	32.0	34.4
A peer comforts me when I am upset	2.4	16.5	34.9	46.2
A peer cares about me and makes me feel wanted	3.5	15.3	32.0	49.2
A peer shows me affection (hugs, pats on back)	6.2	19.2	26.5	48.1
A peer helps me feel good about myself	1.4	15.4	35.2	48.0
A peer calls me just to see how I am doing	12.5	26.0	23.3	38.2
A peer gives me good advice	1.9	22.0	35.2	40.9
A peer accepts me for who I am	1.6	9.2	29.6	59.6
A peer supports my decisions	1.1	16.0	37.7	45.3
I enjoy spending time with a peer	0.8	5.4	24.7	69.0
I have a peer I can count on	1.1	8.1	29.3	61.6
I have a peer who I can trust to keep a secret	2.7	15.1	24.8	57.4
A peer encourages me	2.4	13.4	31.2	53.0
I think I am important to a peer	2.2	10.5	27.5	59.8
A peer buys me things	11.8	32.8	31.2	24.2
A peer treats me fairly	1.6	6.7	33.6	58.1
I have a peer I can talk to	1.9	9.4	22.6	66.1
I have a peer who understands me	1.3	10.8	28.3	59.6
A peer will lend me money if I need it	7.0	21.3	31.0	40.7
A peer helps me when I need it	2.7	11.6	32.8	53.0
A peer praises me when I've done something well	4.6	17.2	30.9	47.3

APPENDIX J

SSQC ITEM CHARACTERISTICS

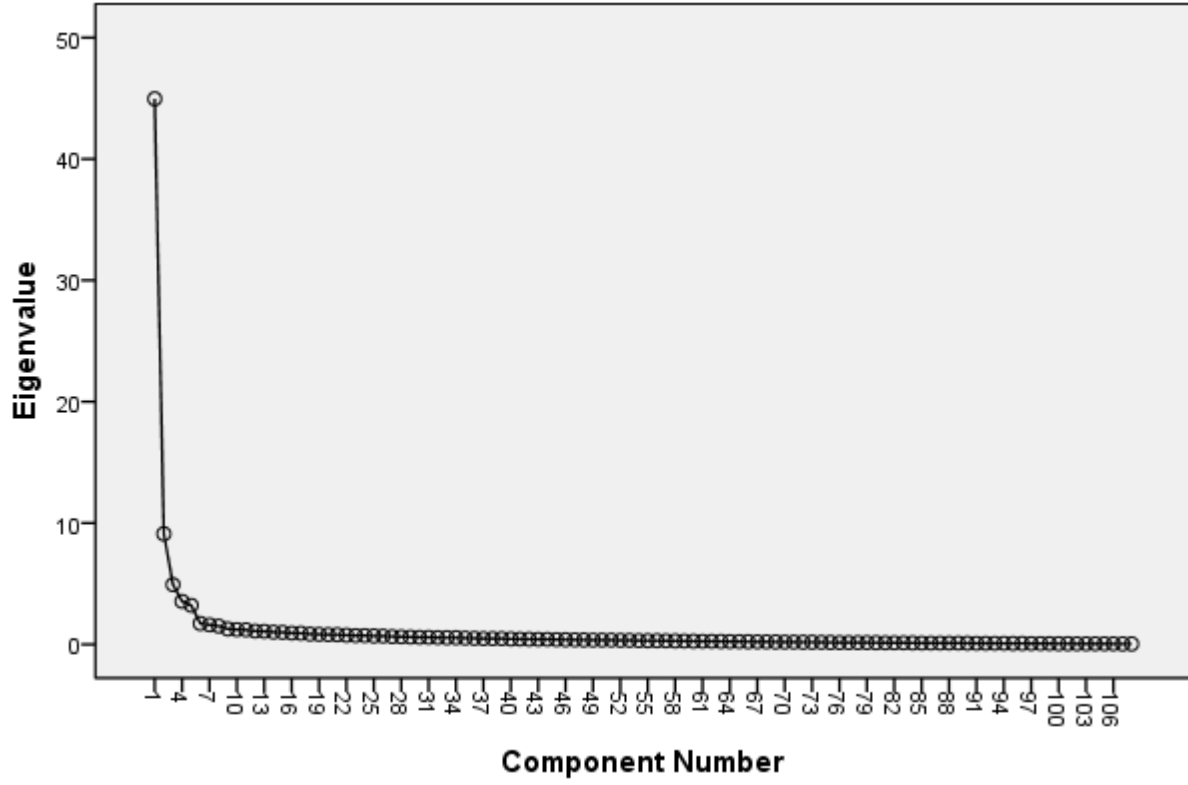
Subscale/Items	Response Percentages			
	Means	Standard Deviations	Variance	Item-Total Correlations
Parent				
I enjoy spending time with my parent	2.32	.77	.59	.53
A parent supports my decisions	2.39	.83	.69	.64
I have a parent who accepts me for who I am	2.67	.68	.46	.66
A parent takes me to activities	2.51	.74	.54	.49
A parent comforts me when I'm upset	2.53	.73	.54	.70
A parent shows me affection	2.56	.74	.54	.70
A parent takes care of me when I am sick or injured	2.76	.51	.26	.57
A parent makes sure I have what I need	2.72	.58	.34	.63
A parent explains things I don't understand	2.48	.75	.56	.63
I have a parent I can trust to keep a secret	2.33	.94	.88	.63
A parent helps me feel good about myself	2.55	.72	.52	.68
I have a parent who encourages me	2.67	.62	.39	.67
A parent praises me when I've done something well	2.61	.70	.49	.69
I have a parent who understands me	2.46	.78	.62	.67
I have a parent who treats me fairly	2.49	.77	.59	.66
I have a parent who helps me when I need it	2.58	.69	.47	.68
A parent gives me good advice	2.48	.75	.57	.70
A parent shows me how to do things	2.53	.71	.50	.68
A parent helps take care of things I can't do alone	2.47	.75	.56	.64
I have a parent who I can count on	2.66	.62	.40	.65
A parent cares about my feelings	2.63	.66	.44	.70
A parent listens when I want to talk	2.58	1.25	1.57	.70
A parent helps me cope with my problems	2.45	.78	.61	.74
Relative				
I have a relative who gives me good advice	2.31	.80	.63	.54
A relative helps me feel good about myself	2.30	.82	.67	.65
A relative shows me affection	2.47	.74	.55	.58
A relative helps me when I am sick or injured	2.46	.83	.69	.57
I have a relative who is there when I need them	2.35	.84	.70	.67
A relative cares about my feelings	2.53	.69	.48	.71
I have a relative who shows me how to do things	2.29	.80	.63	.64
A relative will let me borrow money if I need it	2.15	.93	.87	.57
I enjoy spending time with a relative	2.41	.73	.53	.66
A relative helps me when I need it	2.45	.74	.55	.68
I have a relative who understands me	2.40	.81	.66	.70
I have a relative who makes sure I have what I need	2.35	.84	.70	.66
A relative explains things I don't understand	2.18	.85	.72	.65
A relative takes me to activities	1.98	1.01	1.01	.48
A relative comforts me when I am upset	2.27	.91	.82	.67

I have a relative who accepts me for who I am	2.57	.68	.46	.70
A relative listens when I want to talk	2.33	.80	.65	.68
A relative helps me take care of things I can't do alone	2.32	.80	.64	.69
A relative praises me when I've done something well	2.36	.79	.63	.66
A relative helps me cope with my problems	2.28	.85	.73	.69
I have a relative who encourages me	2.49	.75	.56	.68
Adult				
I have an adult I can trust too keep a secret	2.16	1.03	1.07	.53
I have an adult who accepts me for who I am	2.57	.72	.52	.60
An adult teaches me about teamwork or leadership	2.21	.84	.70	.64
An adult helps me with my schoolwork	2.07	.95	.90	.49
An adult encourages me	2.49	.72	.52	.66
An adult supports my decisions	2.36	.78	.61	.70
I have an adult who really cares about me	2.61	.71	.51	.59
An adult praises me when I have done something well	2.49	.69	.48	.64
I have an adult who understands me	2.36	.81	.66	.69
An adult treats me like a person who really matters	2.50	.72	.51	.69
An adult comforts me when I'm upset	2.35	.81	.67	.71
An adult spends time with me when I need it	2.14	.96	.92	.64
An adult treats me fairly	2.46	.74	.54	.71
I have an adult in my life who I can count on	2.46	.77	.60	.63
An adult explains things I don't understand	2.35	.79	.62	.67
An adult listens when I want to talk	2.32	.78	.61	.67
I have an adult who gets me what I need	2.41	.78	.61	.63
An adult will offer me a place to stay for a while	2.04	1.08	1.16	.54
An adult shows me how to do things	2.41	.74	.54	.70
An adult helps me when I need it	2.45	.72	.52	.71
An adult helps me feel good about myself	2.35	.81	.65	.74
An adult shows me affection	2.38	.83	.69	.66
An adult cares about my feelings	2.39	.77	.60	.70
An adult will take care of me if my parents can't	2.37	.87	.76	.52
An adult gives me good advice	2.39	.75	.56	.74
Sibling				
I enjoy spending time with a sibling	1.83	1.00	1.00	.48
I have a sibling who treats me fairly	1.84	1.07	1.15	.52
A sibling praises me when I've done something well	1.59	1.05	1.10	.53
A sibling helps me when I need it	1.82	1.03	1.07	.54
A sibling will let me borrow money if I need it	1.63	1.14	1.30	.49
I have a sibling who understands me	1.93	1.06	1.12	.61
A sibling encourages me	1.93	1.05	1.09	.66
A sibling comforts me when I am upset	1.89	1.07	1.16	.65
I have a sibling I can talk to	1.89	1.11	1.23	.56
I have a sibling who supports my decisions	1.85	1.07	1.14	.64
A sibling gives me good advice	1.76	1.11	1.24	.59
A sibling shows me affection	1.85	1.10	1.21	.61
I have a sibling who cares about me	2.21	1.02	1.04	.59

I have a sibling who buys me things	1.52	1.13	1.28	.47
A sibling accepts me for who I am	2.15	1.05	1.10	.34
A sibling helps me feel good about myself	2.01	1.10	1.21	.64
I have a sibling I can count on	2.02	1.09	1.18	.62
I have a sibling I can trust to keep a secret	1.81	1.21	1.46	.57
Peer				
A peer explains things I don't understand	1.94	.94	.88	.39
A peer comforts me when I am upset	2.25	.82	.72	.57
A peer cares about me and makes me feel wanted	2.27	.85	.72	.66
A peer shows me affection (hugs, pats on back)	2.16	.95	.90	.56
A peer helps me feel good about myself	2.30	.78	.60	.66
A peer calls me just to see how I am doing	1.87	1.06	1.13	.50
A peer gives me good advice	2.15	.83	.68	.65
A peer accepts me for who I am	2.47	.73	.53	.63
A peer supports my decisions	2.27	.76	.58	.68
I enjoy spending time with a peer	2.62	.63	.39	.52
I have a peer I can count on	2.51	.69	.48	.63
I have a peer who I can trust to keep a secret	2.37	.84	.70	.60
A peer encourages me	2.35	.80	.64	.71
I think I am important to a peer	2.45	.77	.59	.68
A peer buys me things	1.67	.97	.94	.41
A peer treats me fairly	2.48	.69	.48	.64
I have a peer I can talk to	2.53	.74	.55	.56
I have a peer who understands me	2.46	.74	.55	.70
A peer will lend me money if I need it	2.05	.95	.90	.51
A peer helps me when I need it	2.36	.79	.63	.75
A peer praises me when I've done something well	2.21	.89	.79	.68

APPENDIX K

SCREE PLOT FOR EXPLORATOR FACTOR ANALYSIS OF 108-ITEM SSQC



APPENDIX L

FACTOR LOADINGS FOR EXPLORATORY FACTOR ANALYSIS WITH VARIMAX ROTATION OF 108-ITEM SSQC

Item Description	Factor				
	1	2	3	4	5
Parent cares about my feelings	.709	.159	.211	.139	.243
Parent helps me when I need it	.693	.160	.189	.100	.305
Parent helps me feel good about myself	.682	.143	.175	.148	.223
Parent who understands me	.677	.109	.150	.249	.218
Parent who I can count on	.672	.089	.206	.224	.117
Parent who treats me fairly	.659	.089	.214	.233	.145
Parent gives me good advice	.655	.194	.180	.156	.284
Parent who encourages me	.652	.138	.210	.215	.140
Parent shows me how to do things	.648	.141	.150	.207	.287
Parent shows me affection	.635	.057	.172	.265	.263
Parent praises me when I've done something well	.630	.120	.205	.209	.165
Parent who supports my decisions	.622	.107	.210	.202	.161
Parent who accepts me for who I am	.621	.089	.196	.245	.119
Parent explains things I don't understand	.597	.144	.152	.160	.293
Parent makes sure I have what I need	.596	.134	.196	.178	.100
Parent who helps me cope with my problems	.594	.171	.215	.248	.265
Parent comforts me when I'm upset	.591	.119	.199	.232	.299
Parent helps take care of things when I can't do it alone	.585	.150	.164	.159	.266
Parent takes care of me when I'm sick or injured	.543	.020	.192	.210	.119
Parent who I can trust to keep a secret	.517	.215	.145	.197	.202

Adult who accepts me for who I am	.501	.074	.152	.430	.096
Enjoy spending time with my parent	.500	.148	.052	.179	.204
Parent takes me to activities	.485	.052	.212	.157	.128
Adult praises me when I've done something well	.483	.109	.132	.373	.215
Adult supports my decisions	.473	.116	.267	.460	.205
Relative accepts me for who I am	.429	.117	.249	.289	.372
Parent listens when I want to talk	.409	.147	.092	.105	.065
Sibling helps me feel good about myself	.214	.843	.150	.044	.101
Sibling who understands me	.172	.827	.132	.121	.060
Sibling I can count on	.187	.825	.146	.061	.041
Sibling gives me good advice	.050	.814	.108	.170	.109
Sibling who I can talk to	.123	.809	.107	.069	.150
Sibling who cares about me	.192	.806	.127	.053	.064
Sibling encourages me	.091	.803	.193	.128	.169
Sibling accepts me for who I am	.279	.796	.153	.034	.058
Sibling who supports my decisions	.128	.795	.158	.174	.141
Sibling helps me when I need it	.121	.774	.142	.032	.088
Sibling shows me affection	.144	.773	.152	.158	.123
Sibling comforts me when I am upset	.133	.739	.191	.120	.229
Sibling I can trust to keep a secret	.056	.734	.118	.131	.152
Sibling who treats me fairly	.105	.734	.104	.101	.014
I enjoy spending time with a sibling	.117	.732	.064	.099	.008
Sibling who buys me things	-.033	.700	.142	.065	.102
Sibling praises me when I've done something well	.158	.691	.109	.068	.093

Sibling will let me borrow money if I need it	.028	.690	.146	.047	.087
Peer I can count on	.216	.149	.740	.111	.092
Peer gives me good advice	.171	.126	.723	.166	.203
Peer encourages me	.286	.144	.706	.177	.135
Peer cares about me and makes me feel wanted	.199	.117	.704	.206	.162
Peer helps me when I need it	.280	.238	.704	.180	.164
Peer who I can talk to	.243	.116	.693	.034	.087
Peer accepts me for who I am	.304	.102	.691	.186	.045
Peer who treats me fairly	.249	.106	.688	.212	.131
Peer helps me feel good about myself	.188	.149	.687	.221	.177
Peer who understands me	.325	.091	.673	.151	.183
Peer comforts me when I'm upset	.122	.094	.669	.164	.200
Peer supports my decisions	.218	.147	.669	.204	.206
I think I am important to a peer	.328	.149	.641	.157	.114
Peer praises me when I've done something well	.191	.179	.601	.153	.250
Peer who I can trust to keep a secret	.280	.161	.601	.111	.103
I enjoy spending time with a peer	.303	.107	.596	.079	.020
Peer shows me affection (hugs, pats on back)	.015	.167	.560	.238	.213
Peer who will lend me money if I need it	.001	.192	.539	.153	.179
Peer calls me just to see how I am doing	.046	.150	.527	.149	.169
Peer buys me things	.004	.162	.473	.218	.098
Peer explains things I don't understand	.161	.092	.432	.090	.134
Adult helps me feel good about myself	.306	.120	.233	.662	.302
Adult comforts me when I'm upset	.317	.124	.244	.649	.242

Adult cares about my feelings	.322	.117	.279	.642	.170
Adult spends time with me when I need it	.203	.153	.116	.631	.328
Adult in my life who I can count on	.352	.038	.185	.627	.181
Adult shows me affection	.257	.136	.228	.609	.260
Adult listens when I want to talk	.336	.155	.214	.595	.179
Adult gives me good advice	.405	.123	.212	.593	.261
Adult who understands me	.426	.132	.161	.581	.177
Adult treats me like a person who really matters	.380	.074	.260	.581	.175
I have an adult who really cares about me	.397	-.007	.146	.564	.173
Adult helps me when I need it	.375	.143	.260	.561	.278
Adult who gets me what I need	.171	.118	.234	.558	.295
Adult encourages me	.467	.099	.192	.525	.105
Adult shows me how to do things	.378	.159	.239	.521	.214
Adult treats me fairly	.442	.126	.215	.513	.244
Adult explains things I don't understand	.319	.186	.199	.501	.276
Adult will take care of me if my parents can't	.195	.111	.218	.480	.187
Adult will offer me a place to stay for awhile	.073	.170	.243	.476	.182
Adult teaches me about teamwork or leadership	.323	.167	.225	.408	.234
Have an adult I can trust to keep a secret	.361	.136	.130	.366	.180
An adult helps me with my schoolwork	.251	.248	.172	.269	.173
Relative comforts me when I am upset	.310	.140	.130	.303	.676
Relative helps me when I need it	.326	.059	.210	.234	.624
Relative helps take care of things I can't do alone	.258	.201	.257	.220	.611
Relative explains things I don't understand	.180	.180	.222	.288	.594

Relative is there when I need them	.340	.098	.248	.266	.594
Relative helps me cope with my problems	.270	.173	.238	.262	.579
Relative listens when I want to talk	.367	.189	.224	.184	.561
Relative who gives me good advice	.268	.161	.126	.150	.560
Relative who shows me affection	.338	.060	.178	.161	.554
I have a relative who shows me how to do things	.343	.139	.135	.220	.553
Relative who encourages me	.368	.155	.194	.242	.544
Relative who helps me feel good about myself	.405	.070	.250	.168	.535
Relative cares about my feelings	.393	.098	.262	.240	.533
Relative who understands me	.419	.045	.205	.321	.507
Relative helps me when I'm sick or injured	.279	.078	.136	.225	.504
Relative makes sure I have what I need	.357	.092	.198	.293	.483
I enjoy spending time with a relative	.444	.126	.197	.165	.478
Relative will let me borrow money if I need it	.135	.208	.275	.144	.470
Relative takes me to my activities	.033	.132	.140	.312	.435
Relative praises me when I've done something well	.413	.162	.228	.205	.416
Eigenvalue	15.52	12.44	11.74	10.07	9.07
% Variance	14.37	11.52	10.87	9.32	8.40

APPENDIX M

ITEMS CONSIDERED FOR REMOVAL BASED ON ELIMINATION CRITERIA

Item Means >2.50 (>2.75 for parent items)

A parent takes care of me when I am sick or injured
I have a relative who cares about my feelings
A relative accepts me for who I am
An adult accepts me for who I am
I have an adult who really cares about me +
An adult treats me like a person who really matters
I enjoy spending time with a peer
I have a peer I can count on +
I have a peer I can talk to +

Inadequate Factor Loadings (<.50 or loading to noncorresponding factor)

An adult accepts me for who I am *
A parent takes me to activities
An adult praises me when I've done something well
An adult supports my decisions
A relative accepts me for who I am *
I have a parent who listens when I want to talk
A peer buys me things
A peer explains things I don't understand
I have an adult who will take care of me if my parents can't
I have an adult who will offer me a place to stay for a while
An adult teaches me about teamwork or leadership
I have an adult I can trust to keep a secret
An adult helps me with my schoolwork

*Item meet more than one elimination criterion

+Retained items

APPENDIX N

FINAL LIST OF ELIMINATED ITEMS LISTED BY SUBSCALE

	RELATIVE
8.	I have a relative who shows me affection.
12.	A relative helps me when I am sick or injured.
28.	A relative cares about my feelings
35.	A relative will let me borrow money if I need it.
37.	I enjoy spending time with a relative.
42.	I have a relative who understands me.
47.	A relative makes sure I have what I need.
67.	A relative takes me to my activities.
76.	A relative accepts me for who I am.
92.	A relative praises me when I've done something well.
108.	I have a relative who encourages me.
	SIBLING
11.	A sibling praises me when I've done something well.
44.	I have a sibling who understands me.
45.	A sibling encourages me.
58.	I have a sibling who I can talk to.
63.	A sibling gives me good advice.
91.	I have a sibling who buys me things.
98.	I have a sibling I can count on.
107.	A sibling helps me feel good about myself.
	FRIEND
3.	I have a friend who explains things I don't understand.
21.	A friend gives me affection (hugs, pats me on the back).
23.	A friend helps me feel good about myself.
24.	A friend calls me just to see how I am doing.
40.	I enjoy spending time with a friend.
48.	I have a friend I can trust to keep a secret.
52.	I think I am important to a friend.
77.	A friend buys me things.
94.	I have a friend who understands me.
96.	I have a friend who will lend me money if I need it.
99.	A friend praises me when I've done something well.
	ADULT
4.	I have an adult in my life who I can trust to keep a secret.
9.	An adult accepts me for who I am.
16.	An adult teaches me about teamwork or leadership.
18.	An adult helps me with my schoolwork.
20.	An adult encourages me.
26.	An adult supports my decisions.

53.	An adult praises me when I've done something well.
64.	I have an adult who understands me.
65.	An adult treats me like a person who really matters.
71.	An adult treats me fairly.
74.	I have an adult who explains things I don't understand.
78.	An adult listens when I want to talk.
80.	I have an adult in my life who gets me what I need.
84.	An adult will offer me a place to stay for awhile.
106.	An adult will take care of me if my parents can't.
	PARENT
6.	I enjoy spending time with my parent.
10.	I have a parent who supports my choices.
13.	I have a parent who accepts me for who I am.
19.	A parent takes me to my activities.
22.	A parent comforts me when I am upset.
30.	A parent takes care of me when I am sick or injured.
38.	I have a parent who explains things I do not understand.
46.	I have a parent who I can trust to keep a secret.
55.	A parent praises me when I do something well.
56.	I have a parent who understands me.
60.	A parent gives me good advice.
72.	A parent takes care of things when I cannot do it alone.
95.	A parent helps me cope with my problems.

APPENDIX O

ITEMS BY SUBSCALE

PARENT

A parent shows me affection.
A parent makes sure I have what I need. *
A parent helps me feel good about myself.
I have a parent who encourages me.
I have a parent who treats me fairly.
A parent helps me when I need it. *
A parent shows me how to do things. *
I have a parent that I can count on.
A parent cares about my feelings.
A parent listens when I want to talk.

RELATIVE

I have a relative who gives me good advice. *
A relative helps me feel good about myself.
A relative is there when I need them.
I have a relative who shows me how to do things. *
A relative helps me when I need it. *
A relative explains things I don't understand. *
A relative comforts me when I am upset.
A relative listens when I want to talk.
A relative helps take care of things I can't do alone. *
A relative helps me cope with my problems.

ADULT

I have an adult in my life who really cares about me.
An adult comforts me when I am upset.
An adult spends time with me when I need it.
I have an adult in my life who I can really count on.
An adult shows me how to do things. *
An adult helps me when I need it. *
An adult helps me feel good about myself.
An adult gives me good advice. *
An adult shows me affection.
An adult cares about my feelings.

SIBLING

I enjoy spending time with a sibling.
I have a sibling who treats me fairly.
A sibling helps me when I need it.
A sibling will let me borrow money if needed. *
A sibling comforts me when I am upset.
I have a sibling who supports my decisions.
A sibling gives me affection.
I have a sibling who cares about me.
I have a sibling I can trust to keep a secret.
A sibling accepts me for who I am.

PEER

A peer comforts me when I am upset.
A peer cares about me and makes me feel wanted.
A peer gives me good advice. *
A peer accepts me for who I am.
A peer supports my decisions.
I have a peer I can count on.
A peer encourages me.
I have a peer who understands me.
I have a peer who will lend me money if I need it. *
A peer praises me when I've done something well.

* Indicates items also on the Instrumental/Informational Support subscale.

APPENDIX P

50-ITEM SOCIAL SUPPORT QUESTIONNAIRE FOR CHILDREN

PARENT: An adult who lives with you and takes care of you most of the time (ex. mom, dad, grandparent, step-parent).

RELATIVE: An **ADULT** who is related to you by blood or marriage, someone other than a parent.

ADULT: Refers to a teacher, coach, religious leader, club leader, neighbor, close family friend or other person **over the age of 18 who you do not live with, and you are not related to.**

PEER: Anyone around your age who you associate with such as a friend, classmate, or teammate.

SIBLING: A full (biological), half, or step-brother or sister.

SOCIAL SUPPORT: Emotional Comfort and assistance given to us by another person that lets us know we are cared for and valued.

Directions: Please read each item and rate how often each statement is true. *For sibling items only, if you DO NOT have a sibling select the "N/A" (not applicable) option.*

		Never or Rarely True	Sometimes True	Often or Very True	Always True	Not Applicable
1.	I have a relative who gives me good advice.	0	1	2	3	
2.	I enjoy spending time with a sibling.	0	1	2	3	N/A
3.	I have a sibling who treats me fairly.	0	1	2	3	N/A
4.	A relative helps me feel good about myself.	0	1	2	3	
5.	A peer comforts me when I am upset.	0	1	2	3	
6.	A peer cares about me and makes me feel wanted.	0	1	2	3	
7.	A sibling helps me when I need it.	0	1	2	3	N/A
8.	A parent shows me affection.	0	1	2	3	
9.	A relative is there when I need them.	0	1	2	3	
10.	A peer gives me good advice.	0	1	2	3	
11.	I have a relative who shows me how to do things.	0	1	2	3	
12.	I have an adult in my life who really cares about me.	0	1	2	3	
13.	A sibling will let me borrow money if needed.	0	1	2	3	N/A
14.	A peer accepts me for who I am.	0	1	2	3	
15.	A parent makes sure I have what I need.	0	1	2	3	
16.	A peer supports my decisions.	0	1	2	3	
17.	A relative helps me when I need it.	0	1	2	3	
18.	I have a peer I can count on.	0	1	2	3	
19.	A peer encourages me.	0	1	2	3	
20.	A sibling comforts me when I am upset.	0	1	2	3	N/A
21.	A parent helps me feel good about myself.	0	1	2	3	
22.	I have a parent who encourages me.	0	1	2	3	
23.	I have a parent who treats me fairly.	0	1	2	3	
24.	A parent helps me when I need it.	0	1	2	3	
25.	A relative explains things I don't understand.	0	1	2	3	
26.	I have a sibling who supports my decisions.	0	1	2	3	N/A
27.	An adult comforts me when I am upset.	0	1	2	3	
28.	An adult spends time with me when I need it.	0	1	2	3	

PARENT: An adult who lives with you and takes care of you most of the time (ex. mom, dad, grandparent, step-parent).

RELATIVE: An **ADULT** who is related to you by blood or marriage, someone other than a parent.

ADULT: Refers to a teacher, coach, religious leader, club leader, neighbor, close family friend or other person **over the age of 18 who you do not live with, and you are not related to.**

PEER: Anyone around your age who you associate with such as a friend, classmate, or teammate.

SIBLING: A full (biological), half, or step-brother or sister.

SOCIAL SUPPORT: Emotional Comfort and assistance given to us by another person that lets us know we are cared for and valued.

Directions: Please read each item and rate how often each statement is true. *For sibling items only, if you DO NOT have a sibling select the "N/A" (not applicable) option.*

		Never or Rarely True	Sometimes True	Often or Very True	Always True	Not Applicable
29.	A relative comforts me when I am upset.	0	1	2	3	
30.	A parent shows me how to do things.	0	1	2	3	
31.	I have an adult in my life who I can really count on.	0	1	2	3	
32.	I have a parent that I can count on.	0	1	2	3	
33.	A sibling gives me affection.	0	1	2	3	N/A
34.	A parent cares about my feelings.	0	1	2	3	
35.	A relative listens when I want to talk.	0	1	2	3	
36.	A parent listens when I want to talk.	0	1	2	3	
37.	An adult shows me how to do things.	0	1	2	3	
38.	I have a sibling who cares about me.	0	1	2	3	N/A
39.	A relative helps take care of things I can't do alone.	0	1	2	3	
40.	An adult helps me when I need it.	0	1	2	3	
41.	An adult helps me feel good about myself.	0	1	2	3	
42.	I have a peer who understands me.	0	1	2	3	
43.	I have a peer who will lend me money if I need it.	0	1	2	3	
44.	A peer praises me when I've done something well.	0	1	2	3	
45.	I have a sibling I can trust to keep a secret.	0	1	2	3	N/A
46.	An adult gives me good advice.	0	1	2	3	
47.	A sibling accepts me for who I am.	0	1	2	3	N/A
48.	An adult shows me affection.	0	1	2	3	
49.	A relative helps me cope with my problems.	0	1	2	3	
50.	An adult cares about my feelings.	0	1	2	3	

APPENDIX Q

DEMOGRAPHIC CHARACTERISTICS OF PHASE 3 VALIDATION SAMPLES

	<u>Frequency</u>	<u>Percentage</u>
<hr/>		
Sample A: East Baton Rouge Area Participants (n=263)		
Child Gender		
Male	84	31.9
Female	179	68.1
Child Age		
	M=13.0	
8	16	6.2
9	12	4.7
10	29	11.3
11	20	7.8
12	28	10.9
13	28	10.9
14	27	10.5
15	36	14.0
16	39	15.2
17	20	7.8
18	2	.8
Child Race		
Caucasian	142	55.3
African American	80	31.1
Hispanic	6	2.3
Asian	21	8.2
Native American	5	1.9
Other	3	1.2
Household Income		
\$0-4,999	16	6.2
\$5,000-9,999	20	7.8
\$10,000-14,999	13	5.1
\$15,000-24,999	18	7.0
\$25,000-34,999	21	8.2
\$35,000-49,999	44	17.1
\$50,000-74,999	49	19.1
\$75,000-99,999	24	9.3
\$100,000 and up	52	20.2

Sample B: New Orleans Area Participants (n=99)

Child Gender		
Male	47	47.5
Female	52	52.5
Child Age	M=14.3	
12	7	7.1
13	24	24.2
14	27	27.3
15	20	20.2
16	16	16.2
17	4	4.0
18	1	1.0
Child Race		
Caucasian	30	32.3
African American	58	62.4
Hispanic	1	1.1
Asian	3	3.2
Native American	0	0.0
Other	1	1.1
Household Income		
\$0-4,999	8	9.6
\$5,000-9,999	4	4.8
\$10,000-14,999	8	9.6
\$15,000-24,999	16	19.3
\$25,000-34,999	9	10.8
\$35,000-49,999	9	10.8
\$50,000-74,999	14	16.9
\$75,000-99,999	10	12.0
\$100,000 and up	5	6.0

VITA

Arlene Tayag Gordon was born in Houston, Texas. She earned her Bachelor of Science degree in psychology from the University of Houston in 2003. She later earned a Master of Arts degree in psychology from Houston Baptist University in 2007. She completed an American Psychological Association accredited internship in clinical psychology, with specialization in clinical child and pediatric psychology, in June 2011 at the University of Florida, Department of Clinical and Health Psychology in Gainesville, Florida. She will begin a postdoctoral fellowship at Johns Hopkins University Medical School, Division of Child and Adolescent Psychiatry in August 2011. Her primary clinical and research interests include anxiety disorders, as well as family functioning and child adjustment and coping related to medical and psychological illness or trauma.