

MEASURING PERCEIVED SOCIAL SUPPORT: DEVELOPMENT OF THE CHILD AND ADOLESCENT SOCIAL SUPPORT SCALE (CASSS)

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The measurement of students' social support has become a popular topic in education and psychology, yet measurement tools in this area are limited. In this study, we use a large, representative sample to conduct confirmatory factor, reliability, and correlational analyses of scores on the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, Elliott, & Nolten, 1999). These analyses revealed evidence of reliability, a four-factor structure (Parent, Teacher, Classmate, and Close Friend subscales), and construct validity. The results of this study indicate that the CASSS covaries as predicted with the clinically important constructs of self-concept, social skills, and behavioral indicators. There is evidence that the CASSS can be used to understand children and adolescents' perceived social support. © 2002 John Wiley & Sons, Inc.

With recent tragic events in several of the schools in the United States, the general public and news media have been placing a great emphasis on the support that our students are perceiving in schools from adults and peers. Are they supported or rejected by peers? Do adults notice when students are struggling socially or academically in school? These are questions that school personnel and support staff may find themselves asking, yet these staff are not often well-equipped with the tools needed to answer these questions. Furthermore, social support plays an important role in the lives of children, and has been linked to many positive psychological and physical outcomes (East, Hess, & Lerner, 1987; Forman, 1988; Kloмок & Cosden, 1994; Shumaker & Brownell, 1984; Uchino, Cacioppo, & Kiecolt-Glaser, 1996; Wenz-Gross & Siperstein, 1997). This study can help put appropriate measurement tools in the hands of school psychologists and educators to help answer important questions about children's and adolescents' perceptions of social support. Specifically, we present a new measure of social support titled the "Child and Adolescent Social Support Scale" (CASSS; Malecki, Demaray, Elliott, & Nolten, 1999). Further investigations of this psychosocial construct may advance our understanding of the role of social support in the lives of children and adolescents and lead to the development of effective psychological interventions for children.

SOCIAL SUPPORT: DEFINITION, THEORY, AND MEASUREMENT

A variety of definitions of social support have been proposed. Cobb's (1976) classic definition consisted of three components of social support: feeling loved, feeling valued or esteemed, and belonging to a social network. Tardy (1985) proposed a model that defined the important aspects of social support. The CASSS is based on Tardy's model of social support. Tardy's model addressed five dimensions in the conceptualization of social support: direction, disposition, description/evaluation, content, and network. In this model, *direction* refers to whether social support is being given or received. There are two dimensions to *disposition*: availability (what support someone has access to) or enacted (what support someone has utilized). *Description/evaluation* refers to whether an evaluation of an individual's social support or simply a description

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of that social support was elicited. There are four types of *content* in this model of social support: emotional, instrumental, informational, and/or appraisal. Emotional support consists of emotional supports, such as, trust, love, and empathy. Instrumental support includes resources such as money and time. Informational support is information or advice provided on a particular area, and appraisal support is evaluative feedback to individuals. The last dimension in Tardy's model is *network*, the source(s) or the member(s) of an individual's support network.

Many researchers, when discussing social support, seem to focus on the emotional aspect of social support and leave out Tardy's other types or content of support (instrumental, informational, and appraisal). Our definition of social support is closely tied to Tardy's model and is broadly construed. We view social support as an individual's perceptions of general support or specific supportive behaviors (available or enacted upon) from people in their social network, which enhances their functioning and/or may buffer them from adverse outcomes. General support or specific supportive behaviors are broadly defined and include emotional, instrumental, informational, and appraisal support.

Many investigators have examined children's social support. Perceived social support has been found to be related to more positive outcomes for children of divorce (Cowen, Pedro-Carroll, & Gillis, 1990), children with learning disabilities (Forman, 1988; Kloomok & Cosden, 1994; Rothman & Cosden, 1995; Wenz-Gross & Siperstein, 1997), high-risk or disadvantaged children (Cauce, Felner, & Primavera, 1982; VanTassel-Baska, Olszewski-Kublius, & Kulieke, 1994), and gifted children (Dunn, Putallaz, Sheppard, & Lindstrom, 1987). Also, researchers have reported that children and adolescents with high perceived levels of social support often have been found to have fewer adjustment problems (Compas, Slavin, Wagner, & Vannatta, 1986; East, Hess, & Lerner, 1987; Hirsch, 1985; Hoffman, Ushpiz, & Levy-Shift, 1988).

Although researchers often investigate factors that place children at risk for developing cognitive, emotional, and behavioral difficulties, there has been increasing interest in the protective factors that promote resiliency in children (Brooks, 1994). Many of the factors that promote resilience are closely tied to social support in children's lives. For example, researchers have identified a significant supportive adult (e.g., a teacher) in the child's life or an emotionally supportive parent (Brooks, 1994) as buffers for vulnerable children (Rak & Patterson, 1996). Thus, it seems important for practitioners and researchers to have tools with evidence of reliability to measure children's perceived social support.

Although many adult measures of social support have been developed, there are relatively few measures developed for children or adolescents. [See Rock, Green, Wise, & Rock (1984), Sarason, Shearin, Pierce, & Sarason (1987), and Tardy (1985) for a review of many of the adult measures of social support.] For example, two of the measures found to assess children's perceptions of social support were the Social Support Scale for Children (SSSC; Harter, 1985a) and the Student Social Support Scale (SSSS; Nolten, 1994), both with weaknesses.

The SSSC (Harter, 1985a) is a rating scale that assesses children's perceptions of social support in the form of positive regard from others. This measure uses an awkward two-choice scale that some students may find confusing to complete. Children are asked to read two statements and decide which one is more like them. For example, "Some kids don't have a teacher who helps them to do their very best BUT other kids do have a teacher who helps them to do their very best." Then, students decide if the statement is sort of true or really true for them. Another disadvantage of this measure is that it is intended for use only with children in grades three through eight.

The SSSS (Nolten, 1994) also has several limitations. First, it is a lengthy measure (i.e., 60 items) and is somewhat time-consuming (approximately 25 minutes) to administer. Second, some of the items are not appropriate for older children (e.g., "My classmates play with me at recess"). Finally, the SSSS was only intended for children in third through eighth grade, which greatly

limits the use of the measure. Based on the initial work surrounding the SSSS (Nolten, 1994) we created the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 1999).

Research Questions

To address the need for a psychometrically sound but brief measure of social support in children and adolescents (3rd through 12th grade), we modified Nolten's (1994) SSSS and created two age-appropriate versions of the Child and Adolescent Social Support Scale (Malecki et al., 1999). The current study was conducted to serve four purposes: (1) to confirm the factor structure of the CASSS, (2) to provide evidence for the reliability of the CASSS, (3) to provide data supporting the validity of the CASSS for use with children and adolescents, and (4) to conduct some exploratory analyses investigating age, gender, and race differences in CASSS scores. The methods used to address these purposes are described in the next section.

METHOD

Participants

Extant data from several studies were combined with a current sample of students. These data came from Demaray and Elliott (2001), Elliott (1997, 1999), Ousdigian (2000), and Powless (1995). Demaray and Elliott (2001) investigated perceptions of social support in males with characteristics of Attention-Deficit/Hyperactivity Disorder (ADHD) and compared children's perceptions of the social support they received to the support reportedly provided by their respective parents and teachers. Powless (1995) investigated the social support perceived by adolescents of Native American and non-Native American racial backgrounds. Elliott (1997, 1999) used the CASSS as part of two school-evaluation studies. Finally, Ousdigian (2000) examined differences in social support between students in special education versus regular education. In addition, the current data consisted of 280 sixth- through eighth-grade students from a middle school in Illinois.

This study utilized data from a total of 1110 students in grades 3 through 12 from schools in Massachusetts, Wisconsin, Minnesota, Illinois, and Nebraska. The distribution of students across grades was 14% 3rd graders, 8% 4th graders, 3% 5th graders, 40% 6th graders, 9% 7th graders, 13% 8th graders, 7% 10th graders, and 7% 12th graders. There were 353 students from elementary schools and 757 students from middle or high schools. The sample was 51% male and 49% female. Finally, 62% of the sample was White (690 students) with the remaining 357 students being of minority status (with 63 students with unreported racial status).

Disability status was available for 48% of the overall sample. The sample from the elementary schools included 35% of the students with an identified disability (including ADHD) and 61% without a disability (4% missing data). Two of the data sets in the elementary sample targeted students with disabilities (e.g., special education students and students with ADHD), which inflates the percentage of students with disabilities. The middle and high school sample contained 22 (3%) students with disabilities and 171 (23%) without disabilities. There was a large percentage (74%) of missing data in the middle and high school sample, however, the studies that did not have disability status available collected data in a school-wide sample selection procedure. That is, no specific populations were targeted. Thus, it is assumed that the percentage of students with disabilities in the middle and high school sample is not over-represented. See Table 1 for more specific information on participant characteristics.

Materials

The primary instruments used to collect data were the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 1999), the Social Skills Rating System (SSRS; Gresham & Elliott,

Table 1
Participant Characteristics

| | Level 1 Grades 3–6 | Level 2 Grades 6–12 | Total Grades 3–12 |
|--------------------------|-----------------------|------------------------|----------------------|
| | <i>N</i> | <i>N</i> | <i>N</i> |
| | 353 | 757 | 1110 |
| Ethnicity | | | |
| White | 234 (66%) | 456 (60%) | 690 (62%) |
| Hispanic | 65 (19%) | 33 (4%) | 98 (9%) |
| Native American | 2 (.5%) | 148 (20%) | 150 (14%) |
| African American | 42 (12%) | 16 (2%) | 58 (5%) |
| Asian | 8 (2%) | 27 (4%) | 35 (3%) |
| Other | 2 (.5%) | 14 (2%) | 16 (1%) |
| Missing | 0 | 63 (8%) | 63 (6%) |
| Sex | | | |
| Male | 222 (63%) | 348 (46%) | 570 (51%) |
| Female | 131 (37%) | 409 (54%) | 540 (49%) |
| Disability | | | |
| Identified disability | 123 (35%) | 22 (3%) | 145 (13%) |
| No identified disability | 216 (61%) | 171 (23%) | 387 (35%) |
| Missing information | 14 (4%) | 564 (74%) | 579 (52%) |

1990), the Student Self-Concept Scale (SSCS; Gresham, Elliott, & Evans-Fernandez, 1993), the Social Support Scale for Children (SSSC; Harter, 1985a), and the Behavioral Assessment System for Children (BASC; Reynolds & Kamphaus, 1998).

Child and Adolescent Social Support Scale. Social support was assessed with the Child and Adolescent Social Support Scale (CASSS; Malecki et al., 1999). The CASSS is a 40-item multi-dimensional scale measuring perceived social support from four sources: parents, teachers, classmates, and friends. It requires students to respond to statements such as, “My parent(s) help me make decisions.” Students respond by rating each item on two aspects: frequency and importance. The confirmatory factor analyses (CFA) that we report in the current study were only based on the frequency ratings. The importance ratings are intended primarily for clinical interpretation of students’ responses on the CASSS.

Frequency ratings consist of a 6-point Likert Scale from 1 (Never) to 6 (Always). Importance ratings consist of a 3-point Likert Scale ranging from 1 (Not Important) to 3 (Very Important). Each subscale corresponds to one of the sources of support (e.g., parent, teacher, classmate, and close friend) and consists of 10 items. Subscale scores are calculated by summing the frequency ratings on the 10 items on each subscale (Parent, Teacher, Classmate, and Close Friend). In addition, a total frequency score can be calculated by summing all four frequency-ratings’ subscale scores. Subscale and total importance scale scores can be computed using the importance ratings but are intended only for use in clinical interpretation. Importance subscale and total scores are not examined in this study and no item level-importance ratings were used in analyses regarding the underlying factor structure of the CASSS.

There are two versions of the CASSS. Level 1 is appropriate for use with children from 3rd to 6th grade in elementary schools and Level 2 is appropriate for use with children from 6th to 12th grade in middle or high schools. There is about 80%-item overlap (question stems exactly the

same) on the two versions. Eight of the ten items overlap on the Parent, Teacher, and Classmate subscales, and five of the ten items overlap on the Close-Friend subscale. However, the scales are treated as distinct measures with 40 items on Level 1 and 40 items on Level 2.

Social Skills Rating System. The Social Skills Rating System (SSRS; Gresham & Elliott, 1990) is a multirater, norm-referenced social behavior scale standardized on over 4000 students, ages 3 to 18, from 19 states. The present study used the student (elementary and secondary), teacher, and parent versions (elementary and secondary) of the SSRS. All the measures include a Social Skills Scale consisting of subscales corresponding to Cooperation, Assertion, Self-Control, and Empathy. For this scale, behaviors are rated on two aspects: frequency and importance for teachers and parents, but just frequency for students. Only the frequency ratings were used in this study. The teacher and parent versions also include a Behavior Problems Scale with three subscales: Internalizing and Externalizing Problem Behaviors and Hyperactivity. Finally, the teacher version includes a 9-item Academic Competence Scale.

Reliability evidence for scores obtained on the SSRS include internal consistency coefficients (coefficient alpha = .83–.94), 4-week test–retest stability ($r = .52-.66$), and interrater agreement (teacher–student $r = .41$, parent–student $r = .36$). Evidence for the criterion-related and construct validity of SSRS scores include correlations between the SSRS (Teacher, Parent, and Student versions) and the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1987) ranging from .30 to .81. In a recent review of social skills rating scales, the SSRS was concluded to be the most comprehensive measure with scores revealing evidence of strong overall reliability and validity for its designed purposes (Demaray et al., 1995). See the SSRS manual for more specific details (Gresham & Elliott, 1990).

Student Self-Concept Scale. The Student Self-Concept Scale (SSCS; Gresham et al., 1993) is a 72-item, multidimensional, norm-referenced, self-report measure of self-concept in children. The SSCS was costandardized with the SSRS. It can be used with children in grades 3 through 12 with two levels. Level one is for grades 3 through 6 and level two is for grades 7 through 12. Children rate behaviors on three aspects: Self-Confidence (level of confidence in ability to perform the behavior or hold a specific cultural attribute), Importance (importance the student places on the behavior or the attribute), and Outcome Confidence (confidence that performing the behavior or holding the attribute will have a positive outcome). It provides a total score (for Self-Confidence and Outcome Confidence) and three subscale scores: Self-Image, Academic, and Social (for all three aspects rated: Self-Confidence, Importance, and Outcome Confidence). Both of the confidence ratings are on a 3-point rating scale: Not At All (0), Not Sure (1), or Confident (2). The importance ratings also are on a 3-point rating scale: Not Important (0), Important (1), and Critical (2).

Across all elementary and secondary students in the normative sample, coefficient alphas ranged from .89 to .92 for Self-Confidence composite from .79 to .82 for Outcome Confidence composite ratings. Normative sample test–retest reliability evidence, across a 4-week period, ranged from .63 to .72 for the elementary students, and .74 to .84 for the secondary school students. The evidence for content validity stems from item development based on experts' nominations. Evidence for criterion-related validity has been demonstrated through correlations between the SSSC Self-Confidence composite score and subscales of the SSRS (Gresham & Elliott, 1990) ranging from .37 to .48. The correlation between the SSSC Self-Confidence composite score and the Total Problem score on the CBCL (Achenbach & Edelbrock, 1987) was $-.60$. Finally, the correlation between the SSSC Self-Confidence composite score and the Total score on the Piers-Harris Children's Self-Concept Scale (PH; Piers, 1984) was .39. See Gresham, Elliott, & Evans-Fernandez (1993) for further details.

Social Support Scale for Children. The Social Support Scale for Children (SSSC; Harter, 1985a) is a 24-item rating scale that assesses children's perceptions of social support via four subscales that correspond to the sources of support (i.e., Parent, Teacher, Classmate, and Friend). Children are asked to read two statements and decide which one is more like them. For example, "Some kids have parents who don't really understand them BUT other kids have parents who really do understand them." Then, students decide if the statement is "sort of true" or "really true of them." The main construct Harter purports to measure in the SSSC is social support in the form of positive regard from others. The SSSC, one of only a few measures of social support for children and adolescents, was used in this study as a comparison to our measure of social support.

Internal consistency reliabilities for two samples on the SSSC ranged from .72 to .82 across the subscales for elementary age children and from .74 to .88 for middle school children. Evidence of validity was provided by correlations ranging from .35 to .49 between the SSSC subscales and the total score on the Self-Perception Profile for Children (Harter, 1985b) and by low to moderate correlations between the subscales ($r = .27$ to $.57$). See Harter (1985a) for further details.

The Behavioral Assessment System for Children (BASC; Reynolds & Kamphaus, 1998) is a multimethod, multidimensional, broad-band scale used to assess children's externalizing problems, internalizing problems, and adaptive skills. The present study used the BASC Parent Rating Scale which evaluates participants' adaptive and problems behaviors in home and community settings (Reynolds & Kamphaus, 1998). The BASC rating scale contains descriptors of behavior that the respondent rates on a 4-point frequency scale ranging from "Never" to "Almost Always."

The BASC Externalizing Composite is composed of the Aggression, Hyperactivity, and Conduct Problems subscales. The Internalizing Composite is composed of the Anxiety, Depression, and Somatization subscales. The Adaptive Skills Composite measures positive behaviors and is composed of the Adaptability, Leadership, and Social Skills subscales. Finally, the Behavioral Symptoms Index is a score intended to reflect overall levels of problem behavior. It includes the following subscales: Aggression, Hyperactivity, Anxiety, Depression, Attention Problems, and Atypicality. The current study utilized both the child and adolescent versions of the BASC parent rating scale.

Internal consistencies of the BASC (Parent Rating Scales) are high with composite scores ranging from .89 to .94 for the child version and from .91 to .94 for the adolescent version. Test-Retest reliability (2 to 8 weeks) was evidenced by median correlations of .88 (child) and .70 (adolescent) for the scales and composite correlations in the low .90s (child) and low .70s (adolescent). Interrater agreement between both parents ranged from .53 to .76 and from .66 to .71 on the composite scores for the child and adolescent levels, respectively. Validity evidence was provided by the factor structure of the scales and correlations with other measures. For example, correlations with the CBCL (Achenbach & Edelbrock, 1987) were .84 and .71 (externalizing composites), .67 and .74 (internalizing composites), .81 and .76 (total problem behaviors) for the child and adolescent levels, respectively. For more detailed information on the standardization sample and the psychometric qualities of the BASC see the BASC Manual (Reynolds & Kamphaus, 1998).

Procedure

In the studies investigating social support for known groups (Demaray & Elliott, 2001; Ousdigian, 2000; Powless, 1995), participants in the known groups were targeted for inclusion in the study and control group participants were randomly recruited for participation. For the remaining data sets (Elliott, 1997, 1999) and the current data set student participation was recruited schoolwide. Consent letters were sent out to either parents of targeted students or to parents of

every student in the participating schools and only those students whose parents gave signed consent were included in the studies. Most participants completed the rating scales in large groups.

Confirming the factor structure of the CASSS. Based on Nolten's (1994) Student Social Support Scale (SSSS), two versions of the CASSS were created: Level 1 for use with 3rd through 6th graders in elementary school and Level 2 for use with 6th through 12th graders in middle or high school. Because two studies (Malecki & Elliott, 1999; Nolten, 1994) conducting exploratory factor analyses on the SSSS revealed a solid four-factor structure corresponding to Parent, Teacher, Classmate, and Close Friend subscales, the factor structure of the very similar CASSS was to be confirmed with confirmatory factor analyses (CFA). Confirmatory factor analyses has been recommended over the use of exploratory factor analysis as it provides a more rigorous method of examining construct validity by enabling comparisons of alternative a priori theoretical models (Kline, 1998).

Six competing models were investigated, each representing different hypotheses about the underlying factor structure of responses to the CASSS frequency items: The first model we tested was our hypothesized Source-Based model (Source-Based) with four factors corresponding to social support available from parents, teachers, classmates and a close friend (each latent variable was represented by 10 items). Two other plausible models are based on the idea that children may not distinguish between the social support that is available from various adult or peer sources. To test this possibility, our second model (Adult Three-Factor model) collapses the teachers and parents factors into an Adults factor. Similarly, our third model (Peer Three-Factor model) collapses the classmates and close friend factors into a Peers factor. Fourth, to test the hypothesis that children may only distinguish the type of support that is available to them, we tested a four-factor structure (Type-Based model) based on Tardy's (1985) model of social support. To specify this model, each CASSS item was categorized (by the authors) according to the type of support that it best represented—emotional (14 items), instrumental (10 items), informational (10 items), or appraisal (6 items). We also examined whether a single latent factor (Single Factor) provides a more parsimonious means of modeling the item intercorrelations (Hoyle, 1995). Finally, we examined an additional model (Hierarchical) that tests whether the correlations among the four proposed factors can be modeled as a single hierarchical factor. The reader should note that the Adult Three-Factor, Peer Three-Factor, Single Factor, and Hierarchical models are all nested within the Source-Based model (i.e., they can all be specified by constraining parameters in the Source-Based model). The Type-Based model, however, provides a different assignment of items to factors and, therefore, is not nested within the Source-Based model.

To estimate these six competing models we used LISREL 8.3 (Joreskog & Sorbom, 1993). Analyses were conducted separately for Level 1 and Level 2 data using the item covariance matrices with parameters estimated using the maximum likelihood-fitting function. Maximum likelihood performs well under a variety of less-than-optimal conditions, such as with small sample sizes or non-normal data (Hoyle & Panter, 1995). In each analysis, latent constructs were scaled by fixing their variance (to 1.0) and were allowed to fully intercorrelate.

Consistent with current practice, we evaluated the fits of alternative models using multiple fit indices. Each of these indices assesses how well a model-implied covariance matrix matches the actual sample covariance matrix. Given our large sample and the fact that the χ^2 is a direct function of sample size, large χ^2 values are to be expected even when a model provides an acceptable fit. Consequently, in addition to the χ^2 and the χ^2/df , we also included two indices that have performed well in recent data simulation studies and are relatively unaffected by sample size (Hu & Bentler, 1995; Marsh, Balla, & Hau, 1996): the non-normed fit index (NNFI; Tucker & Lewis, 1973) and the comparative fit index (CFI; Bentler, 1990). These incremental fit indices compare

the fit of the estimated model relative to the null or independence model. Values of the NNFI and CFI that are greater than .90 indicate that a factor structure adequately models the item covariances (Byrne, 1998; Kline, 1998). In addition, Steiger's (1990) Root Mean Square Error of Approximation (RMSEA) was used as a direct indicator of model fit that measures a model's discrepancy (as indicated by the fit function) per degree of freedom. Kline (1998) suggests that the RMSEA should not exceed .08, although values less than .05 are preferred (Browne & Cudek, 1993). An added advantage of the RMSEA is that LISREL8 provides a confidence interval that can be used to compare the relative fits of non-nested models.

Reliability of the CASSS. It was predicted that students' scores on the CASSS (Levels 1 and 2) would provide evidence of strong internal consistency reliability (Cronbach's alphas). In addition, test-retest data was collected on a subsample of 85 students that took the CASSS (Level 2) a second time after 8 weeks had passed.

Validity evidence for the CASSS. It was predicted that evidence of convergent validity would emerge with students' CASSS scores correlating moderately to strongly ($r = .30$ to $.50$) with scores on the SSSC (Harter, 1985a), another measure of social support. We also predicted moderate-to-strong correlations between students' CASSS scores and scores on the SSRS (Gresham & Elliott, 1990), the SSCS (Gresham, Elliott, & Evans-Fernandez, 1993), and the BASC (Reynolds & Kamphaus, 1998), which would provide additional construct validity evidence. We predicted that positive constructs (e.g., social skills, self-concept, academic competence, and adaptive skills) would yield positive correlations with CASSS scores and internalizing (depression, anxiety) and externalizing (problem behaviors, hyperactivity) behaviors would yield negative correlations with CASSS scores. These predictions were tested via correlational analyses on two data sets.

Exploratory analyses. We also explored age, gender, and race differences in the functioning of the CASSS scores by examining descriptive data and by computing exploratory analyses of variance.

RESULTS

For means and standard deviations of the CASSS subscales and total scale (Level 1 and Level 2) and other measures used in the study (e.g., SSRS, SSCS, SSSC, and BASC) and correlations between the CASSS and these measures see Table 2.

Confirming the Factor Structure of the CASSS

As illustrated in Table 3, the Source-Based model (Parent, Teacher, Classmate, and Close Friend) of perceived social support provides a good fit of the data in both the Level 1 and Level 2 samples. The model should be interpreted with caution due to the large and significant χ^2 values for both samples; however, the χ^2/df , CFI, NNFI, and RMSEA all meet the accepted standards of a well-fitting model: the χ^2/df ratios are less than 3.0 (Kline, 1998), values of the CFI and NNFI are above .90, and the RMSEAs are less than .05. Construct loadings (values are reported in Table 4) are all highly significant, with t values ranging from 11.3 to 18.0 in the Level 1 data and from 17.0 to 29.4 in the Level 2 data. In addition, for each CASSS item, the corresponding latent construct (parent, teacher, close friend or classmate) explains a large percentage of its variance, ranging from 30% to 65% in the Level 1 sample and from 35% to 72% in the Level 2 sample. Finally, some evidence for the discriminant validity of these constructs can be gleaned from their intercorrelations (see Table 5), which range from .23 to .58 for Level 1 and from .35 to .57 for Level 2.

Results for three of the nested models we tested indicate uniformly poorer fits when compared to the Source-Based model (see Table 3). First, consistent with the construct intercorrela-

Table 2
Intercorrelations and Means

| | | CASSS | | | | | Level 1 | Level 2 |
|---------------------|------------------------|--------|---------|-----------|--------------|--------|-----------------------------------|-----------------------------------|
| | | Parent | Teacher | Classmate | Close Friend | Total | <i>M</i> <i>SD</i> <i>N</i> | <i>M</i> <i>SD</i> <i>N</i> |
| SSRS-T ^a | Social skills | | | | | | 102.95 | 102.72 |
| | Level 1 | .15 | .24 | .14 | .16 | .22 | 18.84 | 18.54 |
| | Level 2 | .03 | .18 | .18 | .13 | .18 | 349 | 156 |
| | Problem behaviors | | | | | | 100.03 | 94.42 |
| | Level 1 | -.18 | -.24 | -.21 | -.15 | -.26 | 15.76 | 12.86 |
| | Level 2 | .00 | -.11 | -.20 | -.08 | -.13 | 353 | 187 |
| SSRS-P ^a | Social skills | | | | | | | 102.04 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 17.59 |
| | Level 2 | .31 | .30 | .38 | .25 | .40 | | 81 |
| | Problem behaviors | | | | | | | 100.60 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 13.93 |
| | Level 2 | .02 | -.05 | -.17 | .19 | .00 | | 100 |
| SSRS-S ^a | Social Skills | | | | | | 110.30 | 140.09 |
| | Level 1 | .33 | .52 | .47 | .56 | .64 | 17.78 | 17.79 |
| | Level 2 | .29 | .25 | .31 | .30 | .39 | 144 | 440 |
| SSCS ^b | Total | | | | | | 106.10 | 101.50 |
| | Level 1 | .36 | .26 | .51 | .53 | .59 | 16.68 | 16.40 |
| | Level 2 | .22 | .31 | .32 | .24 | .39 | 251 | 242 |
| Harter ^c | Total | | | | | | | 81.21 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 10.46 |
| | Level 2 | .52 | .52 | .59 | .49 | .70 | | 257 |
| BASC ^d | Externalizing | | | | | | | 50.37 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 10.69 |
| | Level 2 | -.24 | -.22 | -.34 | -.17 | -.33 | | 246 |
| | Internalizing | | | | | | | 50.74 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 11.14 |
| | Level 2 | -.20 | -.20 | -.25 | -.13 | -.26 | | 246 |
| | Behavior Symptom Index | | | | | | | 50.09 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 11.04 |
| | Level 2 | -.27 | -.23 | -.39 | -.22 | -.38 | | 246 |
| | Adaptive Skills | | | | | | | 50.84 |
| | Level 1 | NA | NA | NA | NA | NA | NA | 9.70 |
| | Level 2 | .30 | .22 | .43 | .21 | .39 | | 246 |
| <i>M</i> | Level 1 | 52.33 | 52.28 | 45.19 | 51.39 | 201.19 | — | — |
| | Level 2 | 44.90 | 43.20 | 41.33 | 48.25 | 177.69 | — | — |
| <i>SD</i> | Level 1 | 8.05 | 8.24 | 12.77 | 9.90 | 29.14 | — | — |
| | Level 2 | 9.41 | 10.34 | 11.60 | 10.59 | 31.52 | — | — |
| <i>N</i> | Level 1 | 353 | 353 | 353 | 353 | 353 | — | — |
| | Level 2 | 757 | 757 | 757 | 757 | 757 | — | — |

Notes. NA = Not available.

^aSocial Skills Rating System (Teacher, Parent, and Student Versions) (Gresham & Elliot, 1990);

^bStudent Self Concept Scale (Gresham, Elliot, & Evans-Fernandez, 1993);

^cSocial Support Scale for Children (Harter, 1985a);

^dBehavioral Assessment System for Children (Reynolds & Kamphaus, 1998).

Table 3
CFA Results for the CASSS (Level 1 and Level 2)

| Model | χ^2 | df | χ^2/df | $\Delta\chi^2$ | RMSEA | CFI | NNFI |
|-----------------------|-----------|-----|-------------|----------------|-------|------|------|
| Level 1 ($N = 353$) | | | | | | | |
| Source-based | 1366.14* | 734 | 1.86 | — | .0495 | .908 | .903 |
| Adult (3 factors) | 1989.68* | 737 | 2.70 | 623.54* | .0695 | .819 | .808 |
| Peer (3 factors) | 2248.52* | 737 | 3.05 | 881.84* | .0763 | .781 | .768 |
| Single factor | 3912.01* | 740 | 5.29 | 2545.87* | .1100 | .541 | .516 |
| Hierarchical | 1393.74* | 736 | 1.89 | 27.6* | .0504 | .905 | .900 |
| Type-based | 3869.81* | 734 | 5.27 | — | .1100 | .546 | .517 |
| Level 2 ($N = 757$) | | | | | | | |
| Source-based | 1928.02* | 734 | 2.63 | — | .0464 | .939 | .935 |
| Adult (3 factors) | 3742.62* | 737 | 5.10 | 1814.60* | .0734 | .849 | .838 |
| Peer (3 factors) | 5077.97* | 737 | 6.89 | 3149.95* | .0883 | .779 | .766 |
| Single factor | 10293.66* | 740 | 13.91 | 8365.64* | .1310 | .514 | .488 |
| Hierarchical | 1988.52* | 736 | 2.70 | 60.5* | .0474 | .936 | .932 |
| Type-based | 10120.27* | 734 | 13.79 | — | .1300 | .522 | .492 |

Notes. RMSEA: Root mean square error of approximation; CFI: Comparative fit index; NNFI: Non-normed fit index. $\Delta\chi^2$ are computed relative to the appropriate source-based model.

* $p < .001$.

tions presented above, formal tests of the Adult Three-Factor and Peer Three-Factor models clearly support our contention that children and adolescents can distinguish the social support they receive from adult sources and peer sources. That is, it appears that support from parents is perceived differently than support from teachers and support from classmates is perceived differently than support from a close friend. In fact, when combining these factors, these models produced significantly worse overall fits in both the Level 1 and Level 2 samples. Specifically, the χ^2/df ratios approach or exceed 3.0, values of the RMSEA are all above the critical value of .05, and both the CFI and NNFI are well below .90. In addition, there are marked decrements in each of these fit indices when compared with the Source-Based model; the changes in chi-square ($\Delta\chi^2$) are all highly significant and the confidence intervals surrounding the RMSEAs do not overlap. We also found no support for a Type-Based model of perceived social support in these data. For both Level 1 and Level 2, the Type-Based model provided an extremely poor overall fit that was only slightly preferable to the Single Factor model. Overall, these results provide strong support for our proposed source-based factor structure for the CASSS that distinguishes the social support that is perceived to be available from parents, teachers, close friends, and classmates.

Finally, we also tested whether a hierarchical factor could model the intercorrelations among the factors representing sources of social support (parent, teacher, classmate, and close friend). Examining the fit of this Hierarchical model provides an indication of whether researchers are justified in combining the source-based subscales to compute an overall index of social support. Results indicate that the Hierarchical model did provide an acceptable level of fit that was very similar to that the Source-Based model for both Level 1 and Level 2. Although the changes in chi-square ($\Delta\chi^2$) were significant, both the CFI and NNFI (which are less affected by sample size) were essentially unchanged when compared to the Source-Based model. More importantly, the fact that the confidence intervals of the RMSEAs for these models overlap, indicates that their fits are not significantly different. Standardized path coefficients relating the hierarchical factor to the four sources of social support were all significant ($p < .01$) and ranged from .62 to .85 for Level 1

Table 4
Construct Loadings for the CASSS (Level 1 and Level 2)

| Item #/Stem | Level 1 | Stem | Level 2 |
|--------------------------------------|---------|----------------------------------|---------|
| My parent(s) . . . | | | |
| 1. express pride in me | .598 | listen to me when I'm mad | .590 |
| 2. help me practice things | .618 | express pride in me | .672 |
| 3. make suggestions . . . | .630 | help me practice things | .623 |
| 4. help me make decisions | .652 | make suggestions . . . | .730 |
| 5. give me good advice | .669 | help me make decisions | .703 |
| 6. help me make up my mind | .580 | give me good advice | .703 |
| 7. help me find answers | .726 | help me find answers | .737 |
| 8. praise me when I do . . . | .604 | praise me when I do . . . | .700 |
| 9. politely point out my mistakes | .647 | reward me when . . . | .589 |
| 10. tell me how well I do on tasks | .624 | tell me how well I do on tasks | .713 |
| My teacher(s) . . . | | | |
| 11. listens if I'm upset . . . | .708 | cares about me | .698 |
| 12. cares about me | .703 | is fair to me | .720 |
| 13. is fair to me | .720 | understands me | .756 |
| 14. understands me | .671 | tries to answer questions | .735 |
| 15. explains things when . . . | .648 | explains things when . . . | .780 |
| 16. shows me how to . . . | .627 | gives good advice | .762 |
| 17. gives good advice | .629 | makes it okay to | .741 |
| 18. helps me when I want to . . . | .683 | helps me when I . . . | .784 |
| 19. helps me solve problems by . . . | .550 | helps me solve problems. | .749 |
| 20. praises me when I've tried . . . | .615 | praises me when I've tried . . . | .655 |
| My classmates . . . | | | |
| 21. act nice to me | .740 | ask me to join activities | .779 |
| 22. ask me to join activities | .752 | do nice things for me | .861 |
| 23. do nice things for me | .800 | spend time doing things | .839 |
| 24. spend time doing things | .780 | help me with projects . . . | .771 |
| 25. help me with projects . . . | .717 | make suggestions when . . . | .785 |
| 26. make suggestions when . . . | .725 | treat me with respect | .780 |
| 27. treat me with respect | .806 | ask me for suggestions | .686 |
| 28. tell me how to do new . . . | .716 | say nice things to me . . . | .779 |
| 29. say nice things to me . . . | .771 | notice my efforts | .756 |
| 30. give me positive attention | .750 | give me positive . . . | .849 |
| My close friend . . . | | | |
| 31. understands my feelings | .699 | understands my feelings | .813 |
| 32. makes me feel better when . . . | .683 | makes me feel better . . . | .803 |
| 33. helps me solve my . . . | .717 | spends time with me | .753 |
| 34. shows me how to do new . . . | .735 | helps me solve my . . . | .823 |
| 35. sticks up for me when . . . | .729 | spends time with me | .809 |
| 36. spends time with me when . . . | .685 | shares his or her things | .782 |
| 37. helps me when I need it | .778 | helps me when I need it | .854 |
| 38. asks if I need help | .643 | gives me advice | .767 |
| 39. tells me he or she likes . . . | .643 | explains things when . . . | .781 |
| 40. accepts me when I make . . . | .735 | calms me down when . . . | .773 |

Note. All values are significantly different from zero ($p < .001$).

Table 5
Latent Construct Intercorrelations for the CASSS (Level 1 and Level 2)

| | Parent | Teacher | Classmates | Close Friend |
|--------------|--------|---------|------------|--------------|
| Parent | — | .535 | .415 | .450 |
| Teacher | .499 | — | .366 | .345 |
| Classmates | .485 | .445 | — | .569 |
| Close Friend | .364 | .225 | .575 | — |

Note. Level 1 correlations are below the diagonal and Level 2 correlations are above the diagonal.

and from .58 to .75 for Level 2, indicating that the hierarchical factor explains a reasonable proportion of the variance in the sources of social support. Overall, these results indicate that researchers are justified in combining the four subscales into an overall measure of social support.

Reliability

Analyses provided evidence that CASSS scores can be used reliably as indicators of perceived social support in children and adolescents. Specifically, the internal consistency reliability coefficient was .94 for the Total scale in Level 1, and ranged from .87 to .93 on the four subscales. The reliability coefficient was .95 for the Total scale in Level 2, and ranged from .89 to .94 on the four subscales. See Table 6 for more specific reliability data.

Test–retest analyses were conducted on a subsample of 85 students that completed the Level 2 CASSS. Test–retest correlations at an 8-week interval revealed coefficients of .70 for the Total scale, and ranged from .60 to .76 on the subscales. Test–retest analyses were only available for this small subsample of middle school students.

Additional Construct Validity Evidence

Finally, we predicted that the CASSS would yield scores that demonstrate strong validity evidence. Evidence for the internal structure of the CASSS was confirmed with moderate to high intercorrelations among the subscales of the CASSS ($r = .20$ to $.54$ for Level 1 and $r = .32$ to $.54$ for Level 2). Total scale to subscale correlations ranged from .65 to .86 for Level 1 and .71 to .78 for Level 2.

Convergent evidence was demonstrated by scores from a subsample of middle school students completing the Level 2 CASSS. These 258 students also completed the Social Support Scale for Children (Harter, 1985a), the only other widely used social support measure. The correlation between total scale scores on the CASSS and the SSSC was .70. Correlations between the corresponding subscales on the CASSS and SSSC were as follows: Parent, .62; Teacher, .64; Classmate, .66; and Close Friend, .55. These moderate correlations suggest that the CASSS and the SSSC are measuring an extremely similar construct, namely, social support.

Relationships With Social Skills, Problem Behavior, and Self-Concept Scores

As predicted, relationships were found among CASSS scores and a variety of measures of related constructs to lend further convergent validity evidence (see Table 2).

Low-to-moderate correlations were found among the SSRS teacher-rated social skills subscale and CASSS subscales with correlations of .15, .24, .14, .16, .22 with Parent, Teacher, Classmate, Close Friend, and Total, respectively for Level 1. Level 2 correlations with teacher-rated social skills were .03, .18, .18, .13, and .18 with Parent, Teacher, Classmate, Close Friend, and

Table 6
Reliability of the CASSS

| | | Level 1 3rd–6th Grade | Level 2 6th–12th Grade |
|-------------------|----------------------|--------------------------|---------------------------|
| Coefficient alpha | | | |
| All participants | Total scale | .94 | .95 |
| | Parent | .87 | .89 |
| | Teacher | .88 | .92 |
| | Classmate | .93 | .94 |
| | Close Friend | .91 | .94 |
| Male/female | Total scale | .93/.95 | .95/.95 |
| | Parent | .85/.89 | .88/.90 |
| | Teacher | .87/.90 | .92/.93 |
| | Classmate | .92/.93 | .94/.94 |
| | Close friend | .90/.91 | .94/.93 |
| White/minority | Total scale | .94/.93 | .95/.95 |
| | Parent | .90/.81 | .89/.90 |
| | Teacher | .89/.86 | .91/.94 |
| | Classmate | .94/.92 | .94/.95 |
| | Close friend | .92/.89 | .94/.96 |
| Test–retest | Total scale | Not reported | .70 |
| | Subscales | Not reported | .60–.76 |
| Intercorrelations | Total scale/Subscale | .65–.86 | .71–.78 |
| | Subscale | .20–.54 | .32–.54 |

Total Social Support, respectively. Student-rated social skills scores showed moderate to high correlations with CASSS subscales for Level 1 ($r = .33$ to $.56$) and correlated $.64$ with the CASSS Total score. Level 2 subscale correlations with student-rated social skills ranged from $.25$ to $.31$. For Level 2, student-rated social skills correlated with the CASSS Total score $.39$. CASSS Total score correlations with the teacher-rated SSRS Problem Behavior subscale were $-.26$ for Level 1 and $-.13$ for Level 2. Parent-rated social skill scores were available for a subsample of students who completed the Level 2 CASSS. Low-to-moderate correlations were found among all CASSS subscales and the Total scale with parent-rated social skills with those correlations ranging from $.25$ to $.40$. Finally, total self-concept scores were related to social support Total scores ($r = .16$ for Level 1 and $r = .39$ for Level 2).

Relationships Between Social Support and Parent-Rated Behavioral Indicators

Correlations ranged from $-.17$ to $-.34$ among the CASSS subscales and the parent-rated BASC Externalizing Composite Score, from $-.13$ to $-.25$ with the BASC Internalizing Composite Score, from $-.22$ to $-.39$ for the BASC Composite Behavior Symptoms Index, and from $.21$ to $.43$ for the BASC Adaptive Skills Composite.

Examining Importance Ratings

Content-validity evidence for CASSS scores was confirmed with an examination of students' importance ratings. Students rated items as being Not Important (1), Important (2), and Very Important (3). These importance ratings tell the user how important it is to the student that they

perceive support for each specific item. If importance ratings were consistently low for some items or subscales, it may suggest that the items were not meaningful to students. We found that the average rating score for all items on Level 1 of the CASSS ranged from 2.49 to 2.77. On Level 2 of the CASSS, importance ratings on all items ranged from 2.04 to 2.55. The five items rated as being most important to elementary-age students were “my friend understands my feelings,” “my teacher explains things when I’m confused,” “my friend calms me down when I’m nervous about something,” “my parents help me make decisions,” and “my friend spends time with me when I’m lonely.” The five items rated as being most important to secondary-age students were “my friend spends time with me,” “my friend understands my feelings,” “my teacher explains things when I’m confused,” “my friend makes me feel better when I mess up,” and “my parents express pride in me.”

Exploratory Analyses

Age, gender, and race differences in CASSS scores were investigated by examining descriptive data and by computing exploratory multivariate analyses of variance (MANOVA). As found by Nolten (1994) and Malecki and Elliott (1999), a developmental trend was found with perceived social support scores being higher at younger ages and decreasing with age. Specifically, a MANOVA computed indicated a significant difference among the Total score and all CASSS subscale score means by grade level in Level 2 (6th through 8th grade vs. 9th through 12th grade). Using Wilks’ Lambda (.97), the multivariate F was significant ($F(4, 752) = 6.24, p < .01$). Results of follow-up univariate analyses indicated that the Parent and Teacher subscale scores were significantly higher for middle school students than for high school students, $F(1, 755) = 13.49, p < .01$ and $F(1, 755) = 11.09, p < .01$, respectively. See Table 7 for the means and standard deviations on the CASSS Total scores and subscale scores for the middle and high school students.

Table 7 also provides means and standard deviations of CASSS scores for males and females and White and minority students on Levels 1 and 2. Overall MANOVAs on both Level 1 and Level 2 data revealed that there were significant differences between males and females on the CASSS scores with Wilks’ Lambda (.94), $F(4, 348) = 5.13, p < .01$ and Wilks’ Lambda (.88), $F(4, 752) = 26.08, p < .01$, respectively. Follow-up univariate analyses revealed that significant differences were found on Total $F(1, 351) = 4.27, p < .05$ and Classmate subscales $F(1, 351) = 11.79, p < .01$ on Level 1 with females reporting more support than males in both cases. On Level 2, significant differences were found between males and females on the Classmate [$F(1, 755) = 34.93, p < .01$], Close Friend [$F(1, 755) = 89.79, p < .01$], and Total scales [$F(1, 755) = 36.80, p < .01$], again with females reporting higher perceived social support than males.

Finally, MANOVAs on Level 1 and Level 2 data revealed significant differences between students of White versus minority status with a Wilks’ Lambda (.96) $F(4, 348) = 3.34, p < .05$ and (.97), $F(4, 752) = 5.90, p < .01$, respectively. Univariate analyses revealed a significant difference on the CASSS Teacher subscale at Level 1 [$F(1, 351) = 6.52, p < .05$] with minority students reporting higher levels of teacher support than White students. On Level 2 data, univariate analyses revealed significant differences between White and minority students’ scores on Teacher [$F(1, 692) = 18.15$], Classmate [$F(1, 692) = 7.15$], Close Friend [$F(1, 692) = 6.88$], and Total scale scores [$F(1, 692) = 12.62$], all significant at $p < .01$. On this Level 2 data, White students reported higher levels of perceived support than minority students in all cases (Teacher, Classmate, Close Friend, and Total scales). No specific level analyses were done to determine if there were significant differences at the individual race level. These differences in mean scores among varying gender, age, and race variables should be explored as the CASSS is further developed. In addition, any potential differences among students of various disability status should be investigated when a more complete sample containing this information is obtained.

Table 7
Means and Standard Deviations of Children and Adolescent Social Support Scale by Grade Level, Sex, and Minority Status

| | Level 1 CASSS scores Grades 3–6 Mean (SD)/Mean (SD) | Level 2 CASSS scores Grades 6–12 Mean (SD)/Mean (SD) |
|----------------|---|--|
| Total | | |
| Middle/high | n/a | 178.80(31.79)/173.30(30.13) |
| Male/female | 198.74(28.77)/205.35(29.40) | 170.32(33.31)/183.95(28.49) |
| White/minority | 200.73(28.65)/202.11(30.19) | 180.45(29.49)/171.45(35.47) |
| Parent | | |
| Middle/high | n/a | 45.53 (9.43)/42.43 (8.92) |
| Male/female | 52.63 (7.46)/51.83 (8.97) | 44.48 (9.26)/45.27 (9.53) |
| White/minority | 52.13 (8.09)/52.71 (7.98) | 44.92 (8.89)/44.16(10.57) |
| Teacher | | |
| Middle/high | n/a | 43.83(10.40)/40.73 (9.77) |
| Male/female | 51.80 (8.14)/53.09 (8.39) | 42.65(10.61)/43.67(10.10) |
| White/minority | 51.49 (8.24)/53.84 (8.06) | 44.17 (9.26)/40.65(12.17) |
| Classmate | | |
| Middle/high | n/a | 41.30(12.01)/41.44 (9.87) |
| Male/female | 43.43(13.26)/48.18(11.31) | 38.69(11.91)/43.58(10.85) |
| White/minority | 45.75(11.86)/44.09(14.37) | 42.40(10.72)/39.93(13.02) |
| Close Friend | | |
| Middle/high | n/a | 48.14(10.72)/48.70(10.11) |
| Male/female | 50.89(10.00)/52.25 (9.71) | 44.51(11.63)/51.44 (8.41) |
| White/minority | 51.36 (9.63)/51.47(10.46) | 48.96 (9.66)/46.72(12.47) |

Note. See Table 1 for *n*'s for each group.

DISCUSSION

Developing a psychometrically sound tool to measure students' perceptions of social support was our research goal. Knowing more about students' perceptions of social support may lead to interventions to help improve the support students are receiving from significant individuals in their lives. Furthermore, learning more about the construct of social support will help us learn about the possible buffering effects that social support may have on the lives of children. A reliable and valid measure of social support may help us learn more about the role social support plays in promoting resiliency in children. A measure of social support with validity evidence is important for both research and individual intervention purposes. For example, psychologists may be able to use this tool to research the effect of supportive teachers or parents on buffering vulnerable children. In addition, the measure may allow one to gain insight into the perceptions of important support variables for an individual child. This study can help put appropriate measurement tools in the hands of school psychologists and educators to address these issues.

The results of our study provide evidence for the adoption of the Child and Adolescent Social Support Scale as an appropriate measure of perceived social support for use with children and adolescents.

First, confirmatory factor analyses on both the Level 1 and 2 samples provide strong support for the hypothesized Source-Based model of the CASSS (Parent, Teacher, Classmate, and Close Friend) and a Hierarchical model of the CASSS (a single factor with Parent, Teacher, Classmate,

and Close Friend as four underlying factors). Other models tested but rejected included examining adult versus peer source models and seeing if items would group by the type of support they were tapping (informational, emotional, instrumental, and appraisal). Thus, the Source-Based and Hierarchical models resulting in a clear four-factor structure consisting of 10 items per subscale provided the two best overall-fit statistics.

Second, the reliabilities of the CASSS Level 1 and Level 2 measures were investigated. We found strong reliability coefficients when examining Total scale scores and all subscale scores (Parent, Teacher, Classmate, and Close Friend) on both levels of the CASSS. Furthermore, test-retest data on a small sample provided evidence of reliability.

Third, convergent evidence for scores on the CASSS Levels 1 and 2 was provided with relationships found via moderate-to-high intercorrelations among the subscales of the CASSS. In addition, we predicted that some widely used measures such as the SSRS that school psychologists utilize to measure students' social functioning would be related to perceived social support. School psychologists use measures such as the SSRS and SSCS to measure how students feel or what they do while the CASSS measures how students feel about what others do to them or how others support them. As found by Demaray and Elliott (2001) and Malecki and Elliott (1999), we expected that students with strong social skills would be better able to reinforce others for being supportive. Likewise, perhaps when students feel better about themselves, the social support around them would also be increased. Moderate relationships were found among students' scores on the CASSS and students' social skills scores, problem behavior scores, self-concept scores, and other behavioral indices. In addition, the relationships were as expected, with positive correlations between CASSS scores and positive behavioral factors and negative correlations with negative behavioral factors. Thus, the more socially supported a student reports feeling, the more positive the relationship with other behavioral indicators. This finding is similar to those found by other researchers finding that children and adolescents with high perceived levels of social support often have been found to have fewer adjustment problems (Compas, Slavin, Wagner, & Vannatta, 1986; East, Hess, & Lerner, 1987; Hirsch, 1985; Hoffman, Ushpiz, & Levy-Shift, 1988).

To investigate group differences, age-, gender-, and race-related differences were also explored. This study indicated that perceived social support from parents and teachers decreased as students' grade level increased (middle school vs. high school students). Elementary level females perceived more support than males on the Total score and Classmate subscale. Middle and high school level females perceived more support than males on the Total score, and Close Friend and Classmate subscales. Finally, the diverse sample provided information about race differences. For example, minority students in elementary schools reported perceiving more support from teachers than White students. However, middle and high school minority students reported less support than White students on Teacher, Classmate, Close Friend, and Total scales. These individual and group differences should be investigated in further studies of social support and of the CASSS.

Several limitations of this study should be noted. First, inclusion of data on the known groups included in many of the studies (students with ADHD, Native American students, students with disabilities, etc.) leads to elevated numbers of participants from these groups. Regarding data on students with disabilities, the Level 1 sample contains more students with disabilities than would be found in the general population. Although previous research (Demaray & Elliott, 2001) examining the targeted population (students with ADHD) added to the evidence for the valid use of similar social support instruments with this type of sample, it would be better to have a more representative sample. Additionally, there is a lot of missing data on the disability status of the participants in the Level 2 data set. It would have been beneficial to know the disability status of all participants. Two of the extant data sets used in the Level 2 investigations did not have disability status information available. These data sets were from school-wide investigations where

no specific populations were targeted, however, we can only assume that the numbers of students with disabilities is representative. Clearly, more complete and specific information on disability status in this type of investigation could help us investigate how the CASSS functions with students of varying abilities and disabilities. Further research using the CASSS will include specific disability status on all participants.

A measure of perceived social support that is multidimensional and assesses support from multiple sources can advance understanding of the role of social support in the lives of children and adolescents. Specifically, in the school setting, the information we obtain about children's perceived social support from their parents, teachers, and classmates may enhance the development of appropriate interventions for children in need. In addition, an appropriate measure of social support will aid research in this area. We can use information about weaknesses in neighborhoods, systems, classrooms, and circles of friends in terms of supporting their young people. We could also learn from these settings that seem successful in providing appropriate levels of support to their children and adolescents.

In conclusion, the results of this study provide evidence that scores on the CASSS demonstrate evidence for reliability and construct validity evidence. In addition, scores on the CASSS co-vary as predicted with the clinically important constructs of self-concept and social skills, and can be used to understand children and adolescents' perceived social support. The results of this study provide supportive evidence for the adoption of the CASSS (Levels 1 and 2) as an appropriate measure of perceived social support for use with children and adolescents.

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