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# KNOWLEDGE GAPS AMONG SCHOOL STAFF AND THE ROLE OF HIGH QUALITY ECOLOGICAL ASSESSMENTS IN SCHOOLS

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#### **Abstract**

**Objective**—The purpose of the current study was to examine the practice validity of a new ecological assessment instrument for 3<sup>rd</sup> through 5<sup>th</sup> graders in terms of whether it provided school staff with new knowledge about students.

**Method**—Pre-assessment knowledge of school staff was compared to data obtained from 21 children and their parents on 29 measures. Data were collected using the Elementary School Success Profile (ESSP). School staff pre-assessment knowledge was compared to obtained data across seven domains of children's lives (neighborhood, school, family, peers, parent educational involvement, well-being, and home behavior), data sources (child and parent), and grade level of students.

**Results**—Pre-assessment knowledge was not highly correlated with obtained data; pre-assessment expectations matched obtained data only about 41% of the time; and knowledge varied by domain, source, and grade level.

**Conclusions**—Ecological assessments can address gaps in school staff's knowledge of targetable factors that influence the success of students.

#### Keywords

Elementary School; Assessment; School-based Practice; School Success; Evidence-Based Practice

Evidence-based practice begins with high quality assessment of the individual, group, or system receiving intervention (Gambrill, 1999; Ollendick & King, 1999; Silverman & Saavedra, 2004; Thyer, 2002). Currently, the "quality" of assessment instruments is primarily tested and reported by instrument developers in terms of statistical reliability and validity, for example, strong factor performance, internal consistency reliability, and high correlations representing criterion and construct validity. Good psychometric characteristics, however, are only one component of instrument quality. A strong and relevant theoretical foundation is another important component (DeVellis, 1991). For example, from the ecological perspective taken by social workers, adequate pre-intervention assessment requires examination of the social environment, or "social contexts" (Ollendick & King, 1999) of individuals or families.

Developmental validity, i.e., the appropriateness of items and format for the developmentally-dependent abilities of target respondents, is a third critical, but rarely reported aspect of instrument quality (Bowen, N. K., Bowen, & Woolley, 2004; Woolley, Bowen, & Bowen, 2004). In self-report instruments for children, developmental validity requires assurances that items can be read, understood, and answered by children in the targeted age range in ways that are consistent with the assumptions and expectations of the adults interpreting the results of the assessment. Developmental validity also encompasses what Ollendick and King (1999) refer to as "sensitivity" to development, or the appropriateness of different assessment procedures for children of different ages.

Developmental sensitivity in self-report instruments might include brevity and the use of a format that sustains children's interest and attention.

Finally, high quality instruments for evidence-based practice require "practice validity." For an instrument to have practice validity it must enhance practitioner knowledge of factors that are relevant to the outcomes of interest in a practice setting, and that are targetable with existing evidence-based practices. Theoretical and developmental validity are likely to enhance, but do not guarantee, the practice validity of instruments. A theoretically and developmentally sound instrument for school-based practitioners, for example, must also address knowledge gaps among school staff, assess factors that influence students' social and academic performance, and assess factors that can be targeted with existing or emerging evidence-based practices that are feasible in school settings. Statistically, theoretically, and developmentally valid instruments that do not enhance users' knowledge of relevant and targetable domains have little practical utility and could, in fact, have deleterious effects to the extent they waste practitioners' limited time and resources.

### The Need for Ecological Information in Schools

A substantial literature suggests that children's well-being and performance are a function of their experiences in the social environment (e.g., Bronfenbrenner, 1986; Sameroff, 2000). Understanding the social environment as a set of factors that influence children's behavior and performance is key to developing interventions that can improve outcomes (Holmbeck, Greenley, & Franks, 2004; Ollendick & King, 1999). This understanding is obtained through ecological assessments. Corroborating the literature on the importance of the social ecology in child development, is the high number of "evidence-based" interventions that focus on elements of the social environment, such as school climate (Hill, Howell, Hawkins, & Battin-Pearson, 1999), adult involvement and support (McDonald et al., 1997), family relationships (Rueter, Conger, & Ramisetty-Mikler, 1999), and peer systems (Olweus, Limber, & Mihalic, 1999).

Research that focuses on schools has also demonstrated that the social environment affects student performance. Parent academic involvement, for example, is negatively related to student behavior problems (Hill, et al. 2004), neighborhood risk is related to lower grades for students (Gonzales, Cauce, Friedman, & Mason, 1996), and peer relationships are related to the development of social competence (Gagnon & Nagle, 2004). For students presenting with behavior problems, a lack of academic success, or poor social skills, therefore, collecting information about the students' family, neighborhood, and peers is critical for identifying appropriate intervention targets. While it is likely that accurate social environmental information improves the ability of all school staff to interact more effectively with all students, this information is especially necessary when students present with behavioral, emotional, or academic problems that require intervention. Failing to collect ecological information may lead to a lack of awareness of relevant contributors to problems and resources available to children, and often, to inaccurate information or assumptions being used to guide interventions.

# The Elementary School Success Profile

The Elementary School Success Profile (ESSP) is an ecological assessment tool for 3rd through 5th graders. It was developed in response to requests from school-based practitioners using the School Success Profile (SSP) who asked for a version that could be used with younger students. The SSP was developed in the early 1990s by Gary L. Bowen and Jack M. Richman and has been used to assess over 30,000 middle and high school students (Bowen, G. L., Richman, & Bowen, 2002). The SSP is a self-report instrument that asks adolescents about their perceptions of their neighborhood, school, peer system, and

family, their physical and psychological well-being, and school performance. The ESSP collects data from parents and teachers in addition to students, due to limitations in the knowledge-base and reporting ability of children in middle childhood. Furthermore, the child self-report data are collected via a computer program with graphics, audio capability, and other features designed to address limitations and variations in attention spans and reading abilities in the targeted age group. Twenty developmentally appropriate dimensions of the social environment and 10 dimensions of physical and psychological well-being, behavior, and school performance are assessed. Individual and group level data are returned to the school for use by school staff in using and designing appropriate interventions to promote school success.

Four components of assessment instrument quality were posited above. The *statistical* qualities of the ESSP have been established on a preliminary basis with pilot test data revealing internal consistency reliability scores ranging from .70 to .78 for scales on the Child Form, and exceeding .80 for scales on the Parent and Teacher Forms (Bowen, N. K., et al., Bowen, & Woolley, 2004). (Further testing and development of the scales is underway and reports are pending, e.g., Bowen, submitted.) As described above, the ESSP also has a solid *theoretical* foundation. In addition, *developmental validity* of the child questionnaire has been promoted through four rounds of cognitive pretesting with children (Bowen, N. K., et al., Bowen, & Woolley, 2004; Woolley, et al., Bowen, & Bowen, 2004), and its computer format. Therefore, the current study focused on the fourth aspect of the quality of the ESSP: its *practice validity*, particularly the extent to which it enhances the knowledge of users about potential intervention targets to promote school success.

In the current study, the pre-ESSP knowledge of school staff related to 29 child- and parentreport scales on the ESSP was assessed for 21 students and compared to data collected with the ESSP from children and parents. Knowledge gaps were examined overall, and by domain, data source, and grade level. The goal was to determine if school staff need to systematically assess child and parent perceptions of the social environment, child wellbeing, and child home behavior because they do not already possess adequate knowledge of those important and targetable influences on children's school outcomes.

Our primary hypothesis was that school staff have knowledge gaps that can and should be addressed through the use of ecological assessments. We expected that teachers would have the least knowledge of child- and parent- report perceptions of the neighborhood, and the most knowledge of child-report school dimensions. We expected teachers overall to agree more with parent-report data than child-report data, except in the case of child perceptions of the school (because school staff can observe behaviors of children that are at least partially indicative of their attitudes towards teachers and school). The examination of grade level differences was exploratory. Because of the large average class size for 5<sup>th</sup> graders at the school, it was possible that teachers would have less knowledge of children in the 5<sup>th</sup> grade. On the other hand, most 5<sup>th</sup> graders have been in the school longer than other children, so teachers may know them better.

# Methods

#### Sample

The sample obtained for the study was a non-representative convenience sample selected by the Communities in Schools (CIS) coordinator in a year-round magnet school in an urban area of a southern state. The CIS coordinator sought parental consent from 32 parents of children served by the CIS mentoring program or identified by teachers as potentially "atrisk." Of the 21 students whose parents consented to take part in the study, about 40% (38.1%) of the students were boys. About two thirds (66.7%) were African American,

14.3% were Hispanic/Latino, 9.5% were White, and 9.6% were from other cultural groups. Over 80% of the sample received free or reduced price lunches at school. The students represented all three grades targeted with the ESSP: grade 3 (45%), grade 4 (30%), and grade 5 (25%).

The school in which the study took place was designated a "School of Distinction" by the state's Department of Public Instruction (DPI) for the school-year prior to the study. More than 80% of the students at Schools of Distinction are performing at or above grade level. According to publicly available DPI information, the percentage of African American students and "economically disadvantaged" students (i.e., eligible for free/reduced lunch program participation) who were performing at or above grade level at the school during the year prior to the study was higher than the district and state averages. However, this was not true for Hispanic/Latino students. The school served 1,102 kindergarten through 5<sup>th</sup> grade students in four calendar tracks. The average classroom sizes for 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> graders (22, 24, and 28 respectively) were above the state averages of 21, 21, and 22.

The sample and the school had some characteristics that could promote and others that could impede staff's acquisition of knowledge about students. The study sample contained a higher percentage of African American students (66.7% vs. 47%) and low SES (socioeconomic status) students (over 80% vs. 46%) than the school as a whole. School staff may be less familiar with children from cultural minority groups or those from low SES backgrounds. Additionally, larger class sizes and the overall size of the student body might be associated with less teacher knowledge of students. On the other hand, the favorable conditions that might accompany the academic accomplishment of the school as a whole might suggest that school staff were more knowledgeable of students' social environments than staff at other schools. In addition, parents who were willing to take part in the study may have had better relations with the school and have been better known by school staff than other parents. The combination of features suggest that the school was not likely to be at either extreme in terms of school staff knowledge of students, so the study may generally represent what elementary school staff know about students. Characteristics of the sample also suggest that it represents well the kinds of students most often receiving services from school social workers and other student service providers.

#### **Data Collection**

The examination of pre-assessment knowledge was one part of a larger study, which examined the feasibility of administering the three-part questionnaire in elementary schools. After parental consent was obtained, the ESSP was administered to students, parents, and teachers. Teachers also provided written consent to take part in the study, and children provided oral assent. While ESSP data were being collected and before any results were returned to the school, data on pre-ESSP knowledge about child- and parent-report dimensions within seven domains was obtained from one school staff member for each child. In all but two of the 21 cases, pre-assessment data were collected from the child's teacher. We expected teachers to be the staff members with the most knowledge of children and their families. Researchers showed a sample ESSP profile to the staff member and gave examples of the questions included in each scale. The staff person then indicated if she expected child or parent responses to correspond to high (protective), medium (cautionary), or low (risk) scores on the scale, or if they did not have knowledge of the dimension. Researchers recorded the responses and noted narrative explanations. After ESSP results were returned to the school, findings on each child's Individual Profile were compared to the corresponding pre-assessment expectations.

#### **Measures**

The current study focused on knowledge gaps among school staff related to 29 child- and parent-report scales in seven domains of the ESSP. Each of the dimensions is described briefly in Table 1. Child items have three or four response options; the most common response set is: "never," "sometimes," "often," and "always." Parent items have a greater variety of response sets. Some scales have 4-point ordinal response sets ranging from "strongly disagree" to "strongly agree." Others have 4- or 6-point ordinal frequency response options.

Scores are reported on ESSP individual profiles as the percentage of the maximum (best) possible score for each scale. For the current study, school staff were asked if they expected child and parent data to be high, medium, or low for each dimension. By using broad categories as opposed to finer discriminations of the 100-point scale, we increased the reliability and validity of staff pre-assessment responses. We would expect more discrepancies between staff expectations and ESSP findings if finer discriminations were requested. Observed scores from parent and child ESSP data were also coded as high, medium, and low based on clinical judgment and as recommended to practitioners using the instrument. Specifically, scores of 80% to 100% of the maximum possible for a scale were coded as "high," scores of 60% to 79% were coded as "medium," and scores of 59% or less of the maximum possible were coded as "low."

#### **Data Analysis**

School staff's pre-assessment expectations of high, medium, or low scores were compared to the recoded ESSP scores obtained from child and parent respondents. With 21 subjects and 29 dimensions, there were 609 observations in the pre-assessment data that could be compared to 609 observations obtained with the ESSP. Less than 3% (2.7%) of these observations were missing.

Bivariate correlations were run between pre-assessment scores and observed ESSP data first for all available scores, then within domain (neighborhood, school, friends, family, parent educational involvement, well-being, and home behavior), source (parent and child), and grade level (third, fourth, and fifth). Correlation coefficients are analogous to effect sizes, or the strength of association, between variables. For the 13 correlational analyses, alpha was adjusted using the False Discovery Rate criterion (Benjamini, Drai, Elmer, Kafkafi, & Golani, 2001).

Cross-tabulations were then used to identify the percentage of cases in which pre-assessment data matched obtained data (e.g., teacher expected a low score and parent reported a low score). Percentages in cells representing matching responses were manually summed. The overall percentage of matching responses was calculated, as well as the percentages for the domain, source, and grade level subgroups described above. Determination of the statistical significance and effect sizes of differences in proportions between subgroups were obtained using Cohen's (1988) procedures and tables. Because specific *p* values are not identified with these procedures, no correction for multiple tests was conducted, however, with 21 pairwise comparisons conducted to determine if knowledge differed across domains, it is expected that one Type I error would occur. The five significant comparisons that were found for this sub-analysis, should therefore be interpreted with caution.

Correlations were calculated only for case-by-item observations for which an ordinal low, medium, or high expectation had been provided by teachers; not for those with categorical "don't know" responses. By excluding the categorical "don't know" responses, the correlations provide a more favorable measure of teacher knowledge than may actually apply. "Don't knows" were included as non-matches in the categorical calculations of

percentages of matches and mismatches. In the measure of positive sibling relationships, a staff response of "child has no siblings" was counted as a mismatch if parents provided sibling data. SPSS, version 11.5 for Windows (SPSS, 2002) was used for the correlation and cross-tab analyses.

#### Results

Correlation findings are presented in Table 2. The overall correlation between school staff's pre-assessment ratings of low, medium, or high and the observed scores based on parent and child report was statistically significant, but modest (less than 0.15). The only domains in which there were statistically significant correlations between school staff's expected scores and observed scores were parent educational involvement (which included four parent-report items about their visits to and contacts with the school), and home behavior of the child as reported by the parent. The correlation between school staff's expectations for all child report dimensions and observed scores from children was small and non-significant. The correlation between school staff's pre-assessment expectations for all parent report dimensions and actual parent report scores, however, was 0.273 and statistically significant. School staff pre-assessment knowledge was significantly correlated with obtained scores for 5th graders (.267), but not for 3rd and 4th graders.

Percentages of matching ratings overall and by subgroup are presented in Table 3. On average, across the 21 children and 29 ESSP dimensions, school staff's pre-assessment knowledge matched ESSP results only 40.9% of the time. The domains with the smallest percentages of matches between school staff expectations and obtained data were neighborhood, friends, and well-being. The percent of matches for the neighborhood domain were statistically significantly lower than the percent of matches for the school, parent education involvement, and home behavior domains. The effect size index h used by Cohen (1988) for differences in proportions were .644, .424, and .787, respectively, for these differences between neighborhood knowledge and knowledge in other domains. The domains in which school staff expectations matched obtained data the most often were home behavior and school. However, even in these areas, school staff's prior knowledge was inaccurate about 40% of the time. The percent of matches between school staff expectations and obtained data for the domain of home behavior was statistically significantly higher than the percent of matches for the domains of well-being, friends, and neighborhood (reported above). Cohen's effect size h for the differences in proportions of matches was .497 for home behavior and well-being, and .485 for home behavior and friends.

The percentage of matches between school staff's pre-assessment expectations and observed scores was statistically similar for child-report and parent-report items. There were also no significant differences in the percent of expectations that matched ESSP findings for  $3^{rd}$ ,  $4^{th}$ , and  $5^{th}$  graders.

Table 3 also shows whether school staff expectations were more negative or more positive than child and parent reports. School staff did not consistently expect either more negative or more positive circumstances and experiences than those reported by children and parents. Within five of seven domains, however, and for students in one grade level, expectations tended to be overly positive or negative. School staff, for example, expected more *positive* findings than were actually obtained in over 60% of the observations in the domains of family and well-being. They expected more *negative* findings than were actually obtained in over 60% of the observations in the domains of neighborhood, friends, and parent educational involvement. Without ecological assessment data, therefore, school staff may have assumed children's family experiences, physical health, and psychological well-being were better than what family members perceived; and that their neighborhood experiences

and parent educational involvement were more negative than what family members perceived.

Table 3 also indicates that for over 70% of the measures, school staff had more negative perceptions of the circumstances and experiences of 5<sup>th</sup> grade students than what 5<sup>th</sup> graders and their parents reported. This preponderance of overly negative perceptions was the largest among all the subgroup analyses.

## Discussion and Applications to Social Work Research and Practice

The current study examined the degree to which school staff possessed accurate knowledge of students' social environments, well-being, and home behavior before receiving results from an ecological assessment. The findings supported our primary hypothesis of the need for ecological assessments in schools. Even in a relatively well-performing school that supported the high performance of African Americans and students from low SES backgrounds, school staff had limited knowledge of important domains of the lives of students targeted for at-risk services. The overall correlation between expected ratings and obtained ratings was less than 0.15, and expected ratings matched obtained results only about 40% of the time. Correlations between pre-assessment ratings and observed ratings were non-significant in five of seven domains examined. Pre-assessment ratings matched obtained ratings less than 50% of the time for five of the seven domains.

We expected that school staff would have the least knowledge of the neighborhood and the most knowledge of child perceptions of teachers and school. Only one of these domain hypotheses was supported by the correlation analyses. The correlation between preassessment and actual scores for the neighborhood was the lowest (r = .011) of the obtained correlations. The two domains for which significant correlations between pre-assessment expectations and observed data were obtained, however, did not include the school domain. They were the parent-report domains of parent education involvement at school and at home (r = .331) and children's home behavior (r = .356). The correlation of ratings in the school domain was the third highest correlation obtained, but was non-significant.

The descriptive analyses of proportions of matches across domains were consistent with the domain hypotheses. School staff's expectations about the neighborhood had the lowest level of agreement with obtained data out of all the domains (25.3%), whereas the staff's expectations about children's perceptions of the school had the second highest level of agreement (56.1%), following parents' perceptions of home behavior (61.3%). The significance tests of differences in proportions indicated that these low and high proportions were significantly different from the proportion of matches in one or more other domains. In addition, the proportion of accurate expectations in the domain of child-reported well-being was statistically significantly lower than from the proportion for home behavior. This finding is consistent with findings in other research, reported by Silverman and Saavedra (2004), that teachers are more reliable informants for children's externalizing behaviors than internalizing behaviors.

The correlational analysis, but not the proportion tests, supported our source hypothesis, i.e., that school staff's perceptions would be more similar to parent perceptions than child perceptions overall. There was a significant correlation (.273) between school staff's expected ratings and observed scores on parent-report dimensions, but not on child-report dimensions. The fact described above that the only two significant domain correlations were for parent-report domains (parent educational involvement and home behavior) also supports the source hypothesis. The difference in proportions of pre-assessment and obtained score matches for parent and child items, however, was not significant. That fact

that only partial support was found for the source hypothesis may reflect contradictory influences. School staff observe behaviors among children that reflect children's perceptions on some dimensions—e.g., perceptions of teachers as caring and school as a fun place to learn. Of other dimensions, however, school staff may be largely unaware—e.g., children's perceptions of their own psychological well-being and family experiences. Similarly, school staff may have relatively accurate expectations of parents' perceptions in some areas—e.g., parent involvement at the school (observable behavior), and children's home behavior (which is likely to be similar to observable school behavior)—but they have little knowledge of parents' perceptions of their neighborhoods and home educational efforts. Therefore, uncovering a consistent pattern in favor of correspondence with either parent or child scores is difficult.

Findings related to grade level as a predictor of school staff knowledge of students were also inconsistent. The correlation analysis suggested that school staff become more familiar with children the longer they are in the school. School staff's expectations were significantly correlated with obtained scores for 5<sup>th</sup> graders but not for the other two grade levels. The difference in proportions of pre-assessment and obtained score matches for the grade levels, however, was not significant. The inconsistent findings for the grade level analyses may also reflect the existence of two contradictory influences—the difficulty of knowing children well in 5<sup>th</sup> grade classrooms that are well above the district average in size, and the accumulation of knowledge among school staff about some children during their years at the same school. Uncovering a consistent pattern for grade level may also, therefore, be difficult.

School staff did not consistently assume more positive or more negative circumstances and experiences than those reported by children and parents. In the absence of ESSP data, school staff assumed more negative neighborhood situations, less favorable friendships, and lower levels of parent involvement at the school than children and parents reported. On the other hand, they assumed higher levels of child well-being and more favorable family interactions than what was reported by children and parents. The importance of ecological assessment to counter not only a lack of knowledge but also existing inaccurate assumptions that may affect interactions with students is highlighted in these findings.

The findings of the current study, which indicate school staff lack accurate knowledge about students' lives, suggest the practice validity of the ESSP in terms of the existence of knowledge gaps in the areas it assesses. Related to the other important component of practice validity, ESSP dimensions also represent potential targets for evidence-based school, family, and community-based interventions, such as interventions to enhance neighborhood safety (Hill, et al., Howell, Hawkins, & Battin-Pearson, 1999), increase the involvement of neighborhood adults in children's lives (McGill, Mihalic & Grotpeter, 1998), enhance parenting strategies (Lagges & Gordon, 1999), and reduce peer rejection (Greenburg, Domitrovich, & Bumbarger,1999). Understanding children's experiences in the domains assessed with the ESSP, therefore, can lead to the identification of appropriate intervention targets. When ecological data indicate the need for interventions targeting domains typically outside the school's realm of influence, the data can be used to garner broader community involvement, advocate for resources, or solicit external funding for appropriate interventions.

A limitation of the current study is its reliance on a convenience sample from one school. The sample may represent the "at-risk" students who are most likely to receive school-based interventions, but it was small and non-representative of the school population as a whole. Although there were 609 observations for analysis, they applied to only 21 children. The school had characteristics that both favored and threatened school staff's ability to be

knowledgeable about students. However, characteristics of the study likely led to conservative estimates of the knowledge gap—e.g., excluding "don't know" responses from the correlation analyses; and using the simple, broad rating categories of high, medium, and low, instead of fine numerical distinctions. The gap, if different from what was found here, is more likely to be larger rather than smaller than the current findings.

The implications of the sample, school, and study characteristics on the generalizability of the findings are not clear. Therefore, the study requires replication in other schools. In addition to examining the knowledge gap in other elementary schools, researchers should examine the knowledge of staff in middle and high schools. It is highly likely that school staff are even less knowledgeable of students in post-elementary schools where parent involvement is less extensive and students have multiple teachers. A review of the literature revealed a dearth of information about the extent to which any existing assessments actually address knowledge gaps for practitioners. If the low levels of knowledge of students' social environments found in this study are above average, the need for ecological assessments in schools is even more urgent than the current study suggests.

High quality ecological assessments are a critical first step in a sequence of evidence-based practices designed to identify and address threats to school success. Future research must also focus on the next step in this sequence—the provision of information about effective strategies to use given the individual and aggregate results of ecological assessments (Gambrill, 1999; Silverman & Saavedra, 2004). The provision of this information must take into account the constraints faced by school-based practitioners on their ability to examine and evaluate the existing literature on best practices. The SSP and ESSP have preliminary online resources that help school-based practitioners identify best practices related to each of the dimensions reported on SSP and ESSP profiles (Powers, Bowen, G. L., & Rose, submitted). Ongoing SSP and ESSP research is examining how best to deliver the information to school practitioners and how to maximize their ability to translate the information into best practices with students.

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#### References

- Benjamini Y, Drai D, Elmer G, Kafkafi N, Golani I. Controlling the false discovery rate in behavior genetics research. Behavioural Brain Research. 2001; 125:279–284. [PubMed: 11682119]
- Bowen, NK. Psychometric properties of the Elementary School Success Profile's child questionnaire. (submitted)
- Bowen, GL.; Richman, JM.; Bowen, NK. The School Success Profile: A results management approach to assessment and intervention planning. In: Roberts, AL.; Greene, GJ., editors. Social Workers' Desk Reference. New York: Oxford University Press; 2002. p. 787-793.
- Bowen, NK.; Bowen, GL.; Woolley, ME. Constructing and validating assessment tools for school-based practitioners: The Elementary School Success Profile. In: Roberts, AR.; Yeager, KR., editors. Evidence-based practice manual: Research and outcome measures in health and human services. New York: Oxford University Press; 2004.
- Bronfenbrenner U. Ecology of the family as a context for human development: Research perspectives. Developmental Psychology. 1986; 22:723–742.
- Cohen, J. Statistical power analysis for the behavioral sciences. 2. Hillsdale, NJ: Lawrence Erlbaum Associates: 1988.

DeVellis, RF. Scale development: Theory and applications. Newbury Park, CA: Sage; 1991.

- Gagnon SG, Nagle RJ. Relationships between peer interactive play and social competence in at-risk preschool children. Psychology in the Schools. 2004; 41:173–189.
- Gambrill E. Evidence-based practice: An alternative to authority-based practice. Families in Society: The Journal of Contemporary Human Services. 1999; 80:341–350.
- Gonzales NA, Cauce AM, Friedman RJ, Mason CA. Family, peer, and neighborhood influences on academic achievement among African-American adolescents: one year prospective effects. American Journal of Community Psychology. 1996; 24:365–388. [PubMed: 8864209]
- Greenburg, MT.; Domitrovich, C.; Bumbarger, B. Preventing mental disorders in children: A review of the effectiveness of prevention programs. Center for Mental Health Services, Substance Abuse Mental Health Services Administration, and U.S. Dept. of Health and Human Services; 1999.
- Hill KG, Howell JC, Hawkins JD, Battin-Pearson SR. Childhood risk factors for adolescent gang membership: Results from the Seattle Social Development Project. Journal of Research in Crime and Delinquency. 1999; 36:300–322.
- Hill NE, Castellino DR, Lasford JE, Nowlin P, Dodge KA, Bates JE, Pettit GS. Parent academic involvement as related to school behavior, achievement, and aspirations: Demographic variations across adolescence. Child Development. 2004; 75:1491–1509. [PubMed: 15369527]
- Holmbeck, GN.; Greenley, RN.; Franks, GN. Developmental issues in evidence-based practice. In:Barrett, PM.; Ollendick, TH., editors. Interventions that work with children and adolescents:Prevention and treatment. Chichester, West Sussex, England: John Wiley & Sons; 2004. p. 27-48.
- Lagges AM, Gordon DA. Use of an interactive laserdisc parent training program with teenage parents. Child & Family Behavior Therapy. 1999; 21:19–37.
- Macgowan MJ, Nash JK, Fraser MW. The Carolina Child Checklist of risk and protective factors for aggression. Research on Social Work Practice. 2002; 12:253–276.
- McDonald L, Billingham S, Conrad T, Morgan AON, Payton E. Families and schools together (FAST): Integrating community development with clinical strategies. Families in Society: The Journal of Contemporary Human Services. 1997; 78:140–155.
- McGill, DE.; Mihalic, SF.; Grotpeter, JK. Blueprints for violence prevention, Book Two: Big Brothers Big Sisters of America. Boulder, CO: Center for the Study and Prevention of Violence; 1998.
- Ollendick TH, King NJ. Child behavioral assessment and cognitive-behavioral interventions in schools. Psychology in the Schools. 1999; 36:427–436.
- Olweus, D.; Limber, S.; Mihalic, SF. Blueprints for violence prevention, Book Nine: Bullying Prevention Program. Boulder, CO: Center for the Study and Prevention of Violence; 1999.
- Powers, JD.; Bowen, GL.; Rose, RA. Using survey results to identify intervention targets for promoting school success: Links to evidence-based practice. (submitted)
- Rueter MA, Conger RD, Ramisetty-Mikler S. Assessing the benefits of a parent skills training program: A theoretical approach to predicting direct and moderating effects. Family Relations. 1999; 48:67–77.
- Sameroff, AJ. Ecological perspectives on developmental risk. In: Osofsky, JD.; Fitzgerald, HE., editors. WAIMH handbook of infant mental health: Infant mental health in groups at high risk. Vol. 4. New York: John Wiley & Sons; 2000. p. 1-33.
- Silverman, WK.; Saavedra, LM. Assessment and diagnosis in evidence-based practice. In: Barrett, PM.; Ollendick, TH., editors. Interventions that work with children and adolescents: Prevention and treatment. Chichester, West Sussex, England: John Wiley & Sons; 2004. p. 49-69.
- SPSS, Inc. SPSS for Windows (Version 11.5.0). Chicago, IL: SPSS, Inc; 2002.
- Strom-Gottfried, K. Multidimensional assessment. In: Hepworth, DH.; Rooney, RH.; Larsen, JA., editors. Direct social work practice. Vol. 6. Pacific Grove: Brooks/Cole; 2002. p. 187-217.
- Thyer, BA. Principles of evidence-based practice and treatment development. In: Roberts, AR.; Greene, GJ., editors. Social workers' desk reference. New York: Oxford University Press; 2002. p. 739-742.
- Woolley ME, Bowen GL, Bowen NK. Cognitive pretesting and the developmental validity of child self-report instruments: Theory and applications. Research on Social Work Practice. 2004; 14:191–200.

Table 1

Child and Parent Report Measures on the ESSP

Domain & Dimension	Source	# of Items	Summary of Content	
Neighborhood				
Neighbors Who Care	Child	5	Adults are nice, approachable, watch out for the child	
	Parent	7	Adults care, watch out for children, help each other	
A Good Place to Live	Child	4	Fun things to do, safe; likes neighbors & neighborhood	
	Parent	4	Family is safe, neighbors can be trusted, likes neighborhood	
Neighborhood Safety	Parent	10	No reports of criminal activities in past month	
Teens Have Positive Behavior	Parent	10	Teenagers in neighborhood engage in positive behaviors & avoid negative behaviors	
School				
Teachers Who Care	Child	6	Teacher cares & is responsive to the child in the classroom	
A Fun Place to Learn	Child	6	Child likes learning at school & interacting with other children	
Friends				
Friends to Play With	Child	3	Child has friends to play with at school, after school, on weekends	
Friends Who Care	Child	4	Friends are responsive when child is upset or happy; fun to be with	
Accepted by Other Children	Child	4	Other children are mean, make fun of the child, exclude the child from play	
Friends Have Good Behavior	Child	9	Friends are aggressive, mean, tell lies, or are helpful to other children & adults, follow rules	
Family				
Family Who Care	Child	4	Family is responsive emotionally; family has fun together	
	Parent	6	Family is supportive, loving, open, spend time & have fun together	
Warmth & Encouragement	Child	4	Adults praise, are nice, make child feel special, are available	
	Parent	6	Parent praises, encourages child, makes child feel special	
Positive Parenting	Parent	7	Parent rewards good behavior, uses consistent punishment, uses	
			time out, withdrawal of privileges, stays calm while punishing	
Positive Sibling Relationships	Parent	4	Child gets along & shares with siblings, helps take care of siblings	
Parent Educational Involvement				
Involvement at School	Parent	4	Parent contacts the teacher and visits the school for different purposes	
Expectations for School Behavior	Parent	6	Parent would be upset if child got a bad grade or misbehaved at school	
Educational Discussions	Parent	4	Parent-child discussions of school topics, homework, current events	
Educational Monitoring	Parent	8	Parent monitors homework, limits TV & play, praises school effort	
Well-being				
Good Physical Health	Child	8	Child is tired, has physical complaints, can't see or hear teacher	
Positive Feelings about Self	Child	7	Child feels like a nice person, is smart, is good at sports, art, music, sports, is proud of self	
Adjustment	Child	4	Child feels nobody cares, uncertain, worries bad things will happen	
Knows Where to Get Support	Child	7	There are people who will listen, give encouragement, stand up for child, and give instrumental help	

Domain & Dimension	Source	# of Items	Summary of Content
Home Behavior*			
Engages Socially with Other Children	Parent	8	Child is well-liked, friendly, and engages with other children in play
Uses Good Social Skills	Parent	11	Child thinks before acting, can regulate social emotions, is helpful, expresses needs appropriately, accepts authority, is stubborn
Interacts Peacefully	Parent	6	Child fights, hurts others, plays aggressively

 $<sup>^{*}</sup>$  The Home Behavior dimensions are from the Carolina Child Checklist (Macgowan, Nash, & Fraser 2002).

 Table 2

 Correlation of Pre-Assessment and Observed Scores Overall, By Domain, Source, and Grade Level^

	Correlation (n <sup>+</sup> )
All Scores	.147* (546)
Scores By Domain	
Neighborhood	.011 (96)
School	.227 (41)
Friends	.020 (81)
Family	.054 (108)
Parent Educational Involvement	.331*(81)
Well-being	.085 (77)
Home Behavior	.356* (62)
Scores by Source	
Child	.018 (270)
Parent	.273* (276)
Scores by Grade Level	
3 <sup>rd</sup>	.093 (235)
$4^{ ext{th}}$	.087 (162)
5 <sup>th</sup>	.267*(121)

<sup>^</sup>Correlations exclude "Don't Know" responses because they are categorical

n = 1 the number of case-by-dimension observations used to calculate correlations

<sup>\*</sup> Correlation is significant according to an initial .05 alpha adjusted for multiple tests using the False Discovery Rate criterion (Benjamini, Drai, Elmer, Kafkafi, & Golani, 2001)

 Table 3

 Percentage of Pre-Assessment School Staff Expectations that Matched Observed Scores from Children and Parents, Overall, By Domain, Source, and Grade Level

		% of Pre-Assessment Mismatched Ratings that were More Positive or Negative than Obtained Scores#		
Included Scores (Total N)	% of Pre-Assessment Ratings that Matched Obtained Scores $(n)^+$	More Positive (n)	More Negative (n)	
All Scores (592)	40.9 (242)	46.3 (142)	53.7 (165)	
Scores By Domain (valid n) (superscripts indicate significant differences with other domains)				
1. Neighborhood (119)	25.3 <sup>2,5,7</sup> (30)	33.3 (22)	66.7 (44)	
2. School (41)	56.11 (23)	55.6 (10)	44.4 (8)	
3. Friends (82)	37.8 <sup>7</sup> (31)	38.0 (19)	62.0 (31)	
4. Family (125)	42.4 (53)	60.3 (35)	39.7 (23)	
5. Parent Educational Involvement (84)	45.21 (38)	39.5 (17)	60.4 (26)	
6. Well-being (79)	36.77 (29)	60.4 (29)	39.6 (19)	
7. Home Behavior (62)	61.3 <sup>1,3,6</sup> (38)	41.7 (10)	58.3 (14)	
Scores by Source				
Child (281)	38.1 (107)	47.9 (78)	52.1 (85)	
Parent (311)	43.4 (136)	44.1 (63)	55.9 (80)	
Scores by Grade Level				
3 <sup>rd</sup> grade (252)	44.8 (113)	58.9 (73)	41.1 (51)	
4 <sup>th</sup> grade (169)	37.2 (63)	47.5 (47)	52.5 (52)	
5 <sup>th</sup> grade (142)	36.6 (52)	28.6 (20)	71.4 (50)	

Note: Row %'s do not add up to total n's because "don't knows" are not included in the last 2 columns.

<sup>^&</sup>quot;Don't Know" responses were  $\underline{\text{included}}$  as non-matching expectations

n = n number of case-by-dimension observations

<sup>#</sup>"Don't Know" responses were <u>excluded</u> from these calculations because they could not be classified