Examining Relationships Between Measures of Positive Behaviors and Negative Functioning for Elementary School Children

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The positive psychology movement seeks to understand student strengths that may facilitate success or promote resilience. However, a positive psychology view is not intended to completely ignore negative factors that may be affecting children, so traditional assessments of mental illness remain important. As methods of assessment improve and enhance our understanding of student development, it is crucial to understand the interrelationship among strength-based and traditional – problem-based – measures. Utilizing a sample of third- and fourth-grade students, the current study examined the interrelationships between three measures of positive functioning, examining hope, life satisfaction, and school connectedness, and their relationship with a traditional, problem-based measure. Results demonstrated that the measures assessing positive constructs were significantly positively correlated with each other and negatively correlated with a measure of problem behaviors. Future directions for research, limitations, and implications for practice are discussed.

Traditional psychological assessment has been primarily concerned with the presence or absence of mental illness and problematic development. With the overwhelming emphasis of accountability and identification (e.g., No Child Left Behind [NCLB], 2002; Individuals with Disabilities Education Improvement Act [IDEIA], 2004) when evaluating children and youth in the educational context, it appears shortsighted to focus exclusively on shortcomings, such as failing grades, suspensions, disabilities, impairments, or challenges. This focus tends to ignore an individual's well-being, other positive aspects of development, and the enhancement of optimal functioning (Jimerson, Sharkey, Nyborg, & Furlong, 2004).

The Positive Psychology Movement

Recently, some leaders have advocated for a paradigm shift, resulting in movement toward a *positive* approach to psychology (Seligman & Csikszentmihalyi, 2000). Positive psychology is "…an umbrella term for the study of positive emotions, positive character traits, and enabling institutions" (Seligman, Steen, Park & Peterson, 2005, p. 410). The purpose of this shift is to provide a more balanced and complete understanding of individuals by examining aspects of mental health (or adaptive functioning) *in conjunction with* indicators of psychopathology (or maladaptive functioning). In this way, mental health can be viewed through a dual-factor model, wherein individuals are understood on both dimensions. In this framework, mental health and mental illness are not mutually exclusive: persons can be high or low on ratings of either dimension. For example, contemporary research (Suldo & Shaffer, 2008) suggests that students can report low ratings of subjective well-being (SWB) and high (e.g., at-risk or clinically significant) ratings on indicators of psychopathology (designated "troubled"); high ratings of both SWB and psychopathology ("symptomatic but content"); low ratings of SWB and psychopathology ("vulnerable"); and high ratings of SWB with low ratings of psychopathology ("complete mental health"). Seen through this lens, the fields of positive and negative psychology can work together to contribute to a more complete understanding of student functioning.

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School Psychology and Positive Psychology

Jimerson and colleagues (2004) highlighted that "In the new millennium, school psychologists have increasingly recognized alternatives to a deficit-based perspective regarding assessment, practice, and research that emerged from the historical disease model of human functioning pervasive in the field of psychology (p. 9)." The application of the positive psychology movement to school psychology is justified through research linking students' well-being to various academic indicators (Gilman, Furlong, & Huebner, 2009; Suldo, Riley, & Shaffer, 2006; Suldo & Shaffer, 2008). For example, school satisfaction, perception of teacher support, and perception of academic competence have all been found to be important contributors to subjective well-being (Suldo et al., 2006). A link to academic achievement is also emerging via research, with data suggesting that both the presence of well-being and the absence of psychopathology contribute to increased academic achievement (Suldo & Shaffer, 2008).

Considering this, a best-practice approach based upon the tenets of positive psychology would not discount aspects of mental illness; rather, it would use this information in conjunction with an evaluation of a student's strengths, subjective well-being, positive traits, and other resources to promote further understanding of the student's current level of functioning (Cowen & Kilmer, 2002). This implies a proactive, strength-based model of assessment; that is, the absence of mental health does not necessarily equal positive functioning and the search for strengths, well-being, positive traits, and resources must be an intentional one. Ultimately, this approach may lead to a primary focus on resilience and may be an important way to reduce psychological dysfunction and enhance educational outcomes for students (Cowen & Kilmer, 2002).

Measuring Student Well-Being

Life satisfaction, hope, and school connectedness are three measurable constructs that are related to students' well being. First, high levels of life satisfaction have demonstrated negative correlations with symptoms of psychopathology, such as anxiety and depression, and positive correlations with adaptive functioning (Suldo & Huebner, 2005). Second, hope reflects students' determination in achieving a goal and a belief that good things will happen. Individuals who demonstrate high levels of hope have been shown to have more positive thoughts, higher self-esteem, and higher academic achievement (Valle, Heubner, & Suldo, 2004). A third important factor for students is school connectedness. A student's feeling of school connectedness is generally believed to incorporate the individual's perception of having a meaningful role at school, feelings of safety, and opportunities for creative and academic engagement (Whitlock, 2006). Research has found that children with higher school connectedness have higher levels of school completion, reduced substance use, and reduced violent or aggressive behavior (Brookmeyer, Fanti, & Henrich, 2006; Miltich, Hunt, & Meyers, 2004).

The Present Study

As the positive psychology movement continues to expand within school psychology and educational settings, it is important to assess the validity of strength-based measures and their applicability to school-aged populations. Establishing strong psychometric qualities and gathering information from diverse age groups and populations will be essential. Considering this, the purpose of the present study was to investigate the interrelationships among three positive psychology constructs (i.e., hope, life satisfaction, and school connectedness) for third- and fourth-graders. Furthermore, given the salience of the dual-factor model of youth mental health, this study also investigated the discriminant validity of these positive measures with a more traditional, screener focusing on a student's negative behaviors and emotions. It was hypothesized that the measures of hope, life satisfaction, and school connectedness would be positively correlated with one another and negatively correlated with the measure of maladaptive functioning. Given developmental and contextual considerations, it was further hypothesized that differences would be found among these interrelations between third- and fourth-graders.

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METHOD

Participants

Participants were 43 third-grade students and 46 fourth-grade students (N=89) from two elementary schools in southern California. Students were participating in a larger mental health promotion partnership between the schools and a local university. During the 2008-2009 school year, the total enrollment of one school was 286 students and the total enrollment of the other was 421 students. The demographic make up of both schools was comparable, with approximately 73% of students identifying as Hispanic or Latino, 18% as White, and 9% as other or multiple ethnic groups. Approximately 68% of the students were classified as socioeconomically disadvantaged, 40% as English language learners, and 14% as students with disabilities.

Measures

Children's Hope Scale. The Children's Hope Scale (CHS; Snyder et al., 1997) is a self-report measure made up of six-items, each rated on a six-point Likert scale (ranging from "none of the time" to "all of the time"), and is adapted from the original Hope Scale for adults (Synder et al., 1991). The CHS measures two aspects of hope: (a) *pathways*, the sense of being able to generate successful plans to meet goals; and (b) *agency*, the successful determination one has to achieve goals. The CHS has shown high levels of internal consistency with a median alpha coefficient of 0.77 (Snyder et al., 1997) to 0.82 (Valle, Huebner, & Suldo, 2004) as well as good concurrent and discriminative validity with correlations of -0.19 to -0.48 with the Children Depression Inventory (Kovacs, 1985) and -0.31 with the internalizing scale of the Youth Self-Report (Achenbach, 1991; Snyder, 2005).

School Connectedness Scale. School connectedness has been defined in multiple ways, but it can be conceptualized through elements of affective engagement, such as a sense of belonging, school climate, and enjoyment of school (Sánchez, Colón, & Esparza, 2005). The School Connectedness Scale is a 5-item measure designed to assess school connectedness, with each item rated on a 4-point scale (ranging from *strongly disagree* to *strongly agree*). Internal consistency ratings for this scale showed higher reliability for social bonding items (alpha = 0.64-0.92) than items measuring student-teacher relationships (alpha = 0.44-0.70; McNeely, 2005). Total scores range from zero to 20, with higher scores reflecting stronger school connectedness.

Brief Multidimensional Students' Life Satisfaction Scale. A person's life satisfaction is generally defined in the literature as perceived quality of life in specific domains (self, family, living environment, friends, and school) as well as overall life satisfaction. The *Brief Multidimensional Students' Life Satisfaction Scale* (BMSLSS; Seligson, Huebner, & Valois, 2003) is based on the original 40-item scale *Life Satisfaction Scale* (Huebner, 1991) but contains five items each ranked on a seven-point scale (ranging from *terrible, unhappy, dissatisfied, mixed, mostly satisfied, pleased,* to *delighted*). This scale demonstrated an alpha coefficient of 0.86 (Suldo & Huebner, 2006) and a 1-year stability coefficient of 0.61 (Valle et al. 2006). (Seligson, Huebner, & Valois, 2003; Zullig, Huebner, Gilman, Patton, & Murray, 2005).

BASC-2 Behavioral and Emotional Screening System. The *Behavioral and Emotional Screening System* (BESS; Kamphaus & Reynolds, 2007) is a recently developed screening instrument based on the more comprehensive Behavior Assessment System for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2004). The self-report and teacher-report BESS were composed of 25-30 items rated on a four point Likert-type scale (ranging from *Never* to *Almost Always*). The BESS is designed to be a brief measure, administrable within five minutes. The BESS produces a single score and classifies students into "normal," "elevated," or "extremely elevated," categories based on corresponding *T*-scores. Validation of this instrument is ongoing, with large-scale studies currently underway. One recent study found that the BESS was able to predict many school related behaviors such as reading and math grades, social skills, and conduct problems (Kamphaus et al., 2007).

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RESULTS

Bivariate correlations were calculated between the CHS, the BMSLSS, the SCS, and both the self-report and teacher-report forms of the BESS. In general, results indicated that all three positive psychology constructs were significantly and positively correlated with one another and negatively correlated with the BESS self- and teacher-report scores. Correlations between the positive psychology constructs were strong, ranging from .56 to .66. However, the positive psychology measures demonstrated larger negative correlations with the BESS self-report measure (ranging from -.50 to -.70) than the BESS teacher-report form (ranging from -.33 to -.38). Complete results are displayed in Table 1.

TABLE 1. *Overall sample correlations*

	Children's Hope Scale	Life Satisfaction	School Connectedness	Student-report BESS	Teacher-report BESS
Children's Hope Scale	--	.557**	.625**	-.504**	-.359**
Life Satisfaction		--	.646**	-.695**	-.375**
School Connectedness			--	-.656**	-.331**
Student-report BESS				--	.455**
Teacher-report BESS					--

** $p < 0.01$

Next, the means of the positive psychology constructs for at-risk students, as identified by the BESS teacher report, were compared to the means of students identified to be within the normal range by teachers, using independent samples *t*-tests. As the groups differed in size (i.e., 24 at-risk children compared to 65 children not considered at-risk), Levene's test for equality of variances was examined. The variances of the two groups were found to be significantly different, therefore, the appropriate two sample *t*-test was utilized. Results from these *t*-tests indicated that children rated to be in the normal range by the BESS teacher report showed significantly higher scores on the CHS ($t(30.1) = 2.09$, $p < .05$), the BMSLSS ($t(29.3) = 2.89$, $p < .05$), and the SCS ($t(32.5) = 2.12$, $p < .05$) than did children identified as at-risk. Complete results are available in Table 2.

TABLE 2. *Correlations for teacher identified "at-risk" students.*

	Children's Hope Scale	Life Satisfaction	School Connectedness
Children's Hope Scale	--	.482*	.704**
Life Satisfaction		--	.763**

** $p < 0.01$, * $p < 0.05$

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TABLE 3. *Mean score comparisons for each of the adaptive behavior variables.*

	General Population (n=65)		At Risk (n=24)	
	M	SD	M	SD
Children's Hope Scale*	25.28	5.59	21.25	8.81
Life Satisfaction*	29.06	4.77	24.04	7.99
School Connectedness*	20.52	5.05	17.25	6.91

* Indicates a significant difference on the scale between the two group means at $p < .05$

Lastly, the overall population divided by grade and correlations was again examined. For third-grade students, there was a positive correlation between the CHS and SCS ($r = .32$) and between the SCS and BMSLSS ($r = .33$). However, the correlation between the CHS and the BMSLSS was not significant ($r = .21$). All three positive psychology constructs were significantly negatively correlated with the self-report BESS scores, though at weaker levels (ranging from $r = -.35$ to $r = -.51$). Only the BMSLSS was significantly correlated with the teacher-report BESS scores ($r = -.42$). Furthermore, for third-grade students, the self-report and teacher-report BESS scores were significantly correlated with each other ($r = .49$).

For fourth grade students, the correlations between the measures were generally stronger overall than for the third grade students. Significant positive correlations between the CHS, BMSLSS, and SCS were generally large, ranging from $r = .67$ to .75. All three positive psychology constructs were significantly and negatively correlated with the self-report BESS scores (correlations ranging from $r = -.53$ to $-.77$) and negatively correlated with the BESS teacher-report scores (correlations ranging from $r = -.48$ to $-.57$). Similar correlations between the BESS self-report and teacher-report scores were found for fourth-grade students ($r = .49$). Complete results for third- and fourth-grade students can be found in Tables 4 and 5, respectively.

TABLE 4. *Third grade sample correlations (n=43)*

	Children's Hope Scale	Life Satisfaction	School Connectedness	Student-report BESS	Teacher-report BESS
Children's Hope Scale	--	.209	.323**	-.349*	-.256
Life Satisfaction		--	.331*	-.505**	-418**
School Connectedness			--	-.366**	-.254
Student-report BESS				--	.489**
Teacher-report BESS					--

** $p < 0.01$, * $p < 0.05$

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TABLE 5. *Fourth grade sample correlations (n=46)*

	Children's Hope Scale	Life Satisfaction	School Connectedness	Student-report BESS	Teacher-report BESS
Children's Hope Scale	--	.673**	.741**	-.529*	-.571**
Life Satisfaction		--	.748*	-.751**	-.483**
School Connectedness			--	-.766**	-.527**
Student-report BESS				--	.489**
Teacher-report BESS					--

** $p < 0.01$, * $p < 0.05$

DISCUSSION

Considering both adaptive and maladaptive functioning of students facilitates a more comprehensive understanding of their development. In particular, school psychologists may be concerned with obtaining a more comprehensive understanding of students' functioning to promote optimal well-being and positive outcomes within the school and other life contexts. Given that positive constructs such as life satisfaction, hope, and school connectedness have been found to be associated with academic achievement, enhanced self-esteem, and protection against substance abuse (Brookmeyer et al., 2006; Suldo & Huebner, 2005; Valle, Huebner, & Suldo, 2004), these key variables may be especially useful for understanding students' current functioning.

Interpretation of Findings

This study examined the interrelatedness of scores derived from the CHS, BMSLSS, SCS, and both the Self-Report and Teacher-Report forms of the BESS for third- and fourth-grade students. Results demonstrated that the measures assessing positive constructs were significantly and positively correlated with each other, and negatively correlated with a measure of problem behaviors. When examined by grade level, however, the correlations among these measures were generally weaker for third grade students relative to fourth grade students. It may have been that some of the measures were too cognitively advanced for some third grade students, thus further research is warranted. Between the teacher-report and student-report forms of the BESS, medium-sized correlations were found suggesting that the use of both forms may provide more complete screening results, especially when identifying both externalizing and internalizing symptoms.

Limitations

Limitations for the current study include its relatively small population of only third and fourth grade students, therefore larger sample sizes to replicate findings would be valuable and further research is necessary to understand similarities and differences across the elementary school grade levels. It is possible that the measures of hope, life satisfaction, and school connectedness may be too cognitively advanced for some third grade students and future efforts may focus on further exploring whether there is a strong age effect. If so, simplifying the items or response requirements for younger populations may be necessary measurement modifications. Each measure used a different Likert scale, with ranges of five, six, and seven points, each with different descriptor ranges (*none of the time* to *all of the time* on the CHS vs. *terrible* to *delighted* on the BMSLSS). This may have been confusing for younger children.

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Future Directions for Research

With regard to the positive measures, students who were identified as "at-risk" by the teacher report were compared to "normal" students as rated by the BESS. Children who were not identified as being "at-risk" reported significantly higher scores on measures of hope, life satisfaction, and school connectedness than children who were identified as "at-risk." Future research warrants further examination of the dual-factor analysis for students who may not be considered "at-risk," but may be low on these positive attributes.

Implications for Practice

The current study examined the interrelationships between three measures of positive functioning and one measure of maladaptive behaviors and emotions. These measures are relatively new to assessment in the school setting, and may help professionals understand and target critical areas of students' functioning. The use of positive measures may then encourage more strength-based assessment and intervention practices in schools.

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