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2006-03-01

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Caldarella, Paul; Young, Ellie L.; Richardson, Michael; Young, Ben; and Young, K. Richard, "School-Wide Screening for Students with Behavioral and Emotional Concerns" (2006). *Faculty Publications*. 31.
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School-Wide Screening for Secondary Students with Behavioral and Emotional Concerns

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Introduction: This study examined the reliability and validity of using an adaptation of a teacher nomination and rating system, the Systematic Screening for Behavior Disorders (SSBD), to identify secondary age students at risk for emotional and behavioral disorders.

Concurrent Validity (Identified vs. Non-Identified) of SSBD Stage One Screening

- Middle and junior high school students, identified as at-risk based on their SSBD Stage One teacher nominations scores, were compared to their respective school populations on number of Office Discipline Referrals (ODR) and cumulative Grade Point Average (GPA). One sample *t*-tests, using the school-wide mean as the test value, were conducted to examine the concurrent validity of the SSBD Stage One as a screening tool with this age group. Concurrent validity demonstrates a measure's ability to differentiate between groups that should theoretically differ.
- Significant differences ($p < .01$) between the groups on ODR and GPA suggested that the SSBD Stage One scores were correctly used to identify at-risk students; that is identified students were significantly different from other students in the school, as measured by these variables.

Middle School	<i>M</i>	<i>μ</i>	<i>SEM</i>	<i>N</i>	<i>t</i>
Total ODR	5.83	1.35	0.85	59	5.25**
Cumulative GPA	2.34	3.13	0.09	59	-8.41**

Junior High School	<i>M</i>	<i>μ</i>	<i>SEM</i>	<i>N</i>	<i>t</i>
Total ODR	2.58	0.67	0.42	65	4.55**
Cumulative GPA	2.62	3.26	0.09	65	-7.17**

** $p < .01$

Note. *M* = mean of the at-risk group, *μ* = mean of the school, *SEM* = standard error of the mean, *N* = number of the sample of at-risk students.

Concurrent Validity (Internalizer vs. Externalizer) of SSBD Stage One Screening

- After initially identifying at-risk students using SSBD Stage One, teachers completed additional measures to determine the extent to which these students were exhibiting problematic behaviors. These measures included the Teacher Report Form (TRF), the Social Skills Rating System (SSRS), and the SSBD Stage Two. These additional measures provided evidence of concurrent validity from multiple sources. Students' GPA and ODR were also compared because they provided a broad range of teacher perceptions and another measure of concurrent validity.
- Results of independent samples *t*-tests analyses indicated that the at-risk groups of students, identified using the SSBD Stage One, were different on the Internalizing and Externalizing subscales of both the TRF and SSRS. Scores were also different on the Adaptive and Maladaptive subscales of the SSBD Stage Two, GPA and ODR. Differences between the groups were in the expected direction; that is, at-risk internalizing students were higher on the Internalizing subscales of the TRF and SSRS, while at-risk externalizing students were higher on the Externalizing subscales of the TRF and SSRS, as well as on ODR.

	Internalizers <i>n</i> = 53	Externalizers <i>n</i> = 70	Mean Difference	<i>t</i>
SSRS Externalizing Scale	1.36	5.36	-4.00	-7.57**
SSRS Internalizing Scale	6.58	2.73	3.85	7.48**
TRF Externalizing Scale	52.11	66.07	-13.96	-10.57**
TRF Internalizing Scale	62.53	53.23	9.30	5.33**
SSBD2 Adaptive Scale	37.43	32.11	5.32	3.91**
SSBD2 Maladaptive Scale	17.26	31.70	-14.44	-10.54**
Total Office Discipline Referrals	1.68	6.64	-4.96	-5.81**
Cumulative GPA	2.61	2.33	0.28	2.08*

* $p < .05$, ** $p < .01$

Internal Consistency and Inter-Rater Reliability of the SSBD Stage Two

- Internal consistency reliability refers to how stable scores are within a measure. Cronbach's alpha was used as the measure of internal consistency. SSBD Maladaptive and Adaptive subscales met established criteria for a "good subscale." Two subscales of the SSBD Critical Events were created for this analysis; the SSBD Critical Events Externalizing subscale met established criteria for an "adequate subscale," while the Critical Events Internalizing scale fell below adequate levels (possibly because only a small number of items were included in this subscale).
- Inter-rater reliability (consistency of scores across raters) was calculated for 82 students, each rated by two of their teachers. Average Intra-Class Correlations (ICC) were used as the measure of inter-rater reliability. Analyses of SSBD Maladaptive and Critical Events Internalizing subscales scores both yielded high ICC values. Analysis of SSBD Critical Events Externalizing subscale scores yielded a moderate ICC, while the Adaptive subscale resulted in a lower ICC. All ICC coefficients were significant ($p < .01$), even though teachers observed students in different contexts.

	Cronbach's Alpha	<i>N</i> Observations	<i>N</i> Items
Critical Events Externalizing Subscale (Items 1, 2, 4, 9, 10, 13, 14, 15, 16, 20, 21, 25, 26)	.75	208	13
Critical Events Internalizing Subscale (Items 6, 8, 12, 27, 28)	.57	208	5
Maladaptive	.90	204	11
Adaptive	.83	205	12

Cronbach's Alpha values can range from a low of 0 to a high of 1.

	Average ICC
Critical Events Externalizing Subscale (Items 1, 2, 4, 9, 10, 13, 14, 15, 16, 20, 21, 25, 26)	.64
Critical Events Internalizing Subscale (Items 6, 8, 12, 27, 28)	.75
Maladaptive	.75
Adaptive	.44

ICC values can range from a low of 0 to a high of 1.

Convergent and Discriminant Validity of SSBD Stage Two

- Students' SSBD Stage Two scores were compared with their TRF, SSRS, GPA, and ODR values using Pearson's *r*. These measures provided a multi-method approach to evaluate evidence of convergent and discriminant validity. Convergent validity was suggested by significant positive correlations between the SSBD Critical Events Internalizing subscale score and both the TRF and SSRS Internalizing subscale scores. Convergent validity was also suggested by significant positive correlations between the SSBD Critical Events Externalizing subscale score and the TRF, SSRS Externalizing subscales scores and number of ODR.
- The significant negative correlations between the SSBD Critical Events Internalizing subscale score and both the TRF and SSRS Externalizing subscales scores and number of ODR provided evidence of discriminant validity. Discriminant validity was also suggested by significant negative correlations between the SSBD Critical Events Externalizing subscale scores and both the TRF and SSRS Internalizing subscale scores.
- As expected, the SSBD Adaptive subscale scores correlated positively with GPA and negatively with number of ODR, while the SSBD Maladaptive subscale scores correlated negatively with GPA and positively with number of ODR.

SSBD Stage Two Correlations with TRF, SSRS, GPA & ODR

	TRF Ext.	TRF Int.	SSRS Ext.	SSRS Int.	GPA	ODR
Critical Events Internalizing Subscale	-.38**	.54**	-.39**	.53**	-.19*	-.30**
Critical Events Externalizing Subscale	.53**	-.31**	.48**	-.40**	-.15	.41**
Adaptive	-.35**	.19*	-.29**	.24**	.43**	-.35**
Maladaptive	.67**	-.23*	.60**	-.47**	-.19*	.43**

* $p < .05$, ** $p < .01$, *N* = 123

Conclusions: The results of this study indicate that the SSBD shows promise as a reliable and valid screening measure for identifying secondary age students at risk for emotional and behavioral disorders.