



Risk Triangle Examples Across Seven Schools

Tara E. Payne, Fara Goodwyn, & John L Davis, & Kimberly J. Vannest
Texas A&M University



Abstract

A three-tier prevention "triangle" has been used to organize effective interventions for dissemination in a systematic way. The current study investigates the overall risk profile of the participating schools and examined the breakdown by demographic variables to determine the presence of disproportional risk within the sample.

Introduction

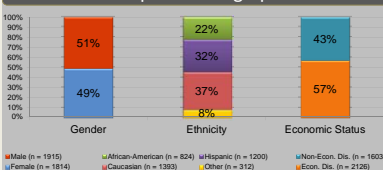
Students with an Emotional Disturbance (ED) disability account for 1% of the current Special Education Population (U.S. Department of Education, 2010). However, current mental health estimates suggest that approximately 20% of the student population experience an emotional or behavioral difficulty (U.S. Public Health Service, 1999). If schools do not find a way to assist these students, these unidentified students may have similar experiences and outcomes as the students with ED (Bradley, Doolittle, & Bartolotta, 2008).

Positive Behavioral Support and Interventions (PBSI) is one systematic process for attempting to improve outcomes for students at risk.

Methods

The final sample consisted of 3,729 students representing three districts and seven schools. A Chi-square analysis was conducted to determine if significant differences exist between *Gender*, *Ethnicity*, and *Economic status* with regard to BASC-2 BESS risk categorization. Chi-square analysis is one of the most widely used methods of probability distribution. The results indicate if differences in distribution exist between categories. Furthermore, Univariate ANOVA was conducted to investigate mean score differences between demographic categories and interaction effects.

Participant Demographics

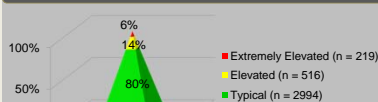


Measurement

Behavior Assessment Scale for Children, Second Edition Behavioral and Emotional Screening System (BASC-2 BESS)

The BASC-2 BESS generates one total score that indicates "risk" of developing an emotional or behavioral disorder (Kamphaus & Reynolds, 2007). BESS norms closely match the U. S. population census for children and adults grades preschool through 12th grade. Risk is identified through T-scores (M=50, SD=10); 20-50 equates to "normal", 61-70 equates to "elevated", and 71 or higher equates to "extremely elevated".

Overall Distribution



Results

In keeping with literature published by PBSI, this study found 80% of students fell in the range considered to be "Typical" level of risk, 14% fell in the "Elevated" level of risk range, and 6% fell in the "Extremely Elevated" level of risk range logic (OSEP Center on Positive Behavior Interventions and Supports; 2000).

Significant differences were found using Chi Square and Univariate ANOVA for **gender, ethnicity, and economic status** (Table 1); however, none of the interaction effects were significant. Effect size reported as Cramer's V for Chi-square and Partial Eta Squared in the Univariate ANOVA showed **little effect** with gender accounting for **3%** of the variance in total t-score and **19%** of the variance in risk category, ethnicity **4%** and **11%**, and economic status only **0.7%** and **7%**.

Despite non-significant interaction effects, the group with the highest mean score were economically disadvantaged, African-American males with a T-score of **57.96**; the lowest T-score (**43.65**) was obtained by female, non-economically disadvantaged youth in the "other" category. On average, African-American students were rated **7.95 standard score points** above students in the "other" category. Followed in magnitude by a difference of **5.80 standard score points** between males and females. Interestingly, this sample indicated that Caucasian students were rated most similar to Hispanic students with only **1.32 standard score points** difference, on average, between the two group's mean scores.

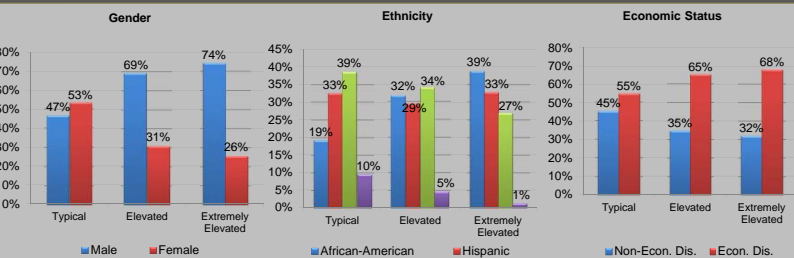
Conclusion/Limitations

The current study found that the frequency of students falling within each level of risk, as indicated by the BASC-2 BESS, is similar in pattern to prior published literature on the triangle logic (OSEP Center on Positive Behavior Interventions and Supports; 2000). Further examination of BASC-2 BESS screener results shows that significant teacher rating difference exist between teacher rating on gender, ethnicity, and economic status. However, the effect size values associated with these findings were very low, indicating that the majority of the student's obtained scores were not explained by either their gender, ethnicity, or economic status and does not indicate evidence of disproportionality in this example of universal screening procedures.

Limitations to this investigation include the unresolved issue of how the nesting of the BASC-2 BESS scores within classrooms and schools could impact the reported results. Also, all schools included in analysis were located in a single state in the southwest region of the U.S., possibly limiting the generalizability of the results to other regions.

Distribution of Scores by Demographic Category

	Gender		Ethnicity				Economic Status	
	M	F	AA	Hisp	Cau	Other	NDIs	Dis
Typical	1395 (73%)	1599 (88%)	575 (70%)	976 (81%)	1158 (83%)	285 (91%)	1354 (85%)	1640 (77%)
Elevated	357 (19%)	159 (9%)	164 (20%)	152 (13%)	176 (13%)	24 (8%)	179 (11%)	337 (16%)
Extremely Elevated	163 (9%)	56 (3%)	85 (10%)	72 (6%)	59 (4%)	3 (1%)	70 (4%)	149 (7%)
Chi-Square	139.52		97.61				17.60	
p	.00		.00				.00	
Cramer's V	.19		.11				.07	
Mean Score	53.20	47.49	54.02	50.51	49.19	46.07	48.73	51.70
Partial Eta ²	.04						.03	



Poster sponsored in part by a grant from the U.S. Department of Education IDEA Part B funding and the Texas Education Agency