# UNIVERSAL SCREENING PROCEDURES FOR MIDDLE SCHOOL STUDENTS

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Abstract

The likelihood of school success for middle school students at-risk for antisocial and potentially violent behavior increases significantly when early identification and intervention occurs. This presentation will describe the universal screening procedure used by the Skills for Success violence prevention program to identify boys and girls at-risk for school failure during their transition and adjustment to middle school. Participants will learn how to administer the universal screening procedure and will receive samples of measures used. In addition, presenters will report the results of initial validation studies and considerations for future research.

## Introduction

Early identification of students who engage in antisocial and potentially violent behavior is an important feature of effective intervention. Teachers have demonstrated the ability to predict later school failure and delinquency for students as young as third grade with a reasonable degree of reliability (Eron and Huesmann, 1990; Kellam et al., 2001; Lane, 2003; Walker and Severson, 2002). In fact, evidence-based universal screening procedures that identify students at high risk for antisocial behavior exist for preschool and elementary school students (Walker and Severson, 1992; Walker, Severson, and Feil, 1995; Drummond, 1994). Nonetheless, school personnel often resist early, proactive screening that predict development of serious emotional and behavioral problems that are not fully evident in the student's current behavior (Kauffman, 1999). Reasons for this resistance include a reluctance to label or stigmatize students, overburdened teachers and support personnel, disruption of parent-school relationships, and lack of services for identified students. Given these barriers, it is no surprise that universal screening procedures for antisocial behavior are non-existent for middle school students. Instead, many schools require the student to demonstrate significant behavior and/or academic failure prior to referral and placement in alternative education programs.

The Skills for Success (SFS) is a model alternative education program developed by the Institute on Violence and Destructive Behavior (IVDB) at the University of Oregon through funding from the Hamilton Fish Institute at George Washington University. An important feature of the SFS model was development of universal screening procedures to identify and, in turn, provide services for middle school students at high risk for antisocial behavior before they experienced significant school failure. The remainder of this paper will describe,

1. SFS Universal Screening Procedures,
2. Characteristics of the students identified, and
3. Research design, results, and implications of the SFS Universal Screening study.

## SFS Universal Screening Procedures

During the first year of the project, the SFS alternative education program used a multi-gated universal screening procedure to identify sixth and seventh grade students at-risk for school failure due to behavior difficulties. The intent of the SFS Universal Screening Procedure was to ensure that at least one teacher considered the risk status of each student in the designated school using an efficient procedure that required minimal teacher time. The SFS program implemented the Universal Screening Procedures four weeks after

the start of school to allow teachers time to observe and get to know their students. The screening process required 45 to 60 minutes for each teacher to complete or the equivalent of one preparation period. A description of the SFS Universal Screening Procedures follows.

> Gate 1. The principals asked all 6th and 7th grade teachers to think about the students assigned to their home room class and then nominate 6-10 students they perceived as at risk for school failure. Teachers were asked to exclude students certified eligible for special education as emotionally disturbed but could nominate students labeled learning disabled or speech impaired.

See Figure 1 in the Appendix for a sample copy of the Teacher Nomination Form.

> Gate 2. Teachers rank ordered nominated students in descending order of behavioral difficulty, i.e., the student with the highest difficulty level was first, the student with the second highest difficulty level was second and so forth.
>
> Gate 3. Each teacher completed a simple Teacher Screening Form (Sprague, Tobin, and Simonsen, unpublished, 1999) for the five to ten highest ranked students to gather information regarding school adjustment, behavior, and social competence concerns.

See Figure 2 in the Appendix for a sample copy of the Teacher Screening Form.

**Characteristics of Students Identified**

The middle school selected for this study is located in a mid-size city located in the Pacific Northwest. The student demographic information for the participating middle school is presented below.

- 390 students in grades 6 and 7
- 14 percent non-white students
- 22.4 percent mobility rate
- 59 percent free/reduced lunch
- 4 weapons incidents in previous year

The neighborhood of the participating school was predominantly white and had the highest county rates of child abuse, domestic violence, adult crime, and family poverty. Further, the selected school had the highest proportion of youth with juvenile arrest records of any school in the county. The SFS Universal Screening Procedures identified 51 students (41 boys and 10 girls) or 13 percent of the total students enrolled in the sixth and seventh grades as potential candidates for alternative education services. Nine of the 51 or 18 percent of the identified students had a juvenile arrest record at the time of referral.

**SFS Universal Screening Study**

The SFS Universal Screening Study was conducted during the second year of the program. This study compared the similarities and differences across personal and ecological characteristics among non-IEP middle school boys identified by the SFS Universal Screening Procedures with boys eligible for special education under the disability categories of emotionally disturbed or learning disabled.

Research Design

This investigation used a quantitative causal-comparative, quasi-experimental research design to investigate the efficacy of the SFS Universal Screening Procedures to screen middle school boys for antisocial behavior

and risk factors that predict poor school outcomes. Specifically, this study examined the similarities and differences between middle school boys identified by the SFS Universal Screening Procedures with boys certified emotionally disturbed due to severe behavioral problems and boys certified learning disabled.

Participants

The SFS Universal Screening validity study used purposeful sampling techniques to recruit 45 boys, 45 parents, and 12 teachers to participate in this study. The boys selected for participation comprised the following three groups:

- SFS group: 15 boys identified by the SFS Universal Screening procedures
- ED group: 15 boys labeled emotionally disturbed and placed in special education behavioral classrooms
- LD group: 15 boys labeled learning disabled served in learning resource centers

The boys in each group were matched by age, socioeconomic status, and ethnicity. This study excluded girls due to the insufficient number of available middle school girls labeled ED required for adequate consideration of gender differences in types of aggressive behavior, academic strengths, and developmental pathways reported in current research. (Caseau, Luckasson, and Kroth, 1994; Handwerk and Marshall, 1998; Miller, Trapani, Fejes-Mendoza, Eggleston, and Dwiggins, 1995).

The majority of boys labeled ED (14 of 15 boys) attended special education behavioral classrooms. This special education placement was the most restrictive classroom program in the participating school district. Students placed in special education behavioral classrooms had continuous adult supervision throughout the school day to include classroom and non-academic settings, limited participation in regular education classes, and specialized discipline procedures. Furthermore, the boys in the ED and LD group often had special accommodations such as individualized curricula, modifications to classroom assignments, and alternative discipline procedures in accordance with protections against repeated suspensions and expulsions outlined in the Individuals with Disabilities in Education Act (IDEA, 1995).

Similar to the boys labeled ED, the SFS boys received alternative discipline procedures, increased family collaboration, and individualized behavior contracts. In contrast, the boys on referral to SFS alternative education services attended regular education classes only and did not receive alternative discipline supports. The school records of the SFS group indicate 12 of the 15 boys had previous special education referrals and nearly a third had previously received these services. However, all the SFS boys were ineligible for special education at the time of this study. Consequently, none of the SFS boys received accommodations to classroom assignments or special protections from suspension and expulsion procedures provided for student in special education.

Table 1 presents descriptive statistics for student grade levels, previous school services, special education, and current school placement information.

Table 1. Demographic and school information for the ED, LD, and SFS Groups

| Type of Support | Group ED [a,c] | LD [a,c] | SFS [a,c] |
|---|---|---|---|
| Mean age [b] | 13.1 | 12.9 | 12.8 |
| Ethnicity/race | | | |
| White | 73 | 87 | 80 |
| Non-white | 27 | 13 | 20 |

| | | | |
|---|---|---|---|
| Socioeconomic Status | | | |
| Free/reduced lunch | 100 | 100 | 100 |
| Previous School Interventions | | | |
| Retained one or more grades | 21 | 0 | 7 |
| Chapter One/Title I | 38 | 60 | 53 |
| Head Start/Early Intervention | 21 | 30 | 0 |
| Talented and gifted | 13 | 0 | 13 |
| Special Education History | | | |
| Previous Sped referral | 100 | 100 | 100 |
| Certified speech/language | 33 | 33 | 14 |
| Certified learning disabled | 40 | 100 | 27 |
| Certified emotionally disturbed | 100 | 0 | 0 |
| Current special education status | | | |
| Certified learning disabled | 0 | 100 | 0 |
| Certified emotionally disturbed | 100 | 0 | 0 |
| Non-eligible for Sped | 0 | 0 | 100 |
| Primary School Placement | | | |
| Regular education | 0 | 0 | 33 |
| Learning Resource Center | 0 | 100 | 0 |
| Sped Behavioral Classroom | 93 | 0 | 0 |
| Alternative education | 0 | 0 | 60 |
| Home instruction | 7 | 0 | 7 |

[a] Information based upon parent self-report. ED = emotionally disturbed; LD = learning disabled; SFS = Skills for Success. *n* = 15 boys in each group.
[b] Years. [c] Percentages unless otherwise indicated.

Measures

While a full report of this study's results is beyond the scope of this article, the results from one semi-structured parent interview and three standardized measures have been selected for review. The four standardized measures exceed the reliability standards for research. The following paragraphs provide a brief description of each measure.

Adverse Life Events and Resource Inventory (ALER). The ALER Inventory (Nishioka, unpublished, 2001) is a non-standardized structured parent interview that gathers information regarding parent involvement with school, adverse life events experienced by the family, and support services received by the student or family.

Child Behavior Checklist (CBCL/4-18). The CBCL/4-18 (Achenbach, 1991) is a parent rating scale that obtains information regarding children's demographic characteristics, competencies, and problems in the home and community setting. A feature of this measure is the ability to distinguish children whose problems are primarily internalizing or externalizing behaviors. Problem items from the withdrawal, somatic complaints, and anxious/depressed behavior syndrome scales distinguish internalizing behavior and items from the delinquent and aggressive behavior syndrome scales distinguish externalizing behavior.

Behavioral and Emotional Strengths Rating Scale (BERS). The BERS (Epstein and Sharma, 1998) measures personal strengths of children aged 5 to18 years old across five domains: interpersonal strength, involvement with family, intrapersonal strength, school functioning, and affective strength. This 52-item scale can be completed in approximately 10 minutes by teachers, parents, and other persons knowledgeable about the child. Analysis of criterion-related validity for the BERS demonstrated high correlation with the Walker-McConnell Scale of Social Competence and School Adjustment-Adolescent Version (Walker and McConnell, 1995) and the Self-Perception Profile for Children (Harter, 1985).

School Social Behavior Scales (SSBS). The SSBS (Merrell, 1993) is a behavior rating scale designed for school settings. This measure consists of 65 items organized into two major scales: social competence and behavior information for primary and secondary students. Teachers and school staff use this measure to complete comprehensive assessments, determine program eligibility, and develop intervention plans. In addition, this instrument is used as a research tool. The SSBS requires five to 10 minutes to complete. Construct validity for the SSBS established high correlation with four standardized behavior rating scales. Furthermore, this measure identified and discriminated at-risk students and students with disabilities from typical students.

**Study Results**

We conducted chi-square ($\chi^2$) analyses for dichotomous dependent variables obtained from the ALER Inventory. A series of Analysis of Variances (ANOVAs) was conducted for each subscale and total score of the CBCL/4-18, BERS, and SSBS scales testing the null hypothesis that there was no difference between the SFS, ED, and LD groups. We used the Bonferroni Inequality Procedure to control for experiment-wise Type I error (Keppel and Zedeck, 1992). The decision rules for family-wise (FW) comparisons are as follows:

- Reject the null hypothesis if the computed F statistic is greater than the adjusted FW alpha level of statistical significance.
- Fail to reject the null hypothesis if the computed F statistic is les than .05 alpha level of statistical significance.
- Suspend judgment if the computed F statistic is between the .05 alpha level of statistical significance and the adjusted FW alpha level.

Post hoc comparisons were conducted for statistically significant effects using the Scheffé procedure to control for family-wise Type I error (Keppel and Zedeck, 1992). Finally, effect sizes in pooled standard deviation units were computed separately for SFS and ED groups for all statistically significant and "suspend judgment" comparisons designating the LD group as the comparison group. We calculated the effect size by subtracting the mean of the comparison group (LD) from the mean of the ED or SM groups and dividing by the pooled standard deviations of both groups. For educational research, an ES of 0.30 is small, 0.70 is medium, and 1.00 is large.

Adverse Life Events and Resource Inventory (ALER)

Family information
In general, a higher proportion of boys LD were living in two-parent families than the ED and SFS group, $\chi^2$ (2, $n$ = 45) = 6.53, $p < 0.05$. Both the ED and SFS groups had boys residing in extended families and foster care. In contrast, none of the boys labeled LD resided with extended family members but one boy lived in foster care.

Table 2 presents descriptive statistics for family structure and household employment. The LD group reported one or both parents had jobs at the time of the study followed by the SFS group with 12 of 14 or 86 percent of the parents reporting employment. The ED group, however, reported 8 of 14 or 57 percent employed parents. Chi-square ($\chi^2$) test results indicate statistically significant differences in proportion of families with employed parent(s) or caregiver(s) among the ED, LD, and SFS group, $\chi^2(2, n = 45) = 13.89$, $p < 0.05$.

Table 2. Family structure and household employment for boys labeled ED, LD, and SFS

| Family Variable | Group ED [a,b] | LD [a,b] | SFS [a,b] |
|---|---|---|---|
| Family Structure | | | |
| Single parent | 53 | 27 | 47 |
| Two parent | 27 | 66 | 27 |
| Extended family/foster care | 20 | 7 | 27 |
| Siblings | 67 | 86 | 67 |
| Household employment | | | |
| Employed | 57 | 86 | 86 |
| Unemployed/disabled | 29 | 14 | 14 |
| Retired | 14 | 0 | 0 |

[a] $n$ = 15 boys in each group. [b] Percentages; percentages may not equal 100 percent due to rounding.

Family problems and adverse life event

ANOVA results indicated no statistically significant differences in the number of parent-reported occurrences of 12 family and life problems among these three groups. However, there were differences in the type of problems experienced by each group. Overall, a higher percentage of families in the ED and SFS group reported conflicts with their son and legal problems than the LD group. Furthermore, a higher percentage of families in the ED group reported moving, changing adults in the home, job changes, and separation and divorce. Finally, SFS families experienced a higher percentage of major illness in their family during the previous year.

Table 3 summarizes ANOVA results for frequency of family problems and adverse life events during the previous calendar year for boys labeled ED, LD, and SFS. Figure 3 in the Appendix provides a graphic presentation of the number of adverse life events that occurred for the ED, LD, and SFS groups during the previous calendar year.

Natural and agency support for families

We found no statistically significant ANOVA results for the number of natural supports available for each group. However, statistically significant differences in the number of agency and total support were found for the three groups ($p < 0.05$) with ED and SFS boys receiving more services than the LD group. Natural supports refers to non-paid supports, i.e., family, friends, church, clubs, and employers. Agency supports were limited to state or county operated human service agencies that provide child protection, mental health, and juvenile correction services.

Child Behavior Checklist/4-18

Multiple comparisons of the CBCL/4-18 found statistically significant effects among the ED, LD, and SFS groups across the aggressive, externalizing, and total scales at the adjusted (0.05/11 = 0.005) alpha level of statistical significance using the Bonferroni Inequality Procedure. Furthermore, statistical analyses that resulted in suspended judgment were withdrawn, anxious/depressed, social problems, thought problems, attention problems, delinquent, and internalizing behavior scales. There were no statistically significant differences for the somatic complaints behavior syndrome. Post hoc comparisons using the Scheffé procedure found no statistically significant differences between the ED and SFS groups for all eight-behavior syndromes. Likewise, there were no statistically significant differences in mean T-scores between the ED and SFS groups across the internalizing, externalizing, and total scales. However, data analyses indicated statistically significant differences and large effect sizes between the LD group and boys labeled SFS and ED across externalizing, aggressive behavior, and total scale *t*-scores.

Table 3. Analysis of variance and effect sizes for total family problems and adverse life events for boys labeled ED, LD, and SFS

| Source of Variance | Sum of Squares | *df* | Mean Square | *F* | *p* | Effect Size [a] ED [b] | Effect Size [a] SFS [b] |
|---|---|---|---|---|---|---|---|
| Model | 17.91 | 2 | 8.96 | 1.20 | 0.31 | 0.53 | 0.33 |
| Error | 314.67 | 42 | 7.49 | – | – | – | – |
| Corrected Total | 332.58 | 44 | – | – | – | – | – |

[a] In pooled standard deviation units with boys labeled ED as the comparison group.
[b] $p < 0.05$. ED = emotionally disturbed, LD = learning disabled, SFS = Skills for Success.

Table 4 summarizes the agency support that was provided to boys labeled ED, LD, and SFS.

Table 4. Natural and Agency Support Provided Boys Labeled ED, LD, and SFS

| Type of Support | Group ED [a,b] | Group LD [a,b] | Group SFS [a,b] |
|---|---|---|---|
| No agency support | 20 | 60 | 27 |
| Child Protection Agency | 33 | 47 | 20 |
| Child and Adolescent Service Agency | | | |
| Mental Health Only | 27 | 13 | 33 |
| Juvenile Corrections Only | 0 | 0 | 0 |
| Mental Health and Juvenile Corrections | 53 | 27 | 40 |

[a] Information based upon parent self-report. ED = emotionally disturbed; LD = learning disabled; SFS = Skills for Success. $n$ = 15 boys in each group. [b] Percentages.

The borderline range for the eight syndrome scales is a *t*-score of 67 or higher (95th percentile) for the eight syndrome scales and a *t*-score of 60 or higher (82nd percentile) for total, internalizing, and externalizing scores. Given this, the ED and SFS group mean *t*-scores were in the clinical range for aggression, externalizing, internalizing, and total scales. The ED group also had clinically significant T-scores for attention and delinquent scales. In contrast, the mean T-scores for the LD group were less severe and within the average range across all CBCL/4-18 behavior syndromes and scales. Table 5 reports CBCL/4-18 mean scores, standard deviations, ANOVAs, Scheffé post hoc, and effect size results.

Table 5. CBCL/4-18 Total and sub-scale *t*-scores

| CBCL Scale | Group [a] ED mean (*sd*) | LD mean (*sd*) | SM mean (*sd*) | *F* [b] | *p* | Scheffé Post hoc [c] | Effect Size [d] | |
|---|---|---|---|---|---|---|---|---|
| Withdrawn | 59.80 (7.48) | 52.20 (4.26) | 62.53 (10.87) | 5.75 | 0 | – | 1.28 | 1.22 |

| CBCL Scale | Group [a] ED mean (*sd*) | LD mean (*sd*) | SM mean (*sd*) | *F* [b] | *p* | Scheffé Post hoc [c] | Effect Size [d] | |
|---|---|---|---|---|---|---|---|---|
| Somatic Complaints | 57.60 (7.68) | 58.07 (7.25) | 64.07 (10.99) | 2.52 | 0.09 | – | 0.06 | 0.66 |
| Anxious/Depressed | 65.07 (12.93) | 55.53 (7.29) | 64.27 (12.61) | 3.32 | 0.045 | – | 0.94 | 0.88 |
| Social Problems | 63.60 (11.31) | 56.27 (6.93) | 64.47 (10.44) | 3.20 | 0.05 | – | 0.8 | 0.94 |
| Thought Problems | 63.20 (9.94) | 55.60 (6.03) | 62.20 (9.97) | 3.70 | 0.03 | – | 0.95 | 0.95 |
| Attention Problems | 68.00 (11.03) | 56.27 (6.93) | 64.67 (11.46) | 5.76 | 0.006 | – | 1.4 | 0.98 |
| Delinquent Behavior | 67.40 (12.33) | 57.00 (6.18) | 65.73 (6.70) | 5.96 | 0.005 | – | 1.12 | 1.38 |
| Aggressive Behavior | 72.27 (13.87) | 57.07 (6.18) | 70.93 (12.17) | 7.7 | 0 | ED,SFS > LD | 1.35 | 1.34 |
| Internalizing Scale | 62.47 (9.83) | 52.27 (10.48) | 63.80 (12.43) | 4.96 | 0.01 | - | 1.01 | 1.01 |
| Externalizing Scale | 70.40 (11.54) | 55.27 (8.82) | 68.33 (10.31) | 9.55 | 0.000 | ED,SFS > LD | 1.49 | 1.36 |
| Total Problems | 68.73 (9.89) | 56.40 (8.27) | 67.67 (11.66) | 6.96 | 0 | ED,SFS > LD | 1.36 | 1.13 |

Note. Suspend judgment = $p < 0.05$, Bonferroni Inequality = $p < 0.005$. CBCL = Child Behavior Checklist, ED = emotionally disturbed, LD = learning disabled, SFS = Skills for Success. [a] $n = 15$ for each groups. [b] $df$ (2, 42). [C] Post hoc results reported for statistically significant univariate statistics. [d] In pooled standard deviation units using boys labeled LD as the comparison group.

BERS (Epstein and Sharma, 1998)

ANOVA results indicated statistically significant differences for the school involvement subscale using the Bonferroni Inequality adjusted (0.05/6 = 0.008) alpha level of significance and suspended judgment for family involvement. We found no mean score differences for interpersonal competence, intrapersonal competence, and affective behavior among the ED, LD, and SFS groups. The total quotient scores for all three groups indicated a high likelihood for emotional and behavioral disorders (89 or less). Table 6 summarizes means, standard deviations, ANOVA, Scheffé post hoc, and effect size differences for the BERS among boys labeled ED, LD, and SFS.

School involvement

Scheffé post hoc results found boys in the SFS group had higher protective school involvement scores than the LD group. As expected, we also found a large effect size difference between SFS and LD boys as well as a medium effect size difference for the ED group. The school involvement standard scores for the ED and LD group were in the below average range indicating very high probability of emotional and behavior disorders. In contrast, the SFS group standard scores were in the average range indicating low probability of emotional and behavioral disorders.

Family involvement

We found a large effect size difference in family involvement scores between boys in the ED and LD group as well as a medium effect size difference for the SFS group. The family involvement standard scores for the ED and SFS group were in the below average range indicating very high probability of emotional and behavior disorders. The LD group score indicated a high likelihood of emotional and behavioral disorders.

Table 6. Mean scores, standard deviations, ANOVAs, Scheffé Post Hoc, and effect sizes for BERS standard scores

| Behavioral Strength | Group [a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ED mean (*sd*) | LD mean (*sd*) | SM mean (*sd*) | *F* [b] | *p* | Scheffé Post hoc [c] | Effect Size [d] | |
| Interpersonal Strength | 7.60 (1.06) | 9.47 (2.88) | 7.93 (3.35) | 2.17 | 0.13 | – | 0.95 | 0.49 |
| Family Involvement | 6.60 (1.84) | 9.40 (2.75) | 7.33 (3.20) | 4.48 | 0.017 | – | 1.22 | 0.7 |
| Intrapersonal Strength | 7.33 (2.16) | 8.00 (2.51) | 7.60 (3.52) | 0.22 | 0.81 | – | 0.29 | 0.53 |
| School Involvement | 7.07 (1.10) | 5.80 (2.46) | 8.33 (2.41) | 5.53 | 0.007 | SFS > LD | 0.72 | 1.04 |
| Affective Strength | 9.13 (2.75) | 8.40 (2.32) | 7.80 (3.47). | 0.8 | 0.45 | – | 0.29 | 0.21 |
| Total Quotient | 83.00 (7.70) | 87.60 (15.88) | 84.80 (15.99) | 0.45 | 0.64 | – | 0.41 | 0.18 |

Note. Suspend judgment = $p < 0.05$, Bonferroni Inequality = $p < 0.05$. BERS = Behavioral and Emotional Rating Scale, ED = emotionally disturbed, LD = learning disabled, SFS = Skills for Success. [a] $n = 15$ for each groups. [b] $df$ (2, 42). [C] Post hoc results reported for statistically significant univariate statistics. [d] In pooled standard deviation units using boys labeled LD as the comparison group.

School Social Behavior Scales (SSBS)

Behavior Scales: Social Competence Scale

We found no statistically significant differences among the ED, LD, and SFS group for social competence. A total social competence score of 64-84 indicates a moderate deficit. Given this, the group mean score for total social competence for the ED group was in the moderate deficit range. In contrast, the LD and SM mean social competence scores were in the low average range of functioning. Table 7 summarizes means, standard deviations, ANOVAs, Scheffé post hoc, and effect size results for SSBS Social Competence Scale.

Table 7. Mean scores, standard deviations, ANOVAs, and effect sized of SSBS Social Competence Scale Scores

| Social Competence | Group [a] ED mean (*sd*) | LD mean (*sd*) | SM mean (*sd*) | *F* [b] | *p* | Scheffé Post hoc [c] | Effect Size [d] | |
|---|---|---|---|---|---|---|---|---|
| Interpersonal | 34.00 (6.97) | 40.07 (11.85) | 36.73 (11.51) | 1.29 | 0.29 | - | 0.65 | 0.29 |
| Self Management | 27.27 (6.30) | 34.93 (10.58) | 28.80 (9.35) | 3.10 | 0.06 | - | 0.91 | 0.62 |
| Academic | 20.80 (5.99) | 23.20 (8.99) | 22.67 (7.95) | 0.40 | 0.67 | - | 0.32 | 0.06 |
| Total Competence | 84.00 (8.12) | 92.40 (15.21) | 87.20 (13.48) | 1.69 | 0.20 | - | 0.72 | 0.36 |

Note. Suspend judgment = $p < 0.05$, Bonferroni Inequality Procedure = $p < 0.013$. SSBS = School Social Behavior Scales, ED = emotionally disturbed, LD = learning disabled, SFS = Skills for Success. [a] $n = 15$ for each groups. [b] $df$ (2, 42). [C] Post hoc results reported for statistically significant univariate statistics. [d] In pooled standard deviation units using boys labeled LD as the comparison group.

SSBS Antisocial scale: Teacher rating scale

We found no statistically significant ANOVA results using Bonferroni Inequality Procedure to control for family-wise Type I error (0.05/4 = 0.013) for all SSBS Antisocial subscale and total scale scores. However, the hostile/irritable, aggressive/antisocial, and total scale scores indicated suspended judgment results ($p < 0.05$ and $p > 0.013$). Effect size results suggested similar patterns of differences among these three groups. We found medium effect size differences for both the ED and SFS group across hostile/irritable, aggressive/antisocial, and total antisocial scales. Additionally, small effect size differences were found for the disruptive/demanding scale for both the ED and SFS groups. For the SSBS, total anti-social scale scores between 75-108 indicate moderate problems and scores between 108-165 indicate significant problems. Given this, the group mean scores for all groups were in the significant problem range.

**SFS Universal Screening Study Summary**

The series of analysis of variance (ANOVAs) revealed striking similarities between boys identified by the Skills for Success screening procedure and boys certified as ED across personal and ecological characteristics. The majority of boys in the ED and SFS groups lived with single parent families, had high rates of poverty, and experienced chronic school failure. Furthermore, the ED and SFS group mean scores suggested a pattern of problem behavior, social skill deficits, poor family involvement, and chronic life adversity that often predicts school failure and poor adult outcomes. The comparisons between the ED, LD, and SFS groups indicated higher family involvement, lower rates of aggressive behavior, and lower school involvement for the LD group. Overall, the SFS universal screening procedure appears to have promise as an important strategy for early identification of students who are at high risk for school failure, antisocial behavior, and negative outcomes. However, generalizability of these findings is limited due to the small sample size. For example, further investigations that examine the efficacy of universal screening procedures for students from higher socioeconomic levels, more diverse ethnicity, different age groups, and with girls.

Table 8 summarizes means, standard deviations, ANOVAs, and effect size results for School Social Behavior Scale (SSBS) Antisocial Behavior scale.

Table 8. Means scores, standard deviations, ANOVAs, and effect size results for SSBS Antisocial Scale Standard Scores

| Antisocial | Group [a] ED mean (*sd*) | LD mean (*sd*) | SM mean (*sd*) | *F* [b] | *p* | Scheffé Post hoc [c] | Effect Size [d] | |
|---|---|---|---|---|---|---|---|---|
| Hostile/Irritable | 41.87 (9.96) | 30.67 (14.03) | 41.53 (13.44) | 3.83 | 0.03 | - | 0.93 | 0.79 |
| Aggressive/Antisocial | 26.80 (7.74) | 19.33 (9.89) | 28.60 (11.49) | 4.01 | 0.03 | - | 0.90 | 0.91 |
| Disruptive/Demanding | 26.87 (7.03) | 22.07 (9.68) | 25.40 (7.69) | 1.35 | 0.27 | - | 0.57 | 0.38 |
| Total Antisocial | 123.80 (13.67) | 110.20 (18.45) | 123.00 (16.74) | 3.25 | 0.05 | - | 0.85 | 0.73 |

Note. Suspend judgment = $\underline{p} < .05$, Bonferroni Inequality Procedure = $\underline{p} < .013$. SSBS = School Social Behavior Scales, ED = emotionally disturbed, LD = learning disabled, SFS = Skills for Success. [a] $n = 15$ for each groups. [b] $df$ (2, 42). [C] Post hoc results reported for statistically significant univariate statistics. [d] In pooled standard deviation units using boys labeled LD as the comparison group.

**SFS Universal Screening Study Summary**

The series of analysis of variance (ANOVAs) revealed striking similarities between boys identified by the Skills for Success screening procedure and boys certified as ED across personal and ecological characteristics. The majority of boys in the ED and SFS groups lived with single parent families, had high rates of poverty, and experienced chronic school failure. Furthermore, the ED and SFS group mean scores suggested a pattern of problem behavior, social skill deficits, poor family involvement, and chronic life adversity that often predicts school failure and poor adult outcomes. The comparisons between the ED, LD, and SFS groups indicated higher family involvement, lower rates of aggressive behavior, and lower school involvement for the LD group. Overall, the SFS universal screening procedure appears to have promise as an important strategy for early identification of students who are at high risk for school failure, antisocial behavior, and negative outcomes who have not been previously identified through traditional school referral systems. However, caution should be taken in generalizability of these findings due to the small sample size. Further investigations that examine the efficacy of universal screening procedures for middle school boys is required. In addition, investigations that examine the utility and reliability for using this universal screening strategy for additional student populations e.g., students from higher socioeconomic levels, more diverse ethnicity, different age groups, and with girls, would also be helpful in understanding the potential of universal screening procedures.

**Appendix**

Figure 1. Teacher Nomination Form

**Teacher Nomination Form**

**Please identify 3-5 male students and 3-5 female students that, in your opinion, are at risk for school failure.**

| Male | Female |
|---|---|
| 1. _____ | 1. _____ |
| 2. _____ | 2. _____ |
| 3. _____ | 3. _____ |
| 4. _____ | 4. _____ |
| 5. _____ | 5. _____ |

**Please identify 3-5 male students and 3-5 female students that are at risk for emotional and behavioral problems (such as fighting, depression, significant relationship problems, etc.). Note: some of these students may overlap or be the same students as those nominated for school failure.**

| Male | Female |
|---|---|
| 1. _____ | 1. _____ |
| 2. _____ | 2. _____ |
| 3. _____ | 3. _____ |
| 4. _____ | 4. _____ |
| 5. _____ | 5. _____ |

**Thank you for your time!**

Figure 2. Teacher screening form

Teacher Nomination Form

Name of Student: _____ DOB: _____ Gender: ○M ○F Grade: ____ Today's Date: _____

School: _____ Referring Staff: _____ Staff Position: _____

| **Directions**: Think of how the student behaves in the classroom and unstructured settings (cafeteria, hallways, restrooms) & mark the rating that best describes his or her behavior. A rating of 1 = never, 2 = rarely, 3 = sometimes, and 4 = frequently. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **I. Study Skills** | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |
| 1. Poor academic achievement | | | | | 4. Refuses to complete work | | | | |
| 2. Able to complete assigned tasks on time | | | | | 5. Does not attend school or class | | | | |
| 3. Behaves appropriately when corrected | | | | | 6. Unable to concentrate or pay attention | | | | |
| **II. Social Skills** | | | | | | | | | |
| 1. Works cooperatively with peers | | | | | 4. Asks for help when help is needed | | | | |
| 2. Gains peer attention appropriately | | | | | 5. Teased, neglected, or avoided by peers | | | | |
| 3. Uses problem-solving and anger mgt. | | | | | 6. Painfully shy | | | | |
| **III. School Discipline Concerns** | | | | | | | | | |
| 1. Student is disruptive in class | | | | | 6. Associates w/peers who get into trouble | | | | |
| 2. Responds impulsively to problems | | | | | 7. Uses gang talk, gestures, or clothing | | | | |
| 3. Lies to get out of trouble or to cause problems | | | | | 8. Doesn't seem to feel guilty after misbehaving | | | | |
| 4. Bullies or threatens others | | | | | 9. Deliberately annoys people | | | | |
| 5. Talks about or uses violence/weapons | | | | | 10. Often the victim of violence and aggression | | | | |
| **IV. Health and Safety Concerns** | | | | | | | | | |
| 1. Sets, or talks about setting, fires | | | | | 9. Shows inappropriate sexual knowledge or behavior | | | | |
| 2. Destroys property/engages in vandalism | | | | | 10. Noticeable weight loss or gain | | | | |
| 3. Physically aggressive with peers | | | | | 11. Engages in self-abusive behaviors (e.e., biting, head banging, cutting, etc.) | | | | |
| 4. Physically aggressive with adults | | | | | 12. Runs away from class or school | | | | |
| 5. Has used or possessed alcohol or drugs | | | | | 13. Worries or is often anxious | | | | |
| 6. Exhibits obsessive-compulsive behaviors | | | | | 14. Feels he/she has to be perfect | | | | |
| 7. Takes others belongings without asking | | | | | 15. Frequently unhappy, sad, or depressed | | | | |
| 8. Displays inappropriate affect (e.g., laughing when expected to be sad) | | | | | 16. Complains of pain or sickness without obvious cause | | | | |

Figure 3. Number of adverse life events during previous year for Emotionally Disturbed, Learning Disabled, and Skills For Success groups

## References

Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist/4-18 and the 1991 profile*. Burlington, VT: University of Vermont Deparment of Psychiatry.

Bullis, M., Walker, H.M., and Stieber, S. (1998). The influence of peer and educational variables on arrest statur among at-risk males. *Journal of Emotional and Behavioral Disorders, 6*, 141-152.

Caseau, D. L., Luckasson, R., and Kroth, R. L. (1994). Special education services for girls with serious emotional disturbance: A case of gender bias? *Behavioral Disorders, 20*, 51-60.

Drummond, T. (1994). The Student Risk Screening Scale (SRRS). Grants Pass, OR: Josephine County Mental Health Program.

Epstein, M. and Sharma, J. (1998). *Behavioral and Emotional Rating Scale (BERS)*. Austin TX: Pro-Ed, Inc.

Eron, L. D., and Huesmann, L. R. (1990). The stability of aggressive behavior – even unto the third generation. In M. Lewis and S.M. Miller (Eds.), *Perspectives in developmental psychology*, 147-156. New York: Plenum Press.

Handwerk, M. L., and Marshall, R. M. (1998). Behavioral and emotional problems of students with learning disabilities, serious emotional disturbance, or both conditions. *Journal of Learning Disabilities, 31*, 327-338.

Harter, S. (1985). *Manual for the Self-Perception Profile for Children*. Denver: University of Denver.

Kauffman, J. M. (1999). How we prevent the prevention of emotional and behavioral disorders. *Exceptional Children, 65*, 448-469.

Kellam, S. H., Ling, W., Merisca, R., Brown, C. H., and Ialongo, N. (1998). The effect of the level of aggression in the first grade classroom on the course and malleability of aggressive behavior into middle school. *Development and Psychopathology, 10*, 165-185.

Keppel, G., and Zedeck, S. (1997). *Data analysis for research designs: Analysis of variance and ;multiple regression/correlation approaches*. New York: W. H. Freeman and Company.

Lane, K. L. (2003). Identifying young students at risk for antisocial behavior: The utility of "Teacher as Tests." *Behavioral Disorders, 28*, 360-369.

Merrell, K. W. (1998). *School Social Behavior Scales*. Austin, TX: Pro-Ed, Inc.

Miller, D., Trapani, C., Fejes-Mendoza, K., Eggleston, and Dwiggins, D. (1995). Adolescent female offenders: Unique considerations. *Adolescence, 30*, 420-435.

Walker, H. M. and Severson, H. (2002). Developmental prevention of at-risk outcomes for vulnerable antisocial children and youth. In K. L. Lane, F. M. Gresham, and T, E. O'Shaughnessy (Eds.), *Interventions for children with or at risk for emotional and behavioral disorders*, 177-194. Boston: Allyn and Bacon.

Walker, H. M. and Severson, H. (1992). *Systematic Screening for Behavior Disorders: Technical manual*. Longmont, CO: Sopris West.

Walker, H. M., Severson, H., and Feil, E. G. (1995). *The Early Screening Project; A proven child find process*. Longmont, CO: Sopris West.

Walker, H. M. and McConnell, S. R. (1995). *The Walker-McConnell Scale of Social Competence and School Adjustment-Adolescent Version*. San Diego: Singular Publishing Group.

## Biography

**Vicki M. Nishioka**, Ph.D., is a Research Associate at the Institute on Violence and Destructive Behavior in the College of Education at the University of Oregon. She has directed residential, family support, behavioral classrooms, and vocation programs for children and youth with emotional and behavioral disorders. She has also coordinated federal in-service training programs for regular and special education teachers in the areas of behavior support, curriculum development, and classroom management. Her research activities include universal screening procedures for middle school students, alternative education, school-based mental health, systems change, and school violence prevention.

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