Community and Youth Collaborative Institute
School Experience Surveys – Technical Report

CAYCI Internalizing Behaviors Scale
Middle/High School Student Version

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INTERNALIZING BEHAVIOR
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I. Definition of Construct

The *Internalizing Behavior* scale assesses the extent to which students report behaviors and feelings that are sometimes referred to as "inhibited behaviors" (see the work of Thomas Achenbach). These feelings and behaviors are those that are dealt with internally, rather than by acting them out in the home or school.

II. Relevance for Practice

In the literature, internalizing behaviors have been shown to significantly influence student success in the classroom (Rapport, Denney, Chung & Hustace, 2001). Specifically, the literature shows a relationship between low self-esteem, lower school achievement, and maladaptive achievement strategies in students who frequently experience internalizing behaviors (Aunola, Stattin & Nurmi, 2000; Ansary & Luthar, 2009).

III. Scale Description and Instructions

A. Items

1. In the past week, I felt sad.
2. In the past week, I felt lonely.
3. In the past week, people were not nice to me.
4. In the past week, I felt worried.
5. In the past week, I had trouble sleeping.
6. In the past week, I felt shy.

B. Response Options

Response options for each item include the following:
1 = Strongly Agree
2 = Agree
3 = Neither Disagree or Agree
4 = Disagree
5 = Strongly Disagree

C. Instructions for Respondents

These questions ask you about feelings you might have experienced during the week. For each of the following statements, please fill in ONE circle that best represents your answer.

D. Instructions for Scale Administers

For complete instructions on how to administer the survey, reference the "Student Survey Directions" that are printed on the survey itself. Once each student has a survey, explain that the purpose of the survey is to learn more about their experiences at school. They should mark one answer per statement, selecting the choice that best reflects how they feel.

As students finish, look thoroughly through the surveys to make sure that they did not miss any items or questions. Please remember that students do NOT have to answer every question, but do encourage them to complete as much of the survey as possible. Remind students that their answers will help the school know how to best support them.

IV. Scoring Procedures

An average of the response scores from the 6 items should be calculated and used as an indicator of internalizing behaviors, with higher scores reflecting students reporting lower rates of internalizing behaviors.

V. Psychometric Properties of the Scale

A. Description of Sample

Participants used to test the psychometric properties of the scale included 3507 middle school (6-8th grade; 32.4%) and high school (9th-12th grade; 64.9%) students from around the states of Ohio & Utah. The participants included 1715 males (50.0%) and 1713 (50.0%) females. The students identified themselves as White/Non-Hispanic (66.8%), African American (2.3%), Latino/Latina (15.6%), Asian (4.2%), Native Hawaiian/Other Pacific Islander (1.8%), Mixed/Multi-Racial (2.9%), American Indian/Alaskan Native (1.4%), or other (2.7%), and 36.0% indicated they received a free or reduced lunch. Data on these students were collected as part of a needs assessment within each school's improvement planning process. All data were collected using the online instrument.

B. Basic Descriptive Statistics and Relevant Group Differences

Sample	Mean	SD	Range	α
Full Sample (N =3507)	3.27	1.07	1-5	.87
Gender				
Males (n =1715)	3.50	1.05	1-5	.87
Females (n =1713)	3.04	1.07	1-5	.86
Race/Ethnicity				
White/Non-Hispanic (n =2343)	3.30	1.06	1-5	.87
Other (n=1164)	3.22	1.08	1-5	.87
Grade Level				
Middle School (n =1135)	3.59	1.09	1-5	.87
High School (n =2276)	3.11	1.02	1-5	.86

Note. Group specific data omits students who did not indicate their status. The groups were significantly different ($p<.05$). The effect size (η^2) for the grade level and gender comparisons indicated that group membership differences accounted for 5% of the variance in the scores, while race/ethnicity differences account for less that 1% of the variance in the scores.

C. Relationship between Scores and Other Student Perception Constructs

Construct [a]	r =
Academic Motivation	.30*
School Connectedness	.31*
Academic Press	.29*
Support for Learning	.29*
College and Career Readiness	.20*
Externalizing Behaviors	.21*
Parent Involvement and Support	.22*
Family and Community Connections	.39*
Social Skills	.21*

Construct [a]	$r =$
Peer Relationships	.27*
Safety	.35*
Diversity	.27*

Notes. [a] *Average score on the respective subscale scores from the CAYCI surveys (Anderson-Butcher, Amorose, Iachini, & Ball, 2013). * relationship significant (p<.01).*

D. Factorial Validity

A confirmatory factor analysis (CFA) was conducting using robust maximum likelihood estimation procedures in LISREL 9.2 (Scientific Software International, Inc., Chicago). The CFA model specified that the 6 items loaded on a single latent Internalizing Behavior factor. The factor variance was freely estimated, as was the uniqueness for each item. No covariances between uniquenesses were modeled.

The overall fit of the model to the data was reasonably good based on commonly recommended cut off values for evaluating model fit (see Hu & Bentler, 1999), S-B $\chi^2 = 51.36$, $df = 9$, $p = .00$; RMSEA = .094 (90% CI = .085-.103), SRMR = .02; CFI = .98, IFI = .98. The table below presents the completely standardized factor loadings and uniquenesses for each item. Squared multiple correlations ranged from .46-.78. The modification indices did not suggest any major areas of local strain.

Item	*Loading*	*Uniqueness*
In the past week, I felt sad.	.86	.27
In the past week, I felt lonely.	.88	.22
In the past week, people were not nice to me.	.72	.49
In the past week, I felt worried.	.82	.24
In the past week, I had trouble sleeping.	.68	.54
In the past week, I felt shy.	.71	.49

VI. Past and Future Scale Development

An initial version of the scale (Middle/High School Student Version) included the following additional items: (1) "In the past week, I felt afraid," (2) "In the past week, I felt like I didn't matter," and (3) "In the past week, I felt others didn't like me." Results from preliminary analyses indicated that these items did not fit well with the other scale items. Thus the current recommendation is to use the 6-item version of the measure as described in this report. Future scale development work may consider modifying the items and/or response format to increase the variability in the scores. Future work also is needed to validate the Spanish version of this scale, and to test for invariance in the factor structure across relevant groups and time.

VII. Summary

Overall, the results of the psychometric testing indicate initial support for the reliability and validity of the Internalizing Behavior scale with middle and high school students. In the literature, internalizing behaviors have been shown to significantly influence student success in the classroom (Rapport, Denney, Chung & Hustace, 2001). Therefore, it is important for educators to be aware of students needs if they are experiencing such feelings and behaviors.

VIII. References

Ansary, N.S. & Luthar, S.S. (2009). Distress and academic achievement among adolescents of affluence: A study of externalizing and internalizing problem behaviors and school performance. *Development and Psychopathology,* 21, 319-341.

Aunola, Stattin & Nurmi, (2000). Adolescent achievement strategies, school adjustment, and externalizing and internalizing problem behaviors. *Journal of Youth & Adolescence*, 29(3), 289-306.

Hu, L. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1-55.

Rapport, M.D., Denney, C.B., Chung, K. & Hustace, K. (2001). Internalizing behavior problems and scholastic achievement in children: Cognitive and behavioral pathways as mediators of outcomes. *Journal of Clinical Child Psychology*, 30(4), 536-551.

IX. Recommended Citation of Scale

When using the Internalizing Behavior scale for program evaluation or research purposes, we recommend using the following citation:

Anderson-Butcher, D., Amorose, A.J., Iachini, A., & Ball, A. (2013). Community and Youth Collaborative Institute School Experience Surveys: Internalizing Behaviors Scale in Middle & High School. Columbus, OH: College of Social Work, The Ohio State University.

If this scale is used along with additional Community and Youth Collaborative Institute School Experience Surveys, then the following citation would be appropriate to cover all scales:

Anderson-Butcher, D., Amorose, A.J., Iachini, A., & Ball, A. (2013). Community and Youth Collaborative Institute School Experience Surveys. Columbus, OH: College of Social Work, The Ohio State University.