A major focus for current policy and systems change efforts in education and mental health is the extent to which states are investing in practices and procedures that are supported by rigorous research evidence. Evidence-based practices have been demonstrated in formal research studies to be related to valued outcomes for children and their families.

A reasonable question is if School-wide Positive Behavior Support (SWPBS) is an evidence-based practice. The purpose of this document is to lay out the current evidence assessing SWPBS and the considerations that may be relevant for state, district and national decision-makers.

Any claim that a practice or procedure is “evidence-based” should be framed in the context of (a) explicit description of the procedure/practice, (b) clear definition of the settings and implementers who use the procedure/practice, (c) identification of the population of individuals who are expected to benefit, (d) documentation of implementation fidelity, and (e) the specific outcomes expected. Given this context, the research involving the practice/procedure may be reviewed, and an array of criteria have been proposed by different agencies and organizations (c.f. American Psychological Association, What Works Clearinghouse, SAMSA, Institute for Education Science) for how this literature may be examined to determine the level of experimental rigor, and the confidence with which any statement about “evidence-based” effects can be claimed. A summary of suggestions for defining evidence-based practices from Quantitative (Gersten et al., 2005), Correlational (Thompson et al., 2005) and Single Subject (Horner et al., 2005) research methods was reviewed for educational literature in special section of Exceptional Children (Odom et al., 2005).

1 The Center is supported by a grant from the Office of Special Education Programs, US Department of Education (H326S980003). Opinions expressed herein do not necessarily reflect the position of the US Department of Education, and such endorsements should not be inferred. For additional information, go to www.pbis.org or contact Rob Horner (Robh@uoregon.edu) or George Sugai (george.sugai@uconn.edu), who are co-directors of the PBIS Center.
In this research summary, we provide (a) the citations defining the context content for SWPBS, (b) the current status of evidence for each of the three tiers of the SWPBS approach (Primary Prevention, Secondary Prevention, Tertiary Prevention), and (c) summary of current and expected directions.

### School-wide Positive Behavior Support

School-wide Positive Behavior Support is a systems approach to establishing the social culture and behavioral supports needed for all children in a school to achieve both social and academic success. SWPBS is not a packaged curriculum, but an approach that defines core elements that can be achieved through a variety of strategies. The core elements at each of the three tiers in the prevention model are defined below:

<table>
<thead>
<tr>
<th>Prevention Tier</th>
<th>Core Elements</th>
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<tbody>
<tr>
<td><strong>Primary</strong></td>
<td>• Behavioral expectations defined</td>
</tr>
<tr>
<td></td>
<td>• Behavioral expectations taught</td>
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<tr>
<td></td>
<td>• Continuum of consequences (i.e., rewards, reinforcers) for appropriate behavior</td>
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<tr>
<td></td>
<td>• Continuum of consequences for problem behavior</td>
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<tr>
<td></td>
<td>• Continuous active supervision or monitoring across all school settings</td>
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<tr>
<td></td>
<td>• Continuous monitoring, collection, and use of data for decision-making</td>
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<tr>
<td><strong>Secondary</strong></td>
<td>• Early universal screening</td>
</tr>
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<td></td>
<td>• Continuous progress monitoring for students with at risk behavior</td>
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<tr>
<td></td>
<td>• System for increasing structure and predictability</td>
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<tr>
<td></td>
<td>• System for increasing contingent adult feedback</td>
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<td></td>
<td>• System for linking academic and behavioral performance</td>
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<td></td>
<td>• System for increasing home/school communication</td>
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<tr>
<td></td>
<td>• Collection and use of data for formative decision-making</td>
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<tr>
<td><strong>Tertiary</strong></td>
<td>• Functional behavioral assessment</td>
</tr>
<tr>
<td></td>
<td>• Team-based comprehensive assessment and intervention</td>
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<tr>
<td></td>
<td>• Linking of academic and behavior supports</td>
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<tr>
<td></td>
<td>• Individualized intervention based on assessment information focusing on (a) prevention of problem contexts; (b) instruction on functionally equivalent skills, and instruction on desired performance skills; (c)</td>
</tr>
</tbody>
</table>
strategies for placing problem behavior on extinction; (d) strategies for enhancing contingent reward of desired behavior; and (e) use of negative or safety consequences if needed.

- Establishment of local behavioral expertise
- Collection and use of data for decision-making

The core elements of SWPBS are integrated within organizational systems in which teams, working with administrators and behavior specialists, provide the training, policy support and organizational supports needed for (a) initial implementation, (b) active and accurate application, and (c) sustained use of the core elements (Sugai & Horner, in press).

Is there evidence indicating that SWPBS can be implemented with fidelity and is related to improved social and/or academic outcomes for students?

Among the most rigorous standards for documenting that a practice/procedure is “evidence-based” is demonstration of at least two peer-reviewed randomized control trial research studies that document experimental control. To meet this standard the practice/procedure must be operationally defined, formal measures of fidelity must be applied, formal outcome measures must be specified and monitored, and these elements must be used within a randomized control trial group research design.

Measures

SWPBS measures documenting fidelity


Primary Prevention Tier of School-wide Positive Behavior Support
**Randomized Control Trials** assessing SWPBS are (a) proposed, (b) being conducted, or (c) recently completed.


This paper documents that (a) typical state agents were successful in implementing SWPBS practices, (b) that these practices were experimentally linked to improved perception of school safety, and (c) implementation was associated preliminarily with improved proportion of students at 3rd grade who met the state reading standard.


This paper documents a randomized control trial conducted in Maryland in which implementation of SWPBS was demonstrated to occur with fidelity, and be linked to (a) improved organizational health, (b) improved academic outcomes, and (c) reductions in office discipline referrals. The paper has only been disseminated as a professional presentation at this time, and has not gone through peer review. It is anticipated that this paper will be submitted for publication within the next 12 months.


This research in currently in data-collection phase, with preliminary results presented a professional conferences indicating reduction in problem behavior levels when SWPBS core features were implemented. Publishable results are anticipated for 2010.


This grant proposal is under review, and proposes a four year randomized control analysis of SWPBS across three states. If funded, the study would produce results in 2011.

**Syntheses of SWPBS from Mental Health Institute**


“Most experts in the field agree that school-wide PBS is in its infancy (Dunlap, 2006). However, the early results of PBS interventions implemented at the
indicated level, and the growing body of support for implementation at the universal and selective levels for children who have emotional/behavioral problem is very promising.” (p. 32)

“Because the roots of PBS are in applied experimental analysis of behavior, the evidence for PBS, at this time, is primarily derived from single subject designs. This research, while not in the traditional empirical mode, is nevertheless rigorous, generalizable, and strong in social validity (Sugai & Horner, 2002). Therefore, administrators have a preponderance of evidence to support their exploration of PBS as a viable model for School-based Mental Health programs.” (p. 33)

Evaluation studies examining SWPBS that used research quality measures, but did NOT employ experimental designs document both implementation of the core feature by typical school personnel, and either improved academic performance, or reductions in office discipline referrals.


**Secondary Tier of School-wide Positive Behavior Support**
Randomized Control Trials

Bradshaw C., Leaf, P., et al, (in progress) Randomized control trial of secondary and tertiary interventions added to schools already using primary prevention efforts. This research began 2007 and is scheduled for completion 2011.

Chaney, D., et al., (in progress). Randomized control trial of Check-in/ Check-out procedures. Results have been collected and are being summarized. Preliminary presentations at professional conferences indicate functional effect between use of procedures and both improved scores on standardized assessment instruments, and direct observation of problem behavior.

Materials and Research on Specific Secondary Interventions.


**Check & Connect (Drop-out Prevention)**


Refereed Journal Articles: Secondary Interventions


**First Steps to Success**


**Social Skills Training – Research Summary Articles**

Tertiary Prevention

The research supporting the effectiveness of function-based approach to behavior assessment to the design of individualized behavioral interventions and the active use of data in the implementation of behavior support is perhaps the most robust of the databases within SWPBS. The majority of this research has employed single-case designs to examine the effects of specific interventions, but increasingly studies are linking behavioral and academic interventions to reduction in problem behavior.

This research has not at this time assessed the interaction effects associated with implementation of elements at all three tiers in the SWPBS prevention framework. The following is a sample of the research related to function-based support and tertiary tier interventions.


