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Positive Behavior Support: Sustainability and Continuous Regeneration

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Because of its widespread adoption and implementation (in over 13,000 schools in the US; Center on Positive Behavioral Interventions and Supports, 2010), there has been increasing attention to how School-wide Positive Behavior Support (SWPBS) systems can be sustained. Sustained implementation can be defined as "continued use of an intervention or prevention program, with ongoing implementation fidelity to the core program principles, after supplemental resources used to support initial training and implementation are withdrawn" (Han & Weiss, 2005, p. 666). The term sustainability regards a practice's potential for durable implementation with high fidelity, when considering features of the practice, its implementation, and the context of implementation. Though it can be tempting to consider sustainability as deriving entirely from the behavioral principle of maintenance, sustainability includes not only maintenance, but also ongoing adaptations to enhance a practice's effectiveness, efficiency, and contextual fit (Elias, Zins, Graczyk, & Weissburg, 2003; McLaughlin & Mitra, 2001). This process of adaptation is known as continuous regeneration (McIntosh, Horner, & Sugai, 2009). Given the importance of sustainability to continued positive outcomes for stakeholders and wise use of resources, there is an urgent need to explore theories of sustainability and glean practical information to make practices, including SWPBS, more sustainable.

McIntosh, Horner, and Sugai (2009) proposed a model detailing the mechanisms of sustainability of school-based interventions, including SWPBS (see Figure 1). In the model, sustainability includes both three core activities and four principles involved in the process. These activities and principles all exist within the context of the school, district, and province/state, in recognition of the importance of contextual fit to sustainability (McIntosh,

Filter, Bennett, Ryan, & Sugai, 2010). The core, ongoing activities are (a) identifying shared, valued outcomes, (b) identifying or modifying practices to meet those outcomes, and (c) implementing the practices. The activities are iterative in that the practice's outcomes are then compared to the desired outcomes, and the practices are continued if they are seen as a viable means to meet them. Operating within the model are four principles of sustainability: priority, effectiveness, efficiency, and continuous regeneration.

Priority concerns the level of support for the implemented practice, especially as compared to other potential practices. When the practice has a broad range of support (from school personnel to district and provincial/state administrators), sustainability is enhanced (Barrett, Bradshaw, & Lewis-Palmer, 2008; George & Kincaid, 2008). Priority can be enhanced through specific steps, such as tying the practice to core values of the organization (Han & Weiss, 2005) or integrating the practice into existing or new school and district initiatives (McLaughlin & Mitra, 2001). The main goal is to build and maintain enough support for the practice such that the organization and funding agencies are willing to continue implementation amongst other initiatives that compete for time and resources.

Effectiveness refers to both the actual effects of the practice on student outcomes and the perceived effects by school personnel (Han & Weiss, 2005). As such, it is important to emphasize the direct connection between implementing the practice and positive outcomes. School personnel will then find implementation activities more reinforcing. A key consideration is that effectiveness is derived from two aspects. The first aspect is the extent to which the practice is evidence-based. This aspect is inherent to the practice itself. The second aspect is the extent to which the practice is implemented with fidelity. Fidelity of implementation contributes to effectiveness and can be supported through attention to the systems supporting school

personnel in implementation. Practices are most effective when they are both evidence-based and implemented with fidelity.

Efficiency requires weighing the positive outcomes of the practice with the effort needed for implementation. Accordingly, efficiency includes comparing the efficiency of the implemented practice to that of other viable practices and the ability of the implementers to sustain the practice with continuously less effort over time. As implementers gain experience with the practice, it should become more efficient over time. An overly burdensome practice can increase teacher stress, even if the practice is viewed as effective (Bennett & McIntosh, 2010). Like effectiveness, efficiency comes from aspects of the practice itself (i.e., its cost effectiveness) and the resources used in the implementation process. With careful attention to implementation and local capacity, external coaches can enhance the efficiency of the practice.

Each of the previously described principles are anchored by *continuous regeneration*, the process of using data to monitor, adapt, and enhance implementation (McIntosh et al., 2009). Continuous regeneration represents the highest level of implementation, adaptation of practices over time (Baker, Gersten, Dimino, & Griffiths, 2004). This process manifests itself through responsiveness to change and ongoing reinvention of the practice (e.g., through modification to suit different contexts and new initiatives). It is closely related to generalization, which concerns how a practice be used in a range of contexts (stimulus generalization), as well as flexibility to adjust to environmental changes while still producing positive outcomes (response generalization). Continuous regeneration occurs through three mechanisms: (a) capacity building, the process of developing expertise within the organization as external supports are discontinued; (b) continuous measurement, a regular system of measuring both intended

outcomes and implementation fidelity; and (c) data-based problem solving, which involves the focused analysis of data to improve system function in relation to valued outcomes.

In addition to this model, research in the past few years has provided guidance regarding specific steps to take to enhance the sustainability of SWPBS. Sustainability of any practice cannot be assumed–there are countless effective and efficient practices that have been implemented fully and abandoned within a few years (Latham, 1988; Santangelo, 2009). Instead, implementers at every level can implement the following five research-derived recommendations to enhance sustainability.

First, a consistent note in the literature on systems change and SWPBS notes the need to address barriers, such as inadequate buy-in, during implementation (Kincaid, Childs, Blase, & Wallace, 2007; Lohrmann, Forman, Martin, & Palmieri, 2008). However, recent research has indicated that though it is important to address barriers throughout implementation, the concrete actions the school team can take, such as collecting data and reviewing it regularly, are perceived to be more important to sustainability than the obstacles faced (Andreou & McIntosh, 2011; McIntosh, Predy, & Hume, 2011).

Second, some school teams initially opt to implement some, but not all, of the critical features of SWPBS. In particular cases, this strategy may be effective for initial buy-in, but neglecting to implement effective components can harm effectiveness and sustainability. For example, schools that do not implement formal reward systems see fewer positive outcomes in terms of academic and social behavior and diminished probabilities for sustained implementation beyond three years (Doolittle, 2006; McIntosh, Bennett, & Price, in press).

Third, the support of school administrators is a critical variable in sustainability (Andreou & McIntosh, 2011; Cohen, 2006; McIntosh, Predy, et al., 2011). As a result, change in

administrators represents a threat to sustainability. Planning for sustainability means encouraging a team approach at the school level that does not depend on the administrator and implementing a district system, including coaching, for supporting schools during administrator turnover (George & Kincaid, 2008).

Fourth, ensuring that the school team is effective and well organized is an important and sometimes overlooked point. Research has indicated that school team functioning is one of the strongest predictors of both implementation and sustainability (Cohen, 2006; McIntosh, Mercer, Hume, Frank, & Turri, 2011). Though most school personnel are used to the activities and routines of meetings, training can enhance team effectiveness (Todd et al., in press). In addition, rotating the school team's membership among school personnel can enhance both functioning and sustainability (Andreou & McIntosh, 2011).

Finally, the use of data for decision making cannot be overstated in its importance to sustainability. School teams that measure both fidelity of implementation and student outcomes have enhanced probabilities of sustained SWPBS implementation (Doolittle, 2006; McIntosh, Mercer, et al., 2011; McIntosh, Predy, et al., 2011). In addition, school teams can also use data from the *School-wide Universal Behavior Sustainability Index: School Teams* (SUBSIST), a research validated measure assessing the contextual features that predict sustainability of SWPBS (McIntosh, MacKay, et al., in press). With these results, school teams can create action plans to enhance sustainability based on the model and research presented here.

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Figure Captions

Figure 1: A model for sustainable implementation of school-based practices (reprinted with permission from McIntosh et al., 2009).