Sustainability White Paper

Defining the Problem and Purpose:

Schools across the globe expend considerable amounts of resources implementing evidence-based practices yet sustainability of those practices will not go beyond a few years (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Since the cycle of adopting new practices over working to sustain effective ones is pervasive, more emphasis must be placed on sustaining effective practices. Sadly, less is known in the literature about elements of sustainability. The purpose of this white paper is twofold: (1) summarize the research that has been conducted to date on sustainability; and (2) define critical features of sustainability based on the summary of research so leaders and practitioners have guidance on how to prevent practice abandonment.

Defining the Sustainability Construct

Sustainability is defined as the presence of variables that predict sustained implementation. The variables include: defined features of the practice that are required for effective implementation, the actual implementation of the practice and finally, the context of the implementation site (McIntosh, Kim, et. al., 2015). The concepts "sustainability" and "sustained implementation" are typically used interchangeably within the literature; however there are distinctions between the two. Sustained implementation is the outcome, or result of implementing a practice. On the other hand, sustainability is the presence of variables that are linked to sustained implementation. The literature weaves both sustained implementation and sustainability together thus, making it challenging to disaggregate the findings amongst the two concepts.

There are a variety of variables that researchers have tried to link to sustained implementation (Domitrovich, et. al., 2008; Fixsen, Blase, Duda, Naaom, & VanDyke, 2010; Gersten, Chard, & Baker, 2000; Han & Weiss, 2005; McIntosh, Filter, Bennett, Ryan, & Sugai, 2010). School characteristics (e.g., low community SES, school size, structure), and school implementer actions (e.g., team approach, access to coaching, team's use of data) are two of those variables; however, there has been little empirical evidence to substantiate linking either of them to sustained implementation. Further complicating matters, not only is there little empirical evidence to identify variables that predict sustained implementation, but there is even less evidence linking those variables to sustainability. Given the lack of evidence, recent research related to the implementation of Positive Behavioral Interventions and Supports (PBIS) has been conducted to try to determine if school characteristic variables and school implementer variables are predictive of sustained implementation and ultimately, sustainability. Identifying the variables strongly related to sustainability could help the field to better be able to predict and prevent practice abandonment (Hume & McIntosh, 2013) since many practices that are abandoned are either due to poor implementation from the start or a loss of momentum to continue high quality implementation. Either of these reasons leads to the same outcomes: data indicating the practice did not work as expected and people giving up on implementation.

Measuring Sustainability: School-Wide Universal Behavior Sustainability Index: School-Teams (SUBSIST)

PBIS is a research-validated framework that has been associated with improved perceptions of school safety and academic outcomes; as well as, reducing office discipline referrals and suspensions (Bradshaw, Mitchell, Leaf, in press). Engaging in data-based decision making through collecting and analyzing PBIS implementation fidelity and student outcome data (e.g., office discipline referral data, academic data) is an essential component of PBIS implementation. There are a variety of reliable and valid fidelity assessment tools that have been created by PBIS researchers and used by School Leadership Teams to regularly assess the degree to which they are implementing the PBIS core components as intended. Using the fidelity data coupled with student outcome data, teams engage in frequent data-based decision making for continuous improvement.

The newest measure developed by the PBIS community is the SUBSIST which is a validated measure of factors that are predictive of sustained implementation of School-Wide Positive Behavioral Interventions and Supports (SWPBIS). The SUBSIST is different than any of the other PBIS assessments because its focus is specific to sustaining PBIS. There are four sustainability factors measured within SUBSIST. Two of those factors are school-level factors (school priority, team use of data) and the other two relate to district-level factors (district priority, district capacity building.) The SUBSIST is unique because it is the only assessment tool that is validated specifically for the purpose of predicting sustained implementation; however, the focus is specifically on Tier 1, SWPBIS. The more recent empirical research on sustainability appears to be primarily coming from the PBIS community and is being measured against data generated from the SUBSIST. The authors suggest future research be conducted to determine if their findings are generalizable to the sustainability of other practices like Response to Intervention (RtI) / Multi-Tier System of Support (MTSS).

School Characteristics and School Implementer Actions Predictive of Sustainability:

The development and subsequent validation of the SUBSIST has opened the door for researchers to begin to gather empirical evidence to quantify the relationship between sustainability and school characteristic variables and school implementer variables. A study conducted by McIntosh, Kim, et al. (2015) aimed to do just that. A comparison between the two variables resulted in finding school implementer variables were more strongly associated with sustainability than school characteristics variables. This was especially true for the school implementer variable of "frequent sharing of data with all school staff "because it was the only significant predictor across all four sustainability factors. Other school implementer variables like frequency of team meetings and access to coaching were related to only one of the four sustainability factors. It is important to note however, even though school implementer variables were overall more strongly associated with sustainability than school characteristic variables, grade-levels served within the school and the number of years implementing were school characteristics that were somewhat predictive of school-level sustainability factors. Other school characteristics like, percentage of students receiving free or reduced lunch and urbanicity were not significantly related to sustainability.

School Contextual Features and Enablers of Sustainability

While recent research has demonstrated school implementer variables are more strongly associated with sustainability, only one of the variables: frequency of teams sharing data with all school staff, was significantly related to all four sustainability factors. Given this information, further research is needed to provide more guidance on school implementer variables that either enable or inhibit sustained implementation would arguably be beneficial to the field. To study this, McIntosh, Predy, et al. (2013), combined both quantitative and qualitative methodologies using SUBSIST data as well as, themes that were generated from open-ended survey questions from participants. Results indicated school administrator support, effective teaming, and use of data for decision making were rated by participants as being most important for sustainability and were also important during the initial implementation phase. Other school implementer variables that were described in the literature as enablers for implementation include: staff support (Forman, et. al, 2009; Langley, et. al., 2010; Pinkleman, et. al. 2015, Sanford, DeRouise & Bierman, 2012), training and on-going professional development (Bradshaw & Pas, 2011; McIntosh, et. al., 2013), and use of a consistent implementation approach centered around common language and goals (Forman, et. al., 2009; Payne & Eckert, 2010).

Summary and Implications:

After reviewing the literature related to sustainability, it is evident school implementer variables have been found to be more strongly associated with sustainability factors than school characteristic variables. This is good news for the field since many school characteristic variables (e.g., low community SES, school size) are things that district and school staff cannot control; however the scope of school implementer variables to choose from is still wide. Given this fact, whittling down the school implementer variables to the ones that have the most evidence to suggest they are important for sustainability is important. It is suggested that leaders and practitioners focus efforts on the following variables in order to support sustainability:

- Administrator support: active involvement by school leaders in the adoption and implementation of practices by demonstrating a prominent role in the coordination / management of the practices, voicing support for the continued implementation of the selected practices, and removal of barriers impeding implementation efforts.
- Consistent implementation approach: Critical features of the practices are identified, defined across the continuum of the implementation process, commonly understood by implementers and are intentionally aligned to existing goals / priorities staff for contextual fit within the school setting.
- Effective teams: Individuals that are meeting for the purpose of supporting the implementation of a selected practice come together on a consistent basis and are guided by a set of operating procedures to ensure their time together is efficient, focused and results in action to further enhance implementation efforts.
- Frequent data sharing with school staff: Data related to the level of implementation of the selected practice and the impact on intended outcomes are collected on a regular basis and presented to school staff and key stakeholders

(e.g., district leadership, board of education) in an on-going way. The frequency of data sharing is higher for staff that are directly responsible for the implementation of the selected practice as opposed to key stakeholders who are not directly implementing the practice.

- High quality professional learning: Staff that are implementing a selected practice have on-going access to professional learning for the purpose of teaching them how to implement the practice within the context in which they work. The teaching uses a combination of theory / research to help people understand why the particular practice they are learning has been selected; modeling, initial and on-going practice opportunities coupled with feedback to increase their fluency in the implementation of the practice.

- Access to coaching: Staff have access to individuals with expertise and to other effective implementers for the purpose of strengthening their level of use and quality of implementation for the practice selected.

These six school implementer variables have been selected because of their prevalence in the sustainability literature review. It is important to note not all of these variables have equal amounts of evidence to suggest they are strongly associated with sustainability. In fact, frequent data sharing with school staff is the only variable from the list that was predictive of all four sustainability factors as measured by the SUBSIST (McIntosh, Kim, et. al., 2015). Further complicating matters, even the researchers of that study acknowledged their findings are not necessarily generalizable beyond PBIS. There is benefit though in reviewing patterns of findings across both quantitative and qualitative studies and across practices that have been conducted by leaders in the implementation field (e.g., National Implementation Research Network). It allows for more generalization across practices that implementers are working to sustain as well as, increases the number of school implementer variables to choose from.

It is recommended that a review of the sustainability literature be on going since this is an area that continues to gain attention and funding for the purpose of further research. In addition, attention to the research that is currently underway in the area of implementation capacity would also be beneficial because developing capacity for implementation at the local district level, regional level and state level contributes to preventing practice abandonment thus allowing the sustainability of effective practices that have demonstrated evidence for improving intended outcomes (Fixsen, Blase, Metz & Van Dyke, 2013).

References

Domitrovich, C. E., Bradshaw, C. P., Poduska, J. M., Hoagwood, K., Buckley, J. A., Olin, S., Ialongo, N. S., (2008). Maximizing the implementation quality of evidence-based preventive interventions in schools: A conceptual framework. *Advances in School Mental Health Promotion, 1,* 6-28.

Fixsen, D. L., Blase, K. A., Duda, M. A., Naaom, S. F., & Van Dyke, M. (2010). Implementation of evidence-based treatments for children and adolescents. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 435-450). New York, NY: Guilford Press.

Fixsen, D. L., Blase, K. A., Metz, A., & Van Dyke, M. (2013). Statewide implementation of evidence-based programs. *Exceptional Children, 79,* 213-230.

Fixsen, Blase, Metz, Van Dyke (2013) Statewide Implementation of Evidence Based Programs. *Exceptional Children (79), p. 213-230.*

McIntosh, K., Doolittle, J. D., Vincent, C. G., Horner, R. H., & Ervin, R. A., (2013) *SUBSIST PBIS Sustainability Checklist* (Version 1.1) Eugene, OR: Educational and Community Supports, University of Oregon.

McIntosh, K., Kim, J., Mercer, S. H., Strickland-Cohen, M. K., Horner, R. (2015). Variables associated with enhanced sustainability of school-wide positive behavioral interventions and supports. *Assessment for Effective Intervention, 40* (3), 184-191.

McIntosh, K., Mercer, S. H., Hume, A. E., Frank, J. L., Turri, M. G. Mathews, S. (2013). Factors related to sustained implementation of schoolwide positive behavior support. *Exceptional Children, 70* (3), 293-311.

McIntosh, K., Predy, L. K., Upreti, G., Hume, A. E., Turri, M. G., Mathews, S. (2014). Perceptions of contextual features related to implementation and sustainability of school-wide Positive Behavior Support. *Journal of Positive Behavior Interventions, 16* (1), 31-43.

Pinkleman, S. E., McIntosh, K., Rasplica, C. K., Berg, T., Strickland-Cohen, M. K. (2015). Perceived enablers and barriers related to sustainability of school-wide positive behavioral interventions and supports. *Behavioral Disorders, 40* (3), 1-15.