

## Introduction

Challenges to delivering evidence-based practice in the "real world" have the potential to undermine their acceptance, efficacy, and sustainability in community settings. The Incredible Years Series (IYS) is one preventive intervention with demonstrated effectiveness in settings facing multiple dissemination challenges, including Head Start (HS). We established a university-community partnership to deliver IYS in a local HS, including the Teacher Classroom Management Training Program (IYS-TT) and the Child/Dina Classroom Training Program (IYS-DP).

A key component of efficacy and sustainability is capacity to provide training to ensure implementation fidelity within the context of high turnover and limited resources. We describe the cascading dissemination plan we used to transfer responsibilities from university consultants trained by IYS developers (UC) to HS staff, and the extent to which this plan built such capacity. We also examine two factors believed to contribute to the quality of program delivery and sustainability, staff levels of engagement in training and staff beliefs about the program (i.e., satisfaction with IYS-TT, satisfaction with IYS-DP, expectations for improvement).

## Study Questions

- What happened when HS began independent implementation?
  - What program components were maintained, and what adaptations were made?
  - Were program adherence and implementation fidelity/quality maintained?
- Did cohorts trained by UC vs. HS staff differ with respect to beliefs about IYS and in terms of implementation quality?
- To what extent did teachers' beliefs about the programs and their level of engagement in training relate to implementation fidelity/quality?

## Methods

IYS was implemented in 10 classrooms, each with 1 lead and 1 assistant teacher. Cohort 1: 5 of 6 lead teachers remained for all 4 project years, 4 assistant teachers left and were replaced during the project. Cohort 2: All teams remained. One team shared responsibility for IYS-DP when the lead took medical leave.

Table 1: Dissemination Model

Phase	Activities
I	(1) Collaborative Working Group meetings: relationship building (2) Classrooms randomized to IYS and control groups (2) UC delivered IYS-TT to IYS group (3) UC piloted IYS-DP in one IYS class
II	Cohort 1: 6 classrooms, 1 supervisor (1) UC modeled IYS-DP for HS staff (2) HS staff assisted in large group; independently implemented small group (3) UC provided reflective supervision to HS staff and supervisor
III	Cohort 1: 6 classrooms, 1 supervisor (1) HS staff delivered IYS-DP with UC support (2) UC provided reflective supervision to HS supervisor (3) HS supervisor provided reflective supervision to staff
IV	Cohort 1: 6 classrooms, 1 supervisor (1) HS staff delivered IYS-DP with HS support Cohort 2: 4 classrooms, 1 supervisor (1) UC delivered IYS-TT to control group in the Fall of Year 4; (2) HS staff previously in the control group were paired with experienced implementation staff (3) HS staff delivered IYS-DP with HS support

## Measures

- Independent observers rated staff engagement each day of IYS-TT (participation, attitude, readiness for change) on a 3-point scale
- Staff completed IYS-TT Satisfaction Questionnaire (Webster-Stratton) on the final training day
- Staff reported on their beliefs about IYS (e.g., expectations for teacher [8 items], child [7 items], classroom [2 items]) improvement on a 5-point scale
  - Prior to and following IYS-TT (C2 only)
  - Following IYS-DP implementation (C1 and C2)
- Staff completed IYS Satisfaction with IYS-DP (Webster-Stratton) at the end of each implementation year
- Staff followed IYS self-checks (Webster-Stratton) to monitor IYS-DP coverage
- Independent observers rated IYS-DP implementation fidelity/quality sessions live and on videotape at least 1 p/month using a modified version of IYS Group Process Checklist (1=does not meet expectations; 2=meets expectations; 3=exceeds expectations). Average scores across 21 items assessing circle time implementation are reported.

## Results

### Program Sustainability and Integration into HS Practice

Once independent, HS administrators and supervisors decided to:

- continue IYS-DP implementation with...
  - No changes to number, length, or sequencing of lessons
  - All components (e.g., all large circle time, small group activities, homework) retained
  - Minor adaptations to activities allowed with prior supervisor approval
  - Reflective supervision with HS supervisor continued
- train all remaining staff (i.e., control teachers and supervisors, family advocates, administrators, substitutes) with IYS-TT to promote agency-wide use of common language and strategies
  - 1 of 6 sessions dropped due to time constraints; 30 of 36 required hours completed

### Teacher Beliefs about Programs

Teacher satisfaction with IYS-DP		
	Cohort 1	Cohort 2
II	3.42	
III	3.50	
IV	3.63	3.54

Teachers' beliefs about IYS	
	Phase IV Beliefs about IYS (n=22)
IYS improves teacher functioning	4.01
IYS improves child functioning	4.09
IYS improves classroom functioning	4.54
Workload associated with IYS	3.70

Satisfaction grew slightly with independence. C2 satisfaction was similar to C1 at the point they took over IYS-DP from UC (Phase III).

In a companion presentation we report that IYS beliefs improved slightly from initial involvement to after their first year implementing IYS-DP, and that C1 & C2 reported similar beliefs by Phase IV. Specifically, teachers rated beliefs about program impact on teacher, child, and classroom functioning, as well as the time/effort involved. By Phase IV, teachers' beliefs about IYS benefits were stronger than their view of the workload.

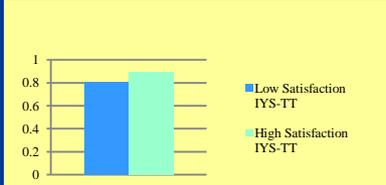
### Implementation Fidelity: Dosage, Adherence, Quality of Implementation

	III		IV	
	C1	C2	C1	C2
Required lessons*	92%	100%	97%	97%
Videos*	37	48	40	
Practice activities*	47	58	57	
Required strategies*	85%	92%	91%	

	III		IV	
	C1	C2	C1	C2
Items meet expectations	82%	92%	94%	
Implementation Quality	1.93	1.96	2.05	

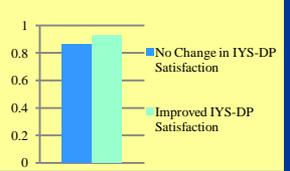
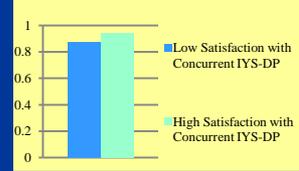
### Factors Associated with Implementation Fidelity

IYS-DP fidelity was not associated with engagement in prior training,  $r(9)=-.27$ , but was positively associated with teachers' satisfaction with the training received,  $r(9)=.51$ .

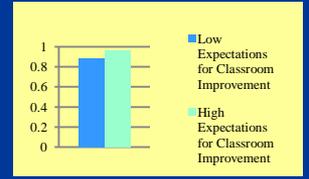


IYS-TT Satisfaction	III	IV	Change
LOW			
Teacher 1	79%	100%	+21%
Teacher 2	71%	91%	+20%
Teacher 3	75%	81%	+6%
HIGH			
Teacher 1	87%	83%	-4%
Teacher 2	85%	92%	+7%

IYS-DP satisfaction was positively associated with concurrent fidelity. More satisfied teachers were more likely to meet expectations,  $r(9)=.40$ . However, teachers who were least satisfied with UC implementation had the highest fidelity ratings their first independent year  $r(6)=-.68$ . Increases in satisfaction from Phases II to IV were associated with higher Phase IV fidelity ratings  $r(6)=.68$ .



We also examined relations between concurrent beliefs about the program and fidelity ratings. Overall, teachers with more positive beliefs had higher fidelity ratings; in particular, the stronger the beliefs that IYS improves child ( $r(9)=.48$ ) and classroom ( $r(9)=.72$ ) functioning, the higher their fidelity ratings.



## Summary and Future Directions

- The cascading dissemination model in which a relationship was established between UC and HS staff and responsibility for IYS was gradually transferred to HS staff prepared the agency well for independent implementation.
- Although HS staff experienced significant struggles along the way (see Silver et al., 2009), the agency upheld program standards and maintained an acceptable level of implementation fidelity/quality. That HS staff demonstrated capacity to train and support other HS staff suggests the program is well prepared to address inevitable staff turnover and other implementation barriers, and to sustain quality evidence-based practice.
- Despite no longer having direct UC support for implementation in Phase IV, C1 teachers not only maintained, but surpassed, previous levels of adherence to requirements demonstrated with UC support in Phase III. C2 demonstrated similar levels of adherence with HS support alone.
- Teachers report higher levels of satisfaction when allowed to run IYS-DP independently, and satisfaction during independent implementation was positively associated with fidelity. In fact, teachers who were initially less satisfied with IYS-TT made more progress and in Phase IV had higher fidelity ratings than teachers initially satisfied with IYS-TT.
- It is not known whether teachers would have reached similar levels of fidelity without initial UC support, but results emphasize the importance of turning over responsibility and fostering independence as soon as possible in the dissemination process.
- Those teachers who by Phase IV seemed to believe most in the program (highest expectations for improvement) also performed best with respect to IYS-DP implementation, which underscores the importance of consultation to get direct service staff "buy-in" and garner enthusiasm for service delivery.
- We have previously reported out on positive program outcomes (Shepard et al., 2007, 2008), and relations between program fidelity and outcomes are currently being examined.