There is a growing demand for highly-trained teachers for children with autism. However, even credentialed special education teachers often lack adequate training in evidence-based practices for children with autism.

School district Autism or Behavior Specialists may provide a cost-effective solution for increasing teacher training, but they may need specific training on how to train teachers and assess fidelity of implementation.

The train-the-trainer (TTT) model involves first training one person, who in turn trains others at their school. The TTT model has substantial research support, but has not been evaluated when school district specialists train teachers in an evidence-based practice for autism.

Pivotal Response Training (PRT) is one evidence-based naturalistic behavioral intervention for children with autism. Research shows teachers do use PRT but often have low fidelity of implementation. There is a clear need for improved training, ongoing assessment and support for teachers in PRT. See Table 2 for components of PRT.

The current investigation was designed to evaluate the effectiveness of the TTT model for training school staff specialists to train teachers to use PRT.

### Method and Participants

- Participants included trainers (Autism or Behavior Specialists; n=3), teachers (n=9) and students (n=21). Participants were organized into three training groups (A, B, C), each including one trainer, three teachers and six students.
- A single-subject multiple-baseline design was used. See Table 2 for procedural design.
- Weekly Classroom Observations were obtained to determine trainers' ability to assess implementation of PRT and provide accurate feedback to teachers, and teachers' ability to implement PRT. During each Classroom Observation, a teacher worked with each student participant individually for 10 min while the trainer observed and completed assessment and feedback documents. Then the trainer provided feedback to the teacher for 10 min.
- Trainers' administration of training protocol was assessed during the teacher training workshop. Trainers' implementation of PRT was assessed before trainer training, during teacher training, and again at follow-up.

### Results

- All trainers began training with a moderate to high percent of correct implementation of PRT components. However, trainers mastered all components of PRT during trainer training and maintained skills at high levels of fidelity of implementation over time (see Figure 1).
- Trainers learned to assess teachers' implementation of PRT (see Figure 2). Each trainer made substantial gains from the baseline to teacher training phase, and maintained their ability to assess teachers' implementation of PRT through teacher training and follow-up.
- Trainers learned to give accurate feedback to teachers during trainer training (see Figure 3). All trainers demonstrate some loss of accuracy of feedback from trainer training to teacher training. Trainers A and C maintained feedback accuracy through follow-up, while Trainer B showed additional loss of skill.
- Six of the nine teachers learned to correctly implement 100% of PRT components, and the other three teachers learned to implement 89% of PRT components.
- During the baseline phase, all teachers correctly implemented three components of PRT (Attention, Clarity, Appropriateness) during a majority of the Classroom Observations.
- Teachers all showed improvement in implementation of PRT from baseline to treatment, with increases in percent of correct implementation ranging from 5% to 42% (see Figure 4). From teacher training to follow-up, one teacher improved accuracy (B1). Five teachers maintained accuracy within 5% (A2, A3, C1, C2, C3), and one teacher demonstrated a substantial loss of accuracy (B2).

### Discussion

- All trainers learned and maintained their abilities to implement and assess implementation of PRT. They learned to provide accurate feedback, and two maintained this skill. Overall, these trainers gained the skills and materials to provide continued support and assessment of trained teachers and to train new teachers over time.
- Teachers correctly implemented some components of PRT before receiving any training. This suggests that in future research or clinical training, time may be better allocated to allow for more modeling and practice of the other components of PRT.
- The majority of teachers learned to correctly implement all components of PRT. Teachers showed variability but maintained high levels of accuracy. Further, six of the seven teachers assessed at follow-up maintained or improved their accuracy specifically demonstrating the teachers' ability to increase teachers' skills.
- This study supports the TTT model as an effective method for training teachers in one evidence-based practice for children with autism, PRT.