Building a Strong Foundation for Adult Care with Pyramidal Behavioral Skills Training

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INTRODUCTION

Training a variety of skills to a large number of staff is a common barrier for service providers in delivering effective and timely care to adults with intellectual and developmental disabilities. Due to the time and resource-intensive nature of these trainings, service providers often rely on pyramidal models, where supervisors are responsible for training critical skills to their staff. While pyramidal behavioral skills training (BST) has strong empirical support, numerous challenges exist to the delivery of such training, e.g., supervisors frequently have competing job responsibilities, lack the knowledge or proficiency to train effectively, and face high staff turnover. The current study utilized Pyramidal BST with supervisors in an adult services setting serving individuals with autism. Results indicated that (a) the training workshop increased BST integrity for all but one participant, (b) most participants did require additional feedback to reach mastery criteria, (c) training effects generalized to training an untrained skill for some participants, and that (d) higher levels of BST integrity maintained during a follow-up 1-3 months later.

METHOD

Participants and Setting: The participants in this study were eight adult services staff in supervisory roles (managers, supervisors) in both the day and residential programs. Participants were recruited via an email that asked for volunteers. Seven participants had no background in applied behavior analysis besides training they already received at Eden Autism Services. Participants had various levels of experience and education (ranging from high school diploma to master's degree). The pre-training baseline, training workshop, and post-training assessment took place in a training room and various private areas. The follow-up assessment took place at the participants' work location.

Data Collection: The dependent measure for this study was BST procedural integrity. The six steps measured required the trainer to (1) provide the trainee with a rationale, (2) provide the trainee with a description of the skill, (3) provide a model of the skill form start to finish, (4) prompt the trainee to rehearse the skill via role play, (5) provide the trainee with positive and corrective feedback (if applicable), and (6) instruct the trainee to repeat the rehearsal and provide feedback until the trainee performed the skill one time at 100%.

Procedure

The effects of a group training using BST were evaluated using a nonconcurrent multiple-baseline design across participants.

Pre-Training Baseline: BST integrity was measured prior to training. Each participant was asked to train a confederate to implement least to-most prompting based on the scenario they were given on a notecard. No feedback was given.

Training Workshop: Each participant attended a single training workshop on BST. Three workshops were conducted with 8 to 12 staff in each (supervisory staff not participating in the study also attended the workshop) and were approximately 1.75 hours long. BST was used to train all staff on BST.

Post-Training Assessment: BST integrity was measured directly after the training. The procedure was the same as the pre-training baseline except positive & corrective feedback was given. The session ended once the participant performed the steps of BST at 100% accuracy for three consecutive trials.

Generalizing Probe: Participants were asked to train the confederate on a different skill given a scenario on a notecard. This was directly after they reached mastery during the post-training assessment.

Follow-up: BST integrity was measured 1-3 months later at the participants' work location. Participants were asked to train one of their own staff instead of a confederate, using the same skill, least-to-most prompting. The session ended once the participant performed at 100% accuracy one time.

Figure 1

Pre-Training Baseline, Post-Training Assessment, & Generalization Probe Results

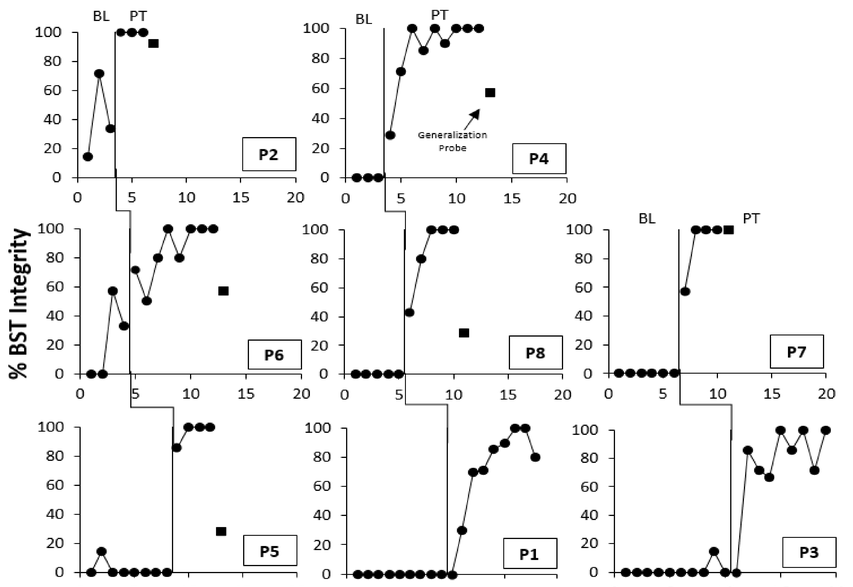
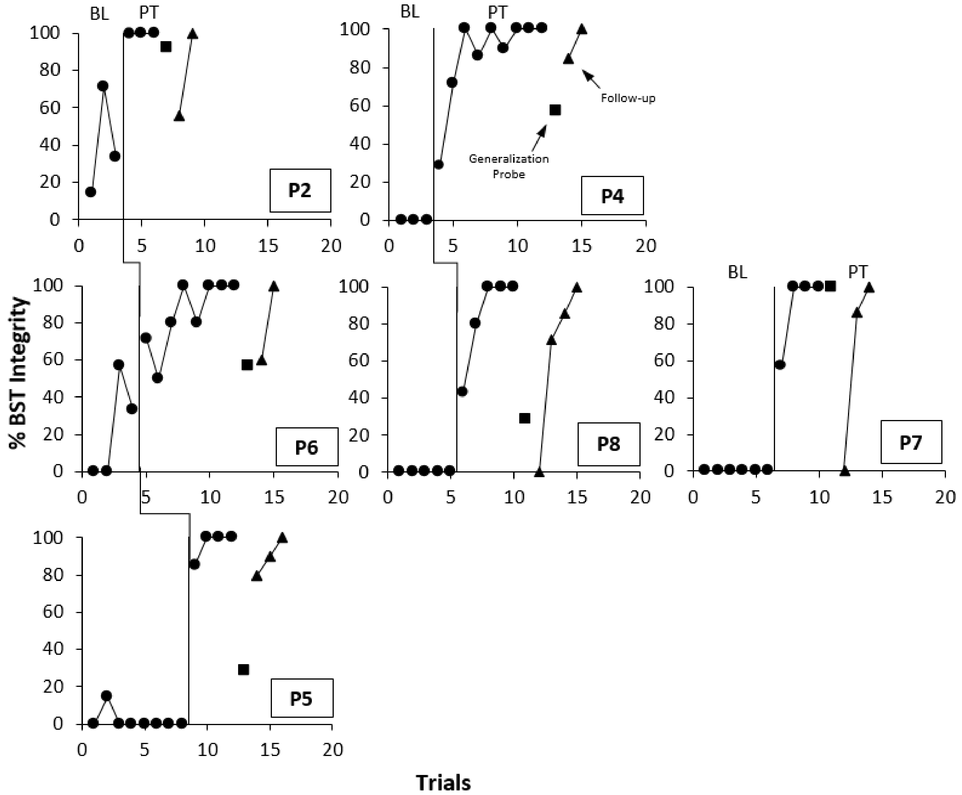


Figure 2

Results for six participants with the addition of the follow-up assessment



RESULTS

Pre-Training to Post-Training: Figure 1 summarizes BST integrity from the pre-training baseline to post-training. During baseline trials, the mean BST integrity was 5.2% (range, 0-77.8%). During post-training, the mean BST integrity was 77.0% (range, 0-100%).

Generalization Probe: Figure 1 also summarizes BST integrity when asked to perform BST to train a different skill. The mean BST integrity was 60.2% (range, 28.5-100%). This was done with the 6 participants who reached mastery criteria in post-training. Two did not reach criteria due to inconsistencies in performance/time constraints).

Social Validity: Social validity was measured with a modified version of the Intervention Rating Profile-15 (IRP-15; Martens, Witt, Elliot, & Darveaux, 1985) utilizing Microsoft Forms. This included 13 questions on a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree) plus the ability to write in comments after each question. All participants found the training workshop to be an acceptable way to teach supervisory staff to use BST to train their own staff. They marked that they were confident that BST would be an effective way to train their staff and that they were likely to use it.

Follow-up: Figure 2 summarizes data from the 6 participants who received follow-up training. The mean BST integrity was 74.5% (range, 0-100%).

DISCUSSION

- Pyramidal BST can be an efficient and effective way to train staff with various levels of experience and education to train behavioral analytic skills.
- Group formats can be efficient and effective when tasked to train a large number of people; however, some may require additional training and feedback in a 1:1 setting.

Limitations:

- Skill performance of those being trained by the participants was not measured.
- During post-training, all but one participant required corrective feedback in order to reach mastery criteria directly after the training workshop.
- Four out of six participants scored between 30-60% BST integrity during the generalization probe. Although this was still an improvement from baseline, it demonstrated that they likely needed more training.
- During each phase, some participants appeared confused on the directions which may have led to lower BST integrity scores.
- Client outcomes were not measured

Future directions:

- A future direction of interest includes measuring skill performance of those being trained by the participants which may provide information on which components of BST are essential and if skills will improve even if some parts of BST are left out.
- Another future direction of interest includes additional follow-up to check if those staff trained by the trainer (supervisors trained by the expert trainers) will improve in their performance of behavior analytic skills when working with clients and if this will have an effect on client outcomes.

REFERENCES

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