

Effects of a Tier 2 Intervention with Young Children

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Background

High rates of problem behavior are seen in early childhood classrooms (Hemmeter, 2007; Hemmeter, Fox, Doubet, 2006). The preschool expulsion rate is 3.2 times the rate for school aged children (Gilliam, 2005). Preschools recently have adopted a tiered framework of prevention. Although emerging research exists examining universal and tertiary supports, few studies have investigated tier 2 intervention with young children. This study investigated a self-control intervention, the Turtle Technique, as a tier 2 intervention with preschoolers.

Purpose

The purpose of this investigation was to examine the effectiveness of the Turtle Technique as a tier 2 intervention utilizing a single-subject multiple baseline across participant design within a preschool with universal supports in place.

Participants/Setting

Participants:
3 young children; Connor, Lynn, and Anna
3-4 years of age
In need of tier 2 intervention

Preschool Setting:
3 classrooms currently employing universal supports

Overview of Procedures

- Teacher Training
- Baseline
 - Observation of typical play session
- Intervention
 - Daily 15-minute whole class sessions led by teacher
 - Turtle technique taught during sessions
 - In vivo prompting during play time
- Follow up
 - One week after final intervention session
 - In vivo prompting continued

Measurement

Direct observation during 30-minute play session using 15-second partial interval recording.

Problem behavior was operationally defined as:

- Physical aggression toward another person
- Verbal aggression in the form of derogatory or demeaning statements made to peer
- Leaving a designated area without teacher permission
- Disruption
- Property destruction

Use of the turtle technique.

The four steps of the Turtle Technique were coded and were operationally defined as the child's display of the following behaviors associated with steps of the Turtle Technique:

- Stop
- Go into shell
- Deep breathe
- Calm/think



Pre-post assessment.

The Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999)

Teaching Pyramid Observation Tool. The Teaching Pyramid Observation Tool (TPOT; Hemmeter, Fox, & Snyder, 2008)

Intervention rating profile-15 (IRP-15; Martens, Witt, Elliott, & Darveaux, 1985); Items rated on 1-6 Likert Scale

Intervention

Intervention Session (with use of CSEFEL materials)

- Using a puppet, the teacher explained how Tucker Turtle has come to help them to learn strategies for calming
 - Teacher modeled the four steps of the Turtle self-control technique consisting of: (a) stop to think, (b) go into shell, (c) take three deep breaths and (d) calm to think of a solution to the problem
 - Teachers facilitated role play scenarios with the children
 - The teacher read the book *Tucker Turtle Takes Time to Tuck and Think*
- Prompting
The teacher was instructed to prompt the technique by calling out "Turtle" when there was visual evidence of a behavioral escalation, the escalation was viewed for a minimum of 7 s, and there was no evidence of de-escalation

Results

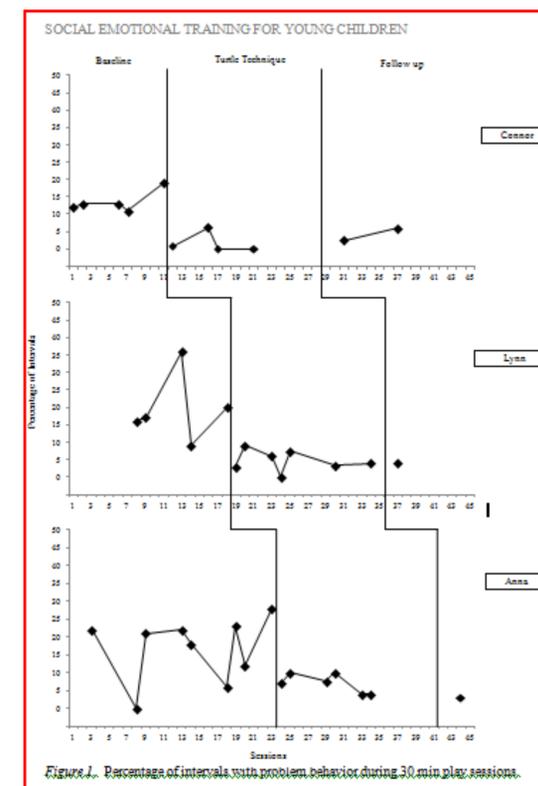


Figure 1. Percentage of intervals with problem behavior during 30 min play sessions.

Results (cont' d)

- Direct observation indicated:
 - A decrease in problem behavior following intervention
 - Use of the technique (stop, go into shell, deep breathing, calm/think) was never observed
- DECA score decreased at post-test for one of three children
- IRP overall mean item score was 4.82 (range 4.13-5.4), indicating high satisfaction



Discussion

Although a decrease in problem behavior was seen for all of the children, direct observations indicated the technique was not used by any child during play sessions in the classroom. Therefore, the observed behavior change may be due to factors other than the specific techniques taught during the intervention. Additional research is needed to identify operational components of intervention.

References

- Gilliam, W. S. (2005). *Prekindergartners left-behind: Expulsion rates in state prekindergarten systems*. Retrieved April 9, 2010, from http://www.fed-us.org/PDFs/NationalPreKExpulsionPaper03.02_new.pdf.
- Hemmeter, M. L. (July/August, 2007). We are all in this together: Supporting children's social emotional development and addressing challenging behavior. *Exchange*, 12-16.
- Hemmeter, M. L., Fox, L., Doubet, S. (2006). Together we can! A program-wide approach to addressing challenging behavior. *Young Exceptional Children*, 8, 1-13.
- Hemmeter, M. L., Fox, L., & Snyder, P. (2008). *Teaching Pyramid Observation Tool for Preschool Classrooms (TPOT)*, Research Edition. Nashville: Vanderbilt University.
- LeBuffe, P. A. & Naglieri, J. A. (1999). *Devereux early childhood assessment: Technical manual*. Lewisville, NC: Kaplan Press.
- Martens, B. K., Witt, J. C., Elliott, S. N., & Darveaux, D. X. (1985). Teacher judgments concerning the acceptability of school-based interventions. *Professional Psychology: Research and Practice*, 16, 191-198.