Professional Development Related to the Teaching Pyramid Model for Addressing the Social Emotional Development and Challenging Behavior of Young Children

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The Teaching Pyramid Model:
Promoting Social and Emotional Competence and Addressing Challenging Behavior

- **Effective Workforce**
- **Nurturing and Responsive Relationships**
- **High Quality Supportive Environments**
- **Targeted Social Emotional Supports**
- **Intensive Intervention**

Assessment based intervention that results in individualized behavior support plans.
Examining the Efficacy of the Teaching Pyramid Model

• Do teachers who have received professional development focused on the Teaching Pyramid implement those practices with fidelity when compared to teachers who have not received training and coaching?

• Do the social skills and problem behaviors of children whose teachers have received professional development on the Pyramid differ from children whose teachers have not received professional development?

• Do the positive social interaction skills of target children with challenging behavior whose teachers have received professional development on the Pyramid differ from children whose teachers have not received professional development?

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Methods

• Public school classrooms
  – Nashville, Tennessee
  – Tampa, Florida
  – 2 Cohorts
• Randomized group design
  – One between-subjects factor (Teaching Pyramid intervention) and one within-subjects factor (repeated measures)
  – Randomized at the classroom level
• 20 Intervention and 20 control teachers
• 2-3 Target children in each classroom
  – (identified through the Caregiver Teacher Report Form of the Child Behavior Checklist)
• Intervention teachers received:
  – 3 days of training (19.5 hours)
  – Implementation guides and materials
  – Weekly observation, coaching sessions, and email feedback (mean=13.4, range 7-17)
• Control teachers received training at end of study
Measures

• Observational Measures
  – Early Childhood Environment Rating Scale – Revised (ECERS)
  – Teaching Pyramid Observation Tool (TPOT)
  – Target Child Observation System

• Teacher Report
  – Social Skills Intervention System

• Measurement Schedule
  – Four waves, 7-8 weeks apart
Figure 1. Mean Teaching Pyramid Observation Tool implementation scores across waves by experimental condition. Total number of TPOT indicators = 108. Statistically significant and noteworthy differences at Wave 4 \([t(40.03)=6.80, p<.001, \text{Cohen’s } d=2.6] \)
Child Outcomes

• Non-target children
  – Differences between social skills scores for children in intervention versus control classrooms
    • Control group adjusted mean 96.4; Intervention group adjusted mean 103.8
    • \((t(34) = 2.79, p = .009, \text{Cohen’s } d = .46)\).
  – Lower mean scores for problem behavior
    • Control group adjusted mean 99.2; Intervention group adjusted mean 95.14
Child Outcomes

- **Target children**
  - Higher mean social skills scores in intervention classrooms
    - Control group adjusted mean 84.0; Intervention group adjusted mean 88.6
    - \( (F(1, 94) = 3.38, p = .069, \text{Cohen's } d = .41) \).
  - Differences in problem behavior scores for children in intervention versus control classrooms
    - Control group adjusted mean 115.5; Intervention group adjusted mean 108.7
    - \( (F(1, 94) = 6.04, p = .016, \text{Cohen's } d = -.52) \).
  - Statistically significant and noteworthy differences in frequency of positive social interactions for intervention classrooms at wave 4
Figure 2. Mean frequency of positive social interactions during 60 min observation session across waves for Cohort 1 target children whose teachers were in the intervention or control condition. An average of the frequency of positive social interactions for the 2 to 3 target children in each classroom was used to derive the means reported for each group at each wave.
Limitations and Implications

• Limitations
  – SSIS is teacher report
  – No measure of pre-academic skills/school readiness
  – TPOT does not measure delivery of intensive interventions to an individual child
  – TPOT does not measure density or “dosage” of implementation

• Implications
  – Effectiveness of the professional development approach
  – Fidelity of implementation is related to improved child social and behavioral outcomes