Conjoint Behavioral Consultation: Intervention Outcomes and Mediation of Parent-Teacher Relationship

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Introduction

- Children with emotional/behavioral problems are at high risk of long-term, pervasive problems, including school dropout, juvenile delinquency, and restricted educational placements (Kaufman, 1997; Shera, Ranney, Walker, Stecher, & DeNell, 1991). Specific behaviors interfering with school success include noncompliance, negative social interactions with adults and peers, off-task behaviors, work refusal, and poor academic achievement (Walker et al., 1995). Nearly 50% of kindergarten students with behavior problems demonstrated continued problems that result in special education placement by 4th grade.
- According to an ecological-systems theory (Bronfenbrenner, 1979, 1982), families and schools together serve as the primary systems responsible for children’s socialization and education. Accordingly, positive relationships and effective connections between families and schools are essential in children’s optimal development (Hobbs, 1986).
- Methods for enhancing relationships and building collaborative partnerships include increasing opportunities for frequent and meaningful dialogue, engaging in shared goal setting and decision making, and delivering consistent, concrete messages related to learning at home and school (Christenson & Sherrod, 2001).
- Families of students with social-emotional and behavioral problems are often poorly connected with schools or other service delivery systems (Dobson & Stormont, 2006). Also, these evidence-based models have been specified and validated that bring families and schools together in joint problem-solving and decision-making.
- Conjoint Behavioral Consultation (CBC; Sheridan & Kratochwill, 2008) is an indirect intervention which involves collaborative problem-solving by a behavioral consultant, parent, and teachers. CBC has several core components:
  - Use of structured problem solving by a behavioral consultant.
  - Delivery of evidence-based interventions by parents and teachers in natural settings to address behavior problems exhibited by student.
  - Integration of school-home partnerships to strengthen relationships and promote cross- system cooperation, continuity, and support.
- Significance of the study
  - Efficacy of CBC has been demonstrated via single subject designs or small scale quasi-experimental design (Sheridan & Kuchneiihi, 2004). This is the first large-scale randomized clinical trial to investigate the efficacy of CBC and the pathway through which CBC is effective.

Study Goals

1. To examine the efficacy of CBC on children’s externalizing problem behaviors, adaptive skills, and social skills.
2. To examine the parent-teacher relationship as a mediator between the CBC intervention and child behavior outcomes.

Methods

Participants

- 287 Kindergarten through 3rd grade students and their parents (n = 320) and teachers (n = 82) from 21 schools in a medium-sized Midwestern city and surrounding communities.
- Participating children were identified by teachers as having concerns related to disruptive behaviors (e.g., aggression, non-compliance).
- Participants’ demographic characteristics are described in Table 1.

<table>
<thead>
<tr>
<th>Table 1: Demographic Characteristics</th>
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<tr>
<td>CBC</td>
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<tr>
<td>-----</td>
</tr>
<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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Analysis Plan

- Goal 1
  - A transfer coefficients regression model (i.e., multilinear model) that takes into account the nesting of time points within individuals and individuals within teachers was performed for each outcome variable.
  - The fixed effect of time is a time by treatment interaction. Significance of this coefficient indicates that the change over time is significantly different between the CBC and Control conditions.
- Goal 2
  - A path analysis was conducted using a bootstrap method (Shout & Bujol, 2012).
  - Pre-test scores were added as covariates.

Results

Goal 1: CBC Effect on Child Behavior Outcomes and Parent-Teacher Relationships

- After controlling for pre-CBC behavior severity ratings, statistically significant differences in the change from pretreatment to posttreatment between the CBC and control groups for teachers using Extending Behavior, Adaptive Skills, Social Skills, and Parent-Teacher Relationships (Table 2).

<p>| Table 2: Post-Test-Evaluation for Multivariate Adaptive Growth Curve Model |
|-------------------|-------------------|</p>
<table>
<thead>
<tr>
<th>CBC</th>
<th>Central</th>
<th>Total</th>
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<td>6.48 (1.30)</td>
<td>6.44 (1.30)</td>
<td>6.66 (1.30)</td>
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Goal 2: Parent-Teacher Relationship as a Moderator of CBC on Child Outcomes

- Significant interaction effects of CBC on child outcomes were found for adaptive skills (standardized indirect β = 0.03, t = 2.12, p = 0.01) and for social skills (standardized indirect β = 0.03, t = 2.15, p = 0.01). Models are shown in Figure 2.
- Parent-teacher relationships partially mediated the effects of CBC on children’s increased adaptive and social skills.

Discussion

Summary

- Family-school partnerships are important in addressing behavioral concerns of students; however, interventions that build constructive partnerships have not been subject to extensive experimental research. The identification of evidence-based interventions for strengthening partnerships to address disruptive behaviors is essential.

- Understanding how CBC operates to effect positive change in children, teachers, and parents is important; it will provide theoretical and practical implications regarding which components of the intervention should be prioritized to produce positive outcomes.
- Study participants were referred by teachers as having behavioral concerns, and teachers reported significant changes in students’ behaviors after implementing CBC. According to teacher report, compared to students in the control group, students in the CBC group demonstrated greater decreases in externalizing problems and greater increases in adaptive behaviors and social skills over time.

- Compared to teachers in the control group, teachers in the CBC group also reported greater increases in relationships with parents over time.

- Mediation analysis indicated that increase in parent-teacher relationships as a function of CBC in turn lead to increases in children’s adaptive skills and social skills. That is, positive behavioral changes as a function of CBC are partly contributed to increases in parent-teacher relationships.

Limitations

- Measures are based on teacher report only, making it difficult to discern method variance. Data collected through observational assessments in classrooms are still being analyzed.
- Measures of parent-teacher relationships are based on self-report only. Actual behavioral indicators of teacher and parent engagement and communication would provide objective validation of the results.
- Limited information is available on the specific services provided to participants in the control condition.

Future Directions

- Methods for analyzing individual student observational data collected over repeated time points are being identified.
- Maintenance of outcomes after one year are currently being investigated.
- Variance that moderates the effects of CBC on student outcomes are at need of investigation to answer questions pertaining to prior context – it is for whom and under what conditions CBC is effective.
- Sensitive, objective measures of specific outcomes related to parent-teacher relationships and partnerships are necessary (e.g., parent-teacher engagement; cross-system continuity).

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