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Conjoint Behavioral Consultation and Parent Participation: The Role of Parent-teacher Relationships¹

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Introduction

- Child behavior problems are a concern for parents and teachers alike and are associated with later academic and behavioral difficulties (e.g., Bub, McCartney, & Willett, 2007; Hock & Lutz, 2001; Reinke, Herman, Petras, & Ialongo, 2008; Vitaro, Brendgen, Larose, & Trembaly, 2005).
- Parents' participation in their children's schooling has been shown to help reduce problem behaviors over time (Grolnick, Kurowski, Dunlap, & Hevey, 2000; Hill et al., 2004).
- Research indicates that parents are more likely to participate in their children's schooling when parents have high quality relationships with teachers (e.g., Kohl, Lengua, & McMahon, 2000; Waanders, Mendez, & Downer, 2007).
- One intervention aimed at improving children's behavior through enhancing both parents' participation in school and their relationships with teachers is Conjoint Behavioral Consultation (CBC; Sheridan & Kratochwill, 2008).
- CBC is a strength-based, structured, indirect model of service delivery wherein parents and teachers collaboratively participate in a problem-solving process to promote positive and consistent behavioral outcomes for children (Sheridan & Kratochwill, 2008).
- Although it is clear that CBC improves the quality of parent-teacher relationships (Sheridan, Clarke, Knoche, & Edwards, 2006), the manner in which such relationships shape both *why* and *when* parents participate in children's schooling remains unexplored.
 - Improvements in parent-teacher relationship quality resulting from CBC may be a pathway by which CBC exerts its effect on parents' participation.
 - It is also possible that parents are most likely to participate when there are greater gains in the quality of their relationships with teachers as a result of CBC.
- Although parents' participation in children's schooling may take multiple forms (e.g., volunteering, attending parent-teacher conferences), parents' participation in problem solving (e.g., using strategies to address children's behavioral concerns) may be particularly important for parents of children with behavior problems.

Research Questions

- The primary goal of this research was to investigate how the quality of parent-teacher relationships may exert an influence on the effect of CBC on parents' participation in problem solving by examining two possible pathways: mediation and moderation.
 - Does the quality of the parent-teacher relationship serve as a *mechanism* by which CBC exerts its effect on parents' participation (*mediation*)?

- Does CBC exert a stronger influence on parents' participation *when* there are improvements in parent-teacher relationship quality, relative to when the quality of the relationship declines (*moderation*)?

Methods

Participants

- Participants were parents ($N = 207$) and teachers ($N = 87$) of 207 kindergarten through 3rd grade students from 21 schools in a moderately-sized Midwestern city and surrounding communities (see Table 1 for descriptive information).
- Participating children were identified by teachers as having concerns related to disruptive behaviors (e.g., aggression, non-compliance).

Study Design

- Randomized experimental design with classrooms (i.e., teachers) assigned to one of the following conditions:
 - *Conjoint Behavioral Consultation condition* (52 classrooms, each with 2-3 students with disruptive behavior; $n = 112$): A behavior consultant works with family members and teachers to implement CBC via 4 to 5 conjoint consultation interviews over 8 weeks
 - *Control condition* (42 classrooms, each with 2-3 students with disruptive behavior; $n = 95$): School support as typically provided by school personnel, including school psychologists, counselors, and specialists.

Measures

- *Parent Participation in Problem Solving* (Sheridan, 2004)
 - Parent report; 6-point Likert scale (1 = *Disagree Very Strongly*; 6 = *Agree Very Strongly*); $\alpha = .88$
 - 8 items, e.g., "I have set goals for my child" and "I have figured out what helps my child and what does not."
- *Parent Teacher Relationship Scale II – Joining subscale* (PTRS-II; Vickers & Minke, 1995)
 - Parent and teacher reports; 5-point Likert scale (1 = *Almost Never*; 5 = *Almost Always*); α s = .91 and .94 for parent and teacher reports, respectively

- 19 items, e.g., “We understand each other” and “We have similar expectations of my child.”

Analysis Plan

- Path models were used to test whether the quality of parent-teacher relationships mediated the effect of CBC on parents’ participation. In all cases, pre-test scores served as controls (see Table 2 for descriptive information).
- The moderating effect of the quality of parent-teacher relationships on the relation between CBC and parental participation was tested within the context of multi-level modeling to take into account time nested within individuals and individuals nested within teachers. The parameter of interest was a three-way interaction: time x condition x change in parent-teacher relationship quality.

Results

- **Does the quality of the parent-teacher relationship serve as a *mechanism* by which CBC exerts its effect on parents’ participation?**
 - After controlling for pre-test scores, there were significant total effects of CBC on parents’ participation, $\beta = .30, p < .05$, as well as on teacher reports, $\beta = .13, p < .05$, but not parent reports, $\beta = .00, p > .05$, of the parent-teacher relationship.
 - Given this pattern of associations, the role of teacher reports of the parent-teacher relationship as a mediator of the effect of CBC on parent participation was examined.
 - There was a significant mediation effect of parent-teacher relationship quality on the association between CBC and parents’ participation; the parameter estimate (and standard error) of the indirect effect was .025 (.015) with a 95% confidence interval of .002 to .066 (see Figure 1). Given that the association between CBC and parents’ participation in problem solving remains significant with the mediating variable in the model (i.e., parent-teacher relationships), the mediation is considered partial.
- **Does CBC exert a greater influence on parents’ participation *when* there are improvements in the parent-teacher relationship?**
 - Because we were interested in pre- to post-test changes in parent-teacher relationship quality as a moderator over the course of CBC, a change score for parent-teacher relationship quality was computed.
 - The average changes in parents’ reports of the quality of their relationships with teachers for both CBC and control groups were $M_s = -.01$ ($SD_s = .75$ and $.61$, respectively). The average changes in teachers’ reports of the quality of their

relationships with parents were $M_s = .08$ and $-.12$ ($SD_s = .53$ and $.49$) for CBC and control groups, respectively.

- There was a significant moderation effect for parents' reports of change in their relationship with teachers on their participation in problem-solving. The three-way interaction for parents', $\gamma = .39$; $t(208) = 2.09$; $p < .05$, but not teachers', $\gamma = -.02$; $t(226) = -.06$; $p > .05$, reports of the quality of parent-teacher relationships (see Figure 2) was significant.

Summary

- The results of this study revealed that the quality of parent-teacher relationships acted both as a mediator and a moderator of the effects of CBC on parents' participation in problem solving.
- Consistent with prior research (Sheridan et al., 2006), CBC exerted an effect on the quality of parent-teacher relationships such that teachers in the CBC condition reported greater improvements in their relationships with parents than did control condition teachers.
- There was also an effect of CBC on parents' participation in problem solving such that parents in the CBC condition reported greater improvements in their participation than did parents in the control condition.
- Parent-teacher relationship quality explained, in part, *why* parents became involved in problem solving as a result of CBC. CBC participation was related to increases in teachers' reports of the quality of the parent-teacher relationship. Such increases were, in turn, associated with increases in parents' participation in problem solving.
- Additionally, it was only *when* parents reported improvements in their relationships with teachers that parents increased their participation in problem solving over the course of CBC.
- Taken together, these findings suggest that parent-teacher relationships play a central role in shaping the effects of CBC on parents' participation in problem solving and help to explain both when and why parents get involved in children's schooling in this manner.

Limitations and Future Directions

- Teachers', but not parents', reports of improvements in the quality of their relationships mediated the effect of CBC on parents' participation in problem solving. It could be the case that the collaborative nature of CBC may lead teachers to perceive improvements in the quality of their relationships with parents; thus, they are more likely to invite parents to be involved.

- Parents', but not teachers', reports of improvements in the quality of their relationships moderated the effect of CBC on parents' participation in problem solving. It is possible that when parents feel they share goals with, and are supported by, teachers they may be more comfortable participating with teachers to solve problems on behalf of their child.
- It remains unclear why teachers' reports of the quality of their relationships with parents worked as a mediator whereas parents' reports of the quality of their relationships with teachers worked as a moderator. Further research is needed to understand the nature of these effects.
- The current findings represent pathways for parent outcomes (i.e., participation in problem solving) only. Information on how these processes are related to or influence child outcomes is not discussed. Future research should investigate the role of parental participation in problem-solving on children's behaviors.
- The measures of parent participation and parent-teacher relationship quality employed in this study are based on parent and teacher self-report only; no independent observations or measures of the change in *quantity* of specific behaviors parents and teachers engage in were used in the analyses.
- Participating children were predominantly male, White, and exhibited behavior problems; thus, findings cannot be generalized beyond this sample. However, it would be of interest in future research to examine whether these processes are present among a more diverse sample.
- In this study, parents' participation was examined in terms of their participation in problem solving. There are multiple ways that parents can participate in children's schooling and it remains to be seen whether these same pathways would exist for other forms of parents' participation.

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Table 1. Demographic Information

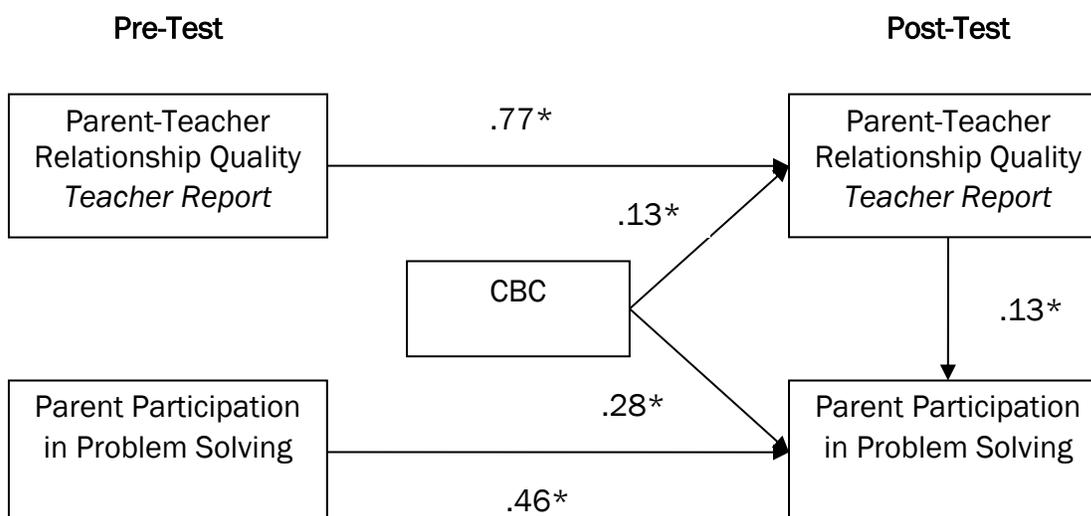
<i>Student characteristics</i>		CBC	Control
Mean age		6.45 (1.08)	6.61 (1.13)
Gender	Female	22%	23%
	Male	78%	77%
Ethnicity	White	69%	82%
	African American	11%	6%
	Other	20%	12%
Free/reduced lunch eligibility		49%	46%
<i>Parent characteristics</i>		CBC	Control
Mean age		34.77 (8.16)	34.67 (7.45)
Gender	Female	88%	92%
	Male	12%	8%
Education	Less than high school	7%	2%
	High school/some college	44%	58%
	College degree	35%	29%
	Advanced graduate degree	14%	11%
Ethnicity	White	84%	92%
	African American	5%	4%
	Other	11%	4%
<i>Teacher characteristics</i>		CBC	Control
Ethnicity	White	100%	100%
Gender	Female	95%	97%
	Male	5%	3%
Years in current position		9.76 (10.30)	9.78 (9.01)

Note. Standard deviations are in parentheses.

Table 2. Descriptive Information

	CBC		Control	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Parent-Teacher Relationship				
Teacher Report	4.15 (.78)	4.23 (.78)	4.13 (.78)	4.03 (.78)
Parent Report	4.33 (.75)	4.31 (.76)	4.33 (.65)	4.32 (.72)
Parental Participation	4.44 (.80)	5.01 (.63)	4.58 (.79)	4.67 (.72)

Note. Standard deviations are in parentheses.

Figure 1. Teachers' reports of parent-teacher relationship quality as a mediator of the effect of CBC on parent participation in problem solving.

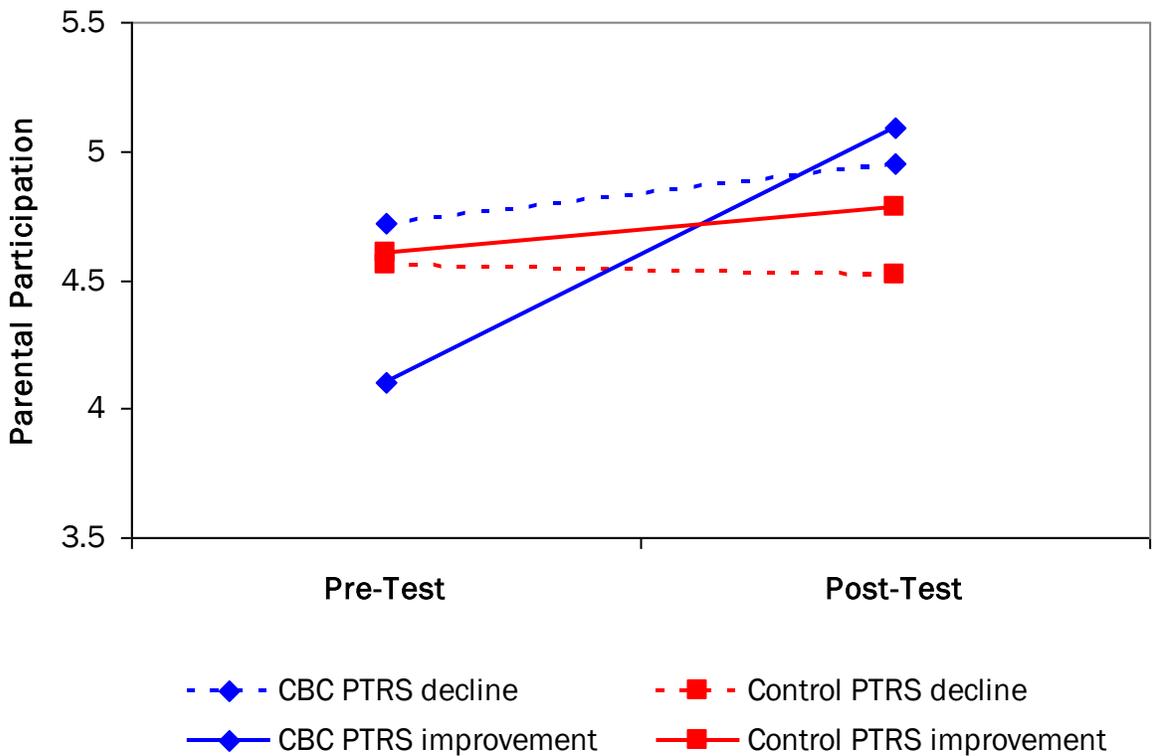
* $p < .05$

$\chi^2(2) = .30, p = .86$

CFI = 1.00

RMSEA = .00, 95% CI = (.00 - .07)

Figure 2. *Change in parental participation as a function of change in parents' reports of parent-teacher relationship quality.*



Note. PTRS improvement refers to a 1 *SD* increase from pre-test to post-test. PTRS decline refers to a 1 *SD* decrease from pre-test to post-test.