

The Influence of Caregiver Verbal Interactions during Conjoint Consultation on Child Outcomes*



Amanda A. Smith, Lisa A. Ruble, Michael D. Toland, Andrea Kirk, & Jessica L. Birdwhistell
University of Kentucky

BACKGROUND

- Public schools are facing increasing pressure to serve a growing number of students with autism using research supported practices.
- Consultants may play a critical role in addressing the unmet needs of children with autism by facilitating the use of evidence based practices.
- Research is lacking on the use of consultation and the processes of consultation.
- Understanding the influences of caregiver involvement during consultation can inform best practices.

OBJECTIVES

- To characterize caregiver verbal interactions during conjoint parent-teacher consultation and examine relationships between verbal interactions and parent, teacher, and child variables.
- To prospectively examine the influence of type of caregiver verbal exchanges on child educational outcomes.

METHODS

- The data come from a randomized single blind controlled study of parent-teacher consultation outcomes (Ruble, McGrew, & Dalrymple, 2009).*
- An experimental group of 18 children ages of 3 to 8, their teachers, and their caregivers received conjoint consultation.
- The teacher and caregiver participated in a 2.5 to 3 hour COMPASS consultation (Ruble & Dalrymple, 2002) that was audiotaped and transcribed.
- The first component of the consultation was selected for data analysis of parent verbal interactions. This step involved discussion of the child's personal and environmental protective and risk factors which were applied in intervention planning
- Parent speech acts and exchanges were segmented and coded using the Psychosocial Processes Coding Scheme (PPCS) and according to Sheridan, et al., (2002).
- Reliability of the segmenting and coding was determined using percent agreement.
- The concurrent correlations of four types of speech acts and three types of speech exchanges were analyzed (Table 1) against two caregiver, one teacher, and child factors, including predictive correlation of child attainment of IEP objectives at the end of the school year, as measured by a blind rater (Table 2) using bivariate correlations.

Table 3. Percentage of Speech Acts and Exchanges Across Participants

Speaker	Number of Speech Acts (%)	Number of Exchanges (%)
Consultant	6021 (43.5)	4104 (44.1)
Parent	4187 (30.3)	2788 (30.0)
Teacher	3618 (26.3)	2406 (25.9)
Total	13,826	9,298

Table 1. Definition and Examples of Codes in PPCS

Involvement			
Distancing		Affiliative	
Controlling	Withdrawing	Collaborative	Obliging
<i>Directly influences the consultation but causes distance between the speakers. Examples: Controlling, Countering, Resisting others, Rejecting other responses</i>	<i>Does not directly influence the consultation but causes distance between the speakers. Examples: Evading, Delaying Participation, Reluctant Submission, Nonparticipation</i>	<i>Directly influences the consultation and is affiliative in nature. Examples: Mutual Affirmation, Constructive Elaboration, Initiations of Joint Activity, Exchanges of Information</i>	<i>Does not directly influence the consultation and serves the function of preserving social relations in group. Examples: Going along with others, Willing submission, Seeking Support</i>
<i>"There is always some kind of purpose for that behavior so we need to talk some about the behavior thing at home."</i>	<i>"Right. But she could consult with that doctor you know?"</i>	<i>"Exactly what you said, we look down and we say "what are some of the influences that may be" and you say "cousins that play rough."</i>	<i>"You all go right ahead. I don't care."</i>
<i>"So, let's just go through them"</i>	<i>"Actually he does that independently..."</i>	<i>"The only thing he likes on pizza is pepperoni."</i>	<i>"So this is an area that needs work, right?"</i>

Table 2. Description of Measures

Measure	Description
PPCS Leiper, 1991	Category codes are in Table 1. Inter-rater reliability of percent agreement for segmenting = 85% (range 81 to 98%) and for coding = 93% (range 91 to 96%).
Attachment Abidin, 1983	Subscale of Parenting Stress Index; 20-item Likert Scale ($\alpha = .90$); Example items: It takes a long time for parents to develop close, warm feelings to their children; Sometimes my child does things that bother me just to be mean.
Parent-Teacher Adapted from Abidin & Brunner, 1995	20-item Likert scale ($\alpha = .90$); Example items: When there is a problem with my child, my child's teacher and I work out a good solution together; My child's teacher and I have the same goals for my child.
Differential Abilities Scale Elliot, 1990	Internal reliability from .89 to .95 for the Preschool Level and from .95 to .96 for the School-age level.
Childhood Autism Rating Scale Schopler Reichler, DeVellis, Daly, 1980	15-item, 4 point observational scale; Test-retest reliability of .88. Examples of domains: Relating to people; Emotional Response; Imitation; Body Use; Object Use; Listening Response; Adaptation to Change
Oral and Written Language Scales Carrow-Woolfolk., 1995	Up to 96 items depending on basal and ceiling items; Internal consistency from 84 to .93, and test-retest reliability of .73 to .90 for the subscales; Listening Comprehension; Oral Expression
Externalizing Behavior Reynolds & Kamphaus, 2004	Subscale of Behavior Assessment Scale for children, a 160-item norm-referenced assessment of parent report of thoughts, feelings, and emotions; internal consistency .80s-.90s
Goal Attainment Scaling Kiresuk, & Sherman, 1968	Alternative evaluation technique for developing individualized, multivariable, scaled descriptions for outcome measurement; Intraclass correlation of .98

Acknowledgements:

We would like to acknowledge the Special Education Teachers and Directors, and our co-investigators Dr. John McGrew and Ms. Nancy Dalrymple.

*This work was supported by Grant Number R34MH073071 from the National Institute of Mental Health.

RESULTS

- Following the consultant, parents produced the second most frequently occurring speech acts and exchanges.
- Parent demographics (mother's educational level; family income; urban vs rural) were not associated with parent speech acts and exchanges.
- The high majority of parent speech acts were **collaborative**, and exchanges were **affiliative**.
- Withdrawing** speech acts was indirectly associated with attachment to child and child's communication skills.
- Controlling** speech acts was directly associated with child's language and cognitive skills.
- Collaborative** speech acts was directly associated with child social skills.
- Obliging** speech acts was indirectly associated with assertiveness.
- Distancing** speech exchanges was associated indirectly with social skills and directly with autism symptomatology.
- Affiliative and mixed exchanges predicted child outcomes of goal attainment. The more **affiliative** exchanges, the **better** the child outcome; the more **mixed** exchanges, the **lower** the child outcomes.

Table 4. Correlation between Parent Speech Acts and Exchanges and Parent, Teacher, and Child Variables

	Parent Speech Acts				Parent Speech Exchanges		
	Collaborative 85.5%	Obliging 11.8%	Controlling 0.2%	Withdrawing 1.9%	Affiliative 94.1%	Distancing 0.5%	Mixed 5.4%
Parent							
Attachment	.263	-.024	-.209	-.523*	.298	-.357	-.288
Assertiveness	.438	-.538*	.369	-.069	-.148	.211	.120
Teacher							
Alliance	.459	-.363	-.172	-.680**	.177	-.345	-.161
Child							
Communication	.369	-.289	.149	-.519*	.156	-.455	-.127
Social Skills	.531*	-.465	.209	-.475	.416	-.522*	-.398
CARS	-.252	.170	-.214	.355	-.349	.507*	.328
DAS	.296	-.378	.557*	-.250	.228	-.400	-.209
OWLS	.444	-.482	.487*	-.213	1.08	-.302	-.090
GAS	.163	-.185	-.188	.066	.534*	-.403	-.534*

DISCUSSION AND CONCLUSION

- Understanding the influences of parent verbalizations during consultation can help inform the planning and effectiveness of parent-teacher consultation.
- Preliminary results indicate that parent verbalizations are collaborative and affiliative overall and were associated with important parent, child, and teacher factors.
- Results suggest that different strategies may be needed to facilitate the involvement of parents of children with limited language and social skills and increased autism symptoms.
- That affiliative exchanges were predictive of better child outcomes and mixed exchanges were predictive of lower child outcomes suggests the importance of positive parent-teacher interactions early in a child's program.
- Given the epidemic rise in numbers of children with autism served by public schools, more research is needed on the process and outcomes of collaborative parent-teacher consultation.