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Parent stress appears to be associated with child expressive language abilities and not affected by a parent-implemented communication intervention¹

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METHODS

Design

Smith et al. (2011) administered questionnaires prior to the beginning of the intervention and then again at the end of the last intervention session that was part of a previous study involving a randomized control trial by Ronski et al. (2010). Three measures were used to examine research questions: (a) Parent Stress Index-Short Form (PSI-SF; Abidin, 1995) to measure the impact the parenting role had on the individual's stress level, (b) Parent Perception of Language Development (PPOLD; Ronski, Sevcik, Adamson & Bakeman, 2000) to measure parent stress as it relates to their child's communication abilities, language development and intervention, and (c) Sequenced Inventory of Communication Development-Revised (SICD-R; Mullen, 1995) to assess receptive and expressive language skills. Descriptive statistics (i.e. repeated measures *t* tests, correlation, an odds ratio and regression analyses) were then used to analyze the key variables across the three measures.

Allocation

Sixty of the 62 parents that participated in the Ronski et al. (2010) study completed the PSI-SF and the SICD-R, while 53 parents completed the PPOLD at the pre- and post-intervention data collection rounds of the present study. All parents in the study received the same training and instructions using the same manual and training sessions. Parent/child dyads were randomly assigned to one of the three interventions.

Blinding

Unblinded; the interventionists (parents) and the individuals analyzing the data were not blind to the study. However the parents were blind with respect to the specific research questions.

Study duration

Each parent/child dyad participated in a total of 24, 30-min sessions.

¹Smith, A. L., Ronski, M. A., & Sevcik, R. A., Adamson, L. B., & Bakeman, R. (2011). Parent stress and its relation to parent perceptions of communication following parent-coached language intervention. *Journal of Early Intervention*, 33, 135–150.

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Setting

Eighteen sessions were conducted at the Toddler Language Intervention Lab at Georgia State University and six sessions took place at the child's home.

Participants

Sixty-two parents of children with developmental disabilities. The mean age for the children were 30 months while the mean age for the parents were 37 years. All children had less than 10 spoken words pre-intervention and scored less than 12 months on the expressive language scale of the Mullen Scales of Early Learning (Mullen, 1995). All parents had at least a high school education.

Intervention

This study was a component of the larger Ronski et al. (2010) study examining three randomized parent coached language interventions for children with developmental delays and 10 or fewer intelligible spoken words. Each parent-child dyad was randomly assigned to either (a) Spoken Communication, (b) Augmented Communication-Input, or the (c) Augmented Communication-Output condition. Interventions were designed to increase the children's communication by teaching parent's effective ways to communicate/intervene with their child. A Treatment Implementation Rating Scale (TIRS) was used to measure treatment fidelity. Treatment fidelity was above 90% for all three interventions.

Outcomes

The PSI-SF consisted of 36 items measuring parent distress, child dysfunctional interaction, and child difficulty that focused on the behavioral characteristics of the child. Internal consistency alphas for the PSI-SF were .93 and .92 for pre and post-intervention. PPOLD consisted of a 20-item questionnaire, with internal consistency alphas of .86 and .91. Internal consistency alphas for the SICD-R were not reported.

Attrition

All participants seemed to have completed the study.

MAIN RESULTS

Pre and post-correlations were significant in that they were $p < .01$ for parent stress, PPOLD difficulty, receptive and expressive language and $p = 0.52$ for PPOLD success across time. Total mean stress scale of PSI was 74 at pre-intervention and 72 at post-intervention indicated that total parent stress did not change significantly following the language intervention. Results of the correlation test indicated that parent stress both pre-and post-intervention was negative, which indicated that parents who had children that exhibited higher expressive language had less reported stress. Regression analysis data indicated that parent stress regressed on expressive language and the mediator; parent perceptions.

AUTHOR'S CONCLUSIONS

The authors concluded that while total stress scores on the PSI-SF decreased from pre- to post-intervention that this change was not significant as the effect size was minimal. This finding that parent stress was in the normative range when included in parent-coached interventions supported that parent education or involvement in implementing interventions does not increase parent stress. Additionally, the authors concluded that parent stress was more likely to decrease when expressive language of their child increased. Finally, parent

perceptions about their success in affecting their children's communication development were not related to parent stress.

Commentary

The issue of involving parents in interventions important and deserves careful attention. Specific questions need to be considered, such as, when, how and how much to involve parents, while taking care not to concurrently add to their cumulative stress. I was therefore, encouraged by the results of this study, which suggests that parent stress did not increase as it relates to implementing interventions to increase early language development in their children.

Guralnick and Bennett (1987) were advocating inclusion of parents in early intervention long before Part C of the Individuals with Disabilities Act (1997) required the inclusion of parents. And yet, in clinical practice this seems to be a difficult process. There is increasing evidence that shows that parents can be effective interventionists in increasing communication and language in their children (Alpert & Kaiser, 1992; Brink, 2002; Iacono, Chan, & Waring, 1998; Kaiser, Hancock, & Nietfeld, 2002; Tait, Sigafos, Woodyatt, O'Reilly & Lancioni, 2004). Still some of the early work by Brinker, Seifer, and Sameroff (1994) found that involving parents in intensive interventions that targeted increasing their children's communication, increased parent stress and decreased child improvement. For parents of children with disabilities, time commitments, family routines, severity of the disability, information needs, resource needs, family relationships, and confidence threats to parenting, frequently arise as potential consequences of a child's disability characteristics (Guralnick, 2001). Therefore, in order to avoid additional stressors on parents, the topic of parents taking a primary role in increasing their child's communication and language development is a conversation that needs to take place after careful probing of the family's level of comfort and after comprehensive parent coaching and education has taken place. It is this last aspect of adequate parent coaching and education, that I believe will be critical in implementing effective programs that focus on parents taking the primary role as interventionists in early treatment programs.

The results from Smith et al. (2011) informs the clinician that it is possible to successfully involve parents with appropriate parent coaching and not increase their stress levels. However, as identified by the authors, it is still unclear if parent stress as related to their role as interventionists, will continue to remain unaffected over longer periods of time (i.e. longer than 24 sessions). As children get older it is possible that maturation and its associated effects will modify language acquisition and communication, and that this will in turn effect parent stress levels. Additionally, the authors failed to evaluate if diagnosis or etiology of child characteristics modified the results of the correlational and regression analyses in regards to parent stress. Recent studies suggest that child cognitive ability and child diagnosis is a strong contributor to total parenting stress (Loretta et. al., 2006). Furthermore, data suggests that parents of children with serious chronic disabilities may suffer symptoms of post-traumatic stress disorder, including depression, and fatigue (Santacrose, 2003). Therefore, as etiology and diagnosis seem to play an important role in moderating parental stress, it may be unlikely that Smith et al.,'s results can be generalized to all populations of parents of children with developmental disabilities. However, as it stands, their results offer support for practitioners to include parents as interventionists in early language and communication programs. It may be possible that by training parents viable means to address their children's communication deficits may help reduce overall parent stress and increase overall gain in language and communication in young children with disabilities.

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Q

1. What is the relation between child communication abilities and the associated level of stress perceived by parents?
2. Does parent stress change following participation in a parent-coached language intervention?
3. Does children's communication ability, specifically their expressive language skills at pre-intervention, relate to parent stress at both pre- and post-intervention?
4. Do parent stress scores decrease when children's expressive language skills increase from pre- to post-intervention?
5. Do parent's perceptions about their child's language development mediate the association between child's expressive language and parent stress?