Title: The Relationship between Maternal and Paternal Molar Responsivity and Child Behavior in Children with DS

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Introduction: Molar responsivity refers to a parent’s overall affect and verbal interaction style during parent-child interactions. High levels of maternal warmth and responsiveness are associated with better child outcomes in cognition and language for children with developmental disabilities (Landry et al., 2001; Warren & Brady, 2007). Previous work has focused on mothers, with few studies including fathers, despite the important role they play in their child’s development. In addition to the parent’s role, child behaviors can make a responsive interaction challenging (Ciciolla et al., 2014). This study compared molar responsivity between mothers and fathers of young children with DS and investigated the relationship between parent responsivity and child behaviors.

Method: Ten children with Down syndrome (DS) between two and five years and their mothers and fathers participated in this study (n = 30). One parent per family completed the Child Behavior Checklist for Ages 1½-5 (CBCL; Achenbach & Rescorla, 2001). The CBCL yields T scores for internalizing, externalizing, and total behaviors. Mother-child and father-child interactions were recorded during free play, book reading, and a snack. Each activity was coded for molar responsivity based on an adapted rating scale from previous studies (e.g., Landry et al., 2001). Molar responsivity included: display of positive affect, warmth, flexibility, physical control, verbal discipline and punitive tone. Parents were scored from 1 to 5 where higher numbers indicated more responsive behaviors. Each parent’s scores from the three parent-child interactions were averaged to calculate an overall score for each scale. Analyses excluded verbal discipline and physical control since minimal instances of either occurred.

Results: Wilcoxon signed-rank tests indicated that the mothers and fathers were equally responsive based on display of positive affect ($M_{\text{mother}} = 4.38$, $M_{\text{father}} = 3.75$, $Mdn_{\text{mother}} = 4.50$, $Mdn_{\text{father}} = 4.00$, $Z = -1.09, p = .276$), warmth ($M_{\text{mother}} = 4.25$, $M_{\text{father}} = 4.00$, $Mdn_{\text{mother}} = 4.50$, $Mdn_{\text{father}} = 4.00$, $Z = -1.13, p = .257$), and punitive tone ($M_{\text{mother}} = 4.13$, $M_{\text{father}} = 4.50$, $Mdn_{\text{mother}} = 4.00$, $Mdn_{\text{father}} = 4.50$, $Z = -1.13, p = .257$). Using Spearman correlations, we found that child externalizing behaviors ($M = 47.38$, $SD = 13.65$) was significantly correlated with maternal flexibility, $r_p = -.73, p = .039$, and punitive tone, $r_p = -.87, p = .005$, and marginally correlated with maternal warmth, $r_p = -.69, p = .056$. Child internalizing behaviors ($M = 44.25$, $SD = 12.04$) was not significantly correlated with any maternal molar ratings. Child total problem behaviors ($M = 46.00$, $SD = 11.84$) was significantly correlated with maternal punitive tone, $r_p = -.79, p = .019$. There were no significant correlations between father molar rating scales and child internalizing, externalizing or total problem behaviors.

Discussion: Preliminary findings indicate that overall, mothers and fathers are equally responsive to their children with DS. However, child externalizing behaviors may affect mothers’ responsivity more than fathers’. Preliminary results suggest different influences of parental responsivity, given that fathers were less influenced by child externalizing behaviors than mothers. Mothers may benefit from different support during parent-coached intervention regarding responsivity to child behaviors. Addressing behaviors at the forefront of intervention may be important for improving the quality of parent-child interactions while also influencing parental well-being (Kersh et al., 2006). This study is a first step toward understanding the role that both parents play in parenting children with DS, and identifying potential targets to improve parent-child interactions within families.
Key References/Citations:
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