

RESEARCH-TO-PRACTICE SUMMARY

Five Skills to Help Improve Caregiver-Child Interaction during Play

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Interaction synchrony defines how well a parent and child relate, with lower levels of synchrony associated with poor child outcomes. A 10-minute Parent-Child Interaction Therapy (PCIT) was tested in a pre-posttest design for improving interactional synchrony in 40 low-income mothers and preschool children (Half of the mothers watched a child nutrition video and served as a control group). As a group, the mother-child synchrony levels were low-to-average. Mothers in the PCIT group were taught five skills (PRIDE) to use when playing with their children: praise, reflect, imitate, describe, enthusiasm. The PRIDE group improved in interactional synchrony, whereas the control group did not. Mothers in the PRIDE group also used more child-directed techniques and their children were coded as offering their mothers toys more frequently. The findings suggest that a brief intervention may improve the interactional synchrony of low-income mothers and their preschool children, which may enhance preschool age children's social skills.

Keywords: low-income, preschool children, synchrony, play, interaction

Interactional synchrony is a complex term that describes how well a caregiver and child relate and keep in time with each other when interacting face-to-face, playing together, or doing an activity. For example, interactional synchrony is evident in the exchanges shared by a caregiver and child who sit close together to read a book, pause from time-to-time to talk about the events or characters in the book, and listen to and respond to each other's comments. The act of just reading a book does not lead to interactional synchrony as, for example, the caregiver may be reading the story and turning the pages and not being sensitive to the child's puzzled look, or taking the time to engage the

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child in the story, asking the child questions about the story or reflecting and responding to the child's questions. Interactional synchrony involves both members of the pair. Thus, a child who is in synchrony with the caregiver will be listening, asking questions, and participating in the storytelling, including possibly reading or helping to tell the story. Being in synchrony with the caregiver is optimal as it helps children learn about turn-taking, or listening, responding, and asking questions. These experiences help prepare children for school and build language skills. Research reveals that high levels of interactional synchrony are also related to children's social development and cognitive competence, while low levels of synchrony are associated with poor child outcomes (Feldman, 2007; Lindsey, Mize, & Pettit, 1997; Kirsh, Crnic, & Greenberg, 1995).

Good interactional synchrony also includes having a positive tone towards each other, and each member of the pair sharing in leading and following during interactions. Caregivers are often good at leading, but not at following a child's lead. Allowing the child to lead, or having the caregiver follow the child's lead, provides an opportunity for the child to express his or her ideas and for the caregiver to reflect and focus on the child's behavior. Caregiver characteristics associated with high interactional synchrony also include being warm and affectionate, joyful, and being consistent. Research supports that positive caregiver-child interactions and synchrony help children become emotionally well-adjusted, develop healthy social skills and grow cognitively (Isabella, Belsky, & von Eye, 1989; Lundy, 2002; Maccoby, 1992). In contrast, children display more aggressive behaviors with their peers, have lower levels of social-emotional adjustment later in life and may develop anxiety, avoidant behaviors, and depression when caregivers display negative mood and force their behaviors onto children. Lacking warmth or being excessively critical of young children may dampen children's self-esteem and may stress children when they are interacting. This in turn, may affect attachment, and hinder children's ability to regulate their emotions (cf. Beebe, et al., 2010).

The Parent-Child Interaction Therapy (PCIT) has been effective in increasing synchrony and positive interactions (Herschell, et al., 2002; Zisser & Eyberg, 2010). However, PCIT is a 10 to 16 week program and may be difficult for many parents to attend. PCIT focuses on teaching caregivers how to increase positive child behaviors and make the child feel more secure. PCIT also aims to help caregivers feel more competent in their parenting abilities and has been associated with improving caregivers' mood (Lanier, et al., 2011; Pearl, et al., 2012; Timmer, et al., , 2010). In this paper, we examined a very brief form of PCIT involving only 10 minutes to see if it improved parent-child interactional synchrony. The intervention aimed at increasing caregiver warmth when interacting with children by praising, reflecting, imitating, describing, and being enthusiastic (hence, the acronym PRIDE) and avoiding criticism and commands.

Participants. Forty mothers and children participated in this study (20 mother-child dyads). Mothers were on average 25 years old, mostly lower-middle socio-economic status (75%), and the majority were African-American (65%). Their children were on average 3.5 years old (Range = 28.6 – 67 months) and predominantly male (75%). Only 15% of the mothers lived with their husbands and 25% reported living with their significant other. The majority of the mothers were unwed (85%) and 50% had at least two or more children. The mothers were receiving child care subsidy to help cover the costs of child care for low-income working parents or parents in approved job training and educational programs, parents receiving family assistance through the Department of Human Resources, or parents at risk for child abuse and neglect.

Procedure. The mothers first completed questionnaires on their mood (depression, anxiety and anger) and daily hassles they experienced. Then they were assigned to the intervention or control group. The study involved three sessions. The first (baseline or pretest) and last (posttest) sessions were each 5 minutes long and consisted of videotaping the mother and child playing face-to-face while playing with blocks and toy animals. The middle session was approximately 10-minutes long and involved the mother either participating in the brief PCIT intervention (the PRIDE intervention group) or watching an educational video on child nutrition (the control group).

PRIDE Intervention group (revised from the Child-Directed Interactions (CDI) portion of the PCIT manual, Eyberg, 1999). Mothers assigned to the PRIDE intervention group were taught five skills to help improve caregiver-child interactions. All of the skills focused on the child, and some were specifically aimed at providing opportunities for the child to lead and the mother to follow. The word PRIDE was used to help the mother remember the intervention as each skill was reviewed with her. The five skills were: 1) **Praise** the child to help the child learn what about his/her behavior is appropriate, such as stating "You are making such a nice tower out of those blocks!" or "Good job!"; 2) **Reflect** on the child's verbal comments by repeating, paraphrasing, or building on the child's vocalizations. For example, if the child said "fence" when lining blocks up next to each other, the mother might respond with "Yes, that's a fence you're building." Reflection helps the caregiver pay attention to the child's language, build on it and learn to wait for the child to speak and/or lead the interaction; 3) **Imitate** the child's play, which is another skill that helps the caregiver allow the child to lead the interaction. Imitation also helps make the play session more peer-like or fun and signals that the mother approves of the child's behavior; 4) **Describe** what the child is doing, such as "I see that you are building a tall fence with blocks for your toy animals." This skill helps with language development and focuses on the child's actions; 5) Be **Enthusiastic**, such as saying "I really like what you are building!"

Coding the interactions. The pretest and posttest play interactions (sessions 1 and 2) were coded for interactional synchrony using the following scores: 0 = no interaction whatsoever between the mother and child (e.g., mother plays with blocks while child plays with toy animals; they do not talk or mingle toys); 1 = interactions focused on materials and, there is no shared focus (e.g., one partner may talk about an alligator while the other may talk about the lion); 2 = partners interact, but to only some comments; or one member of the pair dominates the interaction and/or the focus is mostly on the materials; 3 = both members are engaged in the same activity, have a joint focus (e.g., parent and child are both playing with toy lions), and each is somewhat responsive to the other's comments. The interaction does not have to be positive; 4 = frequent eye contact, the partners are engaged in the same activity, and there is physical contact/physical closeness; the interaction is balanced with both equally leading, following and responding to each other's comments, and there is some shared affect; 5 = same as 4, but in addition, they appear joyful and playful, and the interaction is child-like and peer-like. The mothers were also coded for use of PRIDE skills and the children were coded for positive interaction behaviors (e.g., offering the mother a toy, being positive in mood, etc).

RESULTS

Mood. The mood questionnaires revealed that about 1/3 of the mothers were depressed and anxious and about half had moderate to high levels of anger. Mothers who reported a high number of daily hassles had higher anger scores. Depressed mothers were angrier, more anxious and reported more daily hassles.

Interactions. On the pretest, half of the mothers were found to rarely praise, imitate or describe their children's activities during play. However, most mothers were enthusiastic at least once in the 5 minute pretest play session and frequently used reflection.

PRIDE effects. The caregivers and the children's behaviors before versus after the PRIDE training (or nutrition video for the control group) were examined. PRIDE skills training improved the interaction scores of the mother-child pairs from the pretest (3.0) to the posttest (3.8). Reflecting on what the child was doing during play and being enthusiastic were the two PRIDE skills that predicted the improved mother-child synchrony score. Interestingly, children whose mothers were trained on the PRIDE skills became more interactive with their mother after the training, specifically by sharing or offering their mothers a toy more during the posttest compared to the pretest. In contrast, for the control group who were not taught the PRIDE skills, the pairs' synchrony scores remained low and the mothers became less attentive to their children's behavior, evident by less repetition or rephrasing of their child's vocalizations during the posttests.

DISCUSSION

In this study, assessments were made of mood and play interactions of low-income mothers and their preschool age children (2 to 5 year olds). The play sessions of the dyad were recorded before (baseline or pretest) and after (posttest) a brief intervention or control period. The intervention, an abbreviated Parent-Child Interaction Therapy (PCIT), was aimed at helping mothers in that group learn five child-directed techniques (PRIDE: praise, reflect, imitate, describe, enthusiasm) that were expected to enhance the synchrony, or improve the interactions, of the parent-child dyad during a play session. The mothers in the control group watched a nutrition video and were not taught the PRIDE skills. Their interactions were also compared pre- and post (the video). The video and PRIDE training were of the same length (10 minutes).

At baseline, high levels of depression, anxiety, anger and daily hassles were noted among the mothers. This is not surprising given that the mothers were lower income and most were unmarried. Mothers with negative moods may not be able to appropriately focus on, or respond to, their children during play and this might impact children's development and lead to poor caregiver-child synchrony. About half of the caregiver-child pairs were coded low in interactional synchrony, which was not surprising for at risk groups.

As expected, mothers in the intervention group significantly improved from pre- to post-intervention in parent-child interactional synchrony, likely related to an increase by the mothers in using child-directed techniques. Mothers in the intervention group showed greater praising, imitating, describing what their child was doing and enthusiasm. In addition, children in the intervention group were found to offer their mothers a toy more often in the post than in the pretest

play session. Perhaps, the intervention children were attempting to increase turn-taking or reward their mothers who were being more focused on them.

Not surprising, mothers in the control group showed a decrease in reflecting on the children's vocalizations from the first to the second play session. Overtime, these mothers' focus on their children deteriorated. The control group's interaction scores remained low from pre- to the post video session

Taken together, these findings support that the brief PRIDE intervention was effective in teaching low-income, and/or at risk mothers, a few basic child-directed strategies that have been shown to strengthen parent-child relations. Additionally, the findings also reveal that maternal use of child-directed techniques during play is related to improved mother-child synchrony. The findings from this study are encouraging as they support that a brief 10 minute interventions may be feasible and effective for helping low-income caregivers learn techniques to strengthen their interactions with preschool age children. PRIDE may also be a good intervention for Head Start Teachers to use to develop children's social skills and prepare them for school.

REFERENCES

- Beebe, B., Jaffe, J., Markese, S., Buck, K., Chen, H., Cohen, P., Bahrnick, L., Andrews, H., & Feldstein, S. (2010). The origins of 12-month attachment: A microanalysis of 4-month mother-infant interaction. *Attachment & Human Development, 12*, 3-141. doi:10.1080/14616730903338985
- Eyberg, S. (1999). PCIT treatment manual: Parent-child interaction therapy. Integrity checklists and session materials. University of Florida. Retrieved June 26, 2012 <http://pcit.phhp.ufl.edu/Presentations/PCIT%20Integrity%20Checklists%20and%20Materials%204-13-06.pdf>
- Feldman, R. (2007). Parent-infant synchrony: Biological foundations and developmental outcomes. *Current Directions in Psychological Science, 16*, 340-345. doi:10.1111/j.1467-8721.2007.00532.x
- Herschell, A.D., Calzada, E.J., Eyberg, S.M., & McNeil, C.B. (2002). Parent-child interaction therapy: New directions in research. *Cognitive and Behavioral Practice, 9*, 9-16. doi:10.1016/S1077-7229(02)80034-7
- Isabella, R.A., Belsky, J., & von Eye, A. (1989). Origins of infant-mother attachment: An examination of interactional synchrony during the infant's first year. *Developmental Psychology, 25*, 12-21. doi: 10.1037/0012-1649.25.1.12
- Lanier, P., Kohl, P.L., Benz, J., Swinger, D., Moussette, P., & Drake, B. (2011). Parent-child interaction therapy in a community setting: Examining outcomes, attrition, and treatment setting. *Research on Social Work Practice, 21*, 689-698. doi: 10.1177/1049731511406551
- Lindsey, E.W., Mize, J., & Pettit, G.S. (1997). Mutuality in parent-child play: Consequences for children's peer competence. *Journal of Social and Personal Relationships, 14*, 523-538. doi: 10.1177/0265407597144007
- Lundy, B.L. (2002). Paternal socio-psychological factors and infant attachment: The mediating role of synchrony in father-infant interactions. *Infant Behavior and Development, 25*, 221-236. doi:10.1016/S0163-6383(02)00123-6
- Kirsh, S.J., Crnic, K.A., & Greenberg, M.T. (1995). Relations between parent-child affect and synchrony and cognitive outcome at 5 years of age. *Personal Relationships, 2*, 187-198. doi: 10.1111/j.1475-6811.1995.tb00085.x
- Maccoby, E.E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology, 28*, 1006-1017. doi:10.1037/0012-1649.28.6.1006
- Pearl, E., Thielen, L., Olafson, E., Boat, B., Connelly, L., Barnes, J., & Putnam, F. (2012). Effectiveness of community dissemination of parent-child interaction therapy. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*, 204-213. doi:10.1037/a0022948
- Timmer, S.G., Zebell, N.M., Culver, M.A., & Urquiza, A.J. (2010). Efficacy of adjunct in-home coaching to improve outcomes in parent-child interaction therapy. *Research on Social Work Practice, 20*, 36-45. doi: 10.1177/1049731509332842
- Zisser, A., & Eyberg, S.M. (2010). Parent-child interaction therapy and the treatment of disruptive behavior disorders. In J.R. Weisz & A.E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (2nd ed., pp. 179-193). New York, NY: Guilford.