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Using Live Coaching and Video Feedback to Teach Responsive Parenting Skills: Experience from the PALS Project

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Introduction: Children at Risk and Responsive Parenting

Numerous studies have documented that poverty, premature birth, and being born to a teenage mother are all significant risk factors for poor developmental outcomes in children.[1] However, the quality of the parent-child relationship, including attentiveness to the infant's needs and responsive support for the toddler's emerging desire to explore and gain independence, can moderate this risk and improve children's developmental outcomes.[2] Interventions designed to enhance parenting skills in at-risk families have met with mixed success[3] for various reasons. These vulnerable families are often attempting to cope with multiple stressors and crises at once (eg, housing instability, lack of transportation, health issues, childcare needs, domestic violence, or unstable relationships) that impact their ability to participate in intervention opportunities offered to them. Attrition rates tend to be high[4,5] and effect sizes modest. Parents targeted in these programs often have low levels of education and literacy skills,[6] making it difficult for them to benefit as readily as more educated parents from generic written parenting materials. Studies have found however, that when parents *can* be engaged in parenting interventions, programs most likely to effect positive changes tend to be more targeted in scope, briefer in duration, and focused on directly teaching responsive parenting behaviors.[7] The challenge remains

how best to keep parents engaged and willing to take an active role in learning and practicing new parenting behaviors that will benefit their children.

Parents as Adult Learners: Meeting Them Where They Are

The literature on adult learning posits that adult learners should be viewed as: internally motivated and self-directed, goal oriented, relevancy oriented, and practical. They bring life experiences and knowledge to new learning experiences and like to be respected and treated as partners in the learning process rather than as passive recipients of information from an expert.[8] Applying these principles to the parenting intervention context, we expect that parents consenting to participate in a parenting intervention bring with them existing knowledge about their own child and some degree of skills in child-rearing. They have hopes and expectations for their children that shape their parenting choices, and they are more likely to be willing to engage in a parenting program if they feel that it will be of practical relevance to them in supporting their child's development.

Interventionists should recognize that committing to participate in a parenting intervention program, particularly a one-on-one, home-based program, takes courage. Parents agree to have an unfamiliar professional (who may be called a "parenting coach," "home visitor," "family specialist," or nurse or social worker) come into their home for multiple sessions, to

be observed interacting with their child(ren), to hear feedback about their behaviors, and to be asked to try new and potentially uncomfortable parenting strategies. For parents who may have had previous negative experiences with "helping professionals" (including Children's Protective Services), issues of trust and anxiety may make such engagement feel like taking a substantial risk. In addition, many of these parents have had negative previous experiences with school and formal learning, and may lack confidence in their ability to master new information and skills. They may also be unaccustomed to the process of taking a reflective and proactive approach to their choices and behaviors as parents, particularly if they have not experienced positive caregiving role-models during their own childhood.

Thus, working with parents of at-risk children involves much more than delivering a good quality intervention/curriculum. It requires interventionists to be highly sensitive to the needs and issues that these parents bring to the process, and to use a balanced approach that combines warm, unconditional support for the parent with being an "agent of change" who actively scaffolds the parent to make meaningful changes in her/his parenting skills.

Interactive Coaching and Video Feedback to Facilitate Behavior Change

Adult learners may be open to learning new information and skills, but may or may not be able to apply the taught skills to their real-life situations and challenges. They may be unaware of their own behaviors prior to intervention/training, and may have difficulty gauging objectively their proficiency in using newly taught skills. There may be a substantial gap between parents' exposure to recommended parenting practices (via didactic presentation, viewing exemplar videos, reading booklets, or handouts), and being able to effectively apply those practices to their interactions with their own children. A key element of many programs shown to be effective in changing parents' behavior (eg, Parent-Child Interaction Therapy (PCIT),[9] Circle of Security (COS),[10] Video Intervention to promote Positive Parenting (VIPP),[11] Attachment and Biobehavioral Catch-Up (ABC),[12] Play and Learning Strategies (PALS)[13,14]) is the use of individualized guided practice (ie, "coaching"), along with review of videotaped interactions between the parent and child. As video technology has become increasingly advanced, portable, and economical, it has become an accessible and highly effective tool for enhancing learning by allowing participants to view footage of themselves and critique their own practice. Combining didactic training with live coaching and video

reflection has been shown to significantly enhance learning in teachers[15,16] and parents.[17,18]

Self-Reflection Requires Emotional Risk-Taking

While guided practice and video-based self-reflection can be highly effective in changing parents' behavior, particularly in increasing sensitive responsive behaviors and decreasing intrusive, inappropriate behaviors,[13,14,19] parents may be resistant, or at least anxious, about the idea of being videotaped and watching themselves on camera. In contrast to teachers, who may be accustomed to professional development activities and have experienced being observed and critiqued during their pre-service and in-service practicum training, parents tend to be unused to having others formally observe their interactions with their children, and even less accustomed to viewing themselves and reflecting on the impact of their behaviors on their children. Thus, in addition to the challenge of being open to learning new interaction skills with their children, participants in parenting programs that use reflective video feedback must be willing to look at their own behaviors objectively on screen and participate actively in dialogue with their coaches about what they see and how their behaviors are impacting their child. Such openness requires a degree of emotional risk-taking that may initially feel uncomfortable. Given

the high rates of attrition from many parenting programs serving at-risk families, it is useful to consider the ways in which interventionists can help parents to feel safe enough to take these risks. The remainder of this paper will describe how parenting coaches in one well-validated intervention program guide parents through this sensitive and often emotional process.

The PALS Program

The "Play and Learning Strategies" (PALS) program[13,14] has been shown to be one of the more effective intervention programs targeting at-risk parents and is currently listed in the US Department of Health & Human Services HomVEE Evidence of Effectiveness programs, the Promise Neighborhoods Research Consortium What Works programs, and the Sociometrics Corporation Effective Programs Archive. PALS includes both Infant (11 sessions) and Toddler (13 sessions) modules that teach parents a set of interactional skills that collectively represent a responsive parenting style, informed by attachment and social learning theories.[20,21] Four key constructs comprise this interactive style: (1) contingent responsiveness; (2) warm sensitivity, including positive behavior management skills; (3) maintaining children's focus of attention and interest; and (4) rich verbal input. The number of sessions was guided by

the need to address each of these key constructs (some of which require more than one session to cover adequately) and supported by the recent meta-analysis showing that responsive parenting interventions that are relatively shorter, skills-focused, and targeted tend to be more effective.[7] The toddler version of the curriculum is slightly longer because it addresses behavior issues more explicitly. The curriculum (available in both English and Spanish) includes educational videotapes featuring mothers with similar backgrounds to the participants demonstrating specific target skills, guided discussion and questions to ensure parents' understanding of the concepts, direct coaching of parents' use of the key behaviors during videotaped interactions with their children, self-reflective review of their videotaped interaction footage, and planning for integration of target behaviors into daily ongoing interactions with their children. Each parent works individually with a parenting coach who visits her weekly in her home (or at another preferred location) for the duration of the intervention. Each session has a specific topic (eg, reading your child's signals; using warm responsive behaviors; stimulating language development; guiding children's behavior) and lasts approximately 1 to 1.5 hours, including the didactic video presentation/discussion, coached videotaped practice, and reflective review of the just-filmed footage. In several random assignment studies, the PALS program has been shown

to increase mothers' use of a range of responsive behaviors and in turn increase children's emotional, behavioral, and language skills.[13,14] PALS has also been shown to help mothers generalize their use of the target skills to new contexts that were not explicitly practiced during intervention.[22]

PALS Parent Population

Similar to some of the above-mentioned home-visiting programs, the PALS program was designed for parents of children at risk for poor developmental outcomes. PALS particularly targeted the needs of medically and developmentally vulnerable children (Very Low Birth Weight infants and toddlers from low socioeconomic backgrounds). In addition to the original sample of intervention families, PALS has been used successfully with teenage mothers, parents at elevated risk for abuse and neglect, and parents from low SES backgrounds whose children attended Head Start programs.[6,23] Many parents who have participated in PALS have limited education. Some have difficulty responding to open-ended questions and grasping abstract concepts. Although the PALS videos are designed to use simple language and show multiple examples of each target behavior, some parents struggle to identify the relevant aspects of video clips or to describe examples of similar behaviors in their own child.

The concrete experience of being directly coached to engage more effectively with their child, and then reviewing and discussing the videotaped interaction sequence with their coach, has been a critically important component of the intervention for these parents.

Training Coaches as "Agents of Change"

PALS coaches trained thus far have typically been young women with at least a Bachelor's degree, often in psychology, education, or a related field. Most come from ethnic backgrounds that reflect the diversity of the families they work with, including Hispanic/Latina, African-American, and Caucasian. The training process for PALS coaches incorporates multiple components to ensure fidelity to the manualized curriculum as well as the ability to individualize coaching responses for each individual parent-child dyad. Coaches are introduced to the issues facing at-risk families via hypothetical case examples, role playing exercises, and didactic information. They are trained in how to establish rapport with parents and convey empathy and support while still keeping the parent focused on the goals and tasks of the intervention. At times this includes the need to remind parents that even in the midst of stressors and difficult circumstances that make it hard to attend to their children's needs, their young children still need them to be present and responsive to them, and

that they remain the most powerful influence on their children's development. Coaches are flexible in scheduling sessions during daytimes, evenings, and weekends as needed to accommodate parents' work and school schedules.

Live Coaching Support

In addition to becoming familiar with the training manual and all the didactic session videos that are presented and discussed with parents, coaches are trained in how to engage in live coaching interactions that are supportive, reinforcing of positive target behaviors, corrective/directive when inappropriate behaviors are shown, and oriented toward highlighting the impact of the parent's behavior on her child. While coaches may role-play with a parent prior to the parent-child practice, or may briefly model a response or question for a parent, they are trained to avoid as much as possible "taking over" the interaction by engaging the child directly during coached play times. We have found that parents who lack confidence in their own skills and/or relationship with their child may tend to fall easily into a more passive role if the coach allows them to do so, for example by letting the coach respond to the child, or trying to engage the coach in conversation during the play period instead of attending directly to the child. Gently redirecting the parent back to the child (or the child back to

the parent) supports the parent in having her own successful interactions with her child. The coach sets up the camera to videotape the parent-child play interaction (typically 10-15 minutes long) and then sits nearby, often within camera range herself, in order to provide coaching as the play interaction unfolds.

Because of the nature of the PALS intervention, target skills are often practiced within the context of following the child's lead in play and scaffolding the child's learning as opportunities naturally arise. Therefore, the coaching process with parents looks somewhat different than it does with teachers who may be carrying out a pre-planned lesson with students. Coaches are taught to "follow the action" between the parent and child, providing guidance as needed to reinforce positive use of target behaviors as they happen, and to suggest and prompt alternative behaviors when an interaction is not going well. Examples of types of coaching statements and questions include the following:

- **Reflective questions** are used to call parent's attention to current aspect of interaction and/or suggest need for alternative response (eg, "What kind of signal is he giving you right now?" "What do you think she wants you to do?" "What kind of responsive behaviors could you use right now?" "What could you label for her in that puzzle?").

- **Reinforcing statements** are used to give parent positive feedback for sensitive/responsive behaviors (eg, “You used a really nice warm tone of voice just then.” “That was great that you noticed Johnny’s signal that he wanted the cars and you moved them closer to him”).
- **Observations** are used when a parent needs more direct cueing to notice child’s signals. Sometimes these statements are paired with a suggested action. (eg, “I’m noticing that Jasmine is trying to sit very close to you. She might want to sit in your lap as you read that book.” “Marcus looks really happy to be having your attention right now.” “I noticed that Sandra turned herself away when you tried to help her with the pegs.”)
- **Direct prompts** are used to suggest a specific action for the parent to try (eg, “Try making some animal noises as you show her those farm animals and tell her their names.” “Notice how he’s still showing interest in the baby doll. You can suggest some other things he could do with the doll, such as putting her to bed or changing her diaper.” “How about letting her hold the book herself while you read it to her?”)

The coach says just enough to give the parent the message and get him/her back on track with her child if needed, and then praises his/her success when this is achieved.

Self-Reflective Video Review

The live coaching time is videotaped. Immediately following the live coaching period, the coach and parent watch the videotaped footage together. The goal during this part of the session is for the parent to take an active role in reflecting on her behaviors and her child's responses to what she did. The coach typically guides the process by pausing the video at certain points to discuss particular interaction sequences and to ask the parent about her thoughts and feelings during those parts of the interaction, as well as her observations of her child's responses.

While some parents quickly become comfortable viewing and critiquing themselves, other parents need extra support to participate in this process. Typical challenges for parents during the first few sessions include: feeling preoccupied by self-consciousness about their personal appearance on video; having limited language skills to describe what they are seeing (eg, using vague comments such as "It went good" or "He liked the toys" instead of more specific descriptions of their own or their child's behaviors); being shy or hesitant to comment at all (concern about giving

a ‘right’ answer; waiting for the coach to give them feedback); and having difficulty noticing or correctly interpreting more subtle cues given by their children. Coaches use various strategies to help parents become more comfortable and proactive in this process. These include: 1) explaining the rationale for why we use the video reflection process (to give the parent a “bird’s-eye view” of her interactions with her child so she can learn more about how and why her child is responding to her, and how she can better support her child’s development); 2) validating and normalizing parents’ initial discomfort, letting them know that most parents feel more comfortable after the first couple of sessions; 3) reminding parents that the video footage is only used for this reflective purpose and will only be seen by the parent, the coach, and sometimes other members of the PALS program staff for clinical supervision purposes; 4) Reassuring parents that there are not ‘right’ or ‘wrong’ answers to questions, but that this is a learning process where the coach and parent work together to figure out what strategies work best for her child; and 5) Encouraging the parent to be the first to comment on what she sees in the video, rather than waiting for the coach to give feedback. If the parent does not begin commenting on her own as they watch the footage together, the coach may pause at a point where the parent has done something positive and ask her to describe what she has seen so far. The coach then follows up by pointing

out the positive things the parent has done and how her child responded. For parents who become disengaged easily, the coach may actually hand the parent the remote control for the video player, prompting her to take charge of the viewing and pausing process.

Maintaining Fidelity

Coaches' fidelity to the curriculum and the coaching approach is maintained in several ways. Weekly group supervision meetings with a senior PALS trainer/supervisor allow coaches to discuss and problem-solve specific challenges regarding individual families, relay questions asked by parents that may be outside the scope of the coach's expertise, and clarify appropriate responses to typical challenges (eg, multiple siblings distracting parent during session; conflict between parents or other family members; parent requesting help for an older child). Coaches take turns showing video footage from their sessions to the group for reflection and constructive feedback (parents are informed as part of the consent process that such footage will be shared within the PALS team for supervision purposes). In addition, the supervisor accompanies each coach on home visits on a regular basis to conduct live supervision. During these visits, the supervisor completes a fidelity checklist regarding the coach's administration of the session, including the didactic and

coaching segments. Following the session, the coach and supervisor meet to review the session and the fidelity feedback. The supervision process is designed to model the supportive, reflective approach used by the coaches themselves, with the coach being invited to share her thoughts and observations of the session first, including reflections on her own skills. The supervisor then reviews the fidelity checklist and narrative notes, highlighting areas of strength, pointing out examples of effective moments in the session, and providing suggestions for future coaching development. In these ways, coaches are encouraged to be self-reflective and also benefit from the encouragement they give each other, as working with at-risk families can be challenging and frustrating at times. Maintaining a respectful and supportive peer supervision culture enables coaches to share their struggles and successes while maintaining a compassionate and consistent approach to the families they serve.

Voices of PALS Coaches

When experienced PALS coaches were asked what skills they have found easiest and hardest to get parents to change, their responses varied. For example, one coach stated: "'Reading with Children' was the session in which changes happened the quickest and most noticeably. It involved clear, straightforward instructions…and children seemed so receptive to

the change in parents' behavior." Another coach listed the following behaviors as easiest to change: "offering choices, praising, and commenting instead of interrogating". Coaches disagreed about how readily parents learned to read their children's communicative signals. One coach commented, "One of the easiest behaviors to change in moms is to identify signals" while other coaches noted that it can be hard to get parents to recognize more subtle signals in their children (eg, body language cues rather than spoken words). Coaches agreed that for many parents, becoming more warm and sensitive to their children was a challenge, especially when the parents themselves had no models for these kinds of interactions in their current or past relationships. Pointing out the impact of their behaviors on their children has often been an effective strategy for these parents. As one coach explained: "I find the easiest behaviors to change are the ones where we elicited two different responses from the child and saw the immediate effect in playback and live coaching. For example, cuing mom to ignore a signal vs. responding to a signal…[T]hey see a big difference in their children, therefore making them think more about how they affect their child by using these PALS strategies."

When asked about the most successful strategies they have used to engage challenging parents in either coached practice or video self-

reflection, their insights and advice highlight the need to balance sensitivity and reassurance with active intervention. For example: "If a parent is extremely nervous, talk about 'the elephant in the room' and acknowledge how this may be uncomfortable early because it's new, but how they will grow comfortable with the process. Do not be silent [during coaching] because then the parent feels like she's on display. Do not take over the interaction. Do not talk too much because it may interfere with the parent-child play." "Talking less and asking more questions; letting her express her thoughts and feelings without 'teaching' too much, listening, being a sympathetic ear so she felt like she could be honest without judgment….and when she's missing the mark, guiding her in the right direction by asking a series of simple questions [such as] 'What do you see here?'" Coaches also noted the importance of responding in ways that respected and empowered parents: "During a feedback session I try to praise something positive she did during play time and ask her if she knew she was doing that particular behavior. It's so important that she looks at herself and is conscious of what a great job she was doing, and hopefully [she will] repeat that behavior in the future." "Regarding coaching, I was sure to always start by putting the focus on the child's behavior. That seemed to help the parent ease into the interaction without feeling too self-conscious. Throughout the session, we would keep coming back to

the child's reaction to things as a way to show how the parent's behavior had an impact on the child's behavior. It also helped to ask the parent what *she* wanted to work on improving that week, so that feedback was part of a collaboration rather than a directive."

The Power of "Aha" Moments

One of the primary mechanisms for the effectiveness of live coaching and video reflection is the opportunity for the participant to have moments where she experiences insight into her interactions that lead to meaningful behavior changes. Many PALS coaches recall poignant examples of such moments, as the following stories show:

Recently I had a mom in the Reading session whose child was happily reading a book alone when mom tried to make her switch books for no reason. The child literally lifted her book to block her mother from view. I paused it when we did [video] playback and mom was floored by her actions and her child's obvious reaction!

Another coach recalled the following experience:

This mom had a hard time being playful with her son - she didn't know how to pretend play. It made her feel uncomfortable. She felt like her husband did a better job with connecting with their kids. I did not know she felt this way when I first went out to see her, but I could tell she wanted to cry when watching her playback from the previous

week. Her son was signaling that he wasn't interested in playing with her. I stopped the tape and mentioned that she seemed upset with what she was seeing and I then allowed her some time to respond. She began crying…she said it made her feel really sad and she would rather her husband play with him more since she felt he did a better job. I gave this mom a huge pep talk, gave her very specific feedback as far as how to pretend play with her son, and reminded her that her son loved her and even though *she* felt awkward with pretend play, she didn't have to be perfect at it - her son wasn't going to "judge" her on how well she did. Her first step was just being open to playing with him in this way. During live coaching…the mom practice[d] pretend play with lots of supportive live coaching. The mom was happy and able to see her son smiling and having fun with her."

A third coach shared this story:

I had a mom who had 3 daughters; the oldest one was participating in the program. During the didactic session, I could see this mom would dismiss or ignore her daughter because she was so busy attending to her other little ones. During the coaching session she did something similar: her daughter was drawing a picture and she repeatedly tried to show mom the picture but mom, again, was too busy attending and playing with her other two daughters. As a coach I tried to point it out to her: "Are you following her signals?" "What is she trying to show you?" When I played the video back to her, she saw for herself how she dismissed her daughter's signals and ignored her more than once. She even said "I never thought it was that obvious but it is, I am ignoring her, I never want my daughter to feel ignored or feel that she doesn't matter to me." It finally

clicked because she saw herself doing it. By the end of the session…she said she understood how important responding to *all* her children is.

A critical piece of the "aha" experience that emerges during the video self-reflection is the follow-up that happens after these pivotal moments. When parents recognize what they need to change, they need the opportunity to experience success in using more effective behaviors. Thus, the ongoing cycle of being presented with new information (via the didactic portion of the session), practicing live with the coach's support, and seeing their progress in the video footage over a period of weeks enables parents to consolidate these changes and begin to view themselves as more effective and insightful parents. Such empowerment is particularly valuable for parents who, as noted earlier in this paper, may have had negative past experiences with educators or helping professionals, and who may continue to face very real ongoing challenges in their lives. We provide each parent with a DVD copy of all her parent-child video footage at the end of the PALS program, and even parents who were initially reluctant to allow themselves to be videotaped look forward to and appreciate this tangible record of their own growth and their child's development.

Challenges and Future Directions

Interventions to change parenting behaviors are challenging to implement in many ways. Those developed within the context of controlled experimental research designs must be able to scale up to serve larger numbers of families without sacrificing those elements of the program design that are critical to its success. Technology provides many opportunities for larger-scale access and distribution of training and intervention materials, but such materials without interactive, personalized application assistance may have limited effectiveness. In addition to good quality instructional content, effective parenting interventions such as PCIT, COS, VIPP, ABC, and PALS rely on the development of a trusting relationship with the intervention provider and individualized feedback to facilitate improvement in skills. Finding ways to scale up such interventions often requires additional research studies to test out the effectiveness of variations in protocol that allow greater accessibility of the program and/or a more cost-effective, sustainable model. In the PALS program for example, we are currently testing a remote coaching model that allows coaches to give parents coaching and feedback via video conferencing. This is a particularly promising avenue of intervention for families living in rural locations where they may not be able to access such services in person. Other PALS studies are providing feedback by

telephone after the parent watches a training video online and then videotapes herself interacting with her child, which is uploaded to secure Dropbox from which the coach can review the footage. PALS and other programs have also moved to a “Train the Trainer” model whereby organizations can pay to have their staff trained and/or certified, and these trained staff then carry out the program to families within their organization. Funding such programs without the support of research funds is often an ongoing challenge, but is a worthwhile endeavor in light of the critical need for high quality parenting intervention programs. Resources such as the US Department of Health & Human Services HomVEE Evidence of Effectiveness review, the Promise Neighborhoods Research Consortium What Works website, and the Sociometrics Corporation Effective Programs Archive can help service organizations, policy makers, advocates, and individual practitioners make sound decisions about which research-validated programs will best meet the needs of their clients or constituents. In addition, partnerships among organizations serving similar populations of families can be useful in leveraging multiple sources of funding to provide these valuable intervention programs.

Conclusion

Improving developmental outcomes for children at risk remains a serious need in this country. Intervention programs that successfully move parents toward more nurturing, responsive, developmentally sensitive interactions with their children make a meaningful positive contribution to this goal. However, the work is difficult. It requires careful training and clinical supervision of intervention staff to facilitate effective direct parent coaching This paper has outlined an interactive process by which parents with low levels of education and limited experience with self-reflection can effectively be supported to increase their awareness of their children's needs, identify the impact of their responses, and play an active role in critiquing and improving their own skills. The critical role of the coaching relationship has been highlighted, emphasizing the need for coaches to balance warm support with skillful questioning and prompting to facilitate the dual goals of progress in parenting skills and personal empowerment. As programs such as PALS and others move forward into the future, new models of service delivery using interactive technology and a "train the trainer" model have the potential to improve cost-effectiveness and capacity-building for the benefit of even greater numbers of families.

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