

*EFFECTS OF INDIVIDUALIZED VIDEO FEEDBACK
COMBINED WITH GROUP PARENT TRAINING ON
INAPPROPRIATE MATERNAL BEHAVIOR*

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The effects of adding individualized video feedback (IVF) to Webster-Stratton's (2000, 2001) group-based parent training program (GT) were evaluated using a multiple baseline design across four mother–child dyads. During all phases of the study, inappropriate maternal behavior was recorded from videotapes of playtime with their preschoolers with developmental disabilities. Results suggested that GT+IVF reduced inappropriate maternal behavior to levels below GT alone.

DESCRIPTORS: developmental disabilities, early intervention, *Incredible Years* parent training, video modeling

Children with developmental disabilities are more likely to develop behavior disorders than their typically developing counterparts (Emerson, 2003). The goal of parent training is to decrease childhood behavior problems by helping parents to develop skills and knowledge to increase positive parent–child interactions (Patterson, 1982).

Previous parent-training work with children with developmental disabilities has often employed individualized, function-based approaches with children who are already experiencing problem behaviors (e.g., Lerman, Swiezy, Perkins-Parks, & Roane, 2000). The current study used an early intervention group-based program and enhanced the effects with individualized video feedback (IVF) sessions. The group-based parent training program (GT), the *Incredible Years* (Webster-Stratton, 2000, 2001), was designed for typically de-

veloping children with or at risk for behavior disorders and has demonstrated efficacy in altering inappropriate parent–child interactions and reducing child behavior problems (e.g., Webster-Stratton, 1994). To date, it has not been fully investigated for parents with children with developmental disabilities, many of whom are at risk for developing behavior problems similar to those experienced in the typically developing population (e.g., physical aggression; Fraser & Nolan, 1994). Thus, the current investigation focused on parents of young children with mild to moderate developmental disabilities in an effort to prevent serious patterns of maladaptive parent–child interactions that may contribute to the onset or persistence of childhood behavior problems (Budd, Green, & Baer, 1976; Webster-Stratton & Herbert, 1994).

Previous research has demonstrated IVF to be useful in caregiver training for children with developmental disabilities (e.g., Reamer, Brady, & Hawkins, 1998). Given that the *Incredible Years* program was designed for typically developing children and their parents, the purpose of the current investigation was to evaluate the extent to which the incorporation of IVF would enhance the therapeutic effects of the *Incredible Years* program for parents of children with developmental disabilities.

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METHOD

Participants and Settings

Participants were randomly selected from a larger pool of parents of 2- to 4-year-old children with developmental disabilities who attended a free, 11-week parent-training program. Parents were recruited from local early intervention and preschool programs, and were eligible if their child: (a) had a Vineland Adaptive Behavior Composite standard score between 45 and 85 (Sparrow, Balla, & Cicchetti, 1984), (b) was ambulatory, and (c) lived with the primary caregiver. Twelve families consented to participate in the group parent training; half were randomly selected to participate in the current study, and the remaining families were assigned to a control group as part of a larger parent-training investigation. Two families dropped out prior to data collection, leaving four mother-child dyads as participants.

Response Measurement and Reliability

Data were collected during weekly 15-min videotaped observations of mother-child interactions at home. These sessions consisted of 10 min of unstructured free play, 2 min of clean-up, and 3 min of a provided activity (e.g., puzzle). The percentage of 30-s intervals that a mother engaged in inappropriate behavior was calculated using a partial-interval coding system, designed to address all major skill areas included in the *Incredible Years* basic curriculum (Webster-Stratton, 2001). A combined inappropriate behavior index was measured as the primary outcome variable to reflect maternal behavior in the following seven categories: (a) inappropriate play behavior (i.e., parent directed, competitive, or asking two or more object-related questions); (b) intrusion on child's independence (i.e., assisting with task without the child's request or insisting on completing a task her way); (c) positive consequences for inappropriate behaviors (i.e., delivery of a tangible item or verbal or

nonverbal attention in the presence of child problem behavior); (d) inappropriate commands (i.e., commands that are ambiguous, are repeated more than twice, are part of a chain, have no chance for response, begin with "stop" or "don't," or contain threats); (e) lack of follow through (i.e., allowing escape from a command or lack of praise after compliance); (f) criticism (i.e., verbally expressing discontent with the child's performance); and (g) aggression (i.e., physical or verbal aggression towards the child). Additional information about the behavior codes can be obtained from the second author.

Interobserver Agreement and Treatment Integrity

Two independent observers collected data during 33% of sessions using interval-by-interval agreement, with 100% agreement across all codes. Of the IVF sessions, 50% were observed by a research assistant who used a procedural checklist of treatment steps to assess correct implementation of the treatment by the therapist (i.e., the first author). Across all participants, the treatment was implemented with 100% accuracy.

Experimental Design and Procedure

Group treatment (GT). The *Incredible Years* program (Webster-Stratton, 2001) was delivered to all participants. All GT sessions were conducted by the second author, once per week for 2.5 hr over the course of 11 weeks (Study Weeks 1 through 11). The GT followed a structured curriculum and targeted skills in four areas: (a) play and involvement, (b) praise and rewards, (c) limit setting, and (d) handling misbehavior. Each weekly session involved group discussion, generic videotape vignettes, role playing, and feedback (see Webster-Stratton, 2000, 2001, for a discussion of each component and specific training procedures). At the end of each session, mothers were assigned homework to practice and apply their new skills; however, homework completion was not formally monitored.

Individualized video feedback (IVF). IVF was introduced for Mother A just prior to observations at Weeks 4, 8, and 10; for Mothers B and C just prior to observations at Weeks 8 and 10; and for Mother D just prior to the observation at Week 10. IVF sessions were based on the previous week's videotaped observation, allowing the therapist to review the tape prior to delivering feedback to the mother. Feedback focused on only those skills previously introduced in GT. Feedback sessions followed natural transitions in the GT curriculum (i.e., following play or praise, limit setting, and handling child misbehavior). A review sheet of skills taught in GT sessions was provided during feedback sessions, and mothers were encouraged to refer to this while viewing her videotape. The therapist stopped the video when an inappropriate parent behavior occurred and asked the mother to identify more appropriate alternatives. These alternatives were praised and practiced three times with the therapist. Practice consisted of a combination of modeling, rehearsal, praise, and corrective feedback; these were adapted from the behavior skills training literature (Himle, Miltenberger, Gatheridge, & Flessner, 2004). If inappropriate behavior was not displayed during the video, the therapist paused the video every 2 min to praise the mother. Participants had the opportunity to ask questions throughout the IVF sessions. A summary of the observation and alternative skills suggested was provided at the feedback session, and another 15-min observation was conducted immediately afterward. Feedback sessions averaged 35 to 45 min across all mothers.

A multiple baseline design across mother-child dyads was used. All mothers began GT at Week 1. The IVF was then introduced sequentially to evaluate its additive effects on maternal behavior using the GT phase as a relative baseline.

RESULTS AND DISCUSSION

The results are presented in Figure 1. During the GT phase, the percentage of intervals of

inappropriate behavior varied across mothers, with means of 90% (range, 84% to 97%), 56% (range, 53% to 60%), 57% (range, 40% to 73%), and 21% (range, 13% to 35%) for Dyads A through D, respectively. After the addition of IVF, the percentage of intervals of inappropriate behavior dropped significantly for all mothers and showed a decreasing trend for three of the four dyads. During the GT+IVF phase, the mean percentage of intervals of inappropriate behavior was 58% for Dyad A (range, 10% to 57%), 9% for Dyad B (range, 3% to 13%), 17% for Dyad C (range, 10% to 24%), and 2% for Dyad D (range, 0% to 3%), with final observations ranging from 0% to 10% of intervals containing an inappropriate behavior.

The current results suggest that providing IVF to mothers may help enhance the outcomes of a group-based parent-training program. Although the participating mothers varied substantially in their response to the GT sessions, all mothers reduced their inappropriate behavior following IVF. The current treatment approach was novel in that it used a curriculum established for typically developing children and applied it to mothers of young children with developmental disabilities in an effort to promote positive and appropriate parent-child interactions. Promoting positive and appropriate interactions may help to reduce the risk of developing severe behavior disorders (Patterson, 1982), a risk that has been documented in the developmental disabilities literature (e.g., McIntyre, Blacher, & Baker, 2006).

To enhance treatment effects of the group-based parent-training curriculum, we provided one to three IVF sessions. Future work could investigate providing IVF sessions as an enhancement component to only those dyads who fail to respond to GT or could evaluate the use of IVF as make-up sessions if participants missed a GT session. The current study was not designed to analyze the separate IVF components; thus, future work could

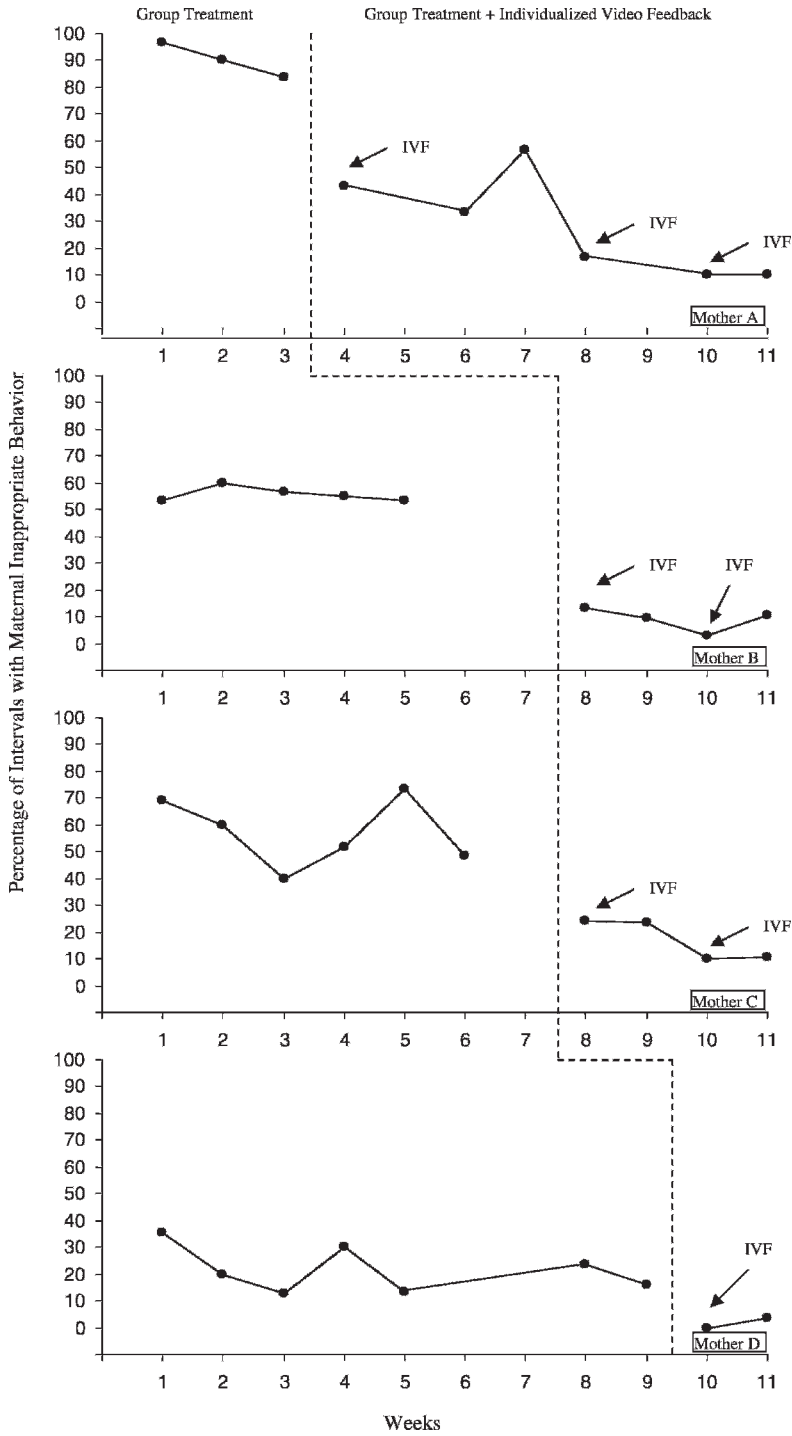


Figure 1. Percentage of intervals with inappropriate maternal behavior across GT and GT+IVF phases for each mother-child dyad.

also address which features of IVF (or GT) were effective in reducing inappropriate maternal behavior. Furthermore, the current study was designed to address maternal behavior and focused on intervening before children developed an extensive history of maladaptive behavior. This work would be enhanced if outcomes for the children were investigated using short- and long-term follow-up probes.

Although these initial data are promising, all participants missed two of the weekly observation sessions due to scheduling difficulties (e.g., families out of town); this is not uncommon in community-based intervention studies. Unfortunately, sessions were missed prior to key phase changes for Mothers B and C, weakening the demonstration of experimental control. Although the timing of the IVF sessions was designed to correspond to key transition points in the GT curriculum (e.g., following play and praise, limit setting, and handling child misbehavior), altering the schedule of IVF based on the occurrence of missed observations could have strengthened the design.

Clinicians are often faced with the challenge of providing intervention services for a large number of families. The combination of GT and IVF may create an efficient intervention that can simultaneously target a larger number of parents but provide some flexible individualized treatment based on participants' responses to treatment. Individualizing group treatment approaches for families of children with developmental disabilities may be especially important if group treatment is used as a standard intervention. Prevention and early intervention with families of young children with developmental disabilities may be especially important given their risk for developing severe behavior disorders.

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