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Caregiver Training: Increasing Generalization of Parenting Skills Through Teaching Caregivers to Recognize Child Behavior

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Caregiver Training: Increasing Generalization of Parenting Skills Through Teaching Caregivers to Recognize Child Behavior

by

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ABSTRACT

Previous research has demonstrated the efficacy of a behavioral parent training program for increasing the accuracy of trained skills; however, few studies have examined the extent to which those skills generalize to the natural environment (i.e., the home) and are used with the target individual (i.e., the child). In addition, little is known about the direct effect that caregiver implementation of the skills has on child behavior. A multiple baseline across participants design was used to (a) assess caregiver accuracy with implementation of three parenting skills, and (b) assess subsequent effects of the parenting skills on child behavior. Results demonstrated that three caregiver participants successfully generalized parenting skills taught during behavioral skills training (BST) to naturally occurring routines by recognizing appropriate and inappropriate child behaviors as opportunities to implement the trained skills. In addition, the behavior of each caregiver's child improved following BST, suggesting that the parenting skills were effective in addressing challenging child behavior. All caregivers rated the training and skills to be highly socially valid. Limitations and suggestions for future research are discussed.

INTRODUCTION

Many children (both typically developing and with developmental disabilities) engage in challenging behaviors that are recognized as interfering with the child's ability to benefit from educational and community services (Dunlap et al., 2006). Children who engage in problem behavior often present maladaptive behaviors of impulsivity, anger, and hyperactivity, and these behaviors may be troublesome for the children's parents, teachers, and/or others who interact with and care for them (Smith & Fox, 2003). Harsh and punitive caregiver responses to these child behaviors can lead to a cyclical pattern of caregiver responding, even though such responses do not necessarily teach the child how to behave in a more appropriate manner (Webster-Stratton & Taylor, 2001). Ineffective parenting behaviors may produce children who follow problematic trajectories of academic failure and social maladjustment (Powell, Dunlap, & Fox, 2006). It is important that the caregivers of children who engage in challenging behavior be trained in effective parenting skills in order to disrupt this cycle; therefore, caregiver training was the focus of the current study.

There are numerous options for caregiver training programs. "Caregivers" may include biological, adoptive, or foster parents, residential facility staff members, or teachers. Formats for caregiver training programs range from minimally intrusive web-based or DVD interactive multimedia (Pacifici, Delaney, White, Nelson, & Cummings, 2006) to multidimensional treatment plans involving intensive treatment interventions (Westermark, Hansson, & Vinnerljung, 2007). One program in the state of Florida that combines interactive multimedia and intensive, individualized behavior analytic services is the Behavior Analysis Services Program, or BASP (Stoutimore, Williams, Neff, & Foster, 2008).

BASP is a program designed to incorporate service provision with the research-based and data-driven methods of applied behavior analysis. BASP is funded by the Department of Children and Families through Heartland for Children, and the program specializes in preventative work with caregivers. BASP uses a training program designed to teach caregivers parenting strategies that are focused on decreasing problem behavior and increasing appropriate behavior. Behavior analysts developed the caregiver training curriculum ("Tools Training") to be applicable to a variety of children's ages, behaviors, and skill levels. Although the program varies in the duration and intensity of involvement, the basic curriculum provides caregivers with six "tools," or task-analyzed behavior management skills (please refer to Table 1 for a description of each tool and its corresponding behavioral procedure and rationale). The "tools" are presented in nontechnical terms; however, all "tools" are based on technical principles and procedures of behavior analysis (Stoutimore et al., 2008). Previous research has demonstrated the effectiveness of the "Tools Training" in hypothetical role-play scenarios, primarily through assessments in which the caregiver acts the role of the parent and performs the skills with a trainer who acts the role of the child (Stoutimore et al., 2008; Van Camp et al., 2008).

Irrespective of the instructional techniques or assessment measures incorporated within a caregiver training program, a curriculum is not useful unless the acquired skills are applied consistently by the caregivers in the relevant settings and with the intended targets. Behavioral skills training (BST) incorporates strategies that are valuable in promoting generalization, such as using common and realistic stimuli and rehearsing multiple exemplars of relevant situations (Miltenberger, 2008). However, even the best training package is reduced to a nice idea if the skills that it promotes are not used with fidelity. Fortunately, some strategies, including BST, have proven to be effective in increasing the generalization of newly-learned skills.

BST is a training procedure designed to facilitate active skill learning. The components of BST are modeling, instructions, rehearsal, and feedback (Miltenberger, 2008). The modeling

component involves the demonstration of the behavior across several situations and is designed to promote generalization. The instruction component is provided in an easy-to-learn format and is designed to enhance skill acquisition and retention. The rehearsal component allows the learner opportunities to practice the taught skills and provides the trainer with information concerning whether the information has been learned and/or if additional modeling or instructions are needed. The feedback component involves providing brief suggestions for improvement followed by repeated rehearsals. The most important component of BST is positive feedback in the form of praise because the praise will provide reinforcement for implementing the skill correctly and will aid in motivation for the learner (Miltenberger, 2008).

BST has been assessed in numerous studies. For example, in 2007 Lafasakis and Sturmey demonstrated the efficacy of using BST to train parents to implement discrete-trial teaching with their children. Results suggested that the participants were able to use the skills acquired through training, and they were also able to generalize the skills to novel instructional programs. The use of the trained skills correlated with increased correct responding among the children.

In a more recent study, Miles and Wilder (2009) investigated the effects of a BST package on caregiver implementation of an intervention for child noncompliance. Three caregiver-child pairs participated in the study, and each child was reportedly noncompliant with at least 50% of his or her caregiver's instructions. BST sessions were conducted to teach each of the caregivers to implement a guided compliance procedure, and sessions included opportunities for repeated rehearsal and feedback until implementation of the procedures was at 100% accuracy for three consecutive trials. Generalization probes were conducted in a novel setting for each caregiver-child pair, and results suggested that BST was effective in facilitating the caregivers' acquisition and generalization of the guided compliance procedure.

Table 1. Description of Tools in Curriculum

Tool Name	Behavioral Procedure and Rationale
Stay close	Noncontingent attention; used to make the caregiver's approval and disapproval important to the child, thus establishing the caregiver's attention as a reinforcer
Use reinforcement	Positive reinforcement in the form of praise or access to desired items and activities; used to strengthen desirable behavior and weaken undesirable behavior
Redirect, use reinforcement	Extinction of attention-maintained behavior and reinforcement for desired behavior; used to reduce minor, nonharmful problem behavior and increase appropriate behavior
Pivot	Extinction of attention-maintained behavior and reinforcement for desired behavior; used to reduce problem behavior and increase appropriate behavior
Set expectations	Reinforcement for meeting expectations set by caregiver and child; used to strengthen desired behavior(s)
Use a contract	Reinforcement for meeting contractual agreement between caregiver and child (formal written form of set expectations); used to strengthen desired behavior(s)

The skills acquired and knowledge gained through caregiver training can be demonstrated in a variety of ways. Generally speaking, there are three levels of skill evaluation: verbal assessment, demonstrative assessment, and applied assessment. The curriculum used for caregiver training varies according to the program, and the methods for assessing the effects of the training also vary.

Verbal assessments have been designed to verify that caregivers have an understanding of course information (Berard & Smith, 2008) and to identify changes in caregiver perceptions (Forehand et al., 1979; Leathers, Spielfogel, McMeel, & Atkins, 2011; Pacifici et al., 2006; Westermark et al., 2007). These assessments have been administered in several forms, including questionnaires, multiple-choice quizzes, and/or interviews. Verbal assessments provide an opportunity for the trainees to demonstrate (through written or oral means of communication) what they have learned during the training, as well as an opportunity for the trainees to provide general feedback or opinions concerning the training. However, there are limitations to verbal assessments in that they do not provide information concerning the correspondence between a person's verbal report and the person's behavior. That is, it is not possible to ascertain a measurable relationship between verbal knowledge and application of that knowledge through the use of verbal assessments alone.

Demonstrative assessments evaluate whether the trainee has acquired the skills taught through a physical demonstration of skill implementation, and provide a more comprehensive appraisal of training program efficacy. Role-plays are frequently used as demonstrative assessments in training programs (Berard & Smith, 2008; Lafasakis & Sturney, 2007; Stoutimore et al., 2008). Although demonstrative assessments are preferable to verbal assessments because they allow trainers to determine if participants are capable of engaging in the trained responses, they too are limited in that they do not provide information concerning the trainees' generalization of skills beyond the training setting. Despite a caregiver's ability to perform the

skills with the trainer, it remains unclear whether the skills could be implemented in a non-training (e.g., home) setting.

Applied assessments are typically conducted by way of direct observation of the caregiver in a natural setting (Crosland et al., 2008; Smagner & Sullivan, 2005). These assessments take evaluation a step further than verbal or demonstrative assessments because they allow trainers to observe whether participants apply the trained skills in the natural setting with the intended individuals, the fidelity with which the skills are applied, and whether the skills training results in behavior change for both the caregiver and child. For example, Crosland et al. (2008) assessed the effects of a "Tools Training" with direct care staff at two residential facilities through in-home observations and data collection on the types of interactions between staff and foster care children. Results of the observations showed an improvement in adult-child exchanges following the training; however, it is important to note that there were no data collected on staff implementation of skills. Although improved staff-child interactions were observed once staff had completed the training, it remains unclear whether the "tools" actually generalized (Crosland et al., 2008). Data collection on caregiver implementation of the skills and on child behaviors would have helped to strengthen the implication that the training program was effective. Because applied assessments are demonstration-based in a "real world" setting, they are considered to be a more rigorous measure for evaluating training effects than verbal or demonstrative assessments alone. However, applied assessment also has limitations. For example, if participants are aware that performance is being monitored, the awareness (i.e., reactivity) can influence behavior and limit the generality of the findings (Kazdin, 2011). Reactivity may have an effect on responses during training, assessment, or follow-up evaluations; however, even given the possible limitations, direct observation provides the most objective measurement of treatment effects possible in natural settings such as the home environment (Allen & Warzak, 2000).

In order to understand a caregiver training program's effects, a systematic method of evaluation must be devised. It is not enough for a parent to verbalize the skills taught, nor is a physical demonstration outside of the natural setting (i.e., role plays) adequate for assessing a caregiver's use of techniques with fidelity in the natural setting (i.e., in the home). Directly observing the application of skills improves the validity of assessment results and provides a better evaluation of the generalization of skills. In addition, training packages should include specific strategies designed to promote generalization, such as modeling and rehearsal, in order to optimize efficacy (Miltenberger, 2008). Modeling and rehearsal of multiple exemplars allows a broader stimulus class to acquire antecedent control over taught responses, thus promoting generalization of the skills to a range of stimuli in the natural environment. Rehearsal allows the learner multiple opportunities to practice implementing skills, and the feedback that accompanies repeated practice provides both corrective guidance of skill deficits and reinforcement of correct skill performance (Miltenberger, 2008). Creating such a history of reinforcement strengthens the probability that the responses will occur again in the future and increases the likelihood of skill transfer to the natural environment.

Previous research has demonstrated the effectiveness of the "Tools" curriculum for increasing the accuracy of trained skills; however, no known studies have directly examined the extent to which those skills generalize to the home environment. Further, little is known about the direct effects that caregiver implementation of the skills has on child behavior. Therefore, the first purpose of this study was to evaluate the effectiveness of using BST to teach parenting skills to the caregivers of typically developing children who engage in challenging behavior and then to assess whether the trained skills generalize to the natural (i.e., home) environment. Additionally, data will be presented on the subsequent effects of the trained parenting skills on child behavior.

METHOD

Participants and Setting

A flyer was distributed to various community agencies that provide services to the caregivers of young children (e.g., clinics at the University of South Florida, local preschools) to recruit participants, and three caregiver-child dyads were selected for inclusion. Adult participants were caregivers who reported experiencing challenging behavior from the children in their homes, and who were willing to participate in a home-based training program. Each caregiver identified one child in his or her home for participation in the study. Initial screenings and caregiver interviews were conducted via telephone and/or in person.

The first participant, Dave, was a 70-year-old retired teacher and education specialist with a Master's degree in Gifted Education. His grandson, Nick, was a typically developing male who attended a local daycare daily. Nick was 2 years 11 months old at the beginning of the study and did not have any siblings. Nick's mother lived next door to the house in which Dave and Nick's grandmother, Amy, lived. Dave acted as the primary caregiver in this study because the work schedule of Nick's mother did not permit her involvement. Dave and Amy frequently looked after Nick (i.e., he went to their house in the mornings before school and in the afternoons/evenings until Nick's mother got home from work); therefore Dave asked to participate in the caregiver training in order to address the behavior challenges that Nick was presenting while in their home. The second participant, Susan, was a 39-year-old college graduate with a Master's degree in education who was working part-time for a local non-profit organization over the course of the study. Susan's son, Will, was a typically developing male who attended a local daycare daily. Will, 3 and his sister, 11, resided in the home with their mother

and father. The third participant, Maggie, was a 27-year-old high school graduate with some college experience who was working full-time during the study. Her son, Austen, was a typically developing 3-year-old male who attended a local daycare daily. Maggie was a single mother, and Austen had no siblings.

All trainings were conducted in the caregivers' homes. The targeted routine for Dyad 1, Dave and Nick, was dinnertime; therefore, all direct observations for Dyad 1 were conducted in the home, primarily in the dining room area. The targeted routine for Dyad 2, Susan and Will, was the morning routine of getting ready for preschool; therefore, all direct observations for Dyad 2 were conducted in the home, primarily in Will's bedroom and in the bathroom, living room, and driveway (where Will got into the car). The targeted routine for Dyad 3, Maggie and Austen, was the transition from a highly preferred activity (playing at the park) to a non-preferred activity (leaving the park); therefore, all direct observations for Dyad 3 were conducted at the park.

Target Behaviors and Data Collection

Caregivers. The primary dependent variables for Dave (Dyad 1) and Maggie (Dyad 3) were the implementation of three parenting skills from the "Tools Training" curriculum: Use Reinforcement, Pivot, and Redirect-Use Reinforcement. The primary dependent variables for Susan (Dyad 2) were the implementation of two of the aforesaid parenting skills: Use Reinforcement and Pivot. Will (Dyad 2) did not display any serious behavior (i.e., behavior that was potentially harmful to self, property, or others) during the morning routine; therefore the corresponding skill, Redirect-Use Reinforcement, was not a targeted dependent variable for Susan. Each skill consisted of two specific steps (see Appendix A) that the caregivers were trained to implement. For each participant, data were collected on the number of steps completed accurately per skill. Percentage of accurate steps completed was calculated by dividing the number of accurate steps per opportunity by the number of specific steps in each particular

skill and multiplying by 100. For example, if a caregiver implemented one of the two steps of a skill accurately, the caregiver's score for that particular skill was 1/2, or 50%. Data were also collected on each "opportunity" for skill use, which was defined as the occurrence of a specific, operationally defined child behavior (see below), and on "attempts" to implement the skill, which was defined as the accurate completion of at least one of the specific steps of a skill given an opportunity. Skill attempts were divided by the opportunities for each skill use and multiplied by 100 to calculate the percentage of skill attempts given an opportunity. For example, if whining was identified as the targeted child behavior, each instance of whining during the observation would constitute an opportunity for the caregiver to implement the skill Pivot. If the caregiver followed Step 1 accurately (he/she said and did nothing in reaction to the whining), the data collector would score the caregiver behaviors as a skill attempt, irrespective of whether the caregiver correctly implemented Step 2 of the skill. The caregiver's score in this example would be 100% for attempts (i.e., one child behavior divided by one instance of the caregiver implementing at least one step of the skill). If, however, an instance of whining was not followed by the caregiver implementing at least one step of a skill, the caregiver's score would be 0% (i.e., one child behavior divided by zero instances of the caregiver implementing at least one step of the skill). If these two examples were the only occurrences of inappropriate behavior (i.e., opportunities for the caregivers to use a specific skill), the attempts would be summed (i.e., one) and divided by the sum of opportunities (i.e., two) for a percentage of attempts per opportunities that session (i.e., 50%). In order for a skill to be scored, for accuracy or for attempt, it had to be implemented within the same or subsequent 10-s interval during which the corresponding child behavior (i.e., opportunity) occurred.

Children. Child target behaviors were identified and defined on a case-by-case basis. Target behaviors from the appropriate behavior and minor inappropriate behavior categories were identified for each child. In addition, behaviors from the serious inappropriate behavior

category were also targeted for Nick and Austen. Each behavior category (i.e., appropriate, minor inappropriate, serious inappropriate) consisted of one or two specific behaviors. For Nick, Will, and Austen, respectively, targeted appropriate behaviors were taking bites of food, getting dressed and morning hygiene tasks, and transitioning appropriately. Minor inappropriate behaviors for all participants were "verbal junk" (e.g., whining, crying, yelling, verbal refusals, etc.) and "physical junk" (e.g., dropping to the floor, inappropriately emptying food or beverages, throwing objects, etc.), with slight variations in the operational definitions of these behaviors for each child. Serious inappropriate behaviors for both Nick and Austen included aggression and elopement, also with slight variations in the operational definitions. Table 2 includes a complete summary of the targeted behaviors and operational definitions for each child.

Occurrence/nonoccurrence data were collected on all target behaviors within each category using 10-s interval recording. The occurrence of a child's target behavior was considered an "opportunity" for the use of the corresponding parenting skill, and a caregiver was considered to be responding to an "opportunity" if the corresponding steps were scored within the same or subsequent interval that the behavior occurred. When a child engaged in a targeted behavior continuously across intervals, an occurrence (i.e., "opportunity") was scored in each interval in which the behavior occurred because the caregivers were expected to implement the corresponding skill continuously until the behavior stopped occurring, at which point the caregiver was expected to implement the next step in the skill (if relevant). For example, if a child engaged in minor inappropriate verbal behavior that continued, without pause, across five intervals, the caregiver was expected to continue using Step 1 of Pivot (say and do nothing in response to the minor inappropriate behavior) across all five intervals. If there was then a break in the behavior during the fifth interval, the caregiver was expected to then implement Step 2 of Pivot (provide a consequence when the child stops engaging in the inappropriate behavior). In the event that the child left the observational setting or engaged in elopement, data collection

continued in that same interval and in the subsequent, but was suspended in any remaining intervals until either the child returned to the setting or the caregiver implemented the skill Redirect-Use Reinforcement.

Natural environment observations. Natural environment observations of targeted routines were videotaped across all conditions. Following each observation, the therapist and trained observers collected data on child behaviors and caregiver behaviors using the videotape from each observation. Routines were approximately 5 to 20 min in duration. Although observational sessions rarely exceeded 20 min in duration, data collection was terminated at 20 min irrespective of whether the routine was finished or not. Data from the targeted routines were collected in 10-s intervals. For Dyad 1, the observation began when Nick was seated at the table and dinner was served. The observation was terminated when Nick said that he was finished or Dave (Nick's caregiver) said that dinnertime had concluded. For Dyad 2, the observation began when Susan entered Will's room and initiated the first verbal prompt for Will to wake up and begin getting ready for school. The observation was terminated when Susan was finished securing Will into his car seat and shut the car door. For Dyad 3, the observation began 3 min prior to Maggie telling Austen that it was time to leave, and the observation ended when Maggie was finished securing Austen into his car seat and shut the car door.

Pre/post BST assessments. Prior to and following BST, each caregiver participated in role-play scenarios (pretraining and posttraining assessments) specific to the skills taught during the training (i.e., 3 scenarios each for Use Reinforcement, Pivot, and Redirect-Use Reinforcement, respectively). The pretest and posttest were identical for all participants. All caregivers were taught Use Reinforcement and Pivot; however, because of the absence of serious inappropriate child behavior, Susan (Will's caregiver) was not taught Redirect-Use Reinforcement. During the pre and post BST assessments, Susan participated in 6 role-play scenarios (Use Reinforcement and Pivot), and Maggie and Dave participated in 9 role-play

scenarios (Use Reinforcement, Pivot, and Redirect-Use Reinforcement). Prior to each of the role play scenarios, the therapist described a scripted scenario and the caregiver was asked to show the therapist how s/he would respond in the given situation. These scenarios reflected situations that were likely to occur in the home setting and were designed to provide the participants with a range of opportunities for demonstrating the skills acquired through training. Each scenario involved the therapist acting the part of a child and the caregiver acting the part of the parent. Data were collected on the caregivers' implementation of the skill steps for each scenario. Examples of scenarios included in the pre and postassessments are included in Appendix B.

Inter-observer agreement (IOA). A second trained observer collected data during at least 40% of baseline and post-BST observation sessions (46% of sessions for Dyad 1, 40% for Dyad 2, and 41% for Dyad 3) and 33% of each set of pretest and posttest scenarios for each caregiver participant. IOA was calculated for all caregiver and child behaviors during baseline, BST pre/post training assessments, and post-BST observations. An agreement was defined as both observers independently recording the occurrence/nonoccurrence of a target behavior (i.e., child behavior or implementation of a parenting skill) within each interval. Agreements per target behavior were then divided by the total number of agreements plus disagreements and multiplied by 100. IOA for pre/posttraining assessments during BST was calculated using a trial-by-trial method (i.e., dividing the number of trials of agreement by the total number of trials and multiplying by 100), with an agreement defined as both observers independently scoring the occurrence or nonoccurrence of a targeted behavior given a response opportunity.

IOA for the implementation of the skill Pivot was 98% (range 96% to 100%), 95% (range 87% to 100%), and 99% (range 87% to 100%) for Dave, Susan, and Maggie, respectively. IOA for the implementation of the skill Use Reinforcement was 96% (range 84% to 100%), 98% (range 92% to 100%), and 98% (range 94% to 100%) for Dave, Susan, and Maggie, respectively. IOA for the implementation of the skill Redirect-Use Reinforcement was

100% (range 99% to 100%) for Dave and 99% (range 94% to 100%) for Maggie. Agreement on child appropriate behavior was 94% (range 88% to 98%), 98% (range 93% to 100%), and 98% (range 97% to 100%) for Nick, Will, and Austen, respectively. Agreement on child minor inappropriate behavior was 92% (range 87% to 99%), 94% (range 88% to 99%), and 96% (range 96% to 100%) for Nick, Will, and Austen, respectively. Agreement on child serious inappropriate behavior was 97% (range 92% to 100%) for Nick and 97% (range 92% to 100%) for Austen.

Procedural Fidelity

BST sessions with each caregiver were audio recorded in order to assess the integrity with which the therapist implemented the BST. Procedural fidelity was measured by an independent observer using a checklist that task analyzed each step of the BST (see Appendix C). The therapist implemented all BST procedures with each caregiver with 100% fidelity.

Social Validity

Following completion of the study, caregivers were asked to complete a questionnaire to rate the extent to which they felt that the BST procedures were compatible with their home environment and parenting styles, as well as overall satisfaction with the procedures. This survey can be found in Appendix D.

Experimental Design

A nonconcurrent multiple baseline across participants design was used to evaluate the effects of the BST intervention on caregiver and child behavior.

Table 2: Operational definitions per behavior category for each child

Nick		
Appropriate	Minor Inappropriate	Serious Inappropriate
Taking bites of food: putting a bite of food in mouth using hands/fingers for "finger foods" (e.g., pizza, sandwich) or using a utensil (i.e., spoon or fork) for "non-finger foods" (e.g., applesauce, pasta); may include taking an "airplane" bite provided by caregiver or family member	Verbal Junk: Whining; yelling; shouting; growling; blowing bubbles in milk; "raspberries" Physical Junk: Attempting to and/or smearing, dumping, pouring, splashing or wiping food or beverages on self or others, table, floor; grabbing or taking things out of others' hands; touching others' food or plates without permission; throwing objects	Aggression: Hitting, kicking, pinching, slapping, scratching, or punching another person with open or closed fist or objects Elopement: Movement or attempted* movement away from assigned area more than 3 feet without permission
Will		
Appropriate	Minor Inappropriate	Serious Inappropriate
Getting ready*: Getting out of bed and walking to bathroom; getting dressed; walking out to the car Hygiene*: Brushing teeth; washing face; brushing hair *Appropriate behaviors can be done independently or with assistance (i.e., physical prompting), but do not include occurrences when Mom does the task completely for him	Verbal Junk: Whining; yelling, shouting; crying; verbal refusals (i.e., "No, no, no!") Physical Junk: Kicking feet; falling to the floor	N/A
Austen		
Appropriate	Minor Inappropriate	Serious Inappropriate
Transitioning appropriately: Walking to the car; may include holding Mom's hand and racing to the car	Verbal Junk: Whining; yelling, shouting; crying; verbal refusals; spitting in another person's face, saying, "I don't like you." Physical Junk: Kicking feet; falling/dropping to the floor	Aggression: Hitting, kicking, slapping, punching, or scratching another person with an open or closed fist; grabbing/pulling another person's hair Elopement: Movement or attempted movement* more than 3 feet away from Mom without permission or in direction away from the car when told to leave

Procedures

Caregiver interview and direct observation. A brief interview was conducted with the caregivers to obtain information about the child behaviors of concern and the times and/or routines during which those behaviors were more likely to occur. Following the caregiver interview, the therapist conducted three direct observations during the identified problematic times/routine(s) to gather additional information and to select and operationally define two behaviors for each category (appropriate, minor inappropriate, and serious). All direct observations were recorded using a video camera. Based on the results of the interview and direct observations, the most problematic routine was targeted as the setting for the intervention.

Baseline. After the target routine was identified and the child behaviors were defined, videotaping began. Prior to the observation, the caregiver was asked to behave as he or she normally would during the routine. Baseline data on child and caregiver behaviors were collected from videotaped observations to determine the frequency of both appropriate and inappropriate child behavior and to ascertain if the caregiver was implementing any steps of the "tools" parenting skills. Baseline continued until clear patterns of child and caregiver responses could be established through visual analysis of the data.

BST. Following baseline, the therapist conducted a BST session with the caregiver. All caregivers participated in a pretraining assessment (i.e., pretest), which consisted of three role-play scenarios for each skill. All caregivers were taught the skills Use Reinforcement and Pivot, and Dave and Maggie were also taught the skill Redirect-Use Reinforcement. A combination of instructions, modeling, rehearsal and feedback was used to teach the skills. For example, the BST procedure for teaching the caregivers the skill Use Reinforcement began with the trainer telling the caregiver that it is important to provide reinforcement when the child behaves appropriately in order to increase the probability that appropriate behavior will continue in the future. The

trainer then described the two steps involved in the skill Use Reinforcement, had the caregiver pretend to be the child engaging in an appropriate behavior, and modeled implementation of the skill. The trainer repeated the instructions for each step and asked the caregiver if he or she had any questions. The trainer then acted the role of the child and the caregiver rehearsed implementing the steps of Use Reinforcement. Immediately following the rehearsal, the trainer praised the caregiver for practicing the steps and provided corrective feedback, if necessary, for any step that was not implemented correctly. Following feedback, the caregiver practiced the role-play again, attempting to correct the singly-targeted step that had been implemented incorrectly. Practice continued until the caregiver correctly implemented all steps of Use Reinforcement. The same BST procedures were then used to teach the skills Pivot and Redirect-Use Reinforcement.

Following BST, the caregiver was provided with the same three role-play scenarios for each of the skills that were used during the pretests (i.e., pretests and posttests were identical). Caregivers were required to meet a mastery criterion of 100% for each scenario for each skill before the BST phase was considered complete. The purpose of the pre/post BST assessments was to determine whether the caregivers had acquired the skills taught during BST through the demonstration of the skills in hypothetical situations. Once a skill was mastered (i.e., 100% for all three scenarios), training on that skill was considered complete. For any skills that were not mastered at 100% accuracy, an additional BST session was conducted for those skills during a subsequent session on a separate day. Subsequent BST sessions included the therapist reviewing the instructions for the skill, modeling how best to implement the skill, engaging the caregiver in additional practice, and providing praise and corrective feedback as needed. Subsequent BST sessions continued until the caregiver reached mastery for each skill. Once the caregivers met the mastery criteria for all skills, BST was considered complete. Susan and Maggie achieved the mastery criteria for their taught skills at the conclusion of the first BST session. After the initial

BST session, Dave required one additional session to master the skills Pivot and Redirect-Use Reinforcement, and he required three additional sessions to achieve mastery with the skill Use Reinforcement.

Following completion of BST on the parenting skills, the trainer provided each caregiver with individualized recommendations for modifying the targeted routine in an attempt to increase the likelihood that the caregivers' use of the parenting skills would yield positive outcomes. During baseline for Nick, it was observed that Nick frequently snacked or consumed large quantities of water or juice prior to the dinnertime routine. Anecdotally, the therapist noted that on these occasions, Nick engaged in more problem behavior and less appropriate behavior as compared to days on which when he was not observed to consume snacks or beverages prior to the dinnertime routine; therefore, it was recommended that Dave restrict Nick's food and beverage consumption prior to the dinnertime routine. During baseline for Will, it was observed that Will's participation in the getting ready and hygiene tasks during the morning routine was minimal. Instead, Susan was observed to complete the tasks for Will (i.e., put his clothes on him, brush his teeth and hair, wash his face, and carry him out to the car). Therefore, it was recommended that Susan use a least-to-most prompting procedure to engage Will in the morning routine and to promote Will's independence in completing the tasks. During the caregiver interview, the therapist and Susan discussed what Susan wanted the morning routine to be, and together they created a task analysis of the routine that was broken down into hygiene and "getting ready" tasks. The steps that were identified for Will were: waking up, brushing teeth, washing face, putting on shirt/shorts/socks/shoes, brushing hair, walking to the car, and getting into the car. During baseline, Susan was instructed to complete the morning routine consisting of these steps as she normally would, and following BST on the parenting skills, she was instructed to use a least-to-most prompting procedure. It was also recommended that Susan allow Will a few minutes after waking him up before instructing him to begin his morning routine, and that

she provide additional prompts every 30-60 s (rather than every 3-5 s) if Will was not engaging in the tasks. During baseline for Austen, Maggie was observed to provide Austen with a 1-min warning prior to telling him that it was time to leave; however, she did not ensure that Austen heard the warning or the instruction to leave. Therefore, it was recommended that Maggie be within close proximity and make eye contact with Austen when delivering the 1-min warning and when telling him it was time to leave. Maggie was also instructed to use specific positive directives (e.g., "Austen, it is time to leave. Hold my hand, and we can race to the car."), rather than vague statements or questions (e.g., "Are you ready?"). In addition, the trainer recommended that Maggie refrain from picking Austen up and carrying him to the car because the majority of his aggression occurred when she was holding him. Once each caregiver completed BST and was provided with additional instructions on ways to modify targeted routines, videotaping of natural environment observations and data collection during the targeted routine resumed.

Post-BST observations. Following BST, natural environment observations were conducted to determine whether the caregiver implemented any steps of the parenting skills taught during BST in the natural environment. Data on child and caregiver behaviors were collected in a manner identical to that described in the Baseline condition. Once the caregiver was observed to implement each of the skills accurately and consistently during the targeted routine, post-BST observations were terminated. Dave (Dyad 1) left the country for an extended stay abroad following the seventh post-BST observation; therefore, his participation in the study was concluded at that point.

RESULTS

Figure 1 displays the average pretest and posttest score for each skill taught during BST for each participant. All participants achieved marked improvements in their scores, with each participant meeting the mastery criterion of 100% for each skill. Maggie and Susan met the mastery criterion of 100% for all skills at the conclusion of the first BST session. Dave met the mastery criterion for the skills Redirect-Use Reinforcement and Pivot at the conclusion of the second BST session and for the skill Use Reinforcement at the conclusion of the fourth BST session.

Figure 2 depicts the accuracy of skill implementation for all skills across caregiver participants. During baseline, Dave did not implement Redirect-Use Reinforcement, and his averages of accuracy for Use Reinforcement and Pivot were 22% (range 0-50%) and 10% (range 2-20%). After BST, Dave's accuracy with Redirect-Use Reinforcement, Use Reinforcement, and Pivot increased to averages of 10% (range 0-50%), 56% (range 29-71%), and 45% (range 21-83%), respectively. During baseline, Susan's mean percentages of steps correct for the skills Use Reinforcement and Pivot were 47% (range 30-57%) and 30% (range 20-65%). After BST, Susan's accuracy with Use Reinforcement and Pivot increased to an average of 78% (range 46-93%) and 68% (range 31-100%), respectively. During baseline, Maggie implemented the skills Redirect-Use Reinforcement, Use Reinforcement, and Pivot with accuracy averages of 1% (range 0-5%), 5% (range 0-25%), and 6% (range 0-20%), respectively. After BST, Maggie's accuracy with Redirect-Use Reinforcement, Use Reinforcement, and Pivot increased to averages of 83% (range 50-100%), 92% (range 80-100%), and 92% (range 87-100%), respectively.

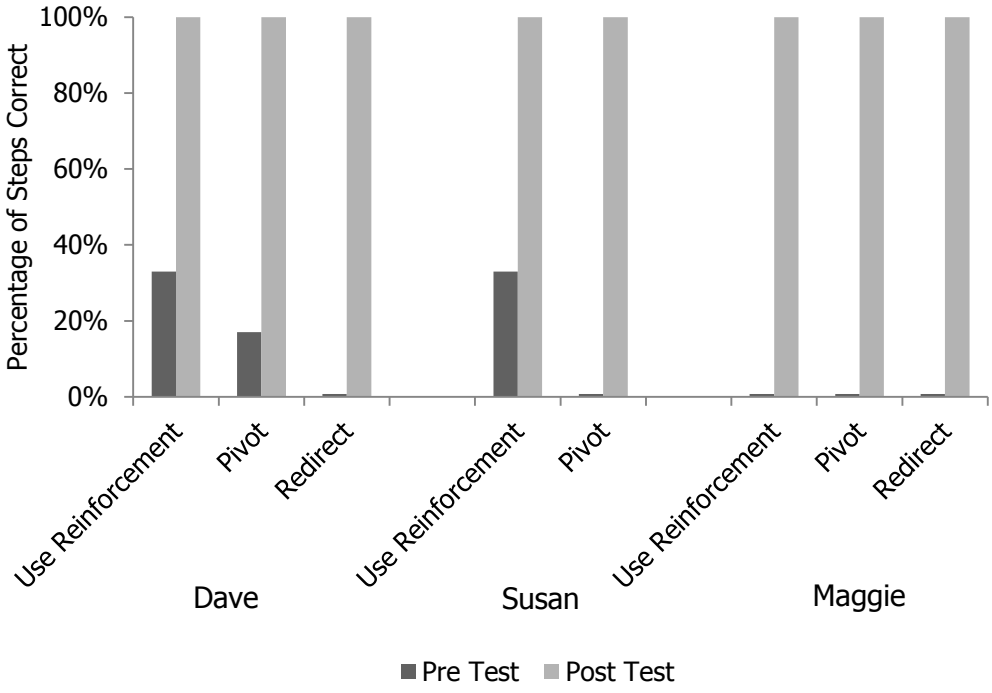

Figure 1. Average percentage of steps completed correctly during pretests and posttests across participants.

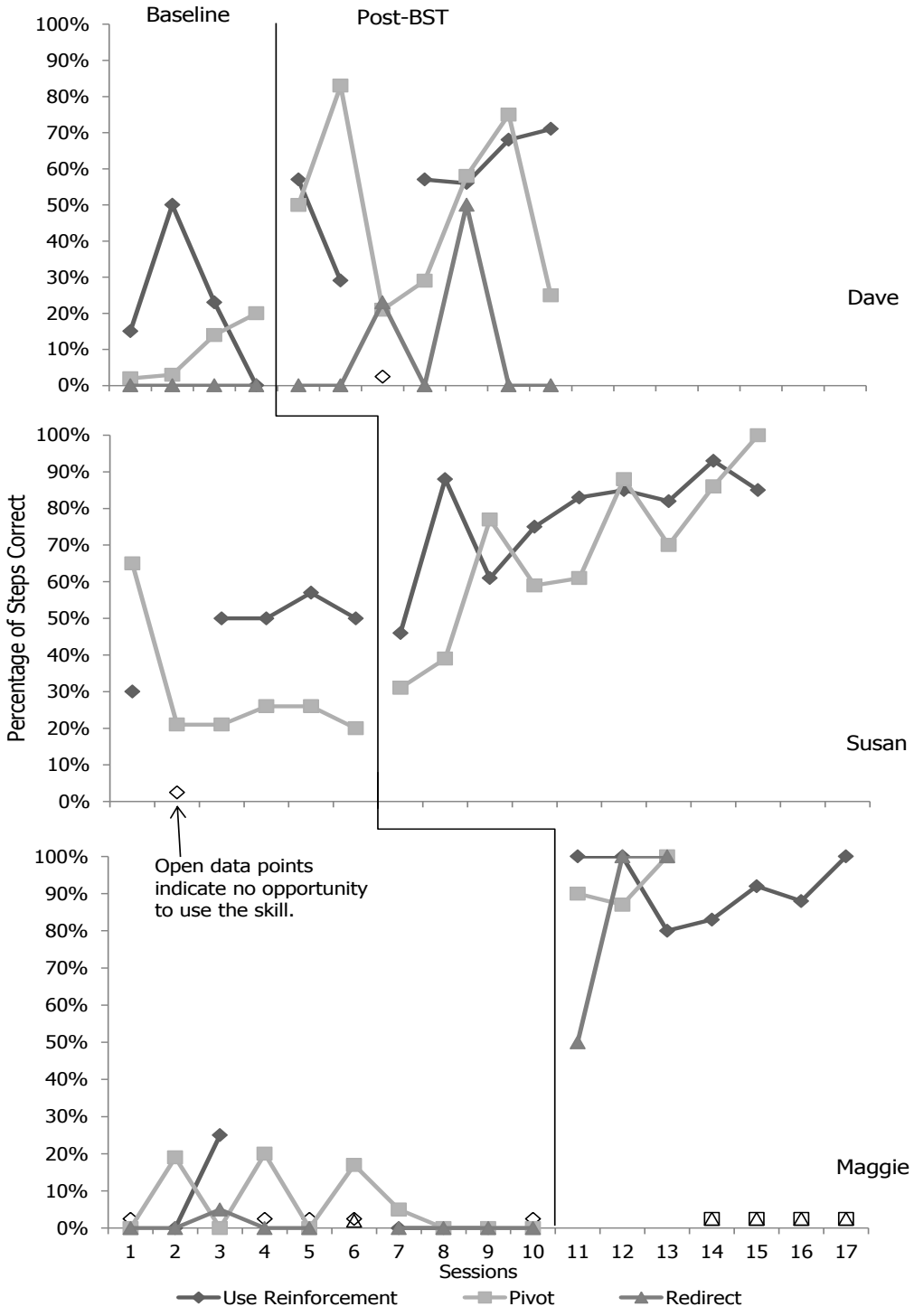

Figure 2. Caregiver accuracy of skill implementation measured as the percentage of steps implemented correctly per session across baseline and post-BST conditions

Figure 3 depicts attempts of skill implementation during baseline and post-BST conditions across caregiver participants. During baseline, Dave attempted to use the skills Redirect-Use Reinforcement, Use Reinforcement, and Pivot for averages of 0%, 37% (range 0-75%), and 12% (range 3-23%) of opportunities, respectively. Following BST, Dave increased his attempts to use the skills Redirect-Use Reinforcement, Use Reinforcement, and Pivot to averages of 12% (range 0-50%), 82% (range 42-98%), and 55% (range 21-100%) of opportunities, respectively. During baseline, Susan attempted to implement the skills Pivot and Use Reinforcement for averages of 34% (range 21-75%) and 89% (range 60-100%) of opportunities. Following BST, Susan's attempts with Pivot and Use Reinforcement increased to averages of 71% (range 40-100%) and 93% (range 67-100%) of opportunities. During baseline, Maggie's attempts with the skills Redirect-Use Reinforcement, Use Reinforcement, and Pivot were averages of 1% (range 0-10%), 10% (range 0-50%), and 8% (range 0-33%) of opportunities, respectively. Following BST, Maggie's attempts with Redirect-Use Reinforcement and Pivot increased to averages of 89% (range 67-100%) and 93% (range 88-100%) of opportunities, and she consistently attempted to implement Use Reinforcement for 100% of opportunities across all post-BST sessions.

Figure 4 depicts the percentage of intervals within each session during which targeted child behavior occurred. During baseline, Nick engaged in appropriate behavior an average of 14% (range 4-32%) of intervals, minor inappropriate behavior an average of 29% (range 21-46%) of intervals, and serious inappropriate behavior an average of 6% of intervals (range 3-8%). Following BST, Nick's average percentage of appropriate behavior increased to a mean of 27% (range 0-60%) of intervals, and his minor and serious inappropriate behaviors decreased to averages of 11% (range 3-39%) and 4% (range 1-16%) of intervals, respectively. During baseline, Will engaged in appropriate behavior an average of 3% (range 0-9%) of intervals and minor inappropriate behavior an average of 63% (range 39-82%) of intervals. Following BST, Will's average percentage of appropriate behavior increased to a mean of 11% (range 3-18%) of

intervals and minor inappropriate behavior decreased to a mean of 20% (range 12-33%) of intervals. During baseline, Austen engaged in appropriate behavior an average of 3% of intervals (range 0-12%), minor inappropriate behavior an average of 22% (range 7-48%) of intervals, and serious inappropriate behavior an average of 14% (range 0-36%) of intervals. Following BST, Austen's average percentage of appropriate behavior increased to a mean of 15% of intervals (range 4-21%), and his minor and serious inappropriate behaviors decreased to averages of 12% (range 0-51%) of intervals, and serious inappropriate behavior decreased to a mean of 5% (range 0-19%) of intervals following the caregiver training.

Figures 5 through 7 display the types of targeted child behavior with the corresponding parenting skills across caregiver-child dyads. Across all dyads, caregiver attempts and accuracy with implementation of the skill Use Reinforcement increased, as did appropriate child behavior following BST (Figure 5). As caregiver attempts and accuracy with the use of the skill Pivot increased, child problem behavior decreased across dyads (Figure 6). Maggie's accuracy and consistency with the skill Redirect-Use Reinforcement increased while Austen's problem behavior decreased (Figure 7). In fact, Austen's levels of minor and serious inappropriate behaviors decreased to 0% during the final four post-BST sessions; therefore there were no opportunities for Maggie to implement Pivot or Redirect-Use Reinforcement during those sessions. Dave's implementation of the skill Redirect-Use Reinforcement was more variable. Following BST, Dave only attempted to use the skill Redirect-Use Reinforcement during an average of 12% of intervals with an average accuracy of 10%; however, these percentages are an increase from the 0% that was observed during baseline, and Nick's mean percentage of serious inappropriate behavior decreased following BST.

All caregivers rated each item on the social validity questionnaire "strongly agree." The participants indicated they felt the training and parenting skills were effective, and that they plan to continue using the skills.

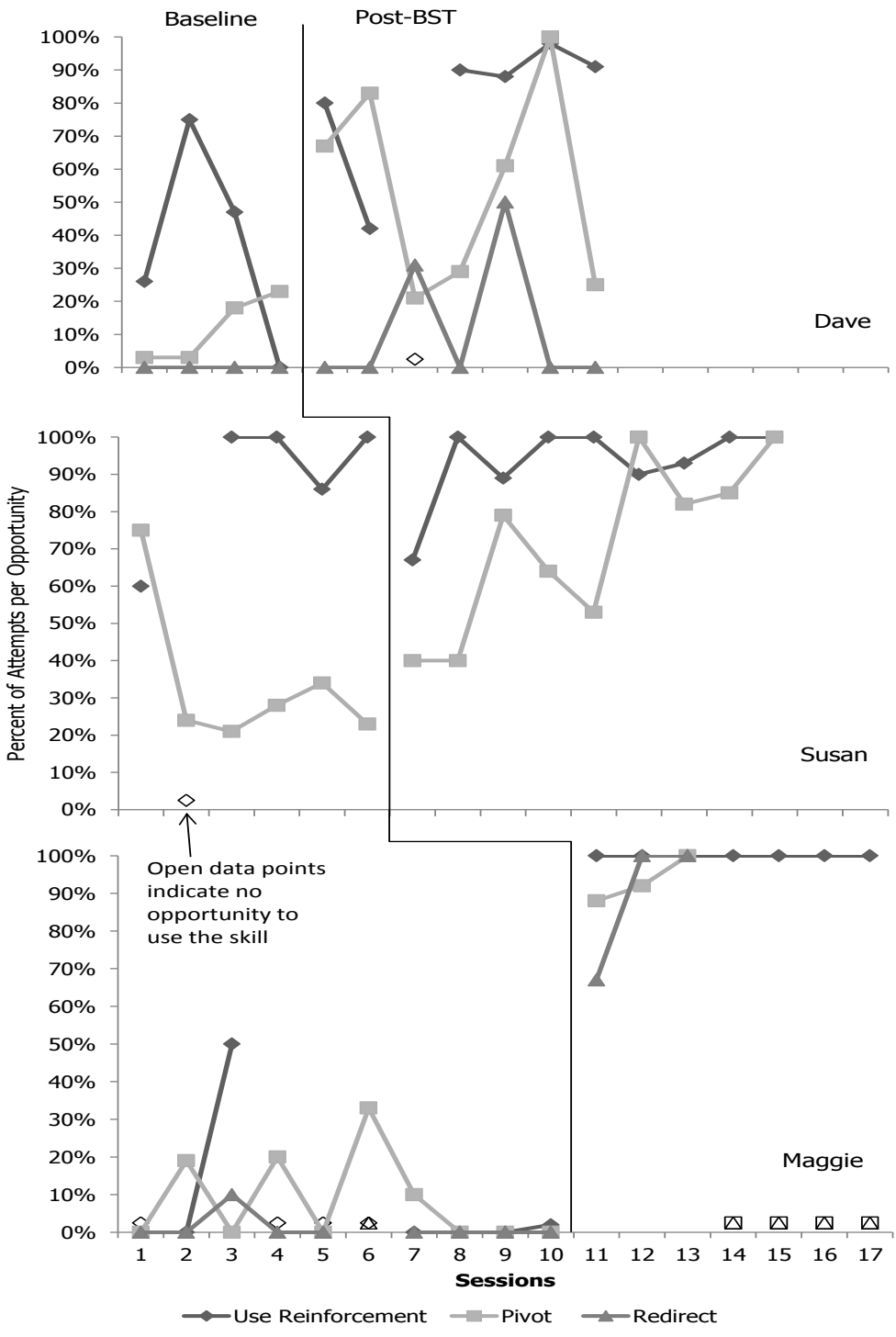

Figure 3. Caregiver attempts of skill implementation, measured as the percentage of opportunities per session to which the caregiver responded with implementation of at least one step of the corresponding skill, across baseline and post-BST conditions.

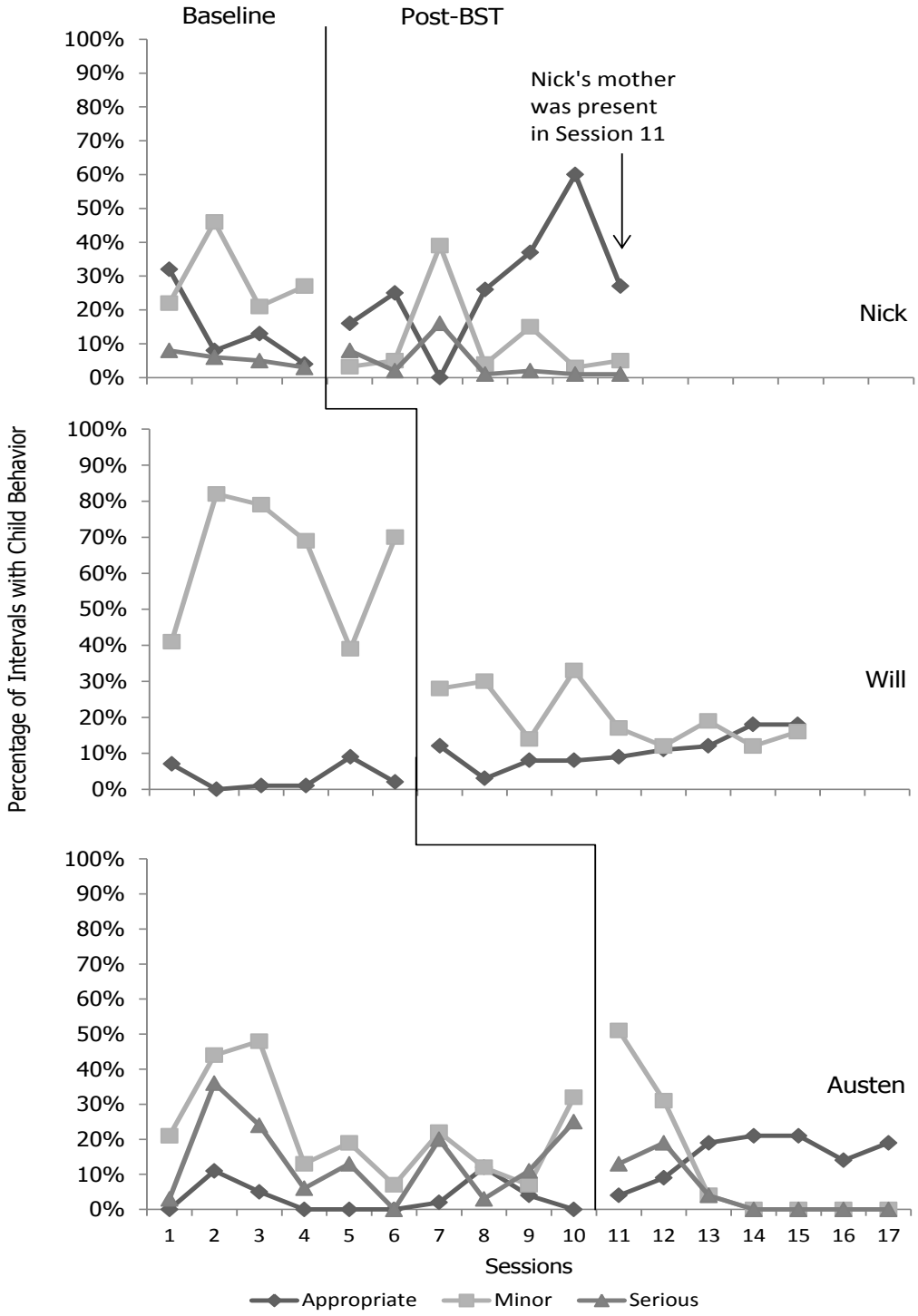

Figure 4. Percentage of intervals with child appropriate, minor and serious inappropriate behavior during baseline and post-BST across children.

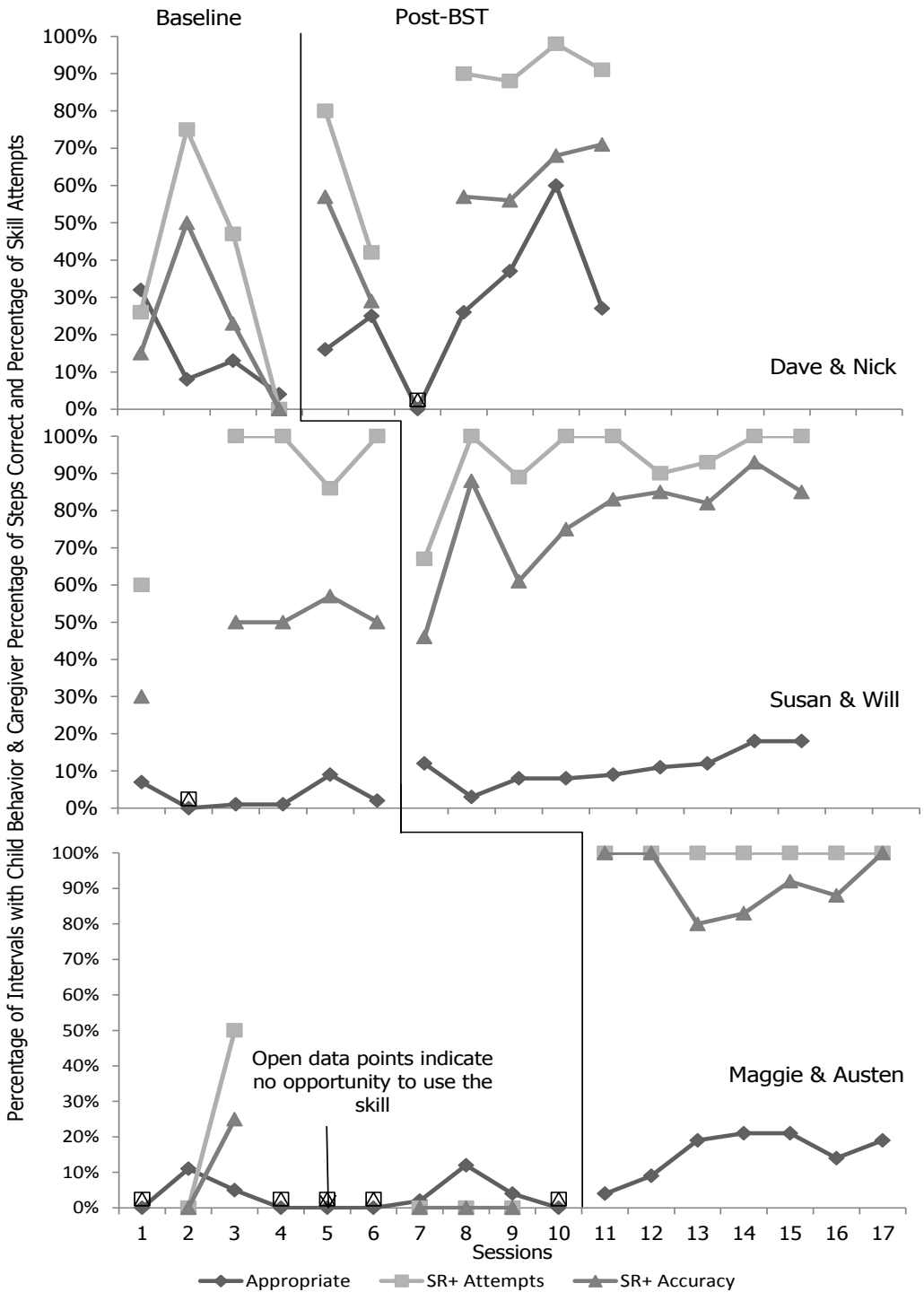

Figure 5. Percentage of intervals with appropriate child behavior and percentages of caregiver attempts and accuracy for implementation of the skill Use Reinforcement (SR+).

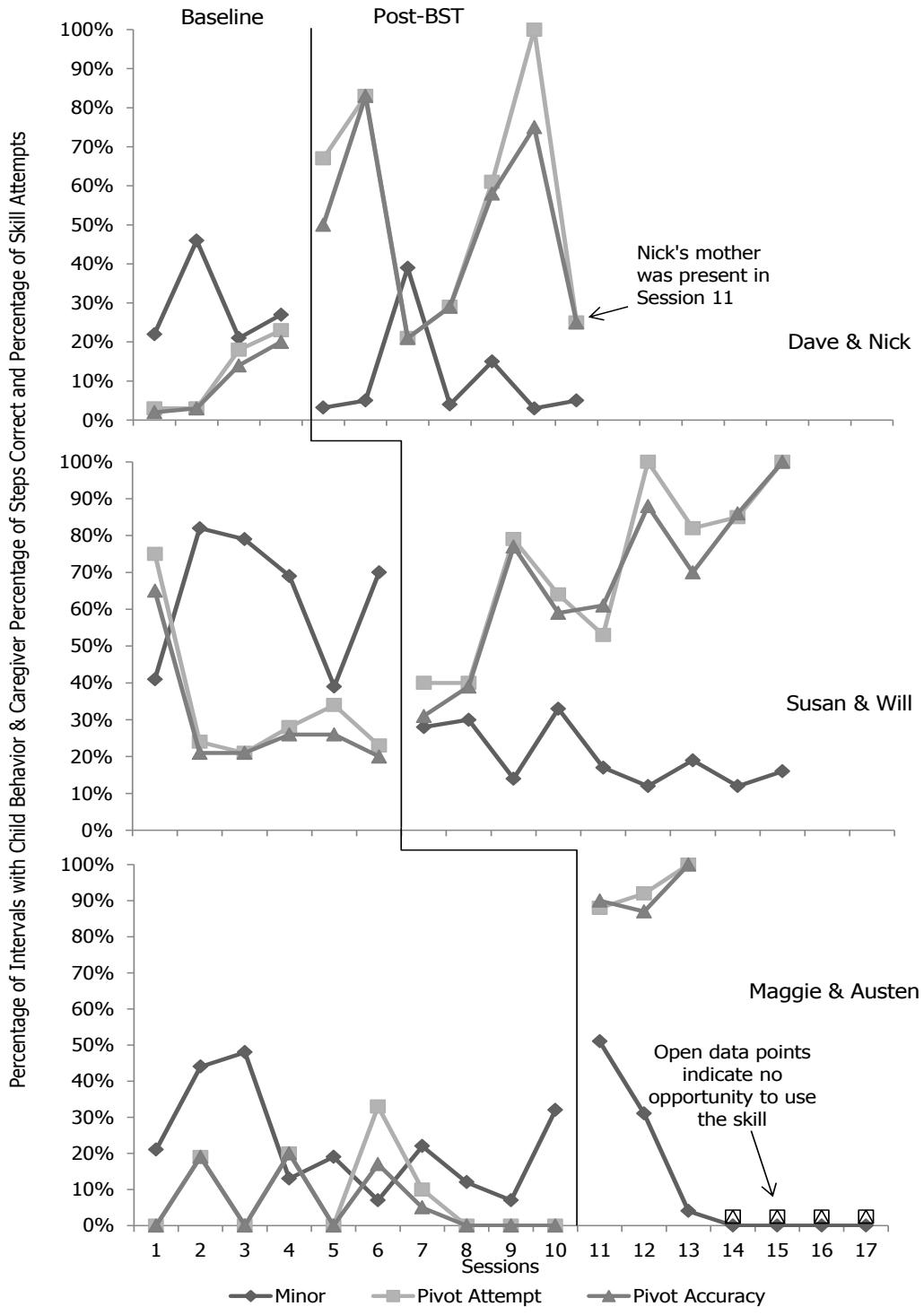

Figure 6. Percentage of intervals with minor inappropriate child behavior and percentages of caregiver attempts and accuracy for implementation of the skill Pivot.

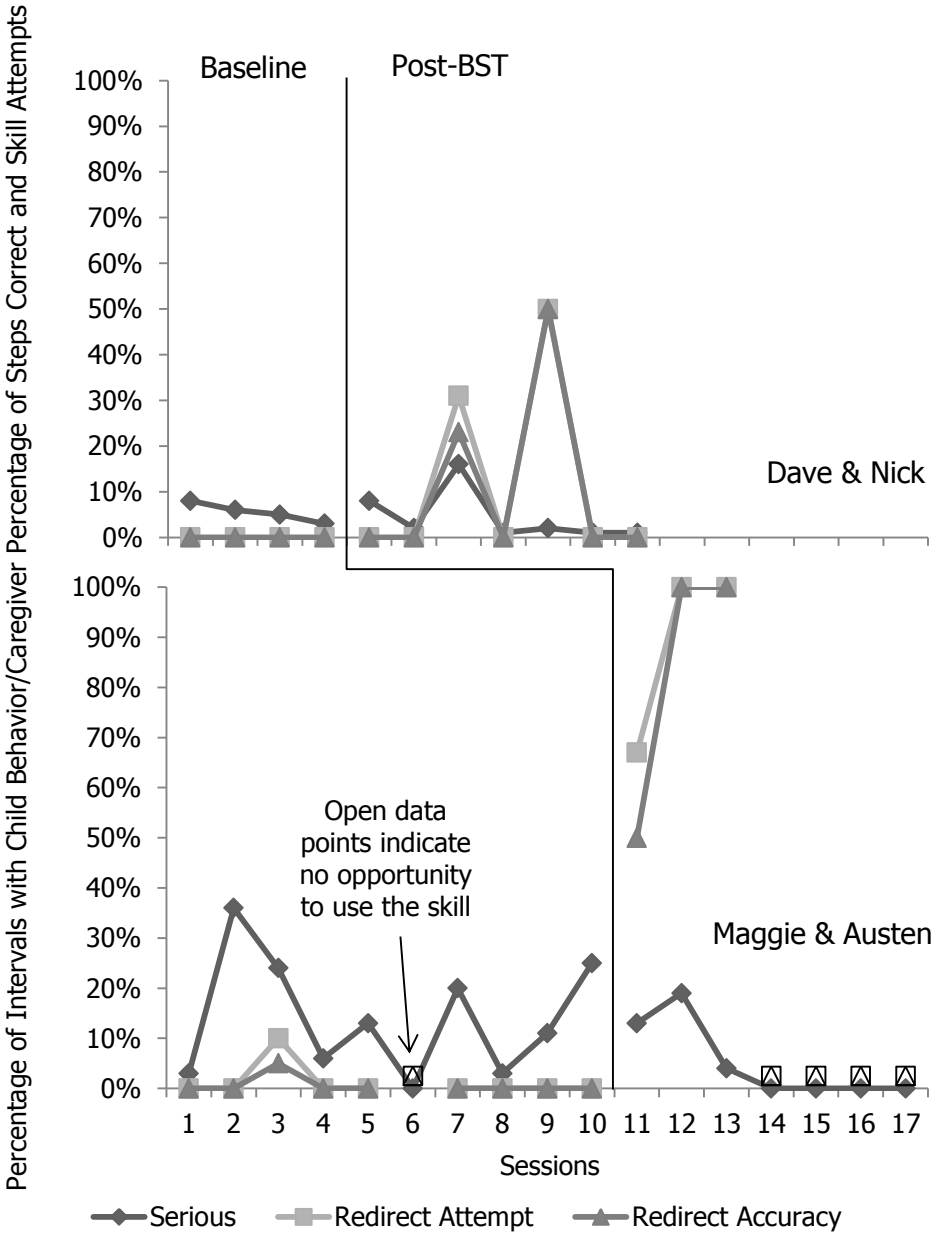

Figure 7. Percentage of intervals with serious inappropriate child behavior and percentages of caregiver attempts and accuracy for implementation of the skill Redirect-Use Reinforcement.

DISCUSSION

Results of the present study demonstrate the successful generalization of parenting skills from a training context to the home environment for three caregivers of children with challenging behavior. The caregivers were taught to recognize various child behaviors as opportunities to use specifically trained parenting skills and to implement those skills with integrity. In addition, the parenting skills were considered effective in addressing targeted child behaviors in that the behavior of all three children in the study improved following caregiver training (i.e., increased levels of appropriate behavior and decreased levels of both minor and serious inappropriate behavior were observed). When used in combination, the skills of Use Reinforcement, Pivot, and Redirect-Use Reinforcement required caregivers to provide reinforcement contingent on appropriate behavior, withhold reinforcement contingent on inappropriate behavior, and direct the child to appropriate alternative behaviors. Information concerning each caregiver/child dyad will be presented in detail below along with this study's contributions to the existing literature on caregiver training, limitations, and suggestions for future research.

Dave and Nick (Dyad 1) presented the most challenging pair because of the frequency, intensity, and variety of Nick's inappropriate behaviors and because Dave had some physical limitations that may have hindered his ability to respond quickly to some of Nick's behavior. Interestingly, results of the caregiver interview with Dave suggested that Nick only engaged in mild challenging behavior (e.g., noncompliance), but subsequent direct observations indicated more severe problem behaviors (e.g., aggression). The skill Use Reinforcement required the most time for Dave to master (i.e., four BST sessions compared to two for Pivot and Redirect-Use Reinforcement); however, he attempted to implement this skill more frequently and accurately

when provided with an opportunity (i.e., an occurrence of appropriate child behavior) as compared to his implementation of the other two skills. This difference in implementing the skills could indicate that appropriate child behavior was easier for Dave to recognize than minor or serious inappropriate behavior (also evidenced by his responses during the initial caregiver interview). It is difficult to make an assertion about whether the last session was indicative of a decline in skill use or improvements in child behavior, and in addition, the presence of Nick's mother during Session 11 appeared to complicate and impact the routine. During the observation, Nick's mother was in a room adjacent to Nick and Dave; however, her presence appeared to serve as an abolishing operation for Nick's appropriate behavior (i.e., diminishing the value of Dave's delivery of reinforcing consequences during dinner). Unfortunately, this session was the last observation that could be arranged prior to Dave departing the country for a long-term trip abroad, thereby exiting the study.

Susan and Will (Dyad 2) also presented some unique challenges. Prior to beginning the study, Susan reported that she had been unsuccessful in addressing Will's challenging behaviors, despite numerous attempts to do so through the use of accommodations and environmental manipulations. For example, Susan minimized the behaviors that 3-year-old Will was required to engage in to get ready for daycare to the greatest extent possible (e.g., she allowed him to stay in his sleep clothes on the ride to his daycare, dressed him in the backseat of the car, and even brushed his teeth in the daycare's restroom), and she permitted Will to have access to a host of preferred items that were available noncontingently (e.g., she allowed Will to bring his blanket, bottle, and iPad in the car to keep him occupied). Despite all of the accommodations made for Will, Susan reported that when the time came for her to leave Will at daycare, he clung to her while screaming and crying. Although teaching Susan the prompting procedure alone could have had therapeutic effects on Will's behavior, Susan was observed to attend to Will's minor inappropriate behavior and provide reinforcement inconsistently, thereby providing evidence of

the need for BST. In addition, Susan's social validity survey revealed that she found Pivot to be the most useful skill, and she also found Use Reinforcement to be effective, indicating that she valued the skills training.

Prior to beginning the study, Maggie (Dyad 3) identified the termination of a preferred activity such as leaving the park as a situation in which challenging behavior was probable. When told to leave, Austen frequently engaged in severe aggression directed toward Maggie, who admittedly did not know how to respond. Direct observations revealed that Maggie rarely provided positive reinforcement following Austen's appropriate behavior. In fact, following the training, Maggie acknowledged that she "never told him what he was doing right and only recognized his inappropriate behavior." The change observed in Austen's behavior during transitions from a preferred activity to a nonpreferred activity was dramatic. Prior to the intervention, Austen would elope, scream, and cry when he was told that it was time to leave, and when Maggie caught Austen, she would pick Austen up and carry him to the car while he continued to scream, cry, and aggress towards her. Not only did Austen's targeted problem behaviors cease during post-BST, he learned to gain his mother's attention and approval by engaging in appropriate behavior.

This study contributes to the current literature on applications of applied behavior analysis within natural contexts using natural intervention agents (caregivers). It also serves as a demonstration of the efficacy of a parsimonious approach in that the caregiver application of a few basic behavioral procedures resulted in therapeutic decreases in challenging child behavior and therapeutic increases in appropriate child behavior. Previous research has demonstrated the efficacy of a behavioral parent training program for increasing the accuracy of trained skills; however, few studies have examined the extent to which those skills generalize to the natural environment (i.e., the home) and are used with the target individual (i.e., the child). In addition to providing support for the effectiveness of the "Tools Training" in promoting skill accuracy, the

current study also evidences the curriculum's potential for promoting generalization. Conducting observations within the context of natural routines and assessing whether caregivers could discriminate particular child behaviors as antecedents to engaging in taught skills was a unique approach to assessing generalization in parent training research. This analysis demonstrated that caregivers successfully transferred skills taught during BST to real-life situations and implemented them more accurately with their children. The current study further contributes to the existing literature on the consequent effects that caregiver implementation of the skills has on child behavior. Data collection on a range of child behavior (appropriate, minor inappropriate, and serious) provided evidence to suggest that the parenting skills were effective in reducing the children's challenging behaviors and in promoting their independence engaging in appropriate skills.

Despite successful outcomes of the current study, there are limitations that should be taken into account as well. First, it is unclear whether the steps for each parenting skill were absolutely essential to the success of that skill. For example, with the skill of Use Reinforcement, it is possible that the first step ("Tell the child the behavior you like") was not necessary in order to produce therapeutic effects on child behavior. Rather, it is possible that the second step of Use Reinforcement ("Immediately provide a reinforcing consequence for the appropriate behavior") may effectively result in the strengthening of appropriate behavior (as long as the consequence is contingent on, and temporally connected to, the particular child behavior). Although the specific feedback appeared to help the children understand the behavior that resulted in the positive consequences, perhaps expecting the caregiver to implement both steps following every occurrence of appropriate child behavior was unrealistic, and may have been responsible for the lower levels of accuracy (as compared to attempts) for this skill. For example, one of Nick's targeted appropriate behaviors (taking bites during the dinner routine) began to occur often during the post-BST sessions, and it may have been unreasonable (and unnatural) to expect

Dave to comment on the behavior every 10 s for the duration of the session. A component analysis of each skill may provide information concerning the most efficient methods for training caregivers to implement parenting skills, and prove extremely useful for future applications of caregiver training.

Another limitation that should be noted is that there were no direct measures of maintenance or generalization of the skills or for child behaviors. Because of this limitation, conclusions regarding the generality of the findings, the long-term sustainability of the use of the parenting skills, or the long-term effects on child behavior cannot be made. It is promising that all three caregivers reported that they found the skills to be useful, easy to implement, and effective in modifying child behavior, suggesting that they may continue using the skills in the future, and all of the caregivers indicated that they implemented the skills within the context of other routines, suggesting that the skills did generalize beyond the targeted setting.

To conclude, the findings from this study are particularly encouraging because all caregivers rated the procedures and results to be highly socially valid. Caregivers all indicated that their children began exhibiting greater independence and improved behavior as a result of implementation of the parenting skills. Future studies might focus on the long-term maintenance of skill implementation and the generalization of skills to other behaviors and settings.

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APPENDICES

APPENDIX A: Steps of Parenting Skills

Use Reinforcement Steps	YES	NO
When the child is engaging in appropriate behavior…		
1. Tell the child what behavior you like.		
2. Immediately provide a consequence* for the behavior.		

Pivot Steps	YES	NO
When the child is engaging in minor inappropriate behavior…		
1. Say and do nothing in reaction to the junk behavior.**		
2. When the child engages in an appropriate behavior or stops engaging in junk behavior, immediately provide a consequence*.		

Redirect-Use Reinforcement Steps	YES	NO
When the child is engaging in serious/potentially harmful behavior…		
1. Get within arm's reach of the child, interrupt the inappropriate behavior, and redirect the child to an appropriate alternative behavior.***		
2. When the child engages in an appropriate behavior, immediately provide a consequence* for the behavior.		

* Consequences may include social interaction, verbal praise, appropriate touch, tangible item, privilege, or break from task.
** Both (i.e., say nothing and do nothing) must be present in order to be scored.
*** All 3 (i.e., arms-reach, interrupt, redirect) must be present in order to be scored.

Notes:

_____
_____
_____
_____

APPENDIX B: Pre/Post BST Role-Play Scenarios

Pre/Post BST Role-Play Scenarios

Use Reinforcement

1. Child comes home and immediately begins doing homework.

2. Child is folding the laundry.

3. Child feeds the dog after taking it on a walk.

Pivot

1. Caregiver asks child to take out the trash. Child tells caregiver to "Shut up" and continues playing with his/her toys.*

2. Caregiver is reading a book. The child starts making noises and poking the caregiver.*

3. Caregiver is doing the dishes and asks the child to help. The child talks-back to the caregiver (e.g., "I didn't even use those dishes. Why do I always have to do the damned dishes?").*

*For all scenarios, child continues engaging in minor inappropriate behavior (e.g., whining, rolling eyes, making noises, talking-back) for 1-2 minutes before engaging in an appropriate behavior.

Redirect-Use Reinforcement

1. Caregiver sees young child reach for hot cup of coffee instead of his/her sippie cup.*

2. Caregiver walks into kitchen and sees child trying to open a new CD with a kitchen knife.*

3. Caregiver walks into living room and sees child drawing on the wall with crayons.

*For all scenarios, if caregiver redirects child to alternative behavior, child briefly (3-5 seconds) resists before engaging in the alternative. If caregiver does not redirect, child continues engaging in problem behavior but eventually (1-2 minutes) stops and engages in an appropriate alternative.

APPENDIX C: BST Procedural Fidelity Checklist

Use Reinforcement (UR)	Yes	No
1. Discussed theory/rationale behind UR		
2. Reviewed definition of UR		
3. The trainer modeled UR for the caregiver during role play		
4. The trainer had the caregiver model UR during the role play		
5. Praised UR steps that were demonstrated correctly		
6. Provided corrective feedback and additional role play practice for UR steps that were demonstrated incorrectly		

Pivot	Yes	No
1. Discussed theory/rationale behind Pivot		
2. Reviewed definition of Pivot		
3. The trainer modeled Pivot for the caregiver during role play		
4. The trainer had the caregiver model Pivot during the role play		
5. Praised Pivot steps that were demonstrated correctly		
6. Provided corrective feedback and additional role play practice for UR steps that were demonstrated incorrectly		

Redirect-Use Reinforcement (RUR)	Yes	No
1. Discussed theory/rationale behind RUR		
2. Reviewed definition of RUR		
3. The trainer modeled RUR for the caregiver during role play		
4. The trainer had the caregiver model RUR during the role play		
5. Praised RUR steps that were demonstrated correctly		
6. Provided corrective feedback and additional role play practice for RUR steps that were demonstrated incorrectly		

APPENDIX D: Social Validity Rating Scale

Directions: Please read each statement and circle your level of agreement.

1. I know how to use the parenting skills.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
2. I know when to use the parenting skills.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
3. My child's behavior has improved as a result of using the parenting skills.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
4. My child is exhibiting greater independence in the daily routine.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
5. Other routines have improved.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
6. I use the parenting skills at other times in addition to during the targeted routine.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
7. I will continue using the parenting skills.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
8. I would recommend the parenting skills to other parents and caregivers.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
9. The training was helpful in teaching me the parenting skills.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
10. The parenting skills are easy to use.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree
11. Participation in this study has had a positive impact on my family.				
Strongly disagree	Disagree	Undecided	Agree	Strongly agree

Comments: