

PARENT TRAINING DURING CHILD WELFARE VISITATION: EFFECTS OF A
STRENGTH-BASED VIDEO COACHING PROGRAM ON
DEVELOPMENTALLY SUPPORTIVE
PARENTING BEHAVIORS

by

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DISSERTATION ABSTRACT

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Doctor of Philosophy

Department of Special Education and Clinical Sciences

June 2013

Title: Parent Training during Child Welfare Visitation: Effects of a Strength-Based Video Coaching Program on Developmentally Supportive Parenting Behaviors

During the Federal fiscal year of 2009, an estimated 3.3 million referrals involving the alleged maltreatment of children were received by child protective service agencies across the United States. Of those cases that received further investigation, approximately 686,400 children were placed in out-of-home care including foster and group facilities, according to the U.S. Department of Health and Human Services. Available research suggests that child welfare agencies provide parent training to assist parents in keeping their children at home or in achieving reunification in approximately 28% of cases. However, the use of parent training programs for families in the child welfare system has received little examination, and no study has examined the use of such practices during supervised visitation time for parents who have lost custody of their child.

The present study evaluated the effects of a behavioral parent training program, titled Microsocial Video Parenting (MVP), on the parenting behaviors of mothers who lost legal custody of their children and were receiving supervised visitation at the Department of Human Services. Participants in this study were 4 mother-child dyads, with the child participants ranging in age from 1 to 3 years old. The investigator

employed a within-subjects multiple baseline design across behaviors to examine effectiveness of the MVP intervention on increasing developmentally supportive parenting behaviors and decreasing negative parent behaviors. Results obtained across participants documented a clear functional relation between implementation of the MVP intervention and increases in developmentally supportive parenting behaviors. Social validity and contextual fit results also support the utility of this intervention within the child welfare context. Practical and conceptual implications, as well as future research, will be discussed.

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TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION AND LITERATURE REVIEW	1
Factors Related to Removal of Children.....	2
Parental Substance Abuse.....	2
Parental Mental Illness.....	4
Domestic Violence.....	5
Child Conduct Problems.....	6
From Child Removal to Reunification.....	9
Parent Training to Aid in Reunification	10
The Marte Meo Method.....	16
Statement of the Problem.....	19
II. METHODS	22
Setting and Participants	22
Setting	22
Participants.....	23
Maria and Makela.....	23
Denise and Donny.....	24
Lanita and Leo	24
Sandra and Sylvia	25
Measurement.....	25
Response Definitions	26
Child Behaviors	26

Chapter	Page
Parent Behaviors	27
Observer Training and Interobserver Agreement	31
Fidelity of Implementation	35
Contextual Fit	37
Social Validity	37
Design and Procedures.....	38
Experimental Design.....	38
Baseline.....	38
MVP Implementation	39
Editing Videos	39
Still Pictures	40
Video Clips	40
Program Description for Parents.....	40
Coaching with Edited Videos	41
Training Period I.....	42
Training Period II.....	43
Training Period III	44
Training Period IV	44
Maintenance.....	45
Data Analysis	45
III. RESULTS	48
Developmentally Supportive Parenting Behaviors.....	48

Chapter	Page
Maria and Makela	48
Sharing the Focus of Attention	48
Noticing and Encouraging	50
Turn-Taking	51
Beginnings and Endings	51
Denise and Donny.....	52
Sharing the Focus of Attention	52
Noticing and Encouraging	54
Turn-Taking	54
Beginnings and Endings	55
Lanita and Leo	55
Sharing the Focus of Attention	55
Noticing and Encouraging	57
Turn-Taking	57
Beginnings and Endings	58
Sandra and Sylvia	58
Sharing the Focus of Attention	60
Noticing and Encouraging	60
Turn-Taking	61
Beginnings and Endings	61
Negative Parent Behaviors.....	62
Maria and Makela	62

Chapter	Page
Denise and Donny.....	64
Lanita and Leo	66
Sandra and Sylvia	68
Child Behaviors	70
Maria and Makela	70
Denise and Donny.....	73
Lanita and Leo	75
Sandra and Sylvia	77
Conditional Probabilities	80
Maria and Makela	80
Vocalizations	80
Motoric Responses.....	83
Denise and Donny.....	87
Vocalizations	87
Motoric Responses.....	90
Lanita and Leo	93
Vocalizations	93
Motoric Responses.....	96
Sandra and Sylvia	99
Vocalizations	99
Motoric Responses.....	102
Fidelity of Implementation	105

Chapter	Page
Contextual Fit	107
Social Validity	108
IV. DISCUSSION.....	110
Summary of Findings.....	111
Intervention Components.....	114
Video-Based Coaching	115
Direct Instruction of Developmentally Supportive Parenting Behaviors	115
Reinforcement of Developmentally Supportive Parenting Behaviors.....	116
Limitations	117
Threats to External Validity.....	117
Intervention Feasibility	118
Other Limitations	118
Future Research	119
Component Analysis of MVP.....	119
Replication	119
MVP plus Basic Parenting.....	120
Comparison of Marte Meo and MVP	120
Cross-Informant Data on MVP Intervention	121
Contextual Fit	121
Generalization of Skills	122
Implications for Practice.....	122

Chapter	Page
APPENDICES	125
A. MVP FIDELITY OF IMPLEMENTATION CHECKLIST	125
B. MVP FIDELITY OF EDITING CHECKLIST	126
C. MVP CONTEXTUAL FIT QUESTIONNAIRE	127
D. MVP SOCIAL VALIDITY QUESTIONNAIRE	128
E. SHARING THE FOCUS OF ATTENTION	130
F. NOTICING AND ENCOURAGING	131
G. TURN-TAKING	132
H. BEGINNINGS AND ENDINGS	133
REFERENCES CITED.....	134

LIST OF FIGURES

Figure	Page
1. Percentage of national and Oregon child welfare cases in 2009 that involved parental substance abuse, parental mental illness, domestic violence, or child conduct problems	8
2. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking and frequency with beginnings and endings for Maria	49
3. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking and frequency with beginnings and endings for Denise.....	53
4. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking and frequency with beginnings and endings for Lanita.....	56
5. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking and frequency with beginnings and endings for Sandra.....	59
6. Percentage of 5-s intervals with negative parent behaviors for Maria.	63
7. Percentage of 5-s intervals with negative parent behaviors for Denise	65
8. Percentage of 5-s intervals with negative parent behaviors for Lanita.....	67
9. Percentage of 5-s intervals with negative parent behaviors for Sandra	69
10. Percentage of 5-s intervals with child behaviors for Makela.....	71
11. Percentage of 5-s intervals with child behaviors for Donny.....	74
12. Percentage of 5-s intervals with child behaviors for Leo	76
13. Percentage of 5-s intervals with child behaviors for Sylvia	79
14. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Maria and Makela.....	81

Figure	Page
15. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Maria and Makela.....	85
16. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Denise and Donny	88
17. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Denise and Donny	91
18. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Lanita and Leo.....	94
19. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Lanita and Leo.....	97
20. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Sandra and Sylvia.....	101
21. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Sandra and Sylvia.....	103

LIST OF TABLES

Table	Page
1. Average (range) Interobserver Agreement	33
2. Average Fidelity of Implementation Across Coaching Session Components	106
3. Average Fidelity of Implementation Across Edited Video Components	107
4. Parent Ratings of MVP Contextual Fit	108
5. Parent Ratings of MVP Social Validity	109

CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

An estimated 3.3 million referrals involving the alleged maltreatment of children were received by child protective service agencies across the United States during the federal fiscal year of 2009, with 67,885 cases from the state of Oregon (Oregon Department of Human Services [ODHS], 2010; U.S. Department of Health and Human Services [U. S. DHHS], 2009). Of those cases that received further investigation, approximately 686,400 children nationally and 13,129 children in the state of Oregon were placed in out-of-home care, including foster and group facilities (ODHS, 2010; U.S. DHHS, 2009). Foster home placements are intended to be short-term responses to ensure the safety and well being of children, with the primary goal of reunifying foster children with their biological parents (Sanchirico & Jablonka, 2000). Approximately 50% of children nationally and 63% of children in the state of Oregon leave the foster care system through reunification with their parents (ODHS, 2010; Wulczyn, 2004). Although many children who are reunified exit the foster care system within a relatively short period of time, reunification often is not successful. Nearly 30% of reunified children nationally return to foster care within 10 years, with the majority of children reentering within the first year of reunification (Wulczyn, 2004).

A study conducted by Festinger (1996) found that negative parenting behaviors such as problematic parenting skills, substance abuse, and hostility toward their children were major factors leading to reentry of children into foster care. The following discussion of risk factors commonly associated with parental loss of custody sets the stage for a discussion of parenting education that may serve to mitigate the effects of

these problems while increasing appropriate parenting skills needed for sustained reunification.

Factors Related to Removal of Children

In the past three decades, researchers have identified four familial concerns that often lead to child abuse and neglect, and to the subsequent removal of children from parental custody: parental substance abuse (e.g., Barth, 2009; Besinger, Garland, Litrownik, & Landsverk, 1999; Young, Gardner, & Dennis, 1998), parental mental illness (e.g., Glennon, 2003; Kundra & Alexander, 2009), domestic violence (e.g., Barth, 2009; Casaneuva, Martin, Runyan, Barth, & Bradley, 2008), and child conduct problems (e.g., Burns, Phillips, Wagner, Barth, Kolko, Campbell, & Yandsverk, 2004; Fanshel, 1992). Figure 1 displays national and Oregon data for the 2009 calendar year for each of these risk factors.

Parental substance abuse. Studies examining the national prevalence of substance abuse among caregivers involved in child welfare found that 40% to 80% of caregivers had a history of drug and alcohol use prior to or at the time of child removal from their custody (Besinger et al., 1999; U.S. DHHS, 2009; Young et al., 1998). Statewide, 58.4% of Oregon cases that led to out-of-home placements involved substance-related issues, such as prenatal drug or alcohol exposure (ODHS, 2010). The Oregon Department of Human Services also found that 44% of families involved with child welfare services reported drug and alcohol issues as the largest family stress factor when child abuse and neglect was present in out-of-home placements (ODHS, 2010).

The United States Department of Health and Human Services conducted a study in which child welfare workers were asked to identify adults in their caseload who either

had a suspected or known problem with drug or alcohol abuse (U.S. DHHS, 1993). They found that a family member was reported to have abused alcohol in 29% of cases, and at least one adult had abused illicit drugs in 18% of the cases (U.S. DHHS, 1993). These findings approximate those of a study documenting that 40% of parents who had physically abused their children and 56% of parents who had neglected their children met lifetime criteria for a drug or alcohol disorder (Kelleher, Chaffin, Hollenberg, & Fischer 1994). These studies establish a clear relation between parental substance abuse, child maltreatment, and the subsequent removal of children from parental custody (Barth, 2009).

The mechanism by which substance abuse correlates with child maltreatment is not as evident (Barth, 2009). Some researchers argue that prenatal exposure to illicit drugs can lead to congenital deficits that may make a child more difficult to care for and more prone to being abused (Kelleher et al., 1994; Lau, Valeri, McCarty, & Weisz, 2006; Magura & Laudet, 1996). Others have found that substance-abusing parents may be insufficiently responsive to their children due to a lack of knowledge regarding appropriate parenting skills (Gibbons, Barth, & Martin, in press). Such limited parenting skills have been linked to neglectful behaviors in substance-abusing parents, such as failure to provide basic needs (Barth, 2009). In fact, neglectful behaviors, such as failure to provide food, clothing, and adequate shelter, were documented as a primary reason for child removal in 82% of DHS cases in the state of Oregon (ODHS, 2010). These findings may support the development of parent education programs aimed at preventing child abuse and neglect and increasing appropriate parenting skills by providing the evidence base for parenting skills needed to support sustained family reunification.

Parental mental illness. A national study on custody loss found that parental mental illness was documented as one of the factors related to child removal in 70% to 80% of child welfare cases (Nicholson, Beibel, Hinden, Henry, & Steir, 2001). Findings in the state of Oregon are consistent with the national trend, with parental mental illness being documented in 72.5% of cases in which child removal occurred (ODHS, 2010). Although empirical studies have documented that significant proportions of mothers diagnosed with a mental illness are living apart from their children (Jones, Macias, Gold, Barreira, & Fisher, 2008; Kundra & Alexander, 2009), less is known about the effects of parental mental illness on child abuse. Studies have shown that circumstances associated with mental illness, such as unemployment and poverty, are much more likely to be associated with child abuse and neglect than mental illness itself (Glennon, 2003; Hay & Jones, 1994; Kundra & Alexander, 2009). However, Kundra and Alexander (2009) found that many individuals with mental illness are single parents, have a history of hospitalization, lack social supports, have co-morbidity with substance use, and have to deal with side effects of medication, any of which could make parenting more challenging for these individuals.

Child welfare systems often lack the resources to provide supports to parents with mental illness. It is also important to note that the court's focus, especially in removal of children from parental custody, is often on an evaluation of the parent's mental status as opposed to an evaluation of the parent's ability to keep the child safe (Kundra & Alexander, 2009). Additionally, many state statutes note parental mental illness as a condition for child removal and termination of parental rights (Lightfoot & LaLiberte, 2006). As a result, parents with mental illness are more likely to lose custody of their

children in court hearings than parents with no documented mental illness (Lightfoot & LaLiberte, 2006). This issue indicates a need for parent training and parent advocacy to combat risks of child abuse, neglect, and subsequent custody loss. Research has shown that with effective supports and treatment, most parents with mental illness can appropriately parent their children, as determined by child welfare workers (Glennon, 2003; Kundra & Alexander, 2009; Lightfoot & LaLiberte, 2006). However, parent advocacy supports are needed in addition to parent training, as many parents with mental illness are fearful of seeking out services because of a concern that doing so may result in loss of child custody (Glennon, 2003).

Domestic violence. In a study based on the National Survey of Child and Adolescent Well-Being (NSCAW), researchers found that one-third of parents involved in child welfare that were classified as having low parenting skills had experienced domestic violence, and that such violence was highly correlated with harsher parenting (Casaneuva et al., 2008). The researchers also found that intimate partner violence against mothers was present in 44.8% of child welfare cases in the United States, consistent with 32.6% of cases in the state of Oregon (Casaneuva et al., 2008; ODHS, 2010). Parental rates of depression were also strongly correlated with violence against women (Casaneuva et al., 2008). The Oregon Department of Human Services found that 33% of families involved with child welfare services reported domestic violence as the second largest family stress factor when child abuse and neglect was present in out-of-home placements (ODHS, 2010).

In spite of these statistics, child-welfare services have only recently expanded their focus from risk of harm to children to also include domestic violence (Findlater &

Kelly, 1999). This primarily is occurring via collaborative work with agencies focused on domestic violence awareness, education, and advocacy for family protection (Findlater & Kelly, 1999). New strategies in collaborative work include changes in child welfare policies and protocols that reflect the importance of addressing domestic violence, and training programs for domestic violence services personnel to bridge the gap in their understanding of child protection issues (Casaneuva et al., 2008; Findlater & Kelly, 1999). Some of the most promising collaborative efforts make child protection interventions, such as family preservation services, available to battered mothers and their children (Casaneuva et al., 2008; Findlater & Kelly, 1999).

Child conduct problems. Historically, child welfare services targeted two types of children—those with severe behavior problems whose parents needed assistance through treatment or placement services, and those without severe behavior problems who needed protection from abusive parents (Fanshel, 1992). In a national child welfare study examining behavior problems among children who have been removed from their home, researchers found that approximately 56% of children between the ages of 2 and 11 exhibited internalizing and/or externalizing problem behaviors, as rated by two of their out-of-home caregivers (Aarons, James, Monn, Raghavan, Wells, & Leslie, 2010). Similarly, the Oregon Department of Human Services found that 40.5% of children placed in foster care in 2010 had “child’s behavior” listed as one of the reasons for removal from their home (ODHS, 2010). Although legislation, such as the Adoption Assistance and Child Welfare Act of 1980, mandated that federal funding for child welfare services be provided only in instances of parental incapacity or abuse, many children continue to enter the child welfare system due to parent reports of problem

behaviors (Barth, Wildfire, & Green, 2006). Regardless of the reason for child removal from the home, several studies have shown that a substantial proportion of children involved with child welfare services have high rates of problem behavior (Barth, 2009; Barth et al., 2006).

A study examining reports of child problem behavior by parents involved with child welfare found that 42% of children between the ages of 3 and 14 were rated by their parents as being in need of clinical treatment for internalizing and/or externalizing behavior (Burns et al., 2004); however, parental reports may be exaggerated. A study by Lau et al. (2006) found that physically abusive parents rated delinquent or aggressive child behavior more negatively than independent raters—a difference that was not found for non-abusive parents. This pattern may represent a key dispositional risk factor that predicts child physical abuse (Barth, 2009). Unfortunately, a small proportion of children with behavior problems receive treatment, let alone evidence-based services (Burns et al., 2004). Evidence-based services provided to parents of children with behavior problems who have been removed from their homes are also lacking, as supports are typically provided to the caregiver who has the child in their custody (Barth, 2009). Therefore, the risk of abuse is elevated since parents believe that their children's behavior is poor and few practitioners are providing evidence-based methods to help these families (Barth, 2009).

As discussed, there is a great deal of evidence documenting the four most common issues related to parenting (parental substance abuse, parental mental illness, domestic violence, and child conduct problems) that often lead to child abuse and neglect, and the subsequent removal of children from parental custody. Both nationally

and in Oregon these four risk factors were present in a significant number of child welfare cases that involved child removal from the home (see Figure 1). Since reunifying children with their birth parents continues to be a crucial goal of the child welfare system, local and national agencies have taken steps to reducing the reoccurrence of child maltreatment through parent education and training (Wulczyn, 2004). As noted by Barth, et al. (2005), parent training is often the primary intervention that child welfare agencies provide in trying to prevent child removal or reunify families. The following discussion of the practices that exist before reunification and the components of effective parent training programs that have been found to improve parenting behaviors lays the foundation for the development and implementation plan for the present study.

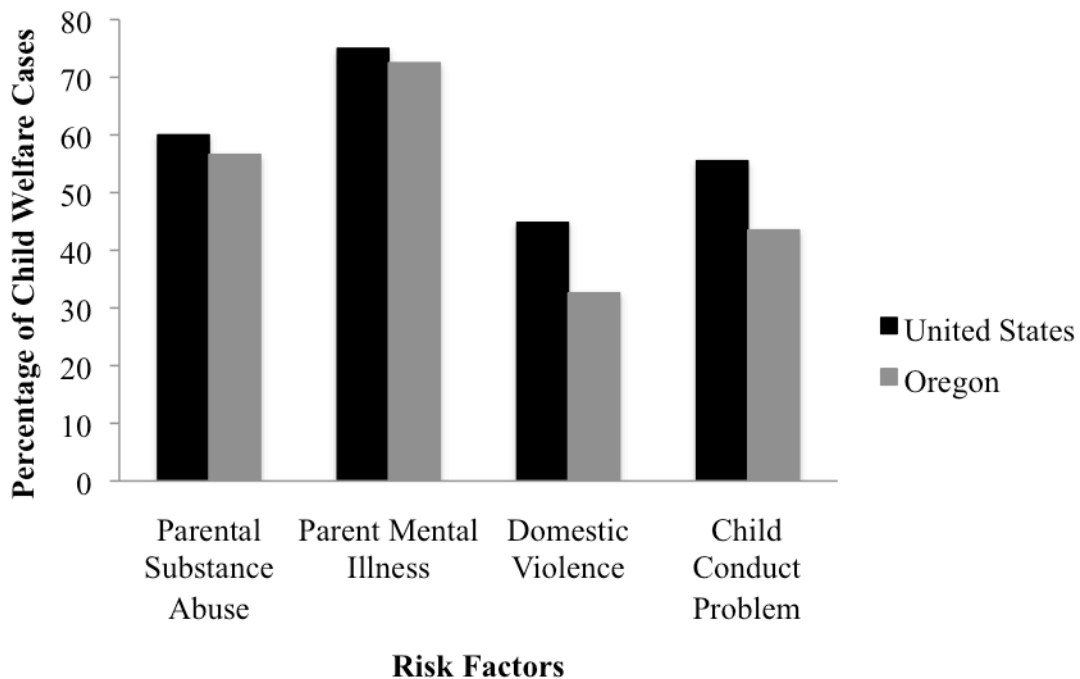


Figure 1. Percentage of national and Oregon child welfare cases in 2009 that involved parental substance abuse, parental mental illness, domestic violence, or child conduct problems.

From Child Removal to Reunification

Although family reunification is the most common way in which children exit the child welfare system, little is known about reunification decision-making and the process of reintegrating children into their biological families (Wulczyn, 2004). In an extensive literature search of family reunification determination, only two studies were found that attempted to explore the factors that lead caseworkers to recommend reunification (i.e., Hess, 1987; Westat & Chapin Hall Center for Children, 2001).

Hess (1987) investigated the reunification process, and identified the following case activities as critical to the reunification process: quality assessments including whether and when reunification should occur, quality case plans for ensuring child safety before reunification, family compliance with case plans, family engagement while separated from the children, family readiness as determined by the caseworker, and post-reunification services and monitoring of child safety. Additionally, the study noted that history of prior reunifications and ambivalence on the part of the parent towards being reunified with their child negatively influenced the caseworkers' decision to recommend reunification (Hess, 1987).

Westat and Chapin Hall Center for Children (2001) conducted a qualitative study involving interviews with caseworkers and child welfare administrators regarding factors influencing a decision to reunify a child with his/her biological parent(s). They found that most caseworkers were concerned with how well parents had complied with the conditions listed in their case plan; that is whether parents had engaged in any service referrals they were given, whether their behavior had changed (e.g., drug use cessation, stable employment), and whether the parents had created a safer home environment

(Westat & Chapin Hall Center for Children, 2001). Caseworkers also noted whether parents were involved in the daily lives and schooling of their children (Westat & Chapin Hall Center for Children, 2001). Frequency of visitation was another critical factor in the decision-making process, as parents who were unwilling or unable to visit or inconsistent in their visitation patterns were less likely to be recommended for reunification than parents who followed the visitation schedule (Westat & Chapin Hall Center for Children, 2001). Lastly, children's wishes were also considered in the reunification decision, particularly for older children (Westat & Chapin Hall Center for Children, 2001).

As noted by several researchers (Barth et al., 2005; Kundra & Alexander, 2009; Wulczyn, 2004), the lack of research in this area is troubling, as there is little guidance for caseworkers regarding how to determine whether a given reunification will be successful *a priori*. In addition, there is little research to suggest that any one mandated program (e.g., frequent visits, training) affects outcomes. Although the court-mandated services that many parents need to complete prior to reunification consideration vary by family (Wulczyn, 2004), parent training is often recommended or required of parents who are no longer caring for their children on a regular basis (Barth et al., 2005). Although no empirical work has focused on effects of parent training on successful reunification, it stands to reason that providing parents at least basic skills in child behavior management would be beneficial as such training might reduce (a) parental stress related to feelings of incompetence and (b) stress related to child behavior problems.

Parent Training to Aid in Reunification

Available research suggests that child welfare agencies provide parent training to assist parents in keeping their children at home or in achieving reunification in

approximately 28% of cases (Barth et al., 2005). The evidence-base behind parent training programs for parents of children with conduct problems is strong (Barth et al., 2005; Brestan & Eyberg, 1998; Farmer, Compton, Burns, & Robertson, 2002; Nixon, 2002), however the use of parent training programs for families in the child welfare system has received little examination, and no study has examined the use of such practices during supervised visitation time¹ (Barth et al., 2005).

Behavioral parent training has emerged as one of the most successful and well-researched interventions to date in the treatment and prevention of child problem behaviors as well as inappropriate parenting behaviors, with extensive empirical support for its clinical utility (e.g., Kazdin & Weisz, 1998; Lonigan, Elbert, & Bennet-Johnson, 1998; Lundahl et al., 2006; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005; McMahon & Wells, 1998; Wyatt Kaminski, Valle, Filene, & Boyle, 2008). Based on the empirical and applied concepts of behavior modification and the principles of social learning theory, behavioral parent training uses clinicians to teach parents to define behavior problems accurately, implement assessment measures that further define the problem and its intensity, and educate parents in the treatment plans that are appropriate within their individualized context (Maughan et al., 2005). A meta-analysis by Maughan et al. (2005) examined the effectiveness of behavioral parent training for children with externalizing behaviors and disruptive behavior disorders in 79 outcome studies between 1966 and 2001. Their research indicated that behavioral parent training is an effective intervention in reducing the externalizing and disruptive behaviors in children, with more robust effects being attributed to individualized behavior parent training over group

¹ Based on a literature search for “Parent Training Visitation” in the databases PsycInfo, Academic Search Premier, JSTOR, Project Muse, and Web of Science.

training (Maughan et al., 2005). Although behavioral parent training has been found to be effective with children of all ages (Maughan et al., 2005; Serketich & Dumas, 1996), a larger effect size generally is obtained with younger children (Bay-Hinitz & Wilson, 2005; McGoey, DuPaul, Eckert, Volpe, & Van Brakle, 2005; Shaffer et al., 2001).

Recent reviews and meta-analytic studies have identified several manualized behavioral parent training programs with documented efficacy in reducing child problem behavior and increasing parenting skill (e.g., Lundahl, Risser, & Lovejoy, 2006; Maughan et al., 2005; Serketich & Duman, 1996; Wyatt Kaminski et al., 2008). Examples include, but are not limited to: Parent Management Training (Kazdin, 2008), The Incredible Years (Webster-Stratton & Reid, 2003), Parent-Child Interaction Therapy (Eyberg, 2003), Computer-Assisted Parenting Program (MacKenzie & Hilgedick, 1999), Systematic Training for Effective Parenting (Fennell & Fishel, 1998), and Video-Feedback Intervention to Promote Positive Parenting (Bick & Dozier, 2009)

Parent Management Training is a program that teaches parents specific strategies (e.g., use of reinforcement and extinction) for managing and correcting their children's behavior problems (Kazdin, 2008). Empirical studies have documented the effectiveness of Parent Management Training for children with conduct disorders (Cautilli & Tillman, 2004), attention-deficit hyperactivity disorders (Chronis, Jones, & Raggi, 2006), and aggressive behaviors (Kazdin, 2008). Parent Management Training involves didactic instruction in foundational concepts of behavior analysis, demonstrations and role-plays, and direct coaching of parent-child interactions (Kazdin, 2008)

The Incredible Years program focuses on strengthening parenting competencies (e.g., monitoring, selective ignoring, positive reinforcement) and fostering parents'

involvement in their child's school experiences to reduce challenging behaviors in children while increasing their social and self-control skills (Webster-Stratton & Reid, 2003). The program has a great deal of empirical support (e.g., Reid, Webster-Stratton, & Hammond, 2010; Scott, O'Connor, Futh, Matias, Price, & Doolan, 2010; Scott, Sylva, Doolan, Price, Jacobs, Crook, & Landau, 2009; Webster-Stratton & Reid, 2003). The parent programs are grouped according to child age (0-3 years, 3-6 years, 6-12 years) and consist of 14-24 sessions, depending on the age and the skill level of both the parent and the child (Webster-Stratton & Reid, 2003). Like Parent Management Training, Incredible Years involves didactic instruction, modeling, role-plays and direct coaching of parent-child interactions.

Parent-Child Interaction Therapy is another evidence-based parenting program with documented effectiveness for enhancing parent skill and decreasing child behavior problems (e.g., Schuhmann, Foote, Eyberg, & Boggs, 1998; Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993; Nixon, Sweeney, Erickson, & Touyz, 2004; Pincus, Eyberg, & Chate, 2005). Parent-Child Interaction Therapy consists of two phases: child directed interaction, in which parents develop child-focused relationship skills and learn how to follow their child's initiations; and parent directed interaction, in which parents learn effective ways of responding to their child, encouraging their child's appropriate behaviors, and addressing inappropriate behaviors (Gershenson, Lyon, & Budd, 2010). Treatment, which typically lasts 14-16 sessions, includes a didactic component, coaching sessions, coding of parent-child interactions, and homework assignments (Gershenson et al., 2010).

Although most behavioral parent training involves in-vivo instruction and rehearsal, a substantive body of research supports the use of video feedback within behavioral parent training (e.g., Fukkink, 2008; Hitchcock, Dowrick, & Prater, 2003; Meharg & Woltersdorf, 1990). The use of video in intervention programming, whereby parents are filmed taking part in family interactions and then watch the recordings, has become an increasingly popular practice (Bakermans, Juffer, van IJzendoorn, 1998; Fukkink, 2008; Landry, Smith, & Swank, 2006; Ziegenhain, Derksen, & Dreisorner, 2004). The video element of these intervention programs makes it possible to reflect back to parents their own behavior, in an effort to focus on specific behaviors and to see the effects of those behaviors on their child (Fukkink, 2008).

Empirical research on video feedback has been summarized in numerous qualitative and quantitative reviews (Dowrick, 1999; Fukkink, 2008; Hitchcock, Dowrick, & Prater, 2003; Hung & Rosenthal, 1981; Meharg & Woltersdorf, 1990). For example, a recently published meta-analysis of 29 studies showed statistically significant positive effects of video feedback interventions on parenting behaviors ($ES = 0.47$, $SE = 0.08$), attitudes of parents towards parenting ($ES = 0.37$, $SE = 0.10$), and the development of their children ($ES = 0.33$, $SE = 0.10$; Fukkink, 2008). Parents became more skilled in interacting with their children and experienced fewer problems while gaining more pleasure from their role (Fukkink, 2008). The meta-analysis results also showed that the effects of video feedback depended on the program duration. Shorter video-based interventions were found to be more effective in improving parenting behaviors ($ES = 0.68$) than video-based interventions with a longer duration ($ES = 0.27$), although the

researchers did not find a direct effect of the number or dosage of intervention sessions (Fukkink, 2008).

Another variation of behavioral parent training involves an explicit focus on parent and/or child strengths (e.g., Brun & Rapp, 2001; Laursen, 2000; Wulczyn, 2004). For example, Parent-Child Interaction Therapy promotes positive interactions between parents and their children through modeling, role-playing, and reinforcing of such interactions in an effort to increase appropriate parent and child behaviors (Gershenson et al., 2010). Aligned with the paradigm shift towards a positive approach to psychology, strength-based practices focus on the development of human strengths and virtues as well as the prevention of behavior problems (Seligman & Csikszentmihalyi, 2000). A strength-based approach to parent training utilizes strategies to identify the core strengths a parent possesses in their parenting behaviors with their child (Brun & Rapp, 2001; Laursen, 2000; Wulczyn, 2004). As described by Wulczyn (2004), identifying and building family strengths into a service plan holds promise as a means of encouraging parental involvement and support of their child's development.

Strength-based practice in child welfare work has a strong theoretical foundation as an effective helping strategy for developing prosocial skills and appropriate behaviors in at-risk children and adults (Brun & Rapp, 2001; Laursen, 2000; Wulczyn, 2004). Some of the benefits identified by researchers to support the use of strength-based strategies in family intervention work include (a) focusing on identifying personal resources, (b) building authentic relationships, (c) facilitating community involvement, and (d) respecting the right to self-determination when working with children and families who find themselves besieged by stressors (Jimerson, Sharkey, Nyborg, &

Furlong, 2004; Laursen, 2000; Tedeschi & Kilmer, 2005). In fact, a qualitative study that examined individuals' experiences of participating in a strength-based case management program found that participants reported feeling more competent and independent in their ability to self-manage their substance recovery, had a stronger connection with their caseworker, and found the strengths process valuable (Brun & Rapp, 2001).

In summary, there is empirical evidence to support the use of behavioral parent training programs that include video-based feedback and a strength-based service delivery model with families. The present study builds on a previously developed intervention, the Marte Meo Method (Aarts, 2000), which incorporates these components.

The Marte Meo Method

Marte Meo (Latin translation: on one's own strength) is a strength-based video feedback parent training program that was developed in the Netherlands in the 1980s, grounded in the idea that children develop during interactions with supportive adults (Aarts, 2000). Marte Meo is rooted in the belief that there is a prototype for developmentally supportive dialogue that provides children with relevant information about themselves, their caregiver, and their environment, and serves to help children and adults restore and build supportive communication (Aarts, 2000). The goal of Marte Meo is to support caregivers in recognizing their child's initiations, to help develop the skills for responding to those initiations by building upon the appropriate parenting behaviors they are already exhibiting, and to promote positive parent-child interactions (Aarts, 2000).

There are two basic elements of Marte Meo: analysis and intervention (Aarts, 2000). These elements alternate throughout the duration of the intervention, with

analysis always preceding intervention. The first element, analysis, involves taking a 5-15 minute video recording of the child interacting with his or her caregiver during either a structured activity (e.g., feeding, dressing) or an unstructured activity (e.g., playing on the floor). The therapist then analyzes and edits sequences from the video recording, selecting clips that demonstrate one or more of the Marte Meo target behaviors (Aarts, 2000). The seven target behaviors that are emphasized in Marte Meo are: (1) the adult determines the child's focus of attention, (2) the adult verbally or gesturally confirms the child's focus of attention, (3) the adult actively awaits the child's reaction, (4) the adult names the ongoing and forthcoming actions, events, experiences, feelings, or anticipated experiences, (5) the adult confirms desired behavior approvingly, (6) the adult triangulates the child in relation to "the world" by introducing persons, objects, and phenomena to the child, and (7) the adult takes responsibility for an adjusted and reciprocal ending (Aarts, 2000; Axberg, Hansson, Broberg, & Wirtberg, 2006).

The second element, intervention, involves the therapist providing feedback to the caregiver using the edited version of the original film, while focusing on one or more of the Marte Meo target behaviors the caregiver exhibited following an initiation from the child. The edited films are shown to the parent with a microanalytic narration from the therapist, highlighting the frame-by-frame sequence of events that fosters their child's development. During the discussion, the therapist helps focus the adult's attention on the child's initiations (e.g., crying, reaching out for the caregiver) and the appropriate adult responses to initiations. This is done to help promote adult modifications to his or her own behavior in a way that will best support the child's development (Aarts, 2000). Lastly, the adult is given the task of practicing the discussed target behavior(s) in daily

situations. The feedback meeting takes approximately 20-45 minutes. Caregivers are provided at least one week between receiving feedback (intervention) and recording of a new video (analysis) to practice the behaviors that were discussed with the therapist.

Although Marte Meo typically includes 5-12 filming sessions and 5-12 feedback sessions, usually spread across 10-24 weeks, the rules for termination of services are unclear. Clinical judgment is used in determining whether parents have developed the skills needed for completion of the program, as no measures of outcomes or growth are currently being utilized. As a result, completion of Marte Meo may depend on a long-term commitment from the families being served. Marte Meo is also challenging to implement with high-risk populations. Since one of the core components of Marte Meo is the practical application of skills during daily routines when the therapist is not present, recipients of Marte Meo need to have custody of their children or daily interactions with their children in order for the intervention to be successful, making its utility in clinical settings or child welfare visitation challenging. Marte Meo has become widely used in the Scandinavian countries, however no studies have been published regarding its effectiveness for improving parenting behaviors², and only one study of its effectiveness as a treatment for child conduct problems has been published (Axberg et al., 2006). Axberg et al. (2006) implemented a school-based model, which combined Marte Meo with coordination meetings (weekly meetings held at school that involved teachers, parents, behavior specialist, and a coordinator) for early detection and intervention among 4 to 12 year old students who displayed externalizing behavior problems. The researchers found that when Marte Meo was combined with coordination meetings in a

² Based on a literature search for “Marte Meo” in the databases PsycInfo, Academic Search Premier, JSTOR, Project Muse, and Web of Science.

school-based model, teachers reported significant decreases in externalizing behaviors across the 35 children in the treatment group ($ES = 0.62$) two years after completion of the intervention as compared to the 34 children in the control group ($ES = 0.01$).

Although the intervention in this study extended over a 10-month period, it indicated that Marte Meo may be an effective practice for improving child problem behaviors when implemented in a systematic and coordinated manner.

Statement of the Problem

Although the evidence-base behind parent training programs delivered by mental health providers working with parents to support children with conduct problems is strong (Barth et al., 2005; Brestan & Eyberg, 1998; Farmer, Compton, Burns, & Robertson, 2002; Nixon, 2002), the use of parent training programs for families in the child welfare system has received little examination, and no studies have examined the use of such practices during supervised visitation time (Barth et al., 2005). Currently, there is no information available on empirically supported parent training programs being utilized during these limited interactions between parents and their children. Preventative parent training, focused on parents' strengths and skills, is needed to support the development of appropriate parenting behaviors and bolster nurturing parent-child interactions. Some argue that parent education cannot succeed unless basic family problems (e.g., domestic violence) are also addressed and this may be the case; however, much evidence suggests that helping parents to be more effective with their children can address mental health needs and improve the chances of substance abuse recovery (Barth, 2009; DeGarmo, Patterson, & Forgatch, 2004). In the case of families with multiple and complex issues, it is likely the case that multiple strategies will be needed, some systemic

and some focused on skill-building.

The present study evaluated a modified version of the Marte Meo intervention, titled Microsocial Video Parenting (MVP; Oregon Social Learning Center, 2011), on developmentally supportive parenting behaviors. MVP is a strength-based video coaching program built on the core components of Marte Meo, with specific adaptations made to fit the context of service delivery. MVP differs from Marte Meo in that it is structured, sequential, and time-limited. MVP focuses on teaching 1 of 4 developmentally supportive parenting behaviors at a time and these behaviors build on one another in sequence. Similar to Marte Meo, coaching is delivered using microanalytic narration, where the therapist stops the video every few seconds to highlight the frame-by-frame interactions between the parent and their child. MVP is also 10-week intervention and coaching meetings never last longer than 45 minutes, making this an efficient intervention for parents who have limited time with their child. The MVP program was specifically adapted for biological mothers who had lost legal custody of their children, and were receiving supervised visitation time at the Department of Human Services (DHS) facilities in Oregon. The purpose of this parent training program was to support participating mothers in building the necessary parenting skills needed for fostering healthy development, communication, and attachment with their children, in an effort to bolster some of the skills necessary for family reunification. Specifically, this study addressed the following three research questions:

1. Is there a functional relation between implementation of the Microsocial Video Parenting intervention and an increase in developmentally supportive parenting behaviors across 4 at-risk mother-child dyads?

2. Is there a functional relation between implementation of the Microsocial Video Parenting intervention and a decrease in negative parent behaviors across 4 at-risk mother-child dyads?
3. Is there a functional relation between implementation of the Microsocial Video Parenting intervention and an increase in the conditional probability that mothers demonstrate a developmentally supportive parenting behavior when a child behavior is presented?

CHAPTER II

METHODS

Setting and Participants

Setting. The present study took place at the Department of Human Services (DHS) in a suburban county in Oregon. The DHS is a state government agency with responsibilities that include, but are not limited to, providing public assistance programs to children, adults, families, seniors, and individuals with disabilities. The DHS in the participating county responded to a total of 2,441 reports of child abuse and neglect in 2010, with 1,227 of those reports being confirmed cases of child victimization. The confirmed cases included 70 incidents of mental injury, 592 incidents of neglect, 124 incidents of physical violence, 107 incidents of sexual abuse and sexual exploitation, and 783 incidents of threat to harm. A total of 601 children entered foster care in the participating county in 2010, with 5.8% identified as African American, 1.2% identified as Asian, 59.8% identified as Caucasian, 15.3% identified as Hispanic, 3.5% identified as Native American, 0.5% identified as Pacific Islander, and 13.9% as unknown/not recorded.

Visitation meetings between participating mothers and their children occurred at three DHS facilities in the participating county. These meetings were scheduled and conducted by the DHS; the schedule, duration, frequency, and location of these meetings were not adjusted or altered for this study. Additionally, participation or lack of participation in the study did not affect visitation rights or other matters related to custody or DHS. Visitation meetings were held as per the DHS guidelines, in a private room that

was stocked with toys, books, a sofa, a table, and chairs. The rooms were equipped with a two-way viewing mirror for supervision from an assigned caseworker.

Participants. Participants in this study were four mother-child dyads.

Participant recruitment and selection occurred in several steps. First, a Child Welfare Program Manager at the DHS who helped to organize implementation of this study sent a recruitment email out to all DHS Caseworkers. To be eligible for this study, child participants had to be between the ages of 1 and 3 years old, and participating mothers had to be women who did not have custody of their child but were receiving weekly supervised visitation time with their child at the DHS. Mothers with partial custody of their child were not included in this study. Since the goal of this study was to provide parent training in the hopes of increasing appropriate parenting behaviors for future reunification, mothers who were not being considered for reunification with their child were not included in this study. Caseworkers nominated potential families for this study only after receiving approval from the mother. Initial meetings were then scheduled with each mother who met eligibility and their caseworker to discuss logistics of the study, to inform the mothers that participation in the study was voluntary, and to obtain individual informed consent from the mothers who agreed to participate and their caseworkers. All nominated mothers who met criteria for this study agreed to participate, and they were all given unique pseudonyms to protect their confidentiality.

Maria and Makela. Maria was a 20-year-old Caucasian mother of three children. Her daughter, Makela, was a 27-month-old Caucasian and Hispanic child with developmental delays who was removed from Maria's custody, along with her two siblings, at 18 months old due to medical neglect and Maria's illegal substance use. All

three children were placed in foster care together and remained in the same foster care placement for the duration of this study. Prior to beginning this study, Maria completed intensive outpatient drug treatment, and participated in a group-based parent training program through a local organization, which she did not complete. Makela's father was released from prison at the beginning of this study, and attended all but two visitation sessions with Maria and the three children. Both Maria and Makela's father provided clean urinalyses prior to and throughout participation in this study.

Denise and Donny. Denise was a 24-year-old Native American mother of two children. Her son, Donny, was a 12-month-old Native American and Caucasian child with developmental delays who was removed from Denise's custody at 2 days old due to Denise's illegal substance use while pregnant. Denise also lost parental rights of her 4-year-old son one year prior to Donny's birth because of her illegal substance use and neglect. He now lives with a family member and Denise does not have visitation with him. Donny remained in the same foster care placement from initial removal through completion of this study. Prior to beginning this study, Denise completed intensive outpatient drug treatment and a group-based parent training program. She also began but did not complete an enhanced visitation program through a local religious organization. Donny's father was in prison for the duration of this study and has had no contact with Donny since his birth. Denise provided clean urinalyses prior to and for 9 of the 10 weeks of this study.

Lanita and Leo. Lanita was a 26-year-old Caucasian mother of one child. Her son, Leo, was a 14-month-old Caucasian and Native American child who was removed from Lanita's custody at 6 months old due to threat to harm and Lanita's illegal substance

use and mental health concerns. No health concerns or cognitive delays were reported for Leo. Leo was placed in foster care with a family member and remained in the same placement for the duration of this study. Lanita had completed a brief group-based parent training program prior to beginning this study, and was actively involved in outpatient opioid treatment. Leo's father was present for all visitation sessions and was actively involved in drug treatment as well. Both Lanita and Leo's father provided clean urinalyses prior to and throughout participation in this study.

Sandra and Sylvia. Sandra was a 36-year-old Caucasian mother of two children. Her daughter, Sylvia, was a 26-month-old Caucasian child with selective mutism who was removed from Sandra's custody at 6 months old due to child neglect and illegal substance use. Sandra also lost parental rights of her 13-year-old son in 2009 after she was found using illegal substances with him. He now lives in another state and Sandra does not have visitation with him. Sylvia was placed in foster care with a family member and remained in the same placement for the duration of this study. Sandra had not completed any treatment programs prior to participation in this study, but was actively involved in group-based parent training and intensive outpatient drug treatment, and graduated from drug treatment 4 weeks into this study. Sylvia's father was in prison for the duration of this study and has had no contact with Sylvia since her birth. Sandra provided clean urinalyses prior to and throughout participation in this study.

Measurement

The primary dependent variable in the present study was developmentally supportive parenting behaviors. The following dependent measures were used in this study to assess developmentally supportive parenting behaviors: direct observations of

developmentally supportive parenting behaviors, direct observations of negative parent behaviors, and direct observations of child behaviors.

The independent variable, implementation of the MVP intervention, was measured using two forms of fidelity checklists. Finally, contextual fit and social validity of the MVP intervention were assessed using surveys.

Response definitions. Data on child and parent behaviors (defined next) were collected via direct observation across 10-min sessions. Three observations were conducted per visitation and all observations were videotaped for later scoring.

Child behaviors. Child behaviors included any child vocalization and/or motoric response that could lead to a developmentally supportive parenting behavior. Data were collected using partial interval recording across consecutive 5-s intervals via a computerized real-time data collection system. The following child vocalizations and motoric responses were trained and coded.

- Vocalization
 - Any sound suggestive of pleasure such as laughing, giggling, or singing.
 - Any neutral sound such as grunting, sneezing, or cooing.
- Negative Vocalization
 - Any sound suggestive of pain or discomfort such as moaning, crying, screaming, or yelling.
- Motoric Responses
 - Child looks and/or interacts with an object, their parent, or their own body part.

- Locomotion such as walking, crawling, or scooting, and voluntary and involuntary gesturing such as smiling, waving, or hand flapping.
- Negative Motoric Response
 - Any motoric response suggesting pain, discomfort, or anger such as hitting, slapping, punching, or spitting.

Parent behaviors. The following parent behaviors were trained and coded (first four labels are derived from the MVP manual; OSLC, in preparation): (1) sharing the focus of attention, (2) noticing and encouraging, (3) turn-taking, (4) beginnings and endings (these four responses collectively define “developmentally supportive parenting behaviors”) and (5) negative affective behavior, (6) negative physical behavior, and (7) inattention/neglect. Each response was coded separately. Partial interval data across consecutive 5-s intervals was coded using a computerized real-time data collection system for all parent behaviors except beginnings and endings. Frequency data were collected for beginnings and endings.

Sharing the focus of attention is when the mother directs her gaze toward what her child is looking at or interacting with or, if the child is emoting (e.g., laughing, crying), the parent directs her gaze to the child. Examples and non-examples of sharing the focus of attention behaviors are as follows.

Examples:

- Child is attempting to grasp and use a spoon to put food into her mouth (opportunity to respond) and the parent is watching her handle the spoon (sharing the focus of attention).

- Parent is changing baby’s diaper and the baby points to the ceiling (opportunity to respond). Parent looks up at the ceiling where the baby pointed (sharing the focus of attention).

Non-examples:

- Baby crawls away to play with a different toy (opportunity to respond) while the parent continues to read a book.
- Child begins to sing a song (opportunity to respond) and the parent is looking out the window.

Noticing and encouraging builds upon the first core element, sharing the focus of attention. Noticing and encouraging occurs after the mother shares the focus of attention with her child. Once the focus of attention is shared, the mother then adds her own reaction in one of three ways: (1) by naming the child’s interest/ initiative or context, (2) praising, paraphrasing, or positively verbally acknowledging the child’s interest/initiative or context (but not mirroring or imitating), or (3) giving a nonverbal positive physical gesture (e.g., high five, pat on the back, thumbs up, etc.) based on the child’s interest or initiative. Examples and non-examples of noticing and encouraging behaviors are as follows.

Examples:

- The child picks up a book (opportunity to respond) and the parent turns her attention (sharing the focus of attention) to the book and says, “You are looking at the book” (noticing and encouraging).
- The baby is crawling across the room toward the toy box (opportunity to respond). The parent gets down on the floor and watches her crawl to retrieve a

toy (sharing the focus of attention) and says, “You made it to the toy box! You are such a great crawler” (noticing and encouraging).

Non-examples:

- The child is holding a stuffed dog and trying to name it by saying “da” (opportunity to respond) and the parent looks at the toy (sharing the focus of attention) says “nope” but does not say the word “dog” back to the child.
- The child is working on a craft project and holds up her finished project (opportunity to respond), and the parent looks at the project (sharing the focus of attention) but does not say anything.

Turn-taking is where the mother and child respond to each other in language and/or action in a reciprocal back and forth rhythm. During turn-taking, the mother mirrors or imitates her child’s behavior in a positive way. For children who are verbal this would include reciprocal conversation. Examples and non-examples of turn-taking behaviors are as follows.

Examples:

- Baby coos, parent coos back.
- Child throws a ball to parent, parent throws the ball back to child.

Non-examples:

- Toddler is trying to walk and stumbles. Parent walks beside child and then falls while laughing at child.
- Child giggles at a stuffed animal and the parent says, “It’s not funny.”

Beginnings and endings involve starting or stopping an activity or interaction by clearly signaling the change in focus with use of a verbal or physical cue. Parents

verbally or physically describe an upcoming transition prior to initiation of that transition.

Only parent-initiated beginnings and endings were coded for this response. Child-initiated beginnings and endings were captured as child behavior. Examples and non-examples of beginning and ending behaviors are as follows.

Examples:

- Parent finishes changing baby's diaper and says, "All done with the diaper change," before taking the child off the changing table.
- Parent follows the child to the bookshelf and says, "Let's read a book."

Non-examples:

- Parent picks baby up and places him on the changing table without saying anything.
- Parent begins to read a book out loud while the child is still playing with a set of blocks.

The last parent behaviors that were coded during direct observation data collection were negative parent behaviors. Negative parent behaviors were broken down into three categories that were trained and coded: Negative affective behavior (e.g., sighing or eye rolling at child or a child's behavior), negative physical behavior (e.g., not supporting a baby's head, pulling a child up by his/her arms, or rough handling), and inattention/neglect (e.g., ignoring a child's cues, turning your back to the child).

Examples and non-examples of negative parent behaviors are as follows.

Examples:

- The baby starts to cry and the parent turns away from the baby.

- The parent tells the child to stand by the door, and the child does not comply, so the parent pushes the child towards the door.

Non-examples:

- The child says, “mom,” and the parent says, “yeah?”
- The baby is playing on the floor and the parent is sitting next to her.

Observer training and interobserver agreement. Graduate students from the University of Oregon served as trained observers for this study. Prior to beginning data collection, observers were trained to an 85% interobserver agreement criterion on each target behavior. First, the observers participated in a training session that involved reviewing the measures, procedures, and computerized data collection system. During this session, observers became familiar with the operational definitions of each behavior that were coded, and began practicing coding sample videotapes as a group. The second and third training sessions involved reviewing the operational definitions, having specific questions answered, and coding more sample videotapes. The observers practiced coding for the specific behaviors, using the operational definitions that were reviewed during the first training session. Total agreement was at or greater than 85% for all target behaviors before the observers began coding baseline data for the present study. If interobserver agreement fell below 85% for three consecutive sessions, the data collectors would cease data collection and receive retraining until the 85% criterion was again met, however this never occurred.

Videos coded within the study were assessed for interobserver agreement on 40% of observations during baseline, intervention, and maintenance phases for each of the four mother-child dyads. During these sessions, a second observer independently coded the

same videotapes as described above. Total agreement, occurrence only agreement, and nonoccurrence only agreement were calculated for each coded behavior. Total agreement was calculated by dividing the number of intervals that both observers agreed a response did or did not occur by the total number of intervals observed, and multiplying that number by 100. Occurrence only agreement was calculated by dividing the total number of intervals both observers agreed a response occurred by the number of intervals either observer scored a response, and multiplying that number by 100. Nonoccurrence only agreement was calculated by dividing the total number of intervals both observers agreed a response did not occur by the total number of intervals either observer did not score a response, and multiplying that number by 100.

Table 1 displays total, occurrence only, and nonoccurrence only interobserver agreement across participants. For sharing the focus of attention, total agreement averaged 91% (range = 72% to 100%), occurrence only averaged 90% (range = 70% to 100%), and nonoccurrence only averaged 93% (range = 76% to 100%). For noticing and encouraging, total agreement averaged 83% (range = 53% to 96%), occurrence only averaged 83% (range = 59% to 97%), and nonoccurrence only averaged 85% (range = 58% to 97%). For turn-taking, total agreement averaged 85% (range = 62% to 97%), occurrence only averaged 83% (range = 68% to 95%), and nonoccurrence only averaged 85% (range = 65% to 97%). For beginnings and endings, total agreement averaged 94% (range = 85% to 100%), occurrence only averaged 91% (range = 80% to 100%), and nonoccurrence only averaged 93% (range = 80% to 100%). For negative affective behavior, total agreement averaged 100%, occurrence only averaged 100%, and nonoccurrence only averaged 100%. For negative physical behavior, total agreement

averaged 98% (range = 85% to 100%), occurrence only averaged 99% (range = 88% to 100%), and nonoccurrence only averaged 98% (range = 87% to 100%). For inattention/neglect, total agreement averaged 95% (range = 82% to 100%), occurrence only averaged 97% (range = 88% to 100%), and nonoccurrence only averaged 96% (range = 87% to 100%). Across all four mothers, the only coded behaviors with average coefficients that fell below the 85% criterion were noticing and encouraging and turn-taking. This may be a result of the similarities between these two behaviors and their operational definitions. However, agreement on these behaviors never dropped below 85% for three consecutive sessions, therefore retraining was never necessary.

Table 1

Average (range) Interobserver Agreement

Parent	Developmentally Supportive Parenting Behaviors	Total Agreement	Occurrence Only	Non-occurrence Only
Maria				
	Sharing the Focus of Attention	.89 (.72-1.00)	.88 (.70-1.00)	.90 (.76-1.00)
	Noticing & Encouraging	.81 (.53-.92)	.82 (.59-.93)	.85 (.58-.94)
	Turn-Taking	.84 (.62-.96)	.82 (.68-.95)	.83 (.65-.97)
	Beginnings & Endings	.93 (.85-1.00)	.91 (.88-1.00)	.92 (.87-1.00)
	Negative Affective Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Negative Physical Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Inattention/Neglect	.95 (.93-1.00)	.94 (.90-1.00)	.98 (.96-1.00)

Table 1 (continued)

Parent	Developmentally Supportive Parenting Behaviors	Total Agreement	Occurrence Only	Non-occurrence Only
Denise				
	Sharing the Focus of Attention	.91 (.74-.99)	.89 (.72-.98)	.93 (.78-.99)
	Noticing & Encouraging	.83 (.68-.91)	.84 (.62-.91)	.85 (.69-.92)
	Turn-Taking	.83 (.67-.97)	.82 (.69-.92)	.84 (.71-.94)
	Beginnings & Endings	.94 (.87-1.00)	.91 (.86-1.00)	.95 (.88-1.00)
	Negative Affective Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Negative Physical Behavior	.93 (.85-1.00)	.96 (.88-1.00)	.92 (.87-1.00)
	Inattention/Neglect	.91 (.82-1.00)	.97 (.90-1.00)	.93 (.88-1.00)
Lanita				
	Sharing the Focus of Attention	.92 (.80-1.00)	.91 (.82-1.00)	.94 (.85-.97)
	Noticing & Encouraging	.84 (.70-.96)	.86 (.72-.97)	.87 (.70-.97)
	Turn-Taking	.85 (.74-.95)	.84 (.71-.95)	.86 (.72-.93)
	Beginnings & Endings	.95 (.89-1.00)	.91 (.86-1.00)	.93 (.86-1.00)
	Negative Affective Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Negative Physical Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Inattention/Neglect	.93 (.85-1.00)	.96 (.88-1.00)	.92 (.87-1.00)

Table 1 (continued)

Parent	Developmentally Supportive Parenting Behaviors	Total Agreement	Occurrence Only	Non-occurrence Only
Sandra				
	Sharing the Focus of Attention	.92 (.79-.98)	.91 (.82-1.00)	.94 (.85-.97)
	Noticing & Encouraging	.84 (.65-.93)	.81 (.68-.93)	.83 (.69-.95)
	Turn-Taking	.88 (.77-.92)	.84 (.76-.95)	.85 (.76-.95)
	Beginnings & Endings	.92 (.85-1.00)	.91 (.80-1.00)	.93 (.80-1.00)
	Negative Affective Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Negative Physical Behavior	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)
	Inattention/Neglect	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)

Fidelity of implementation. Fidelity of MVP implementation was assessed using two checklist forms of fidelity. Both forms were completed by trained observers and turned in to the investigator at the end of every week. The first was a 6-item fidelity checklist, which was completed while the observer viewed each coaching meeting video (see Appendix A). In addition to serving as a form of fidelity data collection, this checklist also served as a reminder for what the coaching sessions should include. Items on the fidelity checklist assessed the extent to which the investigator (a) provided a summary of the coaching process to the mother, (b) made eye contact with the mother and used a friendly tone of voice during each discussion of the video clips, (c) provided positive praise to the mother for every developmentally supportive parenting behavior,

(d) identified for the mother how every developmentally supportive parenting behavior is supportive of her child's development and why, (e) solicited the mother's input, questions, and opinions, and reflectively listened while she shared, and (f) provided the mother with a reminder of the developmentally supportive parenting behaviors to work on during her visitation meeting with her child. To calculate the percentage of implementation fidelity for coaching sessions, the number of points earned for each key component of the coaching session was summed and divided by the total number of points possible, and that number was multiplied by 100.

The second method of fidelity data collection focused on how the visitation videos were edited. A trained observer completed an additional 6-item fidelity checklist while viewing each edited video (see Appendix B). In addition to serving as a type of fidelity data collection, this checklist also served as a reminder for what the edited videos should include. Items on the fidelity checklist assessed the extent to which the edited video (a) began with a still frame that demonstrated a positive interaction between the mother and her child, (b) included the demonstration of a developmentally supportive parenting behavior in clip 1, (c) included the demonstration of a developmentally supportive parenting behavior in clip 2, (d) included the demonstration of a developmentally supportive parenting behavior in clip 3, (e) ended with a still frame that demonstrated a positive interaction between the mother and her child, and (f) was no longer than 3 minutes in length. To calculate the percentage of implementation fidelity for edited videos, the number of points earned for each key feature of the edited video was summed and divided by the total number of points possible, and that number was multiplied by 100.

Contextual fit. Contextual fit was assessed before the first week of implementation of the MVP intervention phase and again at the end of the study. Participating mothers completed a 4-item contextual fit questionnaire that assessed mothers' understanding of the intervention, their perception of whether the MVP program would help them reach their parenting goals, and whether the program was stressful for them (see Appendix C). Scores on the questionnaire were recorded on a Likert scale from 1 to 6, with higher scores indicating a more favorable impression of the contextual fit on the participating mothers.

It should be noted that this study originally proposed to use a modified version of the 16-item Self Assessment of Contextual Fit in Schools instrument (Horner, Salentine, & Albin, 2003) to measure contextual fit of the MVP intervention. However, prior to beginning the study, team members at the Oregon Social Learning Center modified the tool based on the perceived needs of the participating mothers. The questions and language were altered to meet the perceived reading levels of the participating mothers as well as the DHS setting, and the tool was reduced to 4-items. Therefore, the tool used in this study may not be an accurate measure of contextual fit.

Social validity. Social validity of the MVP intervention was assessed at the conclusion of the intervention. A 13-item social validity questionnaire was administered to each participating mother (see Appendix D). Items on the questionnaire assessed the extent to which the intervention was perceived to improve parenting skills, improve the mother-child bond, was worth the time and effort, was worth recommending to others, and was easy to participate in. Scores on the questionnaire were recorded on a Likert

scale from 1 to 6, with higher scores indicating a more favorable perception of the MVP intervention.

Design and Procedures

Experimental design. The investigator used a within-subjects multiple baseline design across responses to examine effectiveness of the MVP intervention on increasing developmentally supportive parenting behaviors and decreasing negative parent behaviors. The design involved the following three phases: baseline, MVP implementation, and 1-week post-intervention maintenance. In total, the mothers participated in this study for approximately 12 weeks. Direct observations were conducted during one visitation per week for each mother-child dyad. Coaching sessions with the participating mothers took place 30 to 40 minutes prior to the mothers' visitation time with their children.

Baseline. In the baseline phase, the four mother-child dyads were observed during unstructured supervised visitation time at the DHS. All observations were video recorded for later scoring. No teaching procedures to modify any of the four developmentally supportive parenting behaviors were in effect. A minimum of five observations were conducted for each mother-child dyad during the baseline phase. Occurrences of the four developmentally supportive parenting behaviors, negative parent behaviors, and child behaviors were recorded. The investigator began each baseline session by saying to the mother:

I will be spending some time at each visit with you and your child over the next several weeks. I will be taking anywhere from 1 to 3 short videos of you and your child interacting during your visit, and we will be meeting later to talk about some

of the things that I saw during those visits. Please feel free to interact and play in any way you want to, this is your time with your child so please act as you normally would. I will sit quietly on the other side of the room, please treat me like I am not even here. I will not be talking to you while I am recording, and please do not talk to me while I am recording. You will hear one beep every time I turn the camera on and two beeps every time I turn the camera off. Please feel free to ask me any questions when the camera is turned off. Do you have any questions at this time? Whenever you are ready, I will begin recording.

MVP implementation. When a stable baseline was achieved in sharing the focus of attention (i.e., a minimum of five collected data points, and a stable or decreasing trend in the developmentally supportive parenting behavior and a stable or increasing trend in negative parent behaviors were evident), MVP was implemented for each mother-child dyad. Following initial implementation with sharing the focus of attention, training for each subsequent developmentally supportive parenting behavior (i.e., noticing and encouraging, turn-taking, and beginnings and endings) was initiated every two weeks, as per MVP guidelines. Implementation of MVP involved the following components: editing videos, program description for parents, coaching with edited videos, and four training periods.

Editing videos. Videos were edited using a computerized video editing system. Edited videos were no longer than three minutes in length, and consisted of two still pictures and three video clips of the mother and child engaging in the developmentally supportive parenting behavior being trained that session. Each video was given a title, linked to the developmentally supportive parenting behaviors being discussed that week,

in order to provide a focus for the video. Before the first coaching meeting with the mother, the investigator edited the last three videos collected during the baseline phase into a brief video (no longer than 3 minutes) that reflected moments of the mother and her child sharing the focus of attention.

Still pictures. One still picture was placed at the beginning of the edited video, and the second still picture was placed at the end of the edited video. Each still picture demonstrated a positive interaction between the mother and her child. Examples of still pictures included:

- Mother and child smiling at one another
- Mother and child reading a book together
- Mother and child kissing
- Mother and child making eye contact with positive affect

Video clips. Three short video clips were selected, ranging from 4-s to 45-s in length. The selected video clips showed the parent responding to the child in a positive manner, and demonstrating the developmentally supportive parenting behavior being discussed that week. The clips focused on mother-child interactions as the focus of MVP is on enhancing positive skill development.

Program description for parents. During the first intervention coaching meeting, the investigator began by explaining the purpose of the MVP program and what the mother should expect during her next few visits. Namely, each week, the mother and the investigator would meet before the mother's visitation time with her child. They would watch a video that the investigator edited from the videos taken from the previous week. While watching the edited video, the investigator would stop between 5 and 15 times to

discuss responses that were aligned with the target behavior for that week. At the end of the coaching session, the investigator would ask the mother if any behaviors stood out to her from the video that she would like to do more of during her visitation time. The mother would then be encouraged to go into her visitation meeting with those behaviors in mind, and the investigator would be there to take more videos.

Coaching with edited videos. Coaching meetings with participating mothers took place at the DHS facility, approximately 30 to 40 minutes prior to their visitation with their child. Since the mothers were unable to practice the developmentally supportive parenting behaviors with their child outside of the context of their visitation meetings, coaching sessions were strategically designed to occur before the beginning of their visitation meeting so that the mothers would have the opportunity to learn about those behaviors, receive positive feedback on those behaviors, and then practice those behaviors during visitation with their child. Coaching sessions lasted for approximately 30-45 minutes, and adhered to the guidelines listed on the fidelity of implementation checklist (Appendix A). During coaching sessions, the investigator was expected to (a) provide a summary of the coaching process to the mother, (b) make eye contact with the mother and use a friendly tone of voice during each discussion of the video clips, (c) provide positive praise to the mother for every developmentally supportive parenting behavior, (d) identify for the mother how every developmentally supportive parenting behavior was supportive of her child's development and why, (e) solicit the mother's input, questions, and opinions, and reflectively listen while she shared, and (f) provide the mother with a reminder of the developmentally supportive parenting behavior to work on during her visitation meeting with her child (see Appendix A).

Additionally, the investigator spent 5-10 minutes discussing each still frame and video clip and solicited input from the mothers. The investigator began with the still picture and explained to the mother why the still picture was chosen. The investigator then asked for the mother's reaction and feelings about the picture. The investigator then introduced the first clip, played it through one time, and then went back through it and stopped at points in which a developmentally supportive parenting behavior occurred. The investigator did that with the subsequent two clips, and ended by showing the final still frame and discussed why it was chosen, in a similar manner to the discussion of the first still frame. As stated previously, the investigator asked the mother if any behaviors stood out to her from the video that she would like to do more of during her visitation time. The mother was then encouraged to go into her visitation meeting with those behaviors in mind, and the investigator was there to take more videos.

Training period I. During this condition, which lasted for a minimum of two visitation days, video coaching and praise were used to increase the mothers' level of sharing the focus of attention with her child. No intervention was in effect to modify the mothers' levels of noticing and encouraging, turn-taking, or beginnings and endings.

At the beginning of each coaching session, the investigator introduced the film to the mother and explained how the process of coaching would go. The investigator said:

Today we are going to watch an edited film of the different moments I recorded between you and your child last week. The film will begin with a still shot of you and your child. Then there will be a series of three short clips. I will tell you what I want you to focus on before each of the clips we watch. We will watch each clip one time through and then we will look at it frame by frame. The film

will end with one more still shot of you and your child. Before we begin do you have any questions?

After finishing the film review, the investigator discussed with the mother the developmental frame around sharing the focus of attention and reviewed why the sharing the focus of attention behaviors demonstrated in the clips were good for her child's development. The investigator gave the mother an information sheet that reviewed the core element of sharing the focus of attention (see Appendix E). Before leaving the coaching meeting for her visitation session with her child, the mother was encouraged by the investigator to watch for moments during visitation where she could share her child's focus of attention.

Training period II. During this condition, which lasted for a minimum of two visitation days, video coaching and praise were used to increase the mothers' levels of sharing the focus of attention, and noticing and encouraging with her child. No intervention was in effect to modify the mothers' levels of turn-taking, or beginnings and endings.

After finishing the film review, the investigator discussed with the mother the developmental frame around noticing and encouraging and reviewed why the noticing and encouraging behaviors demonstrated in the clips were good for her child's development. The investigator gave the mother an information sheet that reviewed the core element of noticing and encouraging (see Appendix F). Before leaving the coaching meeting for her visitation session with her child, the mother was encouraged by the investigator to watch for moments during visitation where she could share the focus of attention and notice and encourage her child's initiatives.

Training period III. During this condition, which lasted for a minimum of two visitation days, video coaching and praise were used to increase the mothers' levels of sharing the focus of attention, noticing and encouraging, and turn-taking with her child. No intervention was in effect to modify the mothers' levels of beginnings and endings.

After finishing the film review, the investigator discussed with the mother the developmental frame around turn-taking and reviewed why the turn-taking behaviors demonstrated in the clips were good for her child's development. The investigator gave the mother an information sheet that reviewed the core element of turn-taking (see Appendix G). Before leaving the coaching meeting for her visitation session with her child, the mother was encouraged by the investigator to watch for moments during visitation where she could share the focus of her child's attention, notice and encourage her child's initiatives, and turn-take during those moments.

Training period IV. During this condition, which lasted for a minimum of two visitation days, video coaching and praise were used to increase the mothers' levels of sharing the focus of attention, noticing and encouraging, turn-taking, and beginnings and endings with her child.

After finishing the film review, the investigator discussed with the mother the developmental frame around beginnings and endings and reviewed why the beginning and ending behaviors demonstrated in the clips were good for her child's development. The investigator gave the mother an information sheet that reviewed the core element of beginnings and endings (see Appendix H). Before leaving the coaching meeting for her visitation session with her child, the mother was encouraged by the investigator to watch for moments during visitation where she could share the focus of attention, notice and

encourage her child's initiatives, turn-take, and make clear beginnings and endings to tasks and moments with her child.

Maintenance. Maintenance sessions were conducted approximately 1 week following the conclusion of the intervention. During maintenance sessions, no coaching was given to the mothers prior to their visitation time. The investigator videotaped three 10-minute interactions at two different visitation meetings.

Data Analysis

Data were analyzed to assess (a) the extent to which the MVP intervention was functionally related to changes in developmentally supportive parenting behaviors, (b) the extent to which the MVP intervention was functionally related to a changes in negative parent behaviors, and (c) the probability that mothers demonstrated a developmentally supportive parenting behavior following a child behavior.

Direct observation data related to parent and child behaviors were analyzed using visual analysis, which was done by examining each phase and assessing the level, trend, variability, and immediacy of effect across baseline and intervention phases (Horner, Carr, Halle, McGee, Odom, & Wolery, 2005). In a within-subjects multiple baseline design, functional control is documented when the introduction of an independent variable results in a systematic change in level and trend only for the dependent variable with which the independent variable is applied. The independent variable is introduced in a systematic manner across each dependent variable (in this case developmentally supportive parenting behaviors) and functional control is demonstrated if changes in the dependent variable are observed only after introduction of the independent variable. Participant behavior was considered responsive to intervention if observable and

sustained increases in developmentally supportive parenting behaviors and decreases in negative parent behaviors were recorded during the intervention phases (Horner et al., 2005).

The demonstration of developmentally supportive parenting behaviors was the primary dependent variable upon which demonstration of functional control was determined. Conditional probabilities were defined as the probability of a developmentally supportive parenting behavior given the occurrence of a child behavior. Conditional probabilities were calculated by dividing the number of intervals that a developmentally supportive parenting behavior occurred in the same or subsequent 5-s interval of a child behavior by the total number of intervals with that child behavior. Descriptive statistics (i.e., percentage of overall mean rates and ranges of rates of parent behaviors, child behaviors, and conditional probabilities of developmentally supportive parenting behaviors following child behaviors) were used to analyze data. The stability criterion of comparing the last three baseline sessions to the last three intervention sessions was selected, as this criterion allows for a steady state of comparison that provides a more accurate representation of intervention effects (Johnston & Pennypacker, 1993; Sidman, 1960). Graphs depict the percentage of observational intervals with developmentally supportive parenting behaviors, negative parent behaviors, child behaviors, and developmentally supportive parenting behaviors following child behaviors.

Fidelity data were measure and analyzed descriptively to ensure the MVP intervention was implemented as planned. Contextual fit data were analyzed descriptively using pre- and post-comparisons to assess the appropriateness of

implementing the MVP intervention during supervised visitation time. Lastly, social validity data were analyzed descriptively to gain a better understanding of mothers' perceptions of the MVP intervention.

CHAPTER III

RESULTS

For each of the four mother-child dyads, the effects of the Microsocial Video Parenting intervention are reported on (a) developmentally supportive parenting behaviors, (b) negative parent behaviors, (c) child behaviors, (d) conditional probability that mothers demonstrated developmentally supportive parenting behaviors following child behaviors, (e) fidelity of implementation, (f) contextual fit, and (g) social validity.

Developmentally Supportive Parenting Behaviors

All four participating mothers received training on four developmentally supportive parenting behaviors in the following order: (1) sharing the focus of attention, (2) noticing and encouraging, (3) turn-taking, and (4) beginnings and endings. Results for the percentage of 5-s intervals scored with developmentally supportive parenting behaviors are provided below for each mother-child dyad.

Maria and Makela. The percentages of 5-s intervals scored with developmentally supportive parenting behaviors as demonstrated by Maria are presented in Figure 2. Sharing the focus of attention is in the top panel, noticing and encouraging is in the second panel, turn-taking is in the third panel, and beginnings and endings is in the bottom panel.

Sharing the focus of attention. In baseline, intervals scored with sharing the focus of attention averaged 34% (range = 12% to 60%), although there was a great deal of variability. Following training, sharing the focus of attention became less variable although initially no substantive increase was noted. During the intervention phase, sharing the focus of attention occurred in an average of 66% of intervals (range = 23% to

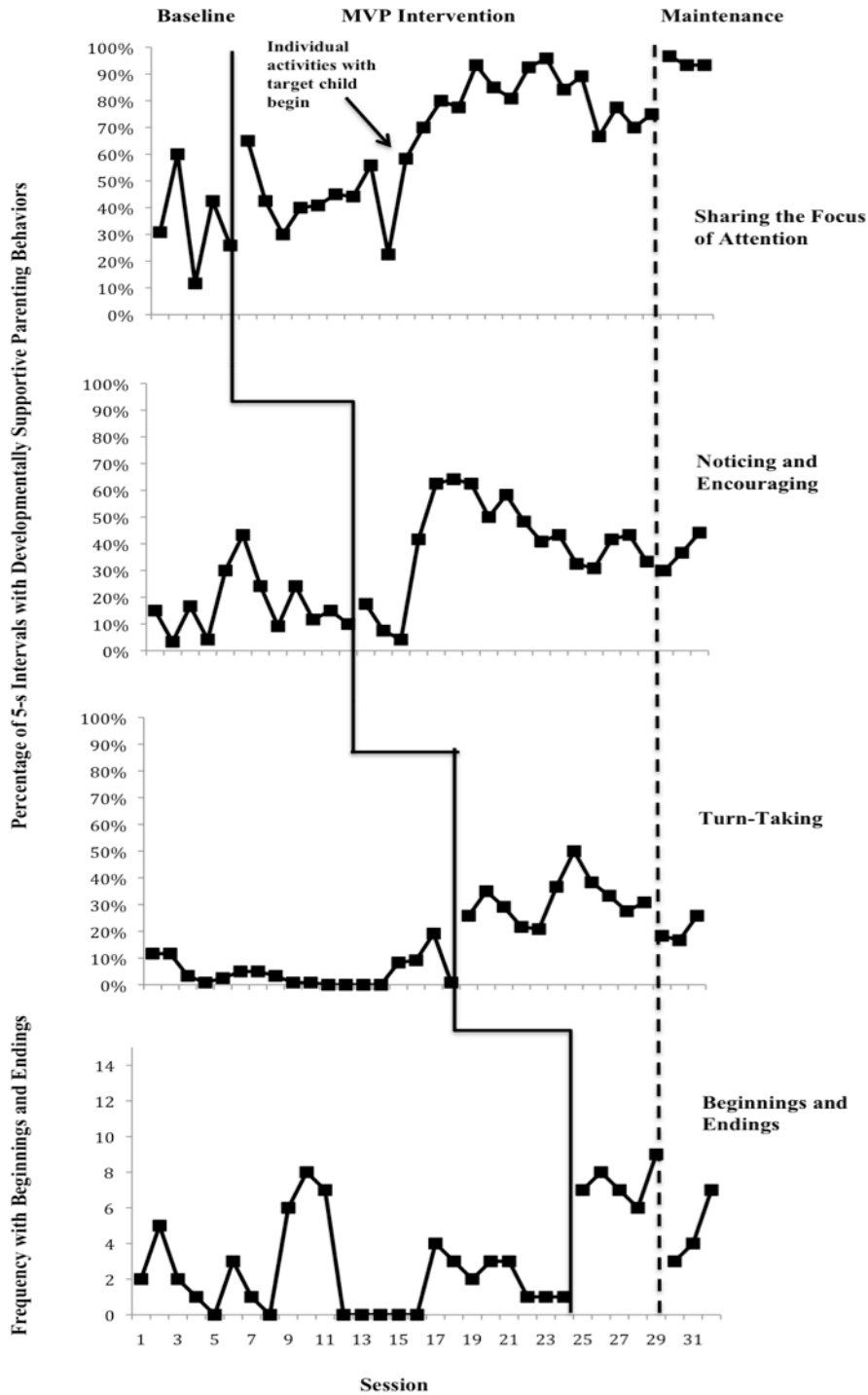


Figure 2. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking (top three panels) and frequency with beginnings and endings (bottom panel) for Maria.

96%). A 48% increase in sharing the focus of attention was noted between the last three sessions of baseline and the last three sessions of intervention. During the baseline phase and the beginning of the intervention phase, Maria was interacting with all three of her children during the videotaped observation time. The arrow indicates when Maria was asked to interact with just Makela during the 10-min observation time, while Makela's father interacted with the two other children. This resulted in an immediate increase in the percentage of intervals with sharing the focus of attention, which remained elevated and stable throughout the intervention. This increase remained constant in maintenance, occurring in an average of 94% of intervals (range = 93% to 97%). This represented an increase of 60% from the baseline mean to maintenance mean.

Noticing and encouraging. In baseline, intervals scored with noticing and encouraging averaged 17% (range = 3% to 43%), and these data documented a low level with high variability and a decreasing trend. Following training on noticing and encouraging, Maria increased her percentage of intervals with noticing and encouraging, with this behavior occurring in an average of 40% of intervals (range = 4% to 64%) during intervention. A 27% increase in noticing and encouraging was noted between the last three sessions of baseline and the last three sessions of intervention. An immediate increase in the percentage of intervals scored with noticing and encouraging is evident when Maria began to interact only with Makela. The percentage of intervals with noticing and encouraging began to slowly decline as the intervention progressed and instruction was being provided on the last two developmentally supportive parenting behaviors. However, the percentage of intervals with noticing and encouraging remained above baseline for the duration of the intervention phase. This increase also remained

constant in maintenance, occurring in an average of 37% of intervals (range = 30% to 44%). This represented an increase of 20% from the baseline mean to maintenance mean.

Turn-taking. In baseline, intervals scored with turn-taking averaged 5% (range = 0% to 19%), and these data documented a low level with little variability and a stable trend. Following training on turn-taking, Maria increased her percentage of intervals with turn-taking, with this behavior occurring in an average of 32% of intervals (range = 21% to 50%) during intervention. A 21% increase in turn-taking was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with turn-taking was variable but remained above baseline for the duration of the intervention phase. This increase also remained constant in maintenance, occurring in an average of 20% of intervals (range = 17% to 26%). This represented an increase of 15% from the baseline mean to maintenance mean.

Beginnings and endings. Frequency data were collected on the occurrence of beginnings and endings, as this behavior occurred at a much lower rate than the three previous developmentally supportive parenting behaviors. In baseline, the occurrence of beginnings and endings averaged 2 occurrences per 10-min observation (range = 0 to 8), and these data documented a low level with relatively high variability and a decreasing trend. Following training on beginnings and endings, Maria increased her frequency of beginnings and endings, with this behavior occurring an average of 7 times per 10-min observation (range = 6 to 9) during intervention. An increase of 6 occurrences in beginnings and endings was noted between the last three sessions of baseline and the last three sessions of intervention. Despite overlap occurring with baseline sessions 9

through 11, the frequency of beginnings and endings remained stable and above baseline for the duration of the intervention phase. The frequency of beginnings and endings was variable but with an increasing trend in maintenance, with an average of 5 occurrences per observation (range = 3 to 7). This represented an increase of 3 occurrences from the baseline mean to maintenance mean.

Denise and Donny. The percentages of 5-s intervals scored with developmentally supportive parenting behaviors as demonstrated by Denise are presented in Figure 3. Sharing the focus of attention is in the top panel, noticing and encouraging is in the second panel, turn-taking is in the third panel, and beginnings and endings is in the bottom panel.

Sharing the focus of attention. In baseline, intervals scored with sharing the focus of attention averaged 65% (range = 29% to 88%), and these data documented a medium to high level with high variability and a decreasing trend. Following training on sharing the focus of attention, Denise increased her percentage of intervals with sharing the focus of attention, with this behavior occurring in an average of 90% of intervals (range = 62% to 100%) during intervention. A 36% increase in sharing the focus of attention was noted between the last three sessions of baseline and the last three sessions of intervention. This increase remained high and stable through the intervention phase and constant in maintenance, occurring in an average of 88% of intervals (range = 82% to 98%). This represented an increase of 23% from the baseline mean to maintenance mean.

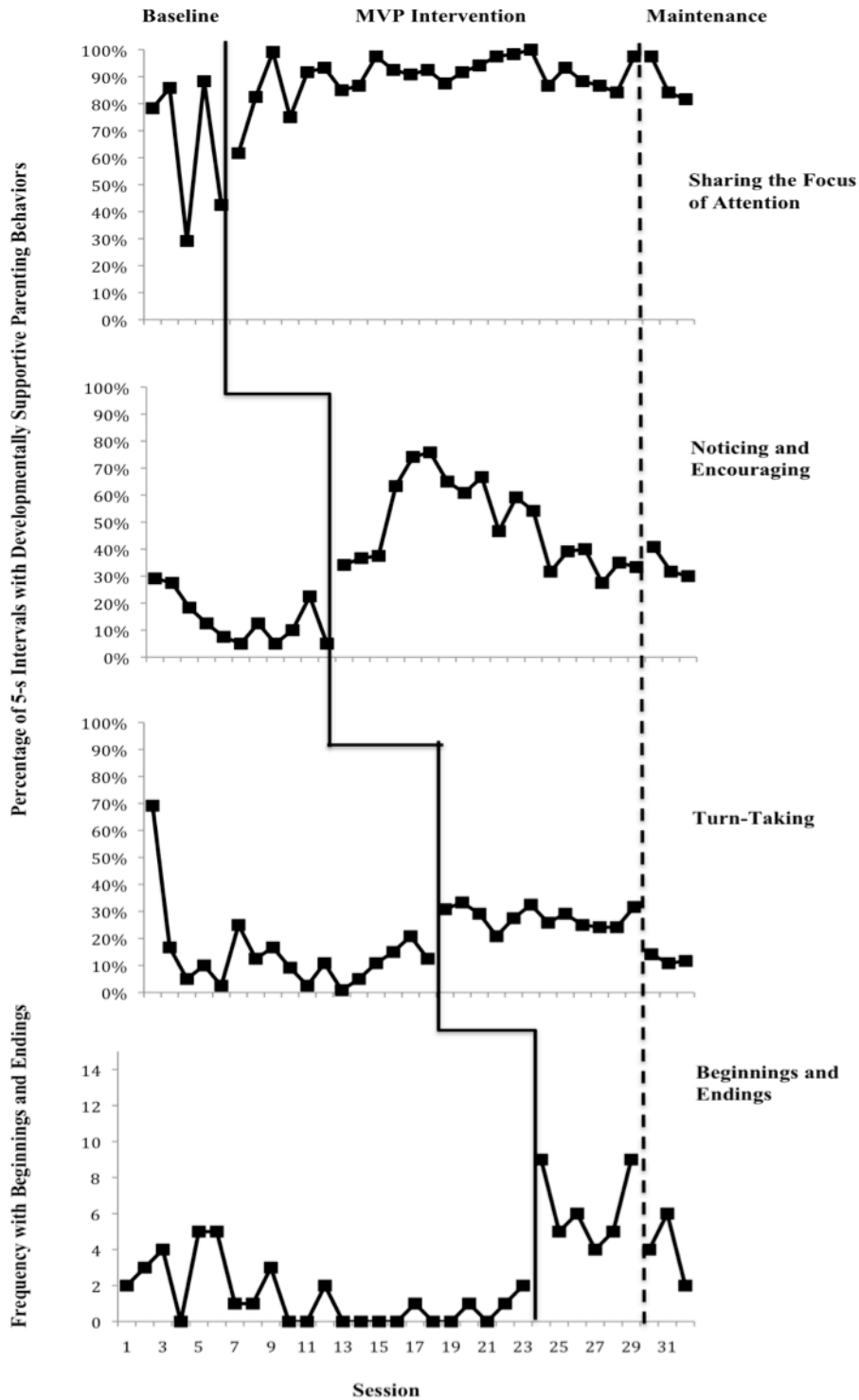


Figure 3. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking (top three panels) and frequency with beginnings and endings (bottom panel) for Denise.

Noticing and encouraging. In baseline, intervals scored with noticing and encouraging averaged 14% (range = 5% to 29%), and these data documented a low level with little variability and a decreasing trend. Following training on noticing and encouraging, Denise increased her percentage of intervals with noticing and encouraging, with this behavior occurring in an average of 49% of intervals (range = 28% to 76%) during intervention. A 19% increase in noticing and encouraging was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with noticing and encouraging began to slowly decline as instruction was being provided on the last two developmentally supportive parenting behaviors. However, the percentage of intervals with noticing and encouraging remained above baseline for the duration of the intervention phase. This increase also remained constant in maintenance, occurring in an average of 34% of intervals (range = 30% to 41%). This represented an increase of 20% from the baseline mean to maintenance mean.

Turn-taking. In baseline, intervals scored with turn-taking averaged 14% (range = 1% to 69%), and these data documented a low level with some variability and a fairly stable trend. Following training on turn-taking, Denise increased her percentage of intervals with turn-taking, with this behavior occurring in an average of 28% of intervals (range = 21% to 33%) during intervention. An 11% increase in turn-taking was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with turn-taking remained stable and generally above baseline during the intervention phase. However, turn-taking decreased during maintenance, occurring in an average of 12% of intervals (range = 11% to 14%). This represented a decrease of 2% from the baseline mean to maintenance mean.

Beginnings and endings. In baseline, the occurrence of beginnings and endings averaged 1 occurrence per 10-min observation (range = 0 to 5), and these data documented a low level with some variability and an increasing trend before intervention. Following training on beginnings and endings, Denise increased her frequency of beginnings and endings, with this behavior occurring an average of 6 times per 10-min observation (range = 4 to 9) during intervention. An increase of 5 occurrences in beginnings and endings was noted between the last three sessions of baseline and the last three sessions of intervention. The frequency of beginnings and endings remained above baseline for the duration of the intervention phase. The frequency of beginnings and endings decreased from intervention into maintenance, with an average of 4 occurrences per observation (range = 2 to 6); however, this represented an increase of 3 occurrences from the baseline mean to maintenance mean.

Lanita and Leo. The percentages of 5-s intervals scored with developmentally supportive parenting behaviors as demonstrated by Lanita are presented in Figure 4. Sharing the focus of attention is in the top panel, noticing and encouraging is in the second panel, turn-taking is in the third panel, and beginnings and endings is in the bottom panel.

Sharing the focus of attention. In baseline, intervals scored with sharing the focus of attention averaged 71% (range = 59% to 79%), and these data documented a high level with slight variability and a decreasing trend. Following training on sharing the focus of attention, Lanita increased her percentage of intervals with sharing the focus of attention, with this behavior occurring in an average of 87% of intervals (range = 68% to 97%) during intervention. A 10% increase in sharing the focus of attention was noted

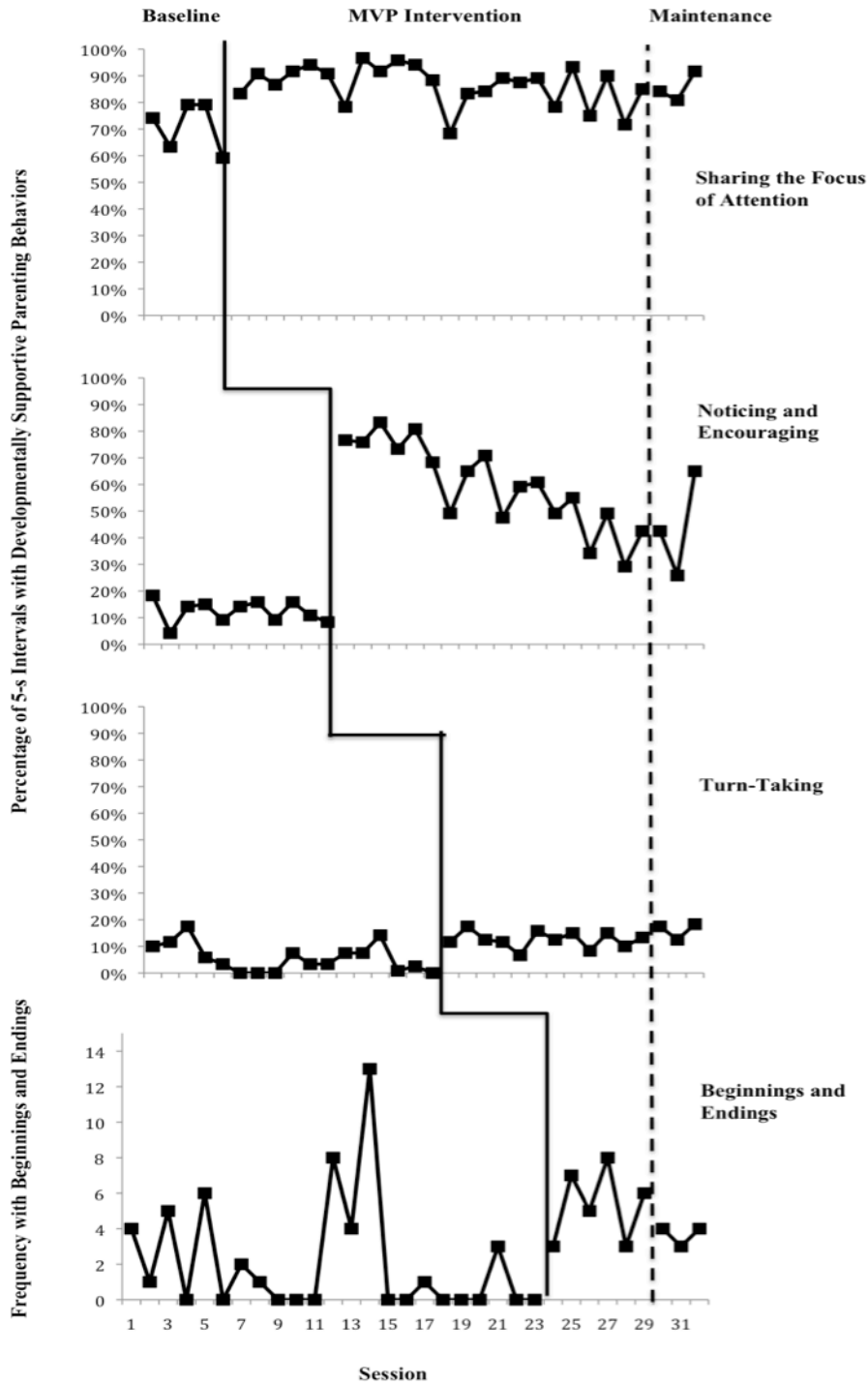


Figure 4. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking (top three panels) and frequency with beginnings and endings (bottom panel) for Lanita.

between the last three sessions of baseline and the last three sessions of intervention. This increase remained high and stable throughout the intervention phase and maintenance, occurring in an average of 86% of intervals (range = 81% to 92%) during maintenance. This represented an increase of 15% from the baseline mean to maintenance mean.

Noticing and encouraging. In baseline, intervals scored with noticing and encouraging averaged 12% (range = 4% to 18%), and these data documented a low level with little variability and a stable trend. Following training on noticing and encouraging, Lanita increased her percentage of intervals with noticing and encouraging, with this behavior occurring in an average of 59% of intervals (range = 29% to 83%) during intervention. A 29% increase in noticing and encouraging was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with noticing and encouraging began to slowly decline as the intervention progressed and instruction was being provided on the last two developmentally supportive parenting behaviors. However, the percentage of intervals with noticing and encouraging remained above baseline for the duration of the intervention phase. This increase also remained constant in maintenance, occurring in an average of 44% of intervals (range = 26% to 65%). This represented an increase of 32% from the baseline mean to maintenance mean.

Turn-taking. In baseline, intervals scored with turn-taking averaged 6% (range = 0% to 18%), and these data documented a low level with little variability and a stable trend. Following training on turn-taking, Lanita increased her percentage of intervals with turn-taking, with this behavior occurring in an average of 13% of intervals (range =

7% to 18%) during intervention. A 12% increase in turn-taking was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with turn-taking remained low, but on average, above baseline for the duration of the intervention phase. This increase also remained constant in maintenance, occurring in an average of 16% of intervals (range = 13% to 18%). This represented an increase of 10% from the baseline mean to maintenance mean.

Beginnings and endings. In baseline, the occurrence of beginnings and endings averaged 2 occurrences per 10-min observation (range = 0 to 13), and these data documented a low to medium level, with high variability and a stable trend. Following training on beginnings and endings, Lanita increased her frequency of beginnings and endings, with this behavior occurring an average of 5 times per 10-min observation (range = 3 to 8) during intervention. An increase of 5 occurrences in beginnings and endings was noted between the last three sessions of baseline and the last three sessions of intervention. The frequency of beginnings and endings continued to be variable but remained above the lowest baseline points for the duration of the intervention phase. The frequency of beginnings and endings was stable during maintenance, with an average of 4 occurrences per observation (range = 3 to 4). This represented an increase of 2 occurrences from the baseline mean to maintenance mean.

Sandra and Sylvia. The percentages of 5-s intervals scored with developmentally supportive parenting behaviors as demonstrated by Sandra are presented in Figure 5. Sharing the focus of attention is in the top panel, noticing and encouraging is in the second panel, turn-taking is in the third panel, and beginnings and endings is in the bottom panel.

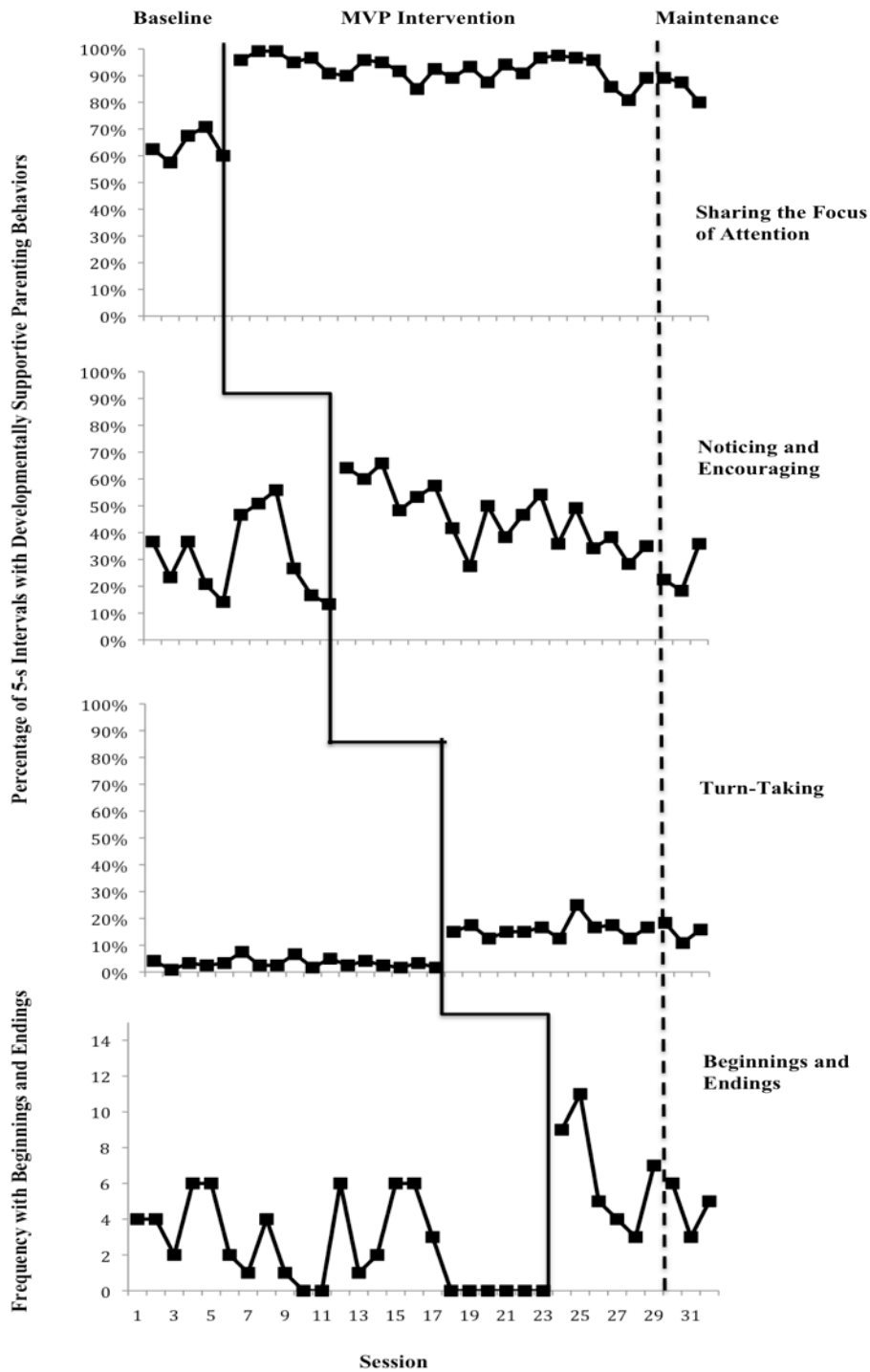


Figure 5. Percentage of 5-s intervals with sharing the focus of attention, noticing and encouraging, and turn-taking (top three panels) and frequency with beginnings and endings (bottom panel) for Sandra.

Sharing the focus of attention. In baseline, intervals scored with sharing the focus of attention averaged 64% (range = 58% to 71%), and these data documented a high level with little variability and a slightly decreasing trend. Following training on sharing the focus of attention, Sandra increased her percentage of intervals with sharing the focus of attention, with this behavior occurring in an average of 93% of intervals (range = 81% to 99%) during intervention. A 19% increase in sharing the focus of attention was noted between the last three sessions of baseline and the last three sessions of intervention. This increase remained high and stable throughout the intervention phase and maintenance, occurring in an average of 86% of intervals (range = 80% to 89%) during maintenance. This represented an increase of 22% from the baseline mean to maintenance mean.

Noticing and encouraging. In baseline, intervals scored with noticing and encouraging averaged 31% (range = 13% to 56%), and these data documented a low to medium level, with high variability and a decreasing trend. Following training on noticing and encouraging, Sandra increased her percentage of intervals with noticing and encouraging, with this behavior occurring in an average of 46% of intervals (range = 28% to 66%) during intervention. A 15% increase in noticing and encouraging was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with noticing and encouraging began to slowly decline as instruction was being provided on the last two developmentally supportive parenting behaviors. This decrease continued into maintenance, and the percentage of intervals with noticing and encouraging fell below the baseline mean, occurring in an average of

26% of intervals (range = 18% to 36%). This represented a decrease of 5% from the baseline mean to maintenance mean.

Turn-taking. In baseline, intervals scored with turn-taking averaged 3% (range = 1% to 8%), and these data documented a low level with little variability and a stable trend. Following training on turn-taking, Sandra increased her percentage of intervals with turn-taking, with this behavior occurring in an average of 16% of intervals (range = 13% to 25%) during intervention. A 13% increase in turn-taking was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with turn-taking remained stable and above baseline for the duration of the intervention phase. This increase also remained constant in maintenance, occurring in an average of 15% of intervals (range = 11% to 18%). This represented an increase of 12% from the baseline mean to maintenance mean.

Beginnings and endings. In baseline, the occurrence of beginnings and endings averaged 2 occurrences per 10-min observation (range = 0 to 6), and these data documented a low level with high variability and a decreasing trend. Following training on beginnings and endings, Sandra increased her frequency of beginnings and endings, with this behavior occurring an average of 7 times per 10-min observation (range = 3 to 11) during intervention. An increase of 5 occurrences in beginnings and endings was noted between the last three sessions of baseline and the last three sessions of intervention. The frequency of beginnings and endings continued to be variable yet above the baseline mean for the duration of the intervention phase. The frequency of beginnings and endings was variable but with an increasing trend in maintenance, with an

average of 5 occurrences per observation (range = 3 to 6). This represented an increase of 3 occurrences from the baseline mean to maintenance mean.

Negative Parent Behaviors

Direct observational data were collected on the following three negative parent behaviors: negative affective behavior, negative physical behavior, and inattention/neglect. Results for the percentage of 5-s intervals scored with negative parent behaviors are provided below for each mother-child dyad.

Maria and Makela. The percentages of 5-s intervals scored with negative parent behaviors as demonstrated by Maria are presented in Figure 6. Negative affective behavior is in the top panel, negative physical behavior is in the middle panel, and inattention/neglect is in the bottom panel.

In baseline, intervals scored with negative affective behavior averaged 0% (range = 0% to 0%) and negative physical behavior averaged 0% (range = 0% to 0%). These low levels of behavior remained constant throughout the intervention phase and maintenance, with an average of 0% of intervals (range = 0% to 0%) for both behaviors.

In baseline, intervals scored with inattention/neglect averaged 25% (range = 0% to 61%), and these data documented a low level but with an increasing trend. Following implementation of the MVP intervention, Maria decreased her percentage of intervals with inattention/neglect, with this behavior occurring in an average of 2% of intervals (range = 0% to 16%) during intervention. A 37% decrease in inattention/neglect was noted between the last three sessions of baseline and the last three sessions of intervention. This decrease also remained constant in maintenance, occurring in an

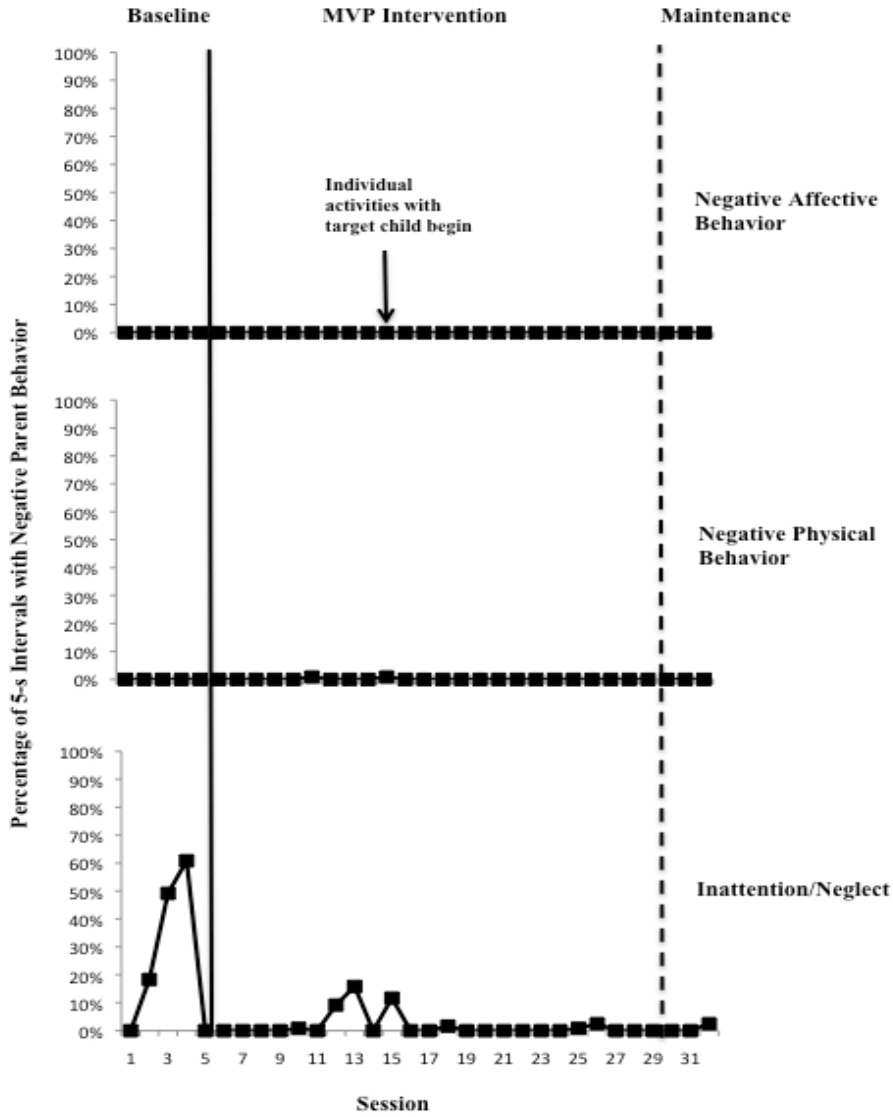


Figure 6. Percentage of 5-s intervals with negative parent behaviors for Maria.

average of 1% of intervals (range = 0% to 3%). This represented a decrease of 24% from the baseline mean to maintenance mean.

Denise and Donny. The percentages of 5-s intervals scored with negative parent behaviors as demonstrated by Denise are presented in Figure 7. Negative affective behavior is in the top panel, negative physical behavior is in the middle panel, and inattention/neglect is in the bottom panel.

In baseline, intervals scored with negative affective behavior averaged 0% (range = 0% to 0%), and this low level of behavior remained constant throughout the intervention phase and maintenance, both with an average of 0% of intervals (range = 0% to 0%) in which negative affective behaviors occurred.

In baseline, intervals scored with negative physical behavior averaged 5% (range = 0% to 17%), and these data documented a low level with little variability and a decreasing trend. Following implementation of the MVP intervention, Denise decreased her percentage of intervals with negative physical behavior, with this behavior occurring in an average of 1% of intervals (range = 0% to 8%) during intervention. An 8% decrease in negative physical behavior was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with negative physical behavior remained, on average, below baseline for the duration of the intervention phase. The decrease in negative physical behavior also remained constant in maintenance, occurring in an average of 0% of intervals (range = 0% to 0%), which represented a decrease of 5% from the baseline mean to maintenance mean.

In baseline, intervals scored with inattention/neglect averaged 11% (range = 0% to 20%), and these data documented a low level but with some variability and an

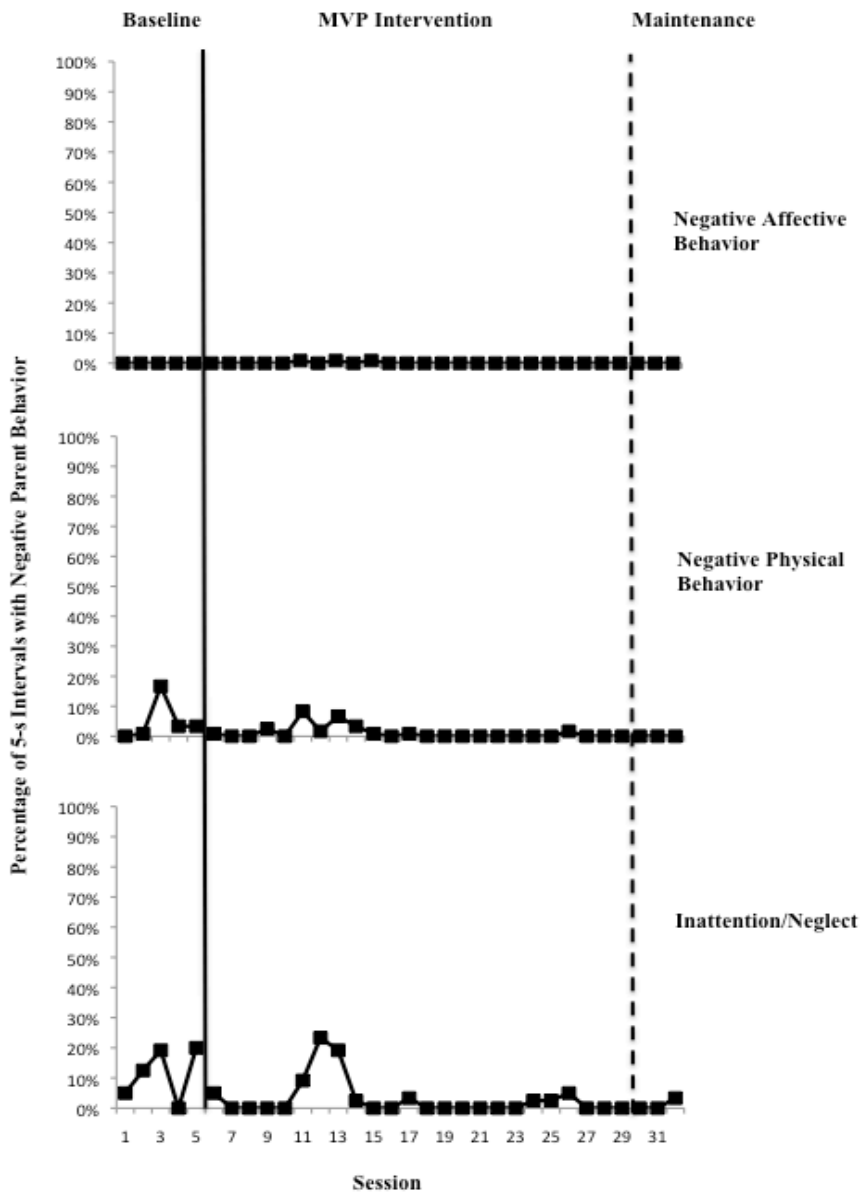


Figure 7. Percentage of 5-s intervals with negative parent behaviors for Denise.

increasing trend. Following implementation of the MVP intervention, Denise decreased her percentage of intervals with inattention/neglect, with this behavior occurring in an average of 3% of intervals (range = 0% to 23%) during intervention. A 13% decrease in inattention/neglect was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with inattention/neglect remained low but had some variability throughout the intervention phase. The decrease in inattention/neglect remained constant in maintenance, occurring in an average of 1% of intervals (range = 0% to 3%). This represented a decrease of 10% from the baseline mean to maintenance mean.

Lanita and Leo. The percentages of 5-s intervals scored with negative parent behaviors as demonstrated by Lanita are presented in Figure 8. Negative affective behavior is in the top panel, negative physical behavior is in the middle panel, and inattention/neglect is in the bottom panel.

In baseline, intervals scored with negative affective behavior averaged 0% (range = 0% to 0%), and this low level of behavior remained constant throughout the intervention phase and maintenance, with an average of 0% of intervals (range = 0% to 0%) for each.

In baseline, intervals scored with negative physical behavior averaged 1% (range = 0% to 1%), and this low level of behavior remained constant throughout the intervention phase and maintenance, with an average of 0% of intervals (range = 0% to 0%) for each. A 1% decrease in negative physical behaviors was noted between the last three sessions of baseline and the last three sessions of intervention.

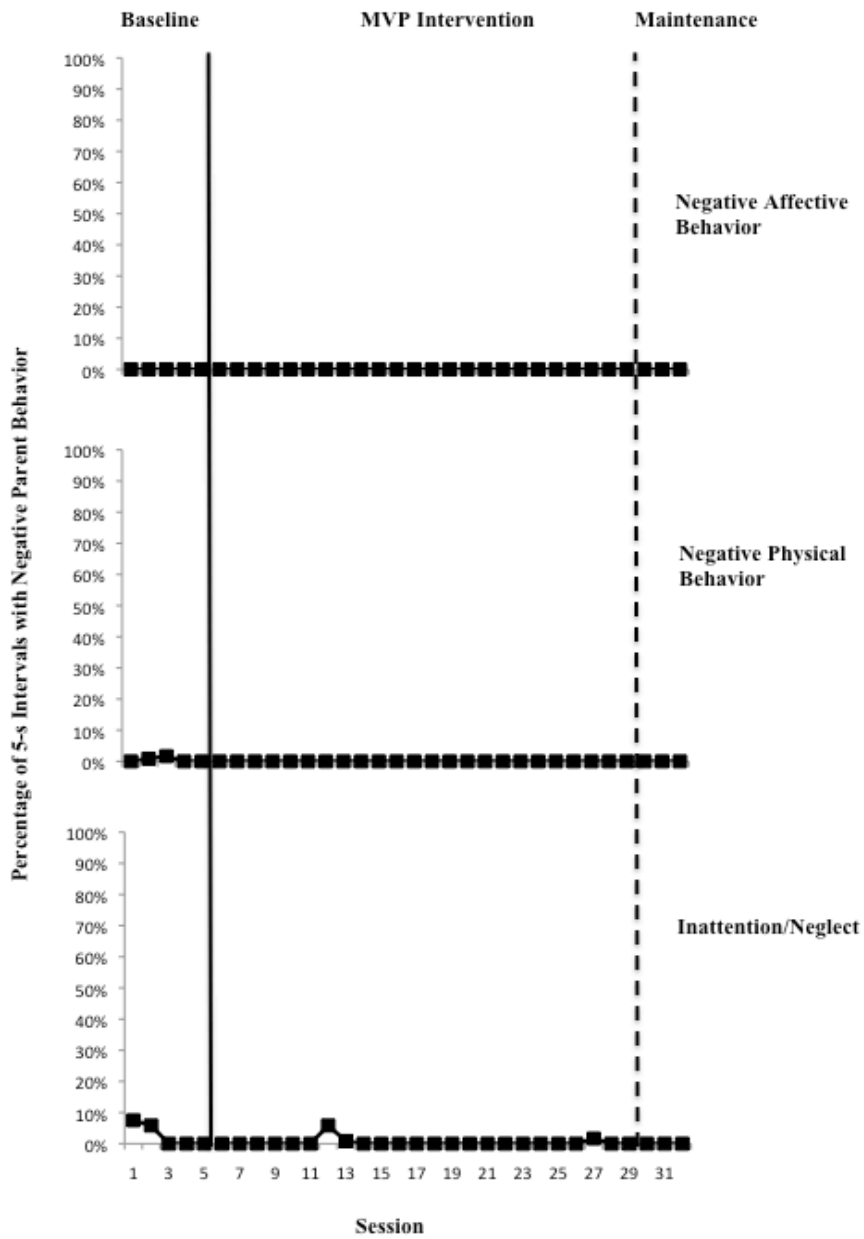


Figure 8. Percentage of 5-s intervals with negative parent behaviors for Lanita.

In baseline, intervals scored with inattention/neglect averaged 3% (range = 0% to 8%), and these data documented a low level with little variability and a stable trend. Following implementation of the MVP intervention, Lanita decreased her percentage of intervals with inattention/neglect, with this behavior occurring in an average of 0% of intervals (range = 0% to 6%) during intervention; however, a 1% increase in inattention/neglect was noted between the last three sessions of baseline and the last three sessions of intervention. The percentage of intervals with inattention/neglect remained low for the duration of the intervention phase. This decrease also remained constant in maintenance, occurring in an average of 0% of intervals (range = 0% to 0%). This represented a decrease of 3% from the baseline mean to maintenance mean.

Sandra and Sylvia. The percentages of 5-s intervals scored with negative parent behaviors as demonstrated by Sandra are presented in Figure 9. Negative affective behavior is in the top panel, negative physical behavior is in the middle panel, and inattention/neglect is in the bottom panel.

In baseline, intervals scored with negative affective behavior averaged 1% (range = 0% to 3%), and this low level of behavior remained stable throughout the intervention phase with an average of 0% intervals (range = 0% to 2%) in which negative affective behaviors occurred. A 1% decrease in negative affective behaviors was noted between the last three sessions of baseline and the last three sessions of intervention. Negative affective behaviors also remained low through maintenance with an average of 0% of intervals (range = 0% to 0%) in which these behaviors occurred.

In baseline, intervals scored with negative physical behavior averaged 0% (range = 0% to 0%), and this low level of behavior remained stable throughout the intervention

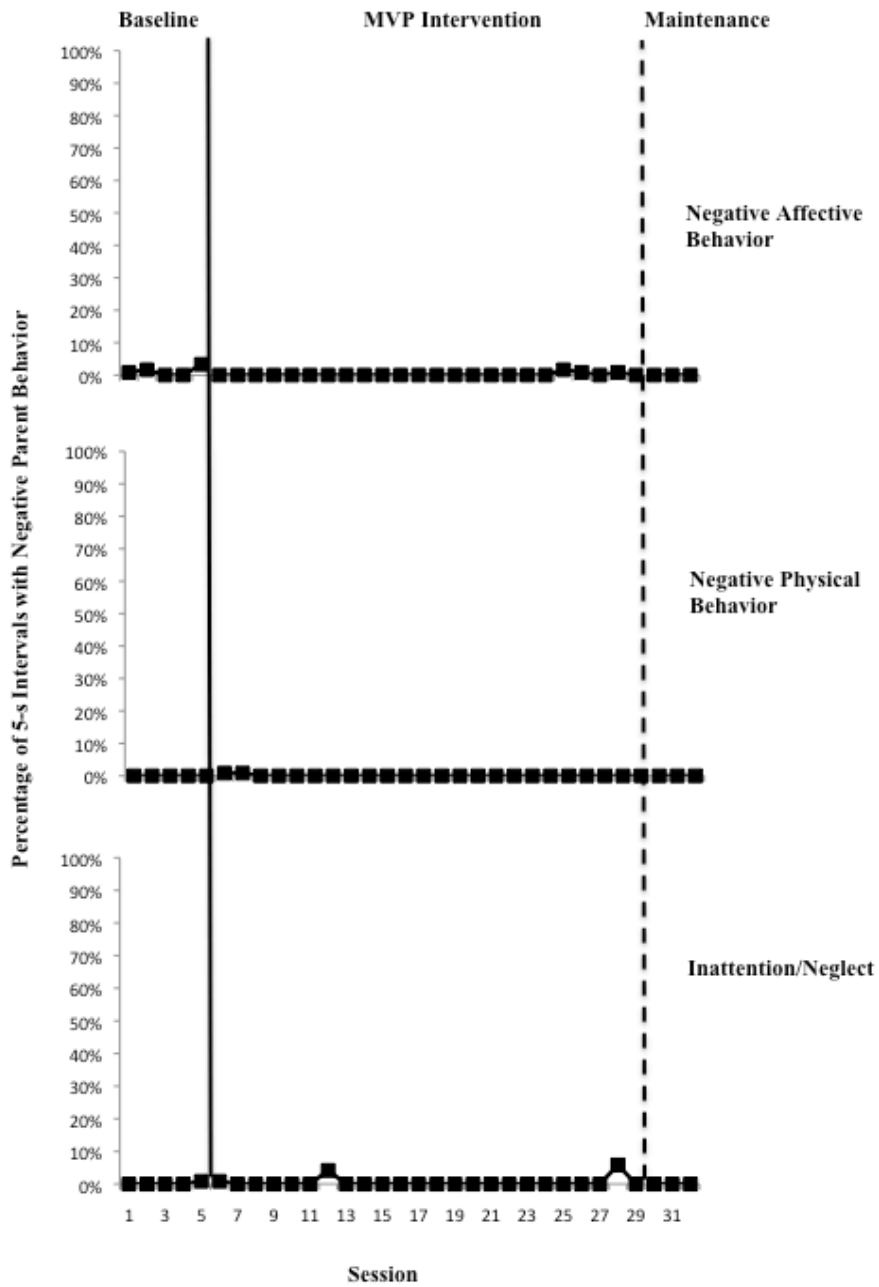


Figure 9. Percentage of 5-s intervals with negative behaviors for Sandra.

phase with an average of 0% of intervals (range = 0% to 1%) in which negative physical behaviors occurred. Negative physical behaviors also remained low through maintenance with an average of 0% of intervals (range = 0% to 0%) in which these behaviors occurred.

In baseline, intervals scored with inattention/neglect averaged 0% (range = 0% to 1%), and these data documented a low level with little variability and a stable trend. This low level of behavior remained stable throughout the intervention phase with an average of 0% of intervals (range = 0% to 6%) in which inattention/neglect occurred. A 2% decrease in inattention/neglect was noted between the last three sessions of baseline and the last three sessions of intervention. Inattention/neglect also remained low through maintenance with an average of 0% of intervals (range = 0% to 0%) in which these behaviors occurred.

Child Behaviors

Direct observational data were collected on the following four child behaviors: vocalization, negative vocalization, motoric response, and negative motoric response. Results for the percentage of 5-s intervals scored with child behaviors are provided below for each mother-child dyad.

Maria and Makela. The percentages of 5-s intervals scored with Makela's child behaviors are presented in Figure 10. Vocalization is in the top panel, negative vocalization is in the second panel, motoric response is in the third panel, and negative motoric response is in the bottom panel.

In baseline, intervals scored with vocalization averaged 27% (range = 12% to 38%) with a low level, high variability, and a stable trend. Following implementation of

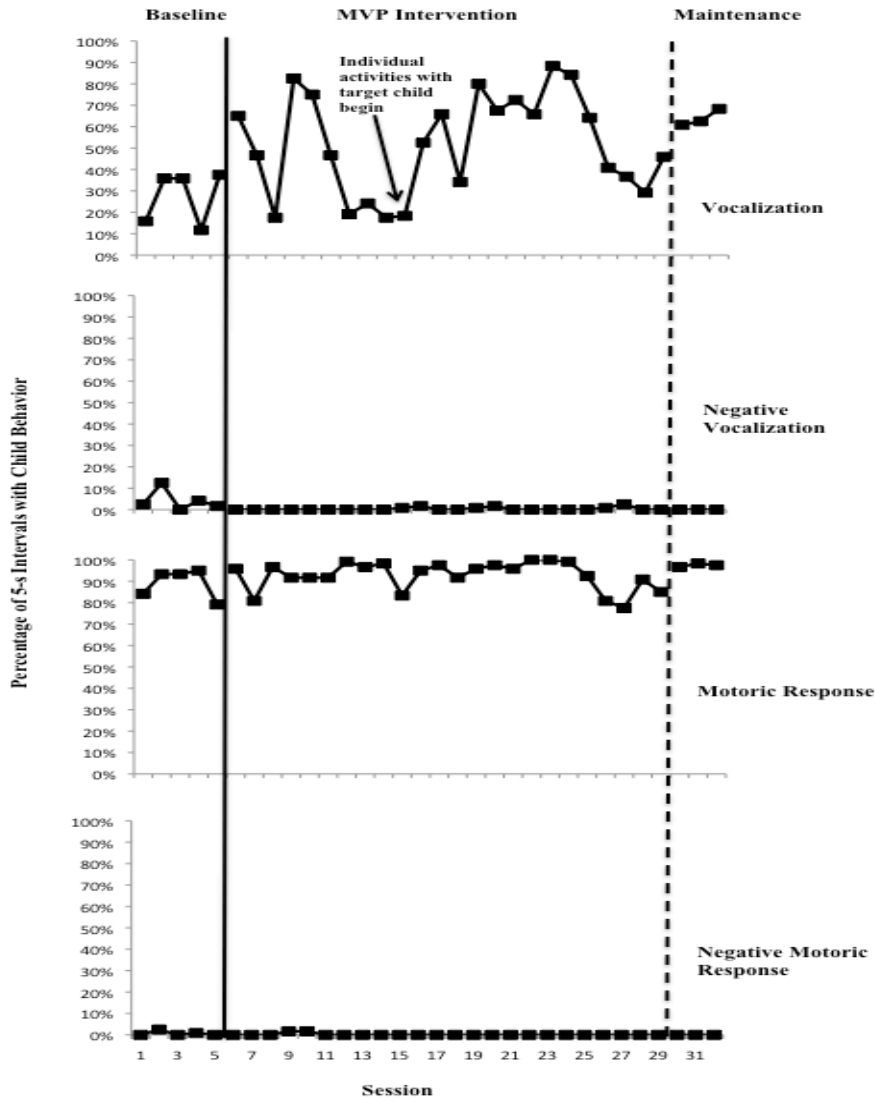


Figure 10. Percentage of 5-s intervals with child behaviors for Makela.

the MVP intervention, Makela's vocalizations increased with the percentage of intervals averaging 52% (range = 18% to 88%) during intervention. A 9% increase in vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data were highly variable throughout intervention, but remained high into maintenance with an average of 64% (range = 61% to 68%). This represented an increase of 37% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative vocalization averaged 4% (range = 0% to 12%), and this low level of behavior remained constant throughout the intervention phase and maintenance, both with an average of 0% of intervals (range = 0% to 0%) in which negative vocalizations occurred.

In baseline, intervals scored with motoric response averaged 89% (range = 79% to 95%) with a high level, low variability, and a stable trend. Following implementation of the MVP intervention, Makela's motoric responses remained high with the percentage of intervals averaging 93% (range = 78% to 100%) during intervention; however, a 5% decrease in motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention and into maintenance with an average of 98% (range = 97% to 98%). This represented an increase of 9% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative motoric response averaged 1% (range = 0% to 3%), and this low level of behavior remained constant throughout the intervention phase and maintenance, both with an average of 0% of intervals (range = 0% to 0%) in which negative motoric responses occurred.

Denise and Donny. The percentages of 5-s intervals scored with Donny's child behaviors are presented in Figure 11. Vocalization is in the top panel, negative vocalization is in the second panel, motoric response is in the third panel, and negative motoric response is in the bottom panel.

In baseline, intervals scored with vocalization averaged 8% (range = 1% to 20%) with a low level, high variability, and an increasing trend. Following implementation of the MVP intervention, Donny's vocalizations increased with the percentage of intervals averaging 15% (range = 1% to 41%) during intervention. An 11% increase in vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data were highly variable and low throughout intervention, and decreased during maintenance with an average of 9% (range = 8% to 11%). This represented an increase of 1% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative vocalization averaged 1% (range = 0% to 3%), and this low level of behavior remained constant throughout the intervention phase with an average of 1% of intervals (range = 0% to 10%) in which negative vocalizations occurred. Negative vocalizations also remained low through maintenance with an average of 1% of intervals (range = 0% to 2%) in which negative vocalizations occurred.

In baseline, intervals scored with motoric response averaged 76% (range = 47% to 96%) with a high level, high variability, and a decreasing trend. Following implementation of the MVP intervention, Donny's motoric responses increased with the percentage of intervals averaging 96% (range = 85% to 100%) during intervention. A 29% increase in motoric responses was noted between the last three sessions of baseline

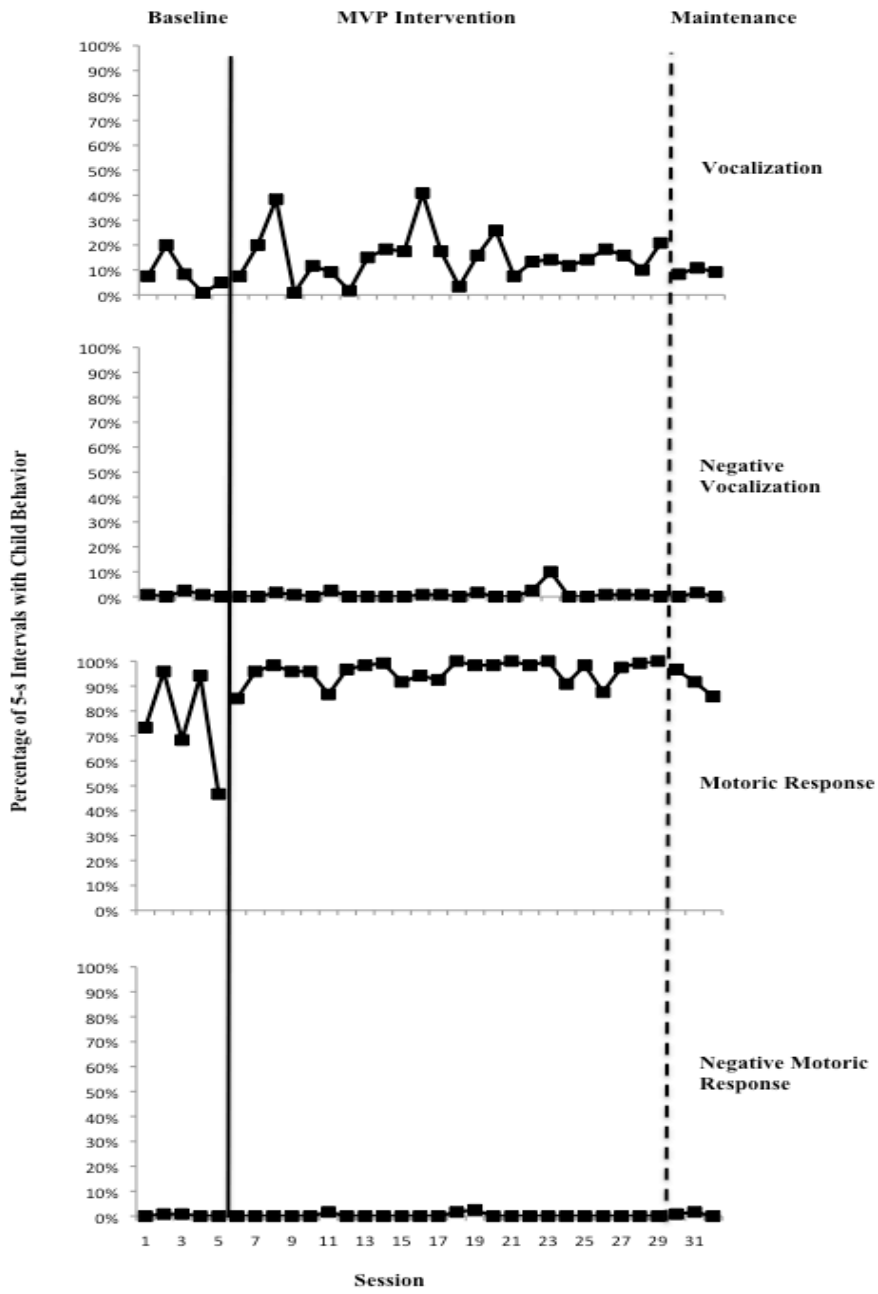


Figure 11. Percentage of 5-s intervals with child behaviors for Donny.

and the last three sessions of intervention. These data remained high and stable throughout intervention and into maintenance, with an average 91% (range = 86% to 97%) during maintenance. This represented an increase of 15% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative motoric response averaged 0% (range = 0% to 1%), and this low level of behavior remained stable throughout the intervention phase with an average of 0% of intervals (range = 0% to 0%) in which negative motoric responses occurred. Negative motoric responses also remained low through maintenance with an average of 1% of intervals (range = 0% to 2%) in which these behaviors occurred.

Lanita and Leo. The percentages of 5-s intervals scored with Leo's child behaviors are presented in Figure 12. Vocalization is in the top panel, negative vocalization is in the second panel, motoric response is in the third panel, and negative motoric response is in the bottom panel.

In baseline, intervals scored with vocalization averaged 23% (range = 6% to 48%) with a low level, slight variability, and an increasing trend. Following implementation of the MVP intervention, Leo's vocalizations increased with the percentage of intervals averaging 27% (range = 11% to 49%) during intervention. A 12% increase in vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data were variable throughout intervention, but remained at a constant level into maintenance with an average of 26% (range = 13% to 41%) during maintenance. This represented an increase of 3% from the baseline mean to maintenance mean.

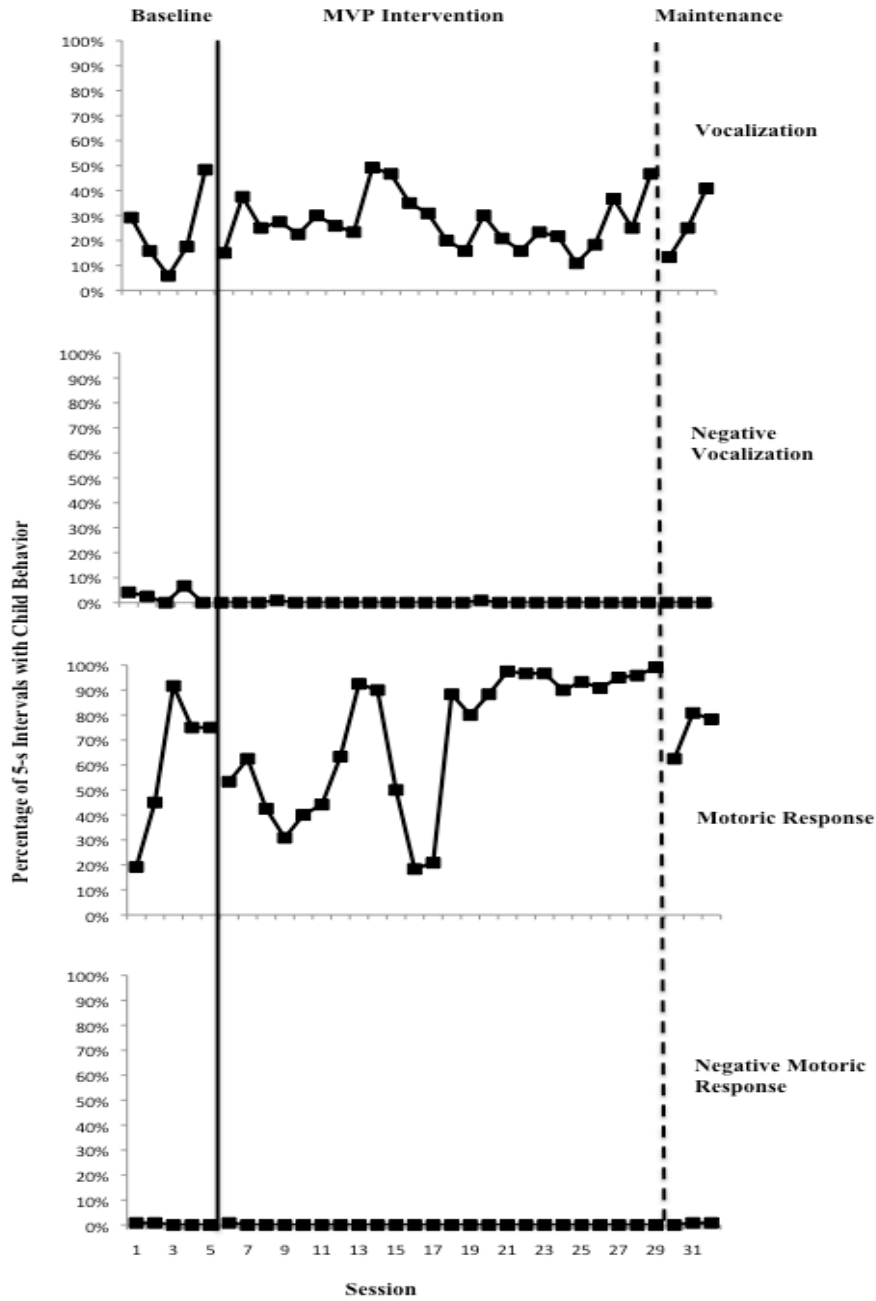


Figure 12. Percentage of 5-s intervals with child behaviors for Leo.

In baseline, intervals scored with negative vocalization averaged 3% (range = 0% to 6%), and this low level of behavior remained constant throughout the intervention phase with an average of 0% of intervals (range = 0% to 1%) in which negative vocalizations occurred. Negative vocalizations also remained low through maintenance with an average of 0% of intervals (range = 0% to 0%) in which these behaviors occurred.

In baseline, intervals scored with motoric response averaged 61% (range = 19% to 91%) with a medium to high level, high variability, and an increasing trend. Following implementation of the MVP intervention, Leo's motoric responses remained high with the percentage of intervals averaging 71% (range = 18% to 99%) during intervention. A 16% increase in motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high but variable throughout intervention and into maintenance, with an average of 74% (range = 63% to 81%) during maintenance. This represented an increase of 13% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative motoric response averaged 0% (range = 0% to 1%), and this low level of behavior remained stable throughout the intervention phase with an average of 0% of intervals (range = 0% to 1%) in which negative motoric responses occurred. Negative motoric responses also remained low through maintenance with an average of 1% of intervals (range = 0% to 1%) in which these behaviors occurred.

Sandra and Sylvia. The percentages of 5-s intervals scored with Sylvia's child behaviors are presented in Figure 13. Vocalization is in the top panel, negative

vocalization is in the second panel, motoric response is in the third panel, and negative motoric response is in the bottom panel.

In baseline, intervals scored with vocalization averaged 4% (range = 0% to 8%) with a low level, little variability, and an increasing trend. Following implementation of the MVP intervention, Sylvia's vocalizations increased with the percentage of intervals averaging 25% (range = 8% to 54%) during intervention. An 18% increase in vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data were highly variable throughout intervention, but remained above baseline into maintenance with an average of 14% (range = 12% to 18%). This represented an increase of 10% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative vocalization averaged 1% (range = 0% to 4%), and this low level of behavior remained stable throughout the intervention phase with an average of 0% intervals (range = 0% to 2%) in which negative vocalizations occurred. Negative vocalizations also remained low through maintenance with an average of 0% of intervals (range = 0% to 0%) in which these behaviors occurred.

In baseline, intervals scored with motoric response averaged 27% (range = 10% to 76%) with a low level, some variability, and an increasing trend. Following implementation of the MVP intervention, Sylvia's motoric responses increased with the percentage of intervals averaging 93% (range = 80% to 100%) during intervention. A 52% increase in motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained relatively stable and high throughout intervention and into maintenance with an average of 96% (range = 91% to

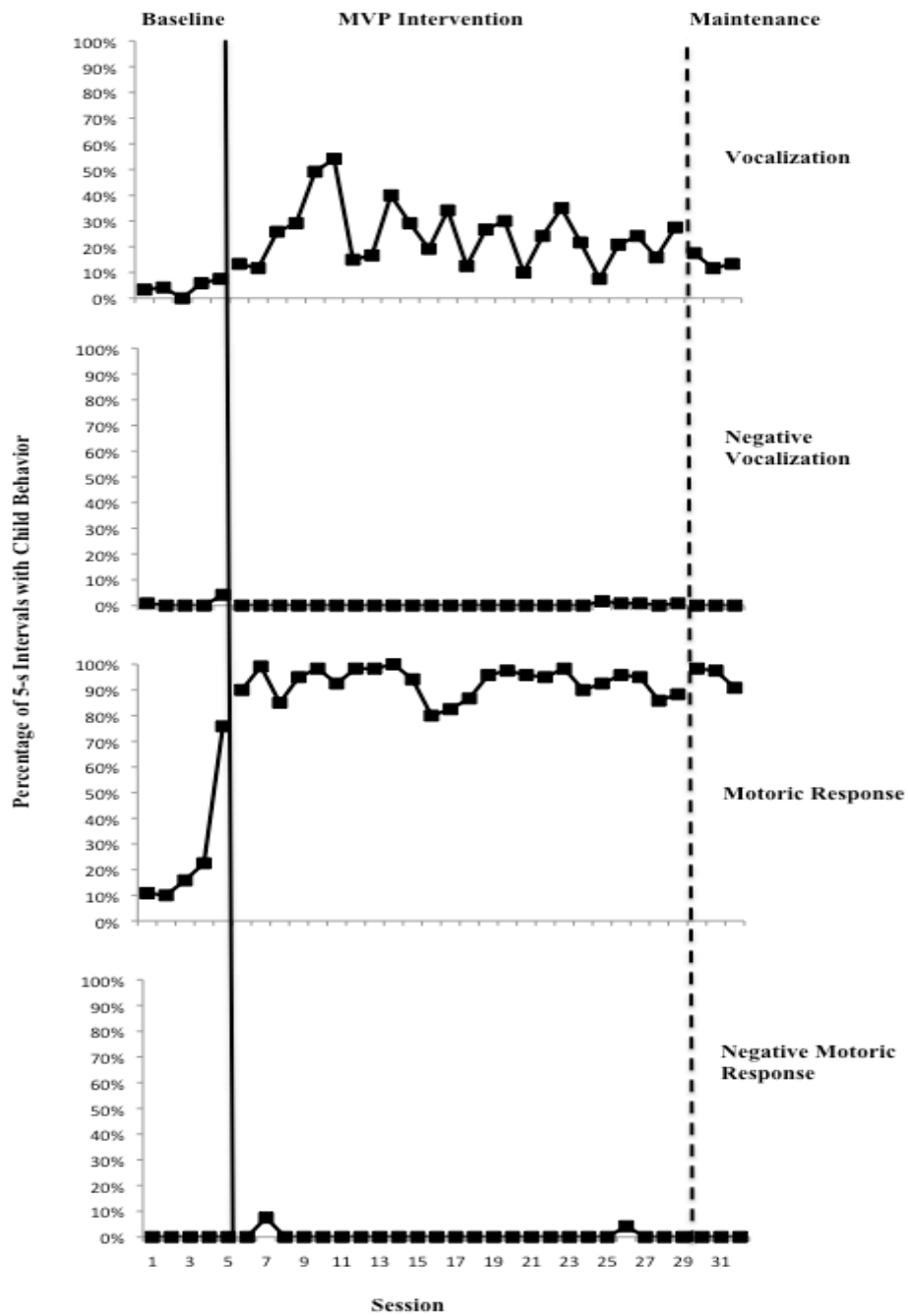


Figure 13. Percentage of 5-s intervals with child behaviors for Sylvia.

98%) during maintenance. This represented an increase of 69% from the baseline mean to maintenance mean.

In baseline, intervals scored with negative motoric response averaged 0% (range = 0% to 0%), and this low level of behavior remained stable throughout the intervention phase with an average of 0% intervals (range = 0% to 8%) in which negative motoric responses occurred. Negative motoric responses also remained low through maintenance with an average of 0% of intervals (range = 0% to 0%) in which these behaviors occurred.

Conditional Probabilities

Conditional probabilities were calculated to determine the probability of a developmentally supportive parenting behavior occurring in the same or subsequent 5-s interval as a child behavior. Conditional probabilities of negative parent behaviors and negative child behaviors were not calculated due to the low occurrences of these behaviors across baseline, intervention, and maintenance for all mother-child dyads. Results for developmentally supportive parenting behaviors following child vocalizations and motoric responses are provided below.

Maria and Makela. The percentage of Maria's developmentally supportive parenting behaviors following Makela's vocalizations are presented in Figure 14, and the percentage of Maria's developmentally supportive parenting behaviors following Makela's motoric responses are presented in Figure 15.

Vocalizations. Conditional probabilities, shown in Figure 14, were calculated to determine the percentage of intervals in which Makela's vocalizations were followed by

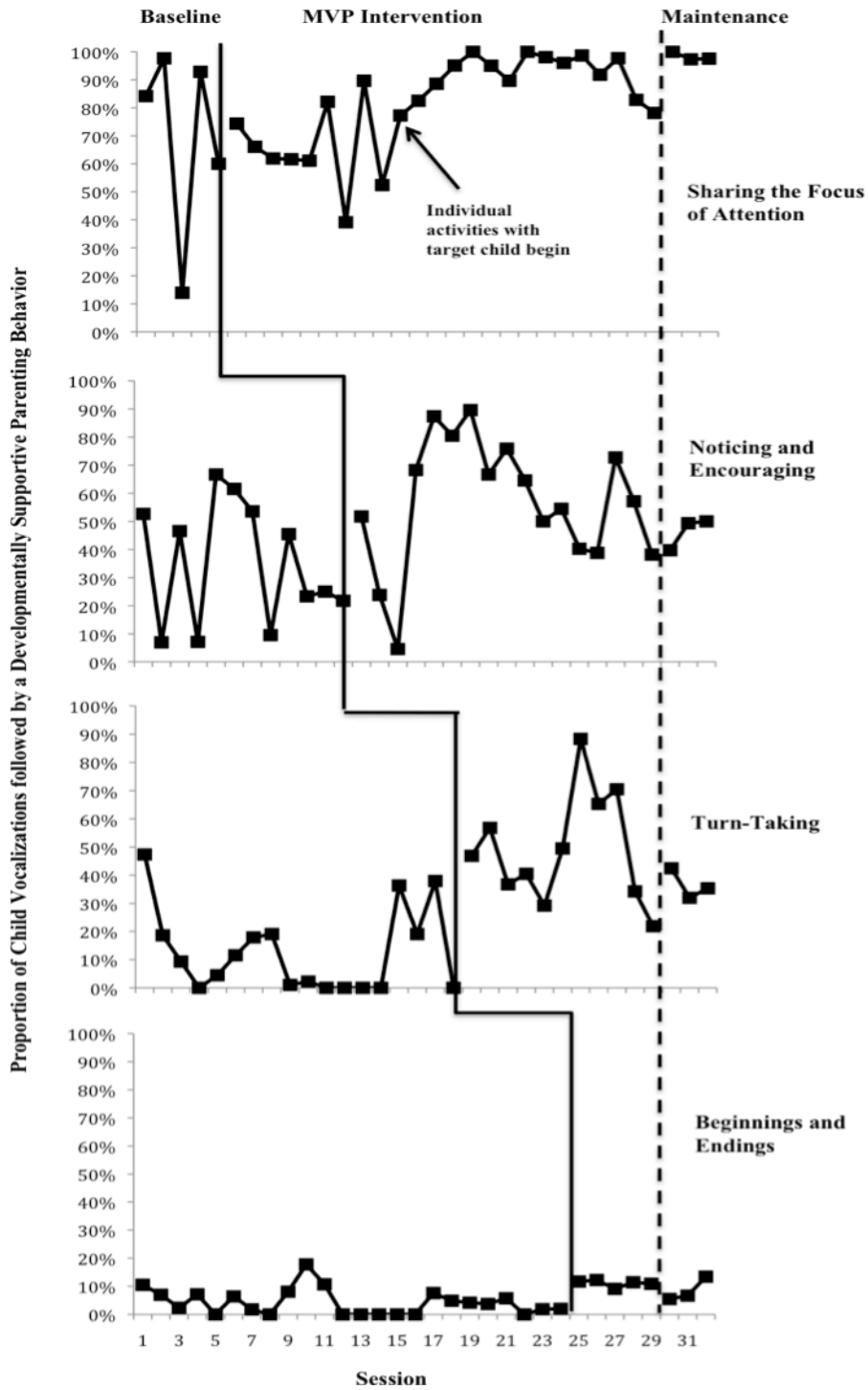


Figure 14. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Maria and Makela.

Maria (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Maria delivered sharing the focus of attention following Makela's vocalizations an average of 70% (range = 14% to 98%), and these data documented a high level with high variability and a decreasing trend. Following training on sharing the focus of attention, Maria consistently increased delivery of sharing the focus of attention following Makela's vocalizations, averaging 82% (range = 39% to 100%) during intervention. A 31% increase in sharing the focus of attention following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention and into maintenance, with an average of 98% (range = 97% to 100%) during maintenance. This represented an increase of 28% from the baseline mean to maintenance mean.

In baseline, Maria delivered noticing and encouraging following Makela's vocalizations an average of 35% (range = 7% to 67%), and these data documented a low to medium level with high variability and a decreasing trend. Following training on noticing and encouraging, and after sessions became individualized between Maria and Makela, Maria consistently increased delivery of noticing and encouraging following Makela's vocalizations, averaging 57% (range = 5% to 90%) during intervention. A 33% increase in noticing and encouraging following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention but began to decrease while the last two developmentally supportive parenting behaviors were being trained. However, the data remained above the lowest baseline points during intervention and into maintenance, with an average of

46% (range = 40% to 50%) during maintenance. This represented an increase of 11% from the baseline mean to maintenance mean.

In baseline, Maria delivered turn-taking following Makela's vocalizations an average of 12% (range = 0% to 47%), and these data documented a low level with relatively high variability and a decreasing trend. Following training on turn-taking, Maria increased delivery of turn-taking following Makela's vocalizations, averaging 49% (range = 22% to 88%) during intervention. A 23% increase in turn-taking following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention and into maintenance, with an average of 37% (range = 32% to 42%) during maintenance. This represented an increase of 25% from the baseline mean to maintenance mean.

In baseline, Maria delivered beginnings and endings following Makela's vocalizations an average of 4% (range = 0% to 18%), and these data documented a low level with little variability and a stable trend. Following training on beginnings and endings, Maria slightly increased delivery of beginnings and endings following Makela's vocalizations, averaging 11% of intervals (range = 9% to 12%) during intervention. A 9% increase in beginnings and endings vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained stable but low throughout intervention and into maintenance, with an average of 9% (range = 5% to 13%) during maintenance. This represented an increase of 5% from the baseline mean to maintenance mean.

Motoric responses. Conditional probabilities, shown in Figure 15 were calculated to determine the percentage of intervals in which Makela's motoric responses were

followed by Maria (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Maria delivered sharing the focus of attention following Makela's motoric responses an average of 48% (range = 15% to 75%), and these data documented ranged in level from low to high, with high variability and a decreasing trend. Following training on sharing the focus of attention, Maria consistently increased delivery of sharing the focus of attention following Makela's motoric responses, averaging 78% (range = 36% to 99%) during intervention. A 50% increase in sharing the focus of attention following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention phase and into maintenance, with an average of 98% (range = 97% to 100%) during maintenance. This represented an increase of 50% from the baseline mean to maintenance mean.

In baseline, Maria delivered noticing and encouraging following Makela's motoric responses an average of 27% (range = 6% to 53%), and these data documented a low to medium level with high variability and a decreasing trend. Following training on noticing and encouraging, and after sessions became individualized between Maria and Makela, Maria increased delivery of noticing and encouraging following Makela's motoric responses, averaging 53% (range = 9% to 86%) during intervention. A 30% increase in noticing and encouraging following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention but began to decrease while the last two

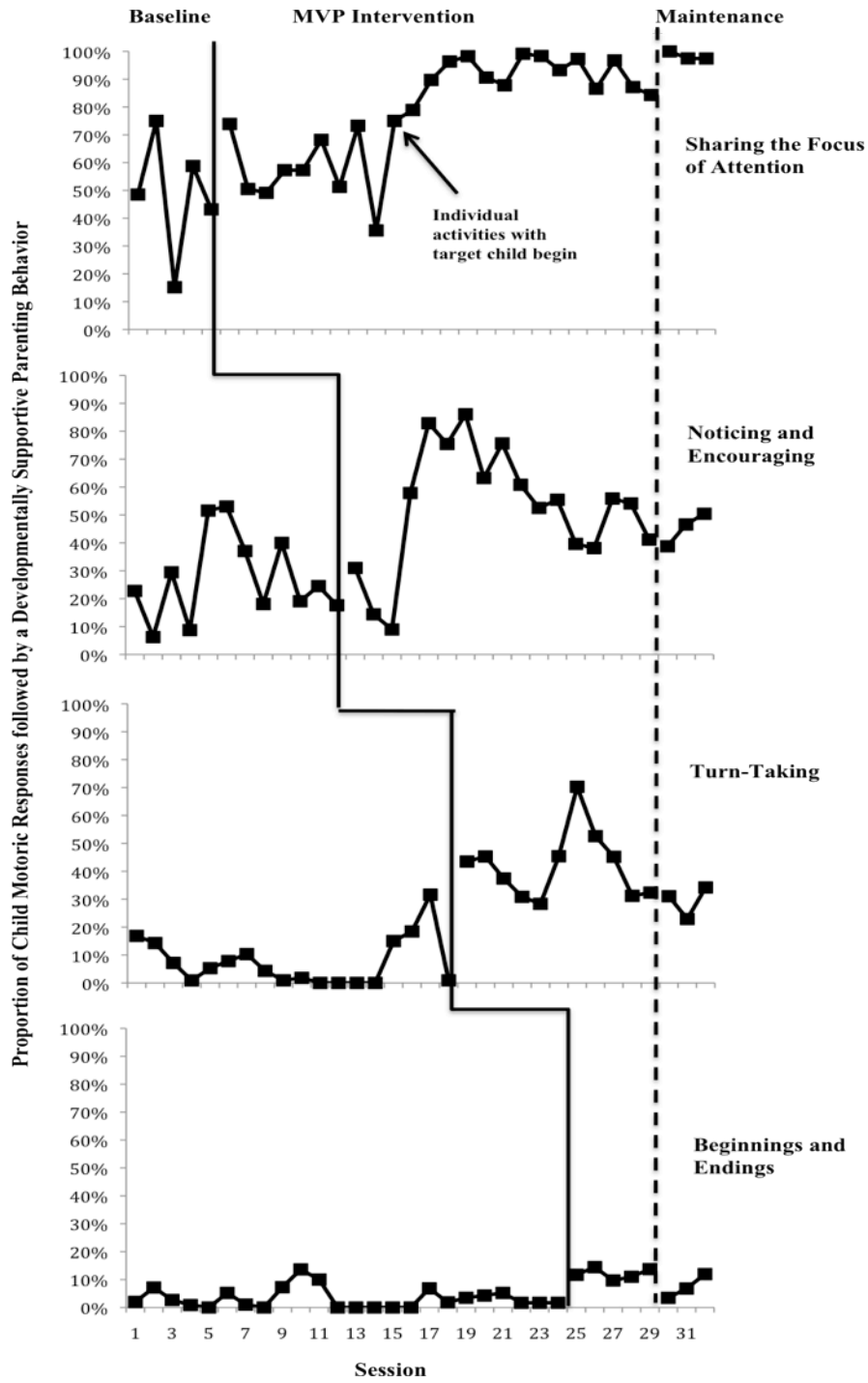


Figure 15. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Maria and Makela.

developmentally supportive parenting behaviors were being trained. However, the data remained above the lowest baseline points during intervention and into maintenance, with an average of 45% (range = 39% to 50%) during maintenance. This represented an increase of 18% from the baseline mean to maintenance mean.

In baseline, Maria delivered turn-taking following Makela's motoric responses an average of 8% (range = 0% to 32%), and these data documented a low level with little variability and a stable but decreasing trend. Following training on turn-taking, Maria increased delivery of turn-taking following Makela's motoric responses, averaging 42% (range = 28% to 70%) during intervention. A 19% increase in turn-taking following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high but with some variability throughout intervention and into maintenance, with an average of 29% (range = 22% to 34%) during maintenance. This represented an increase of 21% from the baseline mean to maintenance mean.

In baseline, Maria delivered beginnings and endings following Makela's motoric responses an average of 3% (range = 0% to 14%), and these data documented a low level with little variability and a stable trend. Following training on beginnings and endings, Maria slightly increased delivery of beginnings and endings following Makela's motoric responses, averaging 12% (range = 10% to 14%) during intervention. A 10% increase in beginnings and endings following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained stable but low throughout intervention and into maintenance, with an average of 7%

(range = 3% to 12%) during maintenance. This represented an increase of 4% from the baseline mean to maintenance mean.

Denise and Donny. The percentage of Denise's developmentally supportive parenting behaviors following Donny's vocalizations are presented in Figure 16, and the percentage of Denise's developmentally supportive parenting behaviors following Donny's motoric responses are presented in Figure 17.

Vocalizations. Conditional probabilities, shown in Figure 16, were calculated to determine the percentage of intervals in which Donny's vocalizations were followed by Denise (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Denise delivered sharing the focus of attention following Donny's vocalizations an average of 68% (range = 17% to 100%), and these data documented a high level with high variability and a decreasing trend. Following training on sharing the focus of attention, Denise consistently increased delivery of sharing the focus of attention following Donny's vocalizations, averaging 99% (range = 78% to 100%) during intervention. A 41% increase in sharing the focus of attention following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high and stable throughout intervention and into maintenance, with an average of 100% (range = 100% to 100%) during maintenance. This represented an increase of 32% from the baseline mean to maintenance mean.

In baseline, Denise delivered noticing and encouraging following Donny's vocalizations an average of 29% (range = 0% to 100%), and these data documented a low

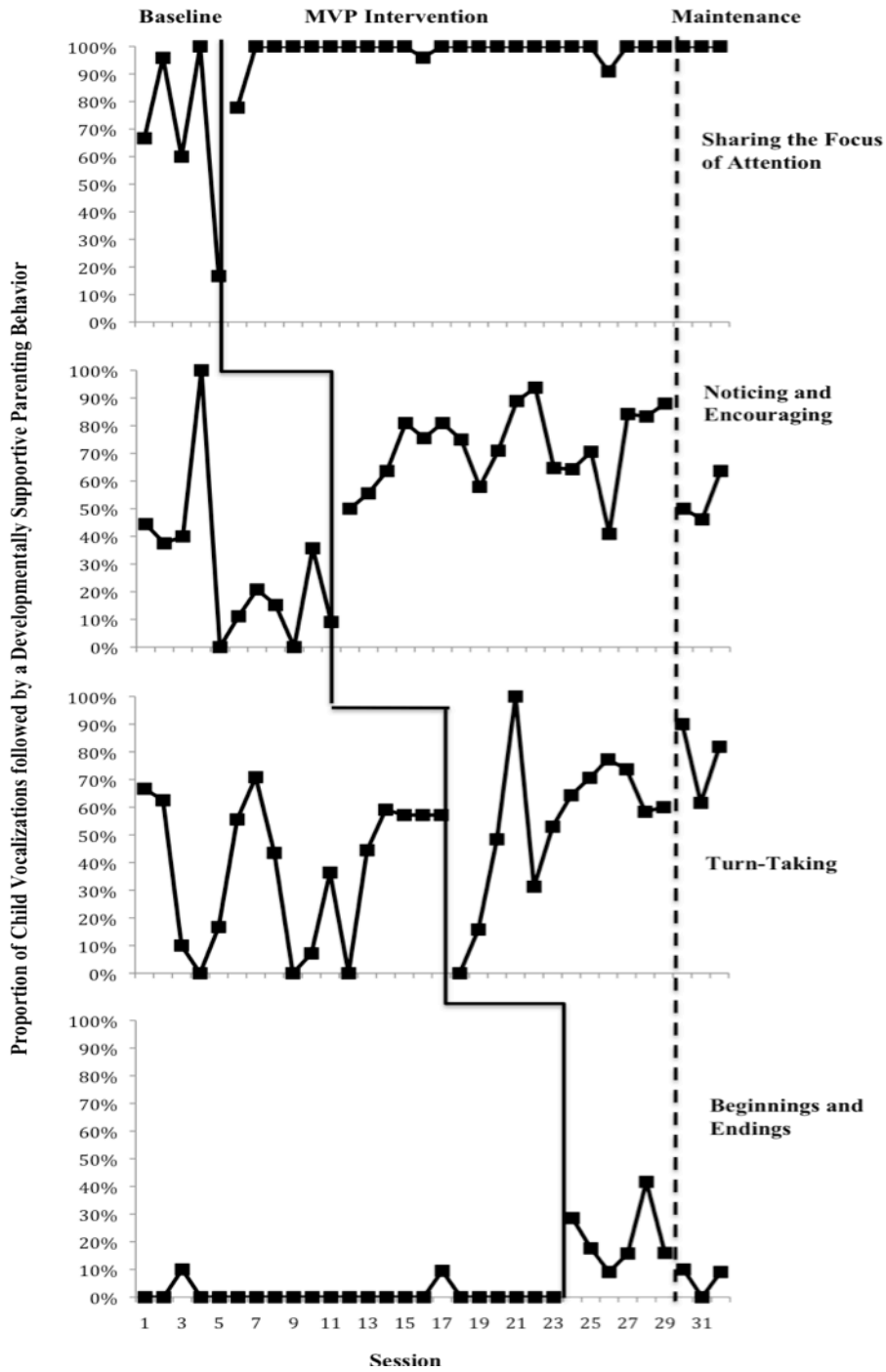


Figure 16. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Denise and Donny.

to medium level with high variability and a decreasing trend. Following training on noticing and encouraging, Denise increased delivery of noticing and encouraging following Donny's vocalizations, averaging 72% (range = 41% to 94%) during intervention. A 70% increase in noticing and encouraging following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high but variable throughout intervention and decreased into maintenance, with an average of 53% (range = 46% to 64%) during maintenance. This represented an increase of 24% from the baseline mean to maintenance mean.

In baseline, Denise delivered turn-taking following Donny's vocalizations an average of 39% (range = 0% to 71%), and these data documented a low to medium level with high variability and a stable trend leading into intervention. Following training on turn-taking, Denise increased delivery of turn-taking following Donny's vocalizations however the effect was not immediate, averaging 54% (range = 0% to 100%) during intervention. A 7% increase in turn-taking following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data continued to increase throughout intervention and into maintenance, with an average of 78% (range = 62% to 90%) during maintenance. This represented an increase of 39% from the baseline mean to maintenance mean.

In baseline, Denise delivered beginnings and endings following Donny's vocalizations an average of 1% (range = 0% to 10%), and these data documented a low level with little variability and a stable trend. Following training on beginnings and endings, Denise increased delivery of beginnings and endings following Donny's

vocalizations, averaging 21% of intervals (range = 9% to 42%) during intervention. A 24% increase in beginnings and endings following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above baseline throughout intervention but decreased during maintenance, with an average of 6% (range = 0% to 10%) during maintenance. This represented an increase of 5% from the baseline mean to maintenance mean.

Motoric responses. Conditional probabilities, shown in Figure 17, were calculated to determine the percentage of intervals in which Donny's motoric responses were followed by Denise (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Denise delivered sharing the focus of attention following Donny's motoric responses an average of 76% (range = 30% to 99%), and these data documented a medium to high level, with high variability and a decreasing trend. Following training on sharing the focus of attention, Denise increased delivery of sharing the focus of attention following Donny's motoric responses, averaging 96% (range = 82% to 100%) during intervention. A 34% increase in sharing the focus of attention following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high and stable throughout intervention and into maintenance, with an average of 98% (range = 96% to 100%) during maintenance. This represented an increase of 22% from the baseline mean to maintenance mean.

In baseline, Denise delivered noticing and encouraging following Donny's motoric responses an average of 25% (range = 9% to 51%), and these data documented a

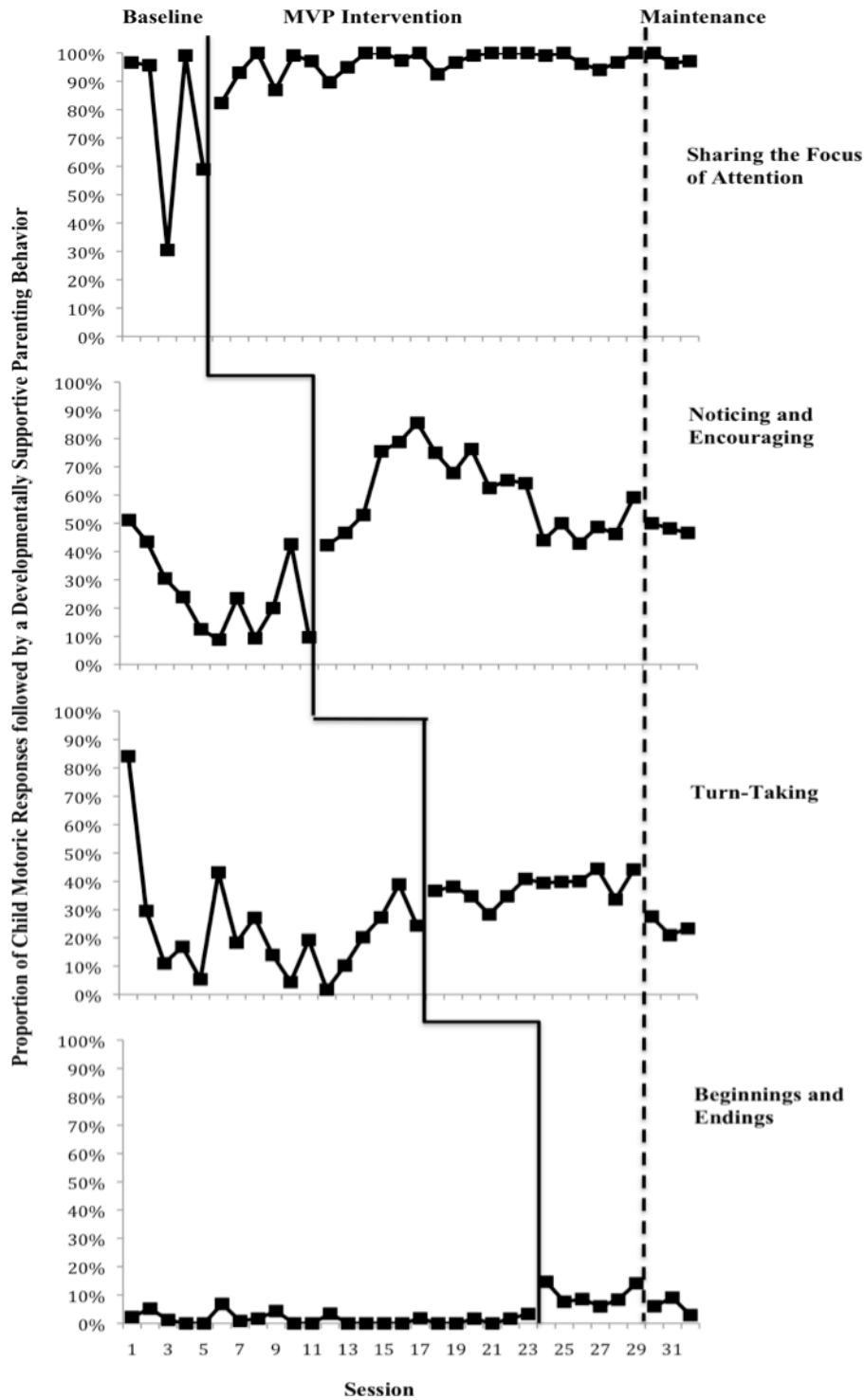


Figure 17. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Denise and Donny.

low level with slight variability and a decreasing trend. Following training on noticing and encouraging, Denise increased delivery of noticing and encouraging following Donny's motoric responses, averaging 60% (range = 42% to 86%) during intervention. A 27% increase in noticing and encouraging following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above baseline for the duration of the intervention phase but began to decrease moving into maintenance, with an average of 48% (range = 47% to 50%) during maintenance. This represented an increase of 23% from the baseline mean to maintenance mean.

In baseline, Denise delivered turn-taking following Donny's motoric responses an average of 23% (range = 2% to 84%), and these data documented a low level with high variability. Following training on turn-taking, Denise increased delivery of turn-taking following Donny's motoric responses, averaging 38% (range = 28% to 44%) during intervention. An 11% increase in turn-taking following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained stable throughout intervention but decreased during maintenance, with an average of 24% (range = 21% to 28%) during maintenance. This represented an increase of 1% from the baseline mean to maintenance mean.

In baseline, Denise delivered beginnings and endings following Donny's motoric responses an average of 1% (range = 0% to 7%), and these data documented a low level with little variability and a stable trend. Following training on beginnings and endings, Denise increased delivery of beginnings and endings following Donny's motoric responses, averaging 10% (range = 6% to 15%) during intervention. An 8% increase in

beginnings and endings following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above baseline throughout intervention but decreased during maintenance, with an average of 6% (range = 3% to 9%) during maintenance. This represented an increase of 5% from the baseline mean to maintenance mean.

Lanita and Leo. The percentage of Lanita's developmentally supportive parenting behaviors following Leo's vocalizations are presented in Figure 18, and the percentage of Lanita's developmentally supportive parenting behaviors following Leo's motoric responses are presented in Figure 19.

Vocalizations. Conditional probabilities, shown in Figure 18, were calculated to determine the percentage of intervals in which Leo's vocalizations were followed by Lanita (a) sharing the focus of attention (top panel), (b) noticing and encouraging (2nd panel), (c) turn-taking (3rd panel), and (d) beginnings and endings (bottom panel).

In baseline, Lanita delivered sharing the focus of attention following Leo's vocalizations an average of 87% (range = 71% to 100%), and these data documented a high level with slight variability and a decreasing trend. Following training on sharing the focus of attention, Lanita increased delivery of sharing the focus of attention following Leo's vocalizations, averaging 96% (range = 83% to 100%) during intervention. An 8% increase in sharing the focus of attention following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high and stable throughout intervention and into maintenance, with an average of 98% (range = 94% to 100%) during maintenance. This represented an increase of 11% from the baseline mean to maintenance mean.

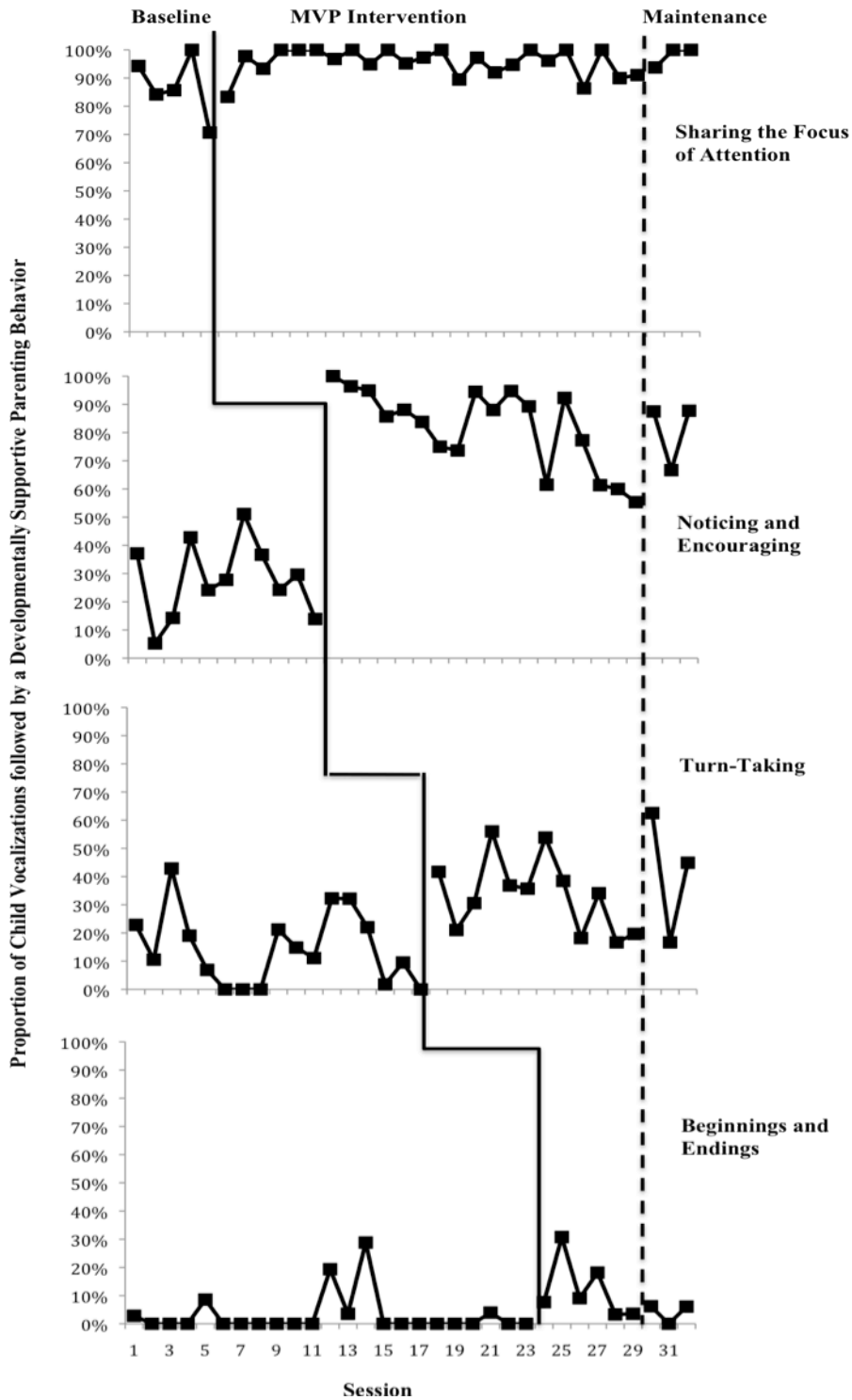


Figure 18. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Lanita and Leo.

In baseline, Lanita delivered noticing and encouraging following Leo's vocalizations an average of 28% (range = 5% to 51%), and these data documented a low to medium level, with high variability and a decreasing trend. Following training on noticing and encouraging, Lanita increased delivery of noticing and encouraging following Leo's vocalizations, averaging 82% (range = 55% to 100%) during intervention. A 36% increase in noticing and encouraging following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention and began to decrease slightly moving into maintenance but increased during maintenance sessions, with an average of 81% (range = 67% to 88%) during maintenance. This represented an increase of 53% from the baseline mean to maintenance mean.

In baseline, Lanita delivered turn-taking following Leo's vocalizations an average of 15% (range = 0% to 43%), and these data documented a low to medium level, with high variability and a decreasing trend. Following training on turn-taking, Lanita increased delivery of turn-taking following Leo's vocalizations, averaging 34% (range = 17% to 56%) during intervention. A 20% increase in turn-taking following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data were variable but remained above most baseline points throughout intervention and into maintenance, with an average of 41% (range = 17% to 63%) during maintenance. This represented an increase of 26% from the baseline mean to maintenance mean.

In baseline, Lanita delivered beginnings and endings following Leo's vocalizations an average of 3% (range = 0% to 29%), and these data documented a low

level with slight variability and a stable trend. Following training on beginnings and endings, Lanita increased delivery of beginnings and endings following Leo's vocalizations, averaging 12% of intervals (range = 3% to 31%) during intervention. A 7% increase in beginnings and endings following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above baseline through most of the intervention but began decreasing moving into maintenance, with an average of 4% (range = 0% to 6%) during maintenance. This represented an increase of 1% from the baseline mean to maintenance mean.

Motoric responses. Conditional probabilities, shown in Figure 19, were calculated to determine the percentage of intervals in which Leo's motoric responses were followed by Lanita (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Lanita delivered sharing the focus of attention following Leo's motoric responses an average of 86% (range = 66% to 94%), and these data documented a high level with slight variability and a decreasing trend. Following training on sharing the focus of attention, Lanita increased delivery of sharing the focus of attention following Leo's motoric responses, averaging 95% (range = 86% to 100%) during intervention. A 7% increase in sharing the focus of attention following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high and stable throughout intervention and into maintenance, with an average of 100% (range = 100% to 100%) during maintenance. This represented an increase of 14% from the baseline mean to maintenance mean.

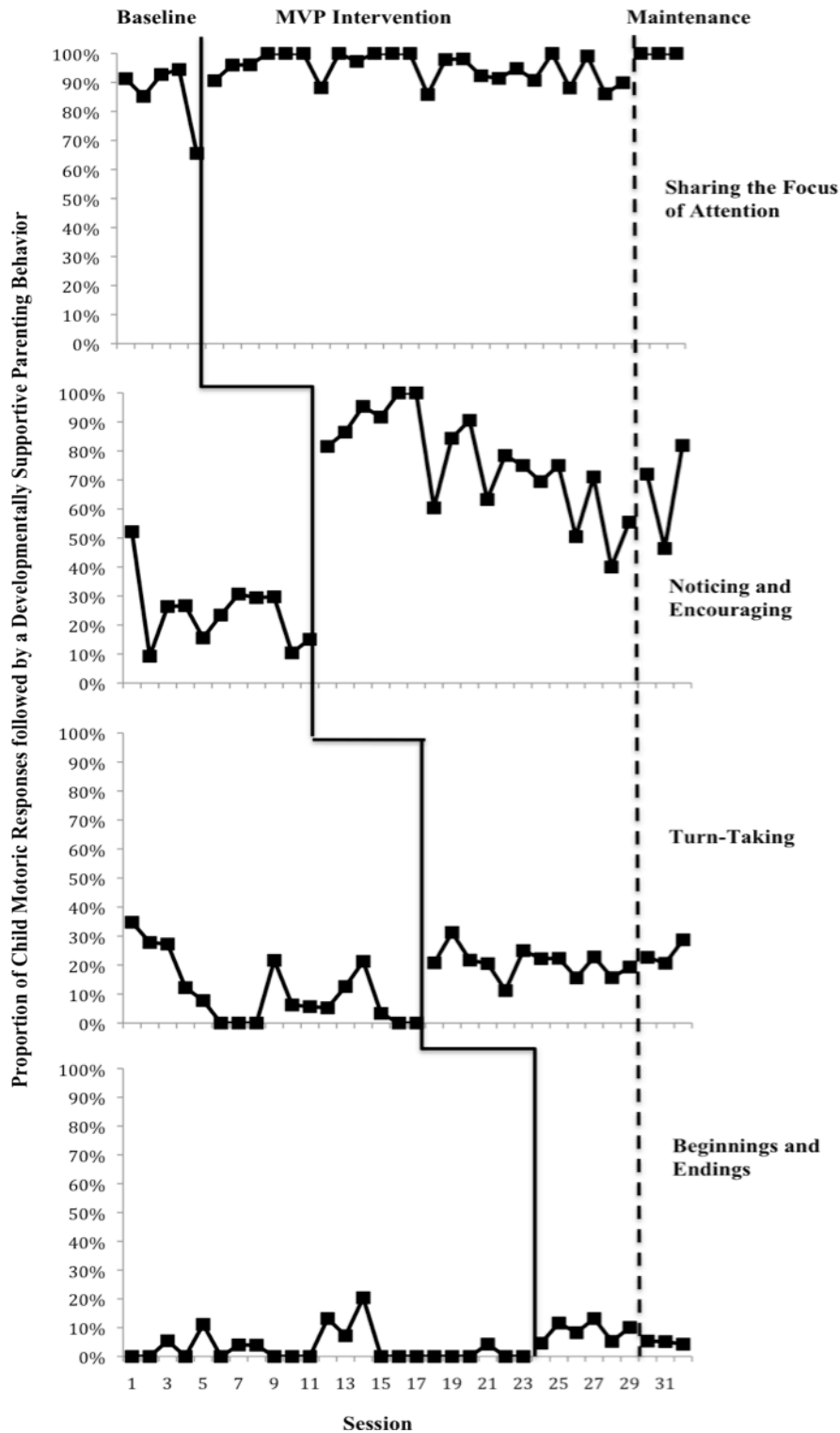


Figure 19. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Lanita and Leo.

In baseline, Lanita delivered noticing and encouraging following Leo's motoric responses an average of 24% (range = 9% to 52%), and these data documented a low to medium level with slight variability and an increasing trend. Following training on noticing and encouraging, Lanita increased delivery of noticing and encouraging following Leo's motoric responses, averaging 76% (range = 40% to 100%) during intervention. A 37% increase in noticing and encouraging following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high throughout intervention and began to decrease slightly moving into maintenance but increased during maintenance sessions, with an average of 67% (range = 46% to 82%) during maintenance. This represented an increase of 43% from the baseline mean to maintenance mean.

In baseline, Lanita delivered turn-taking following Leo's motoric responses an average of 11% (range = 0% to 35%), and these data documented a low level with slight variability and a decreasing trend. Following training on turn-taking, Lanita increased delivery of turn-taking following Leo's motoric responses, averaging 21% (range = 11% to 31%) during intervention. An 18% increase in turn-taking following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained stable throughout intervention and into maintenance, with an average of 24% (range = 21% to 29%) during maintenance. This represented an increase of 13% from the baseline mean to maintenance mean.

In baseline, Lanita delivered beginnings and endings following Leo's motoric responses an average of 3% (range = 0% to 20%), and these data documented a low level with little variability and a stable trend. Following training on beginnings and endings,

Lanita slightly increased delivery of beginnings and endings following Leo's motoric responses, averaging 9% (range = 5% to 13%) during intervention. An 8% increase in beginnings and endings following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above the lowest baseline point throughout intervention and into maintenance, with an average of 5% (range = 4% to 5%) during maintenance. This represented an increase of 2% from the baseline mean to maintenance mean.

Sandra and Sylvia. The percentage of Sandra's developmentally supportive parenting behaviors following Sylvia's vocalizations are presented in Figure 20, and the percentage of Sandra's developmentally supportive parenting behaviors following Sylvia's motoric responses are presented in Figure 21.

Vocalizations. Conditional probabilities, shown in Figure 20, were calculated to determine the percentage of intervals in which Sylvia's vocalizations were followed by Sandra (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Sandra delivered sharing the focus of attention following Sylvia's vocalizations an average of 94% (range = 86% to 100%), and these data documented a high level with little variability and a decreasing trend. Following training on sharing the focus of attention, Sandra maintained a high level of sharing the focus of attention following Sylvia's vocalizations, averaging 98% (range = 89% to 100%) during intervention. A 6% increase in sharing the focus of attention following vocalizations was noted between the last three sessions of baseline and the last three sessions of

intervention³. These data remained high throughout intervention and into maintenance, with an average of 96% (range = 93% to 100%) during maintenance. This represented an increase of 2% from the baseline mean to maintenance mean.

In baseline, Sandra delivered noticing and encouraging following Sylvia's vocalizations an average of 51% (range = 11% to 93%), and these data documented a medium to high level, with high variability and a decreasing trend. Following training on noticing and encouraging, Sandra increased delivery of noticing and encouraging following Sylvia's vocalizations, averaging 59% (range = 33% to 83%) during intervention. A 16% increase in noticing and encouraging following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high but also quite variable throughout intervention, however the rate decreased into maintenance, with an average of 49% (range = 43% to 63%) during maintenance. This represented a decrease of 2% from the baseline mean to maintenance mean.

In baseline, Sandra delivered turn-taking following Sylvia's vocalizations an average of 11% (range = 0% to 50%), and these data documented a low level with high variability and a decreasing trend. Following training on turn-taking, Sandra increased delivery of turn-taking following Sylvia's vocalizations, averaging 42% (range = 28% to 67%) during intervention. A 49% increase in turn-taking following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high but variable throughout intervention and into

³ Since the third data point could not be calculated due to the absence of child vocalizations for that session, the last three data points that were averaged were sessions two, four, and five.

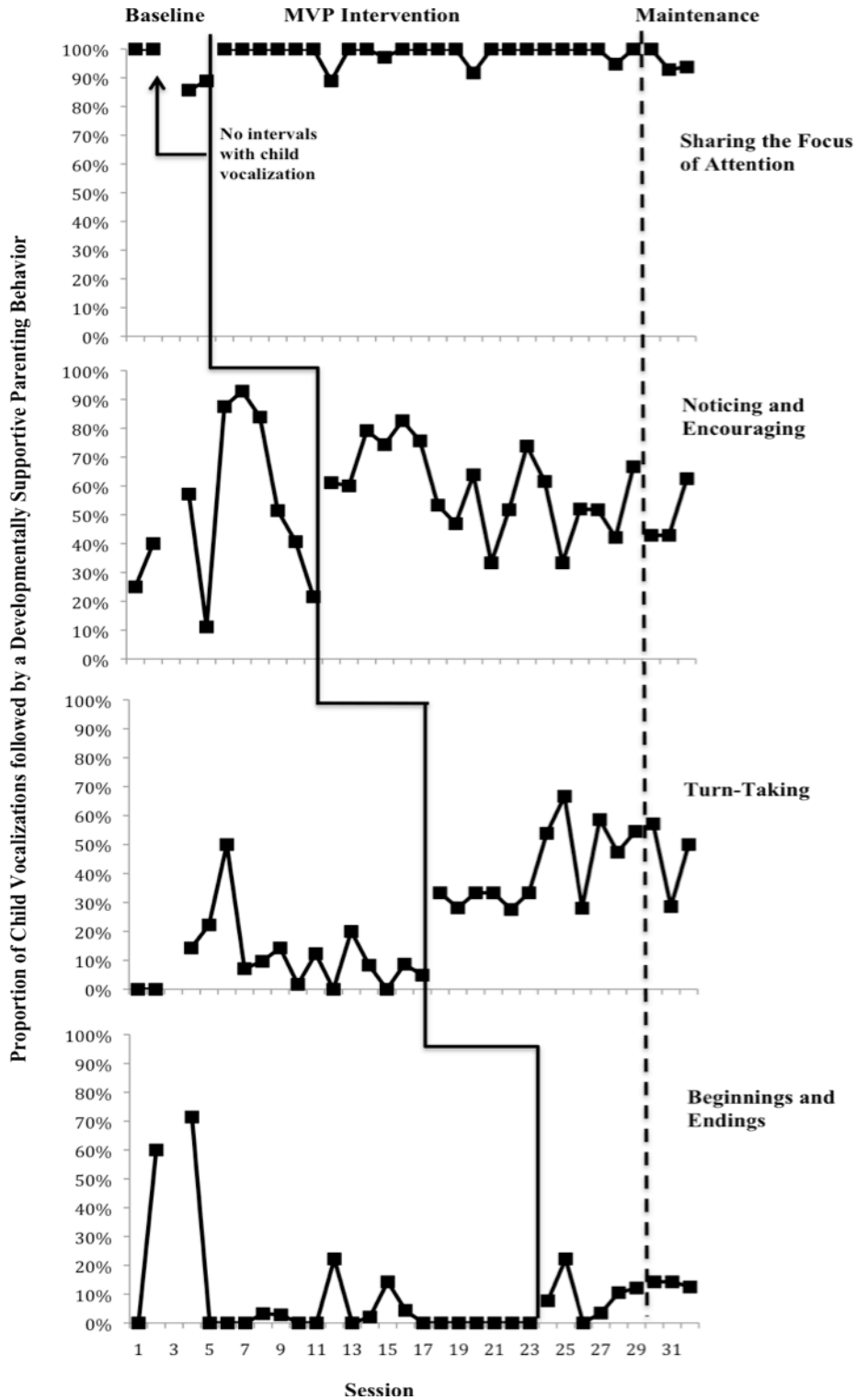


Figure 20. Proportion of 5-s intervals with child vocalizations followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Sandra and Sylvia.

maintenance, with an average of 45% (range = 28% to 57%) during maintenance. This represented an increase of 34% from the baseline mean to maintenance mean.

In baseline, Sandra delivered beginnings and endings following Sylvia's vocalizations an average of 8% (range = 0% to 71%), and these data documented a low to medium level, with some variability and a stable trend. Following training on beginnings and endings, Sandra slightly increased delivery of beginnings and endings following Sylvia's vocalizations, averaging 9% of intervals (range = 0% to 22%) during intervention. A 9% increase in beginnings and endings following vocalizations was noted between the last three sessions of baseline and the last three sessions of intervention. These data continued to increase into maintenance, with an average of 14% (range = 13% to 14%) during maintenance. This represented an increase of 6% from the baseline mean to maintenance mean.

Motoric responses. Conditional probabilities, shown in Figure 21, were calculated to determine the percentage of intervals in which Sylvia's motoric responses were followed by Sandra (a) sharing the focus of attention (top panel), (b) noticing and encouraging (second panel), (c) turn-taking (third panel), and (d) beginnings and endings (bottom panel).

In baseline, Sandra delivered sharing the focus of attention following Sylvia's motoric responses an average of 92% (range = 85% to 100%), and these data documented a high level with little variability and a decreasing trend. Following training on sharing the focus of attention, Sandra increased delivery of sharing the focus of attention following Sylvia's motoric responses, averaging 99% (range = 94% to 100%) during intervention. A 4% increase in sharing the focus of attention following motoric responses

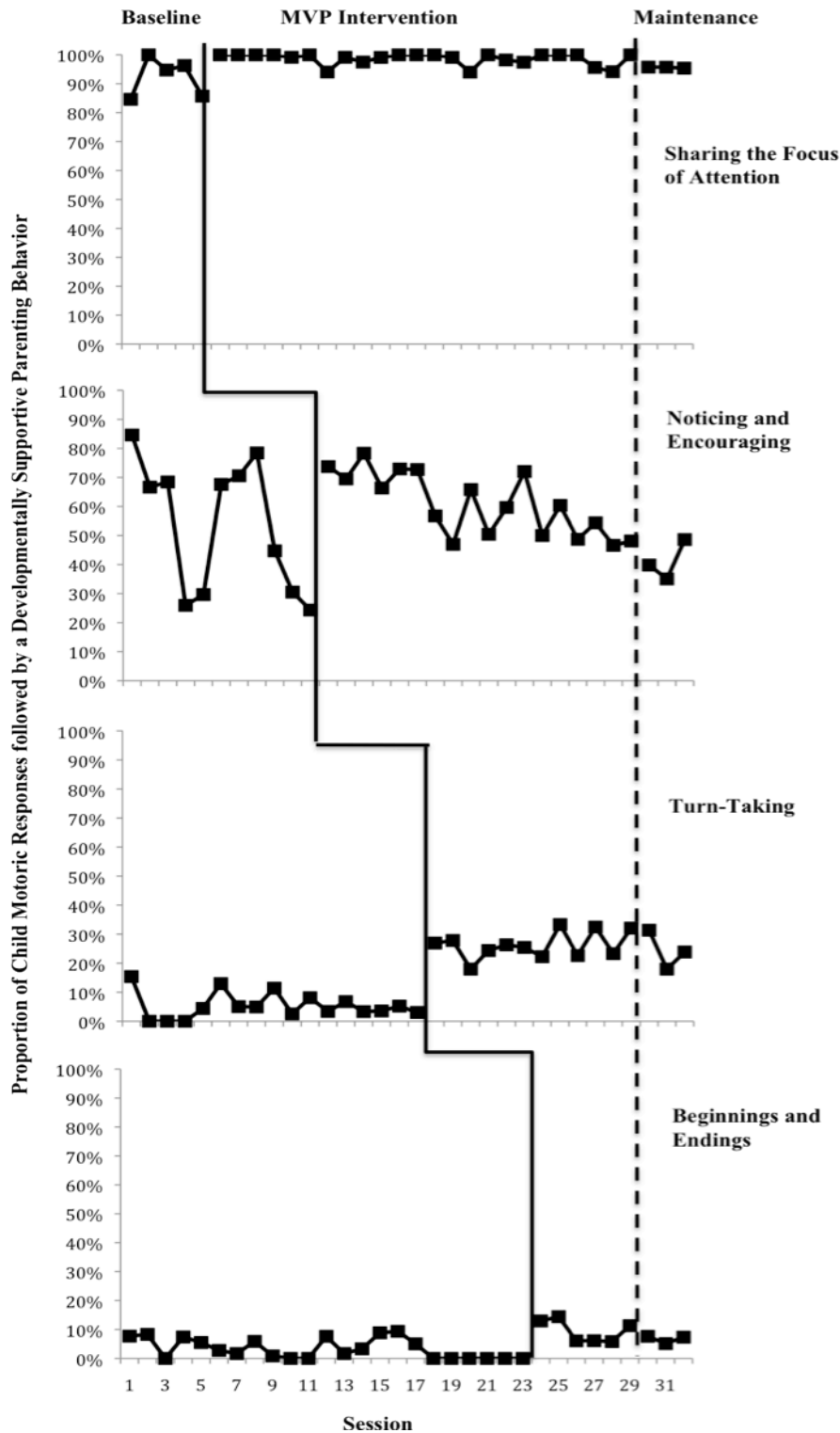


Figure 21. Proportion of 5-s intervals with child motoric responses followed by developmentally supportive parenting behaviors in the same or subsequent 5-s intervals for Sandra and Sylvia.

was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained high and stable throughout intervention and into maintenance, with an average of 96% (range = 95% to 96%) during maintenance. This represented an increase of 4% from the baseline mean to maintenance mean.

In baseline, Sandra delivered noticing and encouraging following Sylvia's motoric responses an average of 54% (range = 24% to 85%), and these data documented a medium to high level, with high variability and a decreasing trend. Following training on noticing and encouraging, Sandra increased delivery of noticing and encouraging following Sylvia's motoric responses, averaging 61% (range = 47% to 78%) during intervention. A 17% increase in noticing and encouraging following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. However, the data began to slowly decline as instruction was being provided on the last two developmentally supportive parenting behaviors, and this decrease continued into maintenance, with an average of 41% (range = 35% to 49%) during maintenance. This represented a decrease of 13% from the baseline mean to maintenance mean.

In baseline, Sandra delivered turn-taking following Sylvia's motoric responses an average of 5% (range = 0% to 15%), and these data documented a low level with little variability and a stable trend. Following training on turn-taking, Sandra increased delivery of turn-taking following Sylvia's motoric responses, averaging 26% (range = 18% to 33%) during intervention. A 25% increase in turn-taking following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above baseline throughout intervention and into

maintenance, with an average of 24% (range = 18% to 31%) during maintenance. This represented an increase of 19% from the baseline mean to maintenance mean.

In baseline, Sandra delivered beginnings and endings following Sylvia's motoric responses an average of 3% (range = 0% to 9%), and these data documented a low level with little variability and a stable trend. Following training on beginnings and endings, Sandra slightly increased delivery of beginnings and endings following Sylvia's motoric responses, averaging 9% (range = 6% to 14%) during intervention. An 8% increase in beginnings and endings following motoric responses was noted between the last three sessions of baseline and the last three sessions of intervention. These data remained above baseline throughout intervention and into maintenance, with an average of 7% (range = 5% to 8%) during maintenance. This represented an increase of 4% from the baseline mean to maintenance mean.

Fidelity of Implementation

Fidelity of MVP implementation was assessed for each coaching session video and edited video using two checklist forms of fidelity (see Appendices A and B). Trained observers completed the checklists while viewing each coaching session video and edited video for each family, and turned the checklists in to the investigator at the end of every week.

Table 2 displays average fidelity of implementation across the six coaching session components for each participating mother. Overall fidelity was high with an average of 99.92% (range = 99.66% to 100%). For Maria, Denise, and Lanita, fidelity averaged 100% (range = 100% to 100%). For Sandra, fidelity averaged 99.66% (range = 97.88% to 100%).

Table 2

Average Fidelity of Implementation Across Coaching Session Components

Component	Maria	Denise	Lanita	Sandra
Summary of coaching process provided to the mother	100%	100%	100%	100%
Eye contact and friendly tone used with the mother	100%	100%	100%	100%
Positive praise provided to the mother for developmentally supportive parenting behaviors	100%	100%	100%	100%
Identification of link between developmentally supportive parenting behavior and child's development	100%	100%	100%	100%
Solicitation of the mother's input, questions, opinions, and reflective listening	100%	100%	100%	100%
Mother provided with a reminder of the developmentally supportive parenting behavior to work on during session	100%	100%	100%	97.88%
Overall	100%	100%	100%	99.66%

Table 3 displays average fidelity of implementation across the six edited video components for each participating mother. Overall fidelity was high with an average of 100% (range = 100% to 100%). For Maria, Denise, Lanita, and Sandra, fidelity averaged 100% (range = 100% to 100%).

Table 3

Average Fidelity of Implementation Across Edited Video Components

Component	Maria	Denise	Lanita	Sandra
Video begins with a still frame of a positive interaction between mother and child	100%	100%	100%	100%
Demonstration of a developmentally supportive parenting behavior in clip #1	100%	100%	100%	100%
Demonstration of a developmentally supportive parenting behavior in clip #2	100%	100%	100%	100%
Demonstration of a developmentally supportive parenting behavior in clip #3	100%	100%	100%	100%
Video ends with a still frame of a positive interaction between mother and child	100%	100%	100%	100%
Video no longer than 3 minutes	100%	100%	100%	100%
Overall	100%	100%	100%	100%

Contextual Fit

Contextual fit was assessed two times for each participating mother, before initial implementation of the MVP intervention, and at the end of the intervention phase.

Participating mothers were asked to complete a 4-item questionnaire, and their pre/post ratings are provided in Table 4.

Before initial implementation of the MVP intervention, participating mothers rated contextual fit of the MVP intervention at 89% overall. At the completion of the study, participating mother rated contextual fit of the MVP intervention at 97% overall.

Table 4

Parent Ratings of MVP Contextual Fit

Item	Time	Maria	Denise	Lanita	Sandra
Received parent training in the past that has improved parenting skills	Pre	6	1	6	6
	Post	6	6	6	6
MVP will help me reach my parenting goals	Pre	6	6	6	6
	Post	6	6	6	6
MVP will not be stressful for me	Pre	2	4	6	6
	Post	6	4	6	6
MVP has been explained and I understand expectations for participation	Pre	6	6	6	6
	Post	6	5	6	6

Social Validity

Social validity was assessed at the end of the intervention phase. Participating mothers were asked to complete a 13-item questionnaire, and their ratings are provided in Table 5. All four participating mothers provided a rating of 4 or greater on a 6-point scale (6 indicating a positive response) as to whether the MVP intervention (a) improved their parenting skills, (b) would be recommended to friends, (c) was easy for them to do, (d) had clear main ideas, (e) had main ideas that they were comfortable using, (f) had main ideas that were in-line with their beliefs about parent-child interactions, (g) was helpful in reaching their parenting goals, (h) was not stressful for them, and (i) provided them with skills that they will continue to use.

All four participating mothers provided a rating of 6 on a 6-point scale (6 indicating a positive response), indicating that participation in the MVP intervention (a) brought them closer to their child, (b) was worth the time and effort, (c) had clearly stated expectations for participation, and (d) was good for their family.

Table 5

Parent Ratings of MVP Social Validity

Item	Maria	Denise	Lanita	Sandra
Improved my parenting skills	6	5	6	6
Brought me and my child closer	6	6	6	6
Worth the time and effort	6	6	6	6
Would recommend to my friends	6	5	6	6
Easy for me to do	6	5	6	6
Aware of the main ideas	6	5	6	6
Knew expectations for participation	6	6	6	6
Comfortable using main ideas	6	5	6	6
Main ideas in-line with my beliefs about parent-child interactions	6	5	6	6
Helpful in reaching my parenting goals	6	5	6	6
Good for my family	6	6	6	6
Not stressful for me	6	4	6	6
Continue to use the skills I learned	6	5	6	6

CHAPTER IV

DISCUSSION

This study used a within-subjects, multiple baseline across responses design to examine effects of the MVP intervention on parenting behaviors across four mother-child dyads. Previous research has supported the utility of behavioral parent training programs that include video-based feedback (e.g., Fukkink, 2008; Hitchcock, Dowrick, & Prater, 2003; Meharg & Woltersdorf, 1990) and a strength-based service delivery model with families (e.g., Brun & Rapp, 2001; Laursen, 2000; Wulczyn, 2004); however, no studies have examined the use of such practices during supervised visitation time with families in the child welfare system (Barth et al., 2005). The current study addressed this gap in the literature by evaluating a strength-based video parent training program, designed to support mothers in building the necessary parenting skills needed for fostering healthy development, communication, and attachment with their children, in an effort to bolster some of the skills necessary for family reunification. Specifically, this study examined (1) effects of implementation of the MVP intervention on developmentally supportive parenting behaviors, (2) effects of implementation of the MVP intervention on negative parent behaviors, and (3) effects of implementation of the MVP intervention on the conditional probability that mothers would demonstrate a developmentally supportive parenting behavior when a child behavior was presented. Social validity and contextual fit of the MVP intervention was also examined to gain a better understanding of mothers' perceptions of the MVP intervention and to assess the appropriateness of implementing the MVP intervention during supervised visitation time. In this chapter, the findings from the study are examined for information related to key variables of the intervention

that may have affected change in parenting behaviors. Potential limitations related to this study are explored, and results are discussed in terms of providing a foundation for future research related to behavioral parent training.

Summary of Findings

Overall, the MVP intervention was functionally related to increases in the four trained developmentally supportive parenting behaviors (sharing the focus of attention, noticing and encouraging, turn-taking, and beginnings and endings), and these increases maintained for many of the behaviors during maintenance probes which took place one week post-intervention. For Maria, stronger effects were seen after she began conducting observation sessions with just Makela, and not her other two children. We also see all four behaviors remaining above baseline during maintenance sessions for Maria. Denise demonstrated increases in all four developmentally supportive parenting behaviors at four different points in time, although we see turn-taking drop down to baseline levels during maintenance sessions. For Lanita, we see immediate increases in all four behaviors following implementation of MVP, however significant overlap in the data between baseline and intervention phases for beginnings and endings make these data less convincing than the others. Lastly, Sandra demonstrated similar effects as Lanita, with immediate increases in all four trained behaviors following MVP implementation but significant overlap between baseline and intervention data for noticing and encouraging.

Across all participating mothers, inspection of direct observation data showed a steady decline in noticing and encouraging as soon as turn-taking was introduced. This downward trend may be related to an order effect of the trained skills, whereby the sequence in which these behaviors were trained may have had an impact on how the

mothers' learned and retained each skill. Alternatively, noticing and encouraging could have been a more difficult skill to implement such that the introduction of turn-taking may have distracted the mother away from practice of noticing and encouraging. The decreasing trend in noticing and encouraging may also be an effect of time and the duration that each skill was trained, particularly if training on noticing and encouraging was extended longer prior to the introduction of turn-taking. These data suggest the importance of further exploration on how and when these two skills are trained, and the need for a possible refresher on noticing and encouraging after turn-taking has been introduced.

Inspection of direct observation data on negative parenting behaviors showed that the MVP intervention was not functionally related to a reduction in negative affective behaviors or negative physical behaviors for all four participating mothers. This was most likely due to low occurrences of negative parenting behaviors in baseline (a floor effect). The average percentage of intervals with these two negative parenting behaviors ranged from 0% to 5% for all participants, and this low level of behavior remained constant throughout the intervention phase as well as maintenance. The same was observed for inattention/neglect for Lanita and Sandra. Both mothers exhibited low levels of this behavior during baseline, intervention, and maintenance, ranging in average from 0% to 3%. However, data showed a reduction in inattention/neglect for Maria and Denise. The percentage of intervals with inattention/neglect ranged in average from 11% to 25% in baseline, and decreased to 2% to 3% in intervention, with this reduction remaining constant through maintenance for both participants.

Overall, the MVP intervention was functionally related to increases in the probability that mothers would demonstrate a developmentally supportive parenting behavior following a child behavior. These increases were comparable across developmentally supportive parenting behaviors following child vocalizations versus child motoric responses. Developmentally supportive parenting behaviors following negative child behaviors were not calculated, due to the low percentage of intervals with negative vocalizations and negative motoric responses. For Maria, the MVP intervention was functionally related to increases in three of the four trained behaviors (sharing the focus of attention, noticing and encouraging, and turn-taking) following child vocalizations and child motoric responses. Denise's data showed similar results, with the MVP intervention being functionally related to increases in three of the four trained behaviors but with stronger effects for beginnings and endings following child vocalizations and weaker effects for beginnings and endings following child motoric responses. For Lanita and Sandra, more clear demonstrations of functional relations were seen for noticing and encouraging and turn-taking following both child vocalizations and motoric responses. Neither mother demonstrated increases in sharing the focus of attention, as this behavior was already high for both mothers during baseline. Similarly, no effects were demonstrated for beginnings and endings, as this behavior occurred infrequently following child behaviors during baseline and intervention phases for Lanita and Sandra.

When the MVP intervention was initially implemented, all participating mothers rated the intervention with high contextual fit for supervised visitation time. Their ratings of the intervention's contextual fit were even higher at the conclusion of the MVP

intervention. These data suggest that the participating mothers' felt the MVP intervention helped them reach their parenting goals, was not stressful for them, and had clearly stated expectations for participation.

Results of the social validity questionnaire indicated that all participating mothers felt the MVP intervention resulted in improved parent skills, brought them closer to their child, was worth the time and effort, and presented ideas that were in-line with their beliefs about how parents and children should interact.

Lastly, the fidelity data indicated that the participating mothers were receiving coaching from the investigator that was consistent with the model of coaching described in the MVP manual, and that the edited videos on which they received coaching conformed to the editing model described in the MVP manual. Therefore, the findings of this study are believed to be valid representations of the effects of the MVP intervention due to the high levels of fidelity with which this intervention was consistently implemented across all participating mothers.

Intervention Components

MVP consisted of several potentially important components, any or all of which may have resulted in the positive outcomes obtained. These included: (a) the use of videos demonstrating positive mother-child interactions to aid in providing coaching on the developmentally supportive parenting behaviors being trained, (b) the use of several methods of direct instruction on the developmentally supportive parenting behaviors, and (c) the provision of positive reinforcement contingent on the demonstration of developmentally supportive parenting behaviors by the participating mothers. These

components and their potential impact on the positive outcomes of this study are discussed below.

Video-based coaching. A substantive body of research supports the use of video coaching within behavioral parent training (e.g., Fukkink, 2008; Hitchcock, Dowrick, & Prater, 2003; Meharg & Woltersdorf, 1990). When using video coaching, parents are filmed during structured or unstructured parent-child or family interactions. Parents then watch some or the entire recording with the therapist and the therapist uses the video as a coaching mechanism. The MVP intervention used video-based coaching for each of the four specified developmentally supportive parenting behaviors, and all coaching sessions involved demonstrations of participating mothers engaging in such behaviors with their children. As has been noted elsewhere (Fukkink, 2008), the video coaching may have enhanced instruction by allowing the therapist to spotlight specific instances of the target behavior using the mother as the model. Second, by viewing the video, the mother could observe effects of her own behavior on her child's responding. Anecdotally, mothers reported enjoying the video aspect of the intervention and stated that it clarified the developmentally supportive parenting behaviors and the impact such behaviors had on their children, as they could see their behaviors and their child's responding instead of just hearing about them.

Direct instruction of developmentally supportive parenting behaviors.

Behavioral parent training uses explicit instruction to help parents define problem behaviors, identify appropriate behaviors, and teach, model, and practice such behaviors in a familiar context with their children (Maughan et al., 2005). The MVP intervention follows such guidelines of behavioral parent training by provide direct instruction on

developmentally supportive parenting behaviors through (1) discussing and reading an information sheet on each behavior, (2) watching example clips of the mother engaging in the developmentally supportive parenting behavior with her child, (3) providing a frame-by-frame discussion of the interactions between the mother and her child during her demonstrations of the developmentally supportive parenting behaviors, and (4) providing the mother instruction on implementing the developmentally supportive parenting behavior with her child during visitation time. Taken together, the direct instruction on developmentally supportive parenting behaviors provided by the MVP intervention may have contributed to the increase in the percentage of intervals with these behaviors and the increase in the conditional probabilities that mothers followed their children's behaviors with developmentally supportive parenting behaviors.

Reinforcement of developmentally supportive parenting behaviors. As discussed in the review of current literature, strength-based practice in child welfare work has a strong theoretical foundation as an effective helping strategy for developing prosocial skills and appropriate behaviors in at-risk children and adults (Brun & Rapp, 2001; Laursen, 2000; Wulczyn, 2004). In fact, a qualitative study that examined individuals' experiences of participating in a strength-based case management program found that participants reported feeling more competent and independent in their ability to self-manage their substance recovery, had a stronger connection with their caseworker, and found the strengths process valuable (Brun & Rapp, 2001). The MVP intervention focused solely on the reinforcement of participating mothers' demonstrations of developmentally supportive parenting behaviors with their children; no attention was provided to negative parent behaviors. Mothers were provided with a great deal of praise

from the interventionist contingent on the demonstration of the developmentally supportive parenting behaviors. Similar to the findings of the Brun and Rapp (2001) study, mothers who participated in the MVP study expressed, via social validity and contextual fit surveys, feeling more competent in their parenting skills, having a stronger connection with their child, and finding the intervention valuable to them and their families. These self-reports, as well as the functional relation between implementation of the MVP intervention and an increase in developmentally supportive parenting behaviors across all mothers, may be related to the strength-based approach taken in this intervention where the mothers received continuous reinforcement of their developmentally supportive parenting behaviors.

Limitations

Although the present study utilized a within-subjects multiple baseline design to control for threats to validity, some threats to external validity exist and are further discussed. Additionally, limitations regarding feasibility of the evaluated intervention and generalization of the learned skills are discussed below. Due to the limitations of this study, results for participating families should be interpreted with caution.

Threats to external validity. The present study took place in private visitation rooms at the Department of Human Services (DHS); therefore results may not be generalizable to other settings such as home-settings, clinic settings, or less controlled settings such as playgrounds. Additionally, participants in this study were mothers who were being considered for reunification with their child. Although they were told that participation, or lack of participation, would not affect visitation rights or other matters related to custody or DHS, these mothers had been encouraged by their supervising

caseworkers to participate in this study. There may also be something unique about this sample that made them more likely to respond to the MVP intervention. Therefore, effects of the MVP intervention for the participating mothers in this study may not be generalizable to mothers who have already been reunified with their child, mothers not being considered for reunification, or other supervising adults such as fathers, foster parents, teachers, or daycare providers.

Intervention feasibility. The MVP intervention utilizes technology that may not be accessible, affordable, or feasible for other clinicians. These include handheld cameras, video editing equipment, and laptop computers for coaching sessions. Although the MVP intervention is brief in duration, extensive training and supervision is required before a clinician can embark on editing videos, selecting clips, providing coaching to parents with fidelity, and teaching the four MVP parenting skills. Lastly, the process of taking videos, uploading videos, and editing videos is time consuming and labor intensive. Therefore, the MVP intervention may not be a feasible for clinicians with limited training, funding, equipment, or time.

Other limitations. Results of this study are limited in that generalization data was not collected for any of the participating families. At the conclusion of this study, none of the participating families had initiated the reunification process, and to date, one of the participating mothers is continuing to engage in the visitation process, one has signed over parental right of her child to the State, one has placed her child up for adoption, and one has been incarcerated. The collection of generalization data in the home for mothers who have been reunified with their child may provide telling information regarding the effects of the MVP intervention on sustained behavior change.

Future Research

This study provides initial support for the effectiveness of the MVP intervention to increase developmentally supportive parenting behaviors when implemented with mothers during supervised visitation time with their children. However, research on the intervention used in this study is still in its infancy. This is the first step in the development of the intervention; this is not the final intervention. Thus, this next section provides suggestions for future research that may aid in further development of the MVP intervention.

Component analysis of MVP. The MVP intervention included several components that may have been necessary to the success of this intervention in this study (e.g., information sheets on developmentally supportive parenting behaviors, strength-based coaching with videos, encouragement of appropriate behaviors, instruction of developmentally supportive parenting behavior received within 5-min of visit with child, presence of video camera and interventionist in the visitation room). Future research may conduct a component analysis to determine the most salient features of the MVP intervention, in an effort to simplify this intervention and make it more feasible to train and implement.

Replication. This study used a small sample size of four mother-child dyads. Therefore, future studies may replicate these findings across greater numbers of participants from a variety of backgrounds (e.g., ethnically diverse populations, children or parents with disabilities, families with limited English proficiency). This research should also be replicated to determine the effectiveness of the MVP intervention outside of the supervised visitation setting (e.g., school settings, home settings), as it may have

important implications for the adequacy and feasibility of this intervention in more naturalist settings. Additionally, the present study was conducted with children under the age of 3 years old and their mothers. Future studies may also examine effects of the MVP intervention with older children and with other caregivers (e.g., fathers, foster parents, teachers) to determine for whom this intervention would be effective.

MVP plus basic parenting. As stated previously, the percentage of intervals coded with negative parenting behaviors were low across all participants. While these data are interesting, one must consider the nature of the negative parenting behaviors observed across all participating mothers. For example, mothers were observed feeding their children food that were not age-appropriate (e.g., dry Ramen noodles to a 14-month-old), or begging their children not to defecate due to a few mothers' difficulty with diaper changing. These observations suggest that proper training on feeding, diaper changing, and overall toddler-handling practices may need to be provided prior or in addition to engagement in this intervention. Additionally, it may be useful to assess mothers' knowledge and implementation of such toddler-handling practices prior to implementation of the MVP intervention. Training on these practices may be incorporated into the MVP intervention or may be provided in addition to the MVP intervention by overseeing DHS staff members. Future research may evaluate whether the MVP intervention plus training on basic parenting skills has a stronger effect on parenting behaviors for this population of mothers than the MVP intervention alone.

Comparison of Marte Meo and MVP. The present study evaluated a modified version of the Marte Meo Method. Some of these modifications included more structured coaching sessions around targeted developmentally supportive parenting behaviors, a

limit on the length of implementation to 10-weeks, and instruction on staggered skills that build upon one another. However, it is unknown whether MVP and Marte Meo would produce similar results for the same population of participants. Future research may examine direct observation data of implementation of both of these interventions with similar populations to determine levels of effectiveness of these interventions in changing parenting behaviors. Lastly, it should be mentioned that what appeared to be a vital component of the MVP intervention was that instruction was concluded approximately 5-min prior to the mothers having the opportunity to practice with their child. It is unknown whether the effects would be the same for the 1-week lapse between training and practice proposed by the Marte Meo Method. Future studies may examine whether the length of time between training and practice makes a difference on the effects these interventions have on increasing developmentally supportive parenting behaviors.

Cross-informant data on MVP intervention. The present study only collected social validity and contextual fit data from the participating mothers. This was due to an agreement with DHS that no demands would be asked of the supervising caseworkers or attending staff during implementation of this intervention. While all the mothers rated the MVP intervention as a socially valid intervention that fit well within the context of supervised visitation time, future research may examine if these ratings are consistent across the mothers, their caseworkers, and any other DHS staff members involved in their cases.

Contextual fit. As stated in the methods section, the tool utilized in this study to measure contextual fit had been significantly modified from the original Self Assessment of Contextual Fit in Schools (Horner et al., 2003) in order to meet the perceived needs

and reading levels of the participating mothers. The original measure asked questions related to contextual fit, such as (a) Do you understand what you are to do as a function of MVP? (b) Are you comfortable doing the skills taught through MVP?, (c) Do you have the time, skills, and support to do the skills taught through MVP?, and (d) Do you believe the skills taught through MVP will be effective at improving child behavior and family dynamic? The tool used in this study did not ask such questions, and therefore may not be an adequate measure of contextual fit. Future studies may explore other methods of measuring contextual fit, to better assess the extent to which the elements of the MVP intervention fit the contextual features of the DHS environment.

Generalization of skills. Data collection in the present study was limited to one visit per week at the DHS facilities. Data were also collected from baseline through 1-week post intervention. It would be beneficial for future studies to collect data on continued maintenance of the trained skills in the visitation setting as well as generalization of the trained skills to the home setting, for mothers who are reunified with their child. These data would help determine if the parenting skills learned during visitation time generalized to the home setting and maintained over a longer period of time.

Implications for Practice

The results of the present study indicate that the MVP intervention is effective in increasing developmentally supportive parenting behaviors across four mothers who have limited parenting time with their children. MVP teaches foundational skills upon which other parenting skills are built upon, and thus may better prepare parents for more advanced parenting skills and their children develop. Additionally, conditional

probability data indicate that mothers increased their developmentally supportive parenting behaviors following their child's behaviors, a finding that is of particular importance because one of the goals of the MVP intervention is for parents to be more responsive to their child's initiations. Child welfare agencies are currently in need of effective interventions for parents who are at-risk of losing custody of their children, have lost custody of their children, and who are working to meet the necessary criteria for being reunified and bringing their children home. While many child welfare agencies provide parent training outside of the supervised visitation context and often in parenting groups where children are not present, it may be more efficient for these agencies to provide parents with instruction, modeling, and practice opportunities of appropriate parenting skills during times where they can implement these skills with their children under supervision of an interventionist or caseworker who can provide them with coaching. Supervised visitation time for mothers who have lost custody of their children is one such example of a time in which parent training may be provided. This study has demonstrated that in this setting, appropriate parenting skills can be increased.

Fidelity data collected during this study indicated that the MVP intervention was implemented with high fidelity, and this may have had a positive impact on the results. This is also important given the limited resources and time that DHS staff members have during supervised visitation time. Resources and time must not be wasted on an intervention that may not be effective due to poor fidelity of implementation, or one that is difficult to implement with integrity. Therefore, it is crucial to ensure that the person implementing the MVP intervention is properly trained on the components of the intervention and receives supervision from other trained individuals prior to and during

implementation with families. Finally, all participating mothers indicated that participation in this intervention was easy for them, worth their time and effort, and improved both their parenting skills and their relationships with their children. These may be vital factors to the sustainability of any parenting intervention, and indicate the importance of gathering information on the perceptions of participants regarding their views of the interventions they are currently receiving.

APPENDIX A

MVP FIDELITY OF IMPLEMENTATION CHECKLIST

Name: _____

Date: _____

Fidelity of Implementation: To be completed by MVP data collector after reviewing the coaching meeting videotape.				
Item	Yes	Most of the time	Some of the time	No
1. Did the interventionist provide a summary of the coaching process to the mother?				
2. Did the interventionist make eye contact with the mother and use a friendly tone of voice during each discussion of the video clips?				
3. Did the interventionist provide positive praise to the mother for every developmentally supportive parenting behavior?				
4. Did the interventionist identify for the mother how every developmentally supportive parenting behavior is supportive of her child's development and why?				
5. Did the interventionist solicit the mother's input, questions, and opinions, and reflectively listen while she shared?				
6. Did the interventionist provide the mother with a reminder of the developmentally supportive parenting behavior to work on during her visitation meeting with her child and an information sheet?				

Scoring Fidelity of Implementation:

Yes (90% or more) = 3 points

Most of the time (60-90%) = 2 points

Some of the time (<60%) = 1 point

No = 0 points

Sum of all points: _____ / 18 total points possible x 100 = _____%

APPENDIX B

MVP FIDELITY OF EDITING CHECKLIST

Name: _____

Date: _____

Fidelity of Editing: To be completed by MVP data collector after viewing the edited videotape.		
Item	Yes	No
1. Does the edited video begin with a still frame that demonstrates a positive interaction between the mother and her child?		
2. Does the edited video include the demonstration of a developmentally supportive parenting behavior in clip #1?		
3. Does the edited video include the demonstration of a developmentally supportive parenting behavior in clip #2?		
4. Does the edited video include the demonstration of a developmentally supportive parenting behavior in clip #3?		
5. Does the edited video end with a still frame that demonstrates a positive interaction between the mother and her child?		
6. Is the edited video no longer than 3 minutes in length?		

Scoring Fidelity of Editing:

Yes = 1 points

No = 0 points

Sum of all points: _____ / 6 total points possible x 100 = _____ %

APPENDIX C

MVP CONTEXTUAL FIT QUESTIONNAIRE

Assessor: "I am going to ask you some questions about the MVP program you are going to take part in. As always, your answers will be confidential."

"Please answer the following questions on a scale of 1 to 6, 1 being 'strongly disagree' and 6 being 'strongly agree'."

1. I have had parent training in the past that has improved my parenting skills before beginning the MVP program.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

2. I think that the MVP program will help me to reach my parenting goals.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

3. I do not think the MVP program will be stressful for me.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

4. The MVP program has been explained to me and I understand what is expected of me to take part in the program.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

APPENDIX D

MVP SOCIAL VALIDITY QUESTIONNAIRE

Assessor: "I am going to ask you some questions about your experiences and feelings about the MVP program now that you have finished it. As always, your answers will be confidential."

"Please answer the following questions on a scale of 1 to 6, 1 being 'strongly disagree' and 6 being 'strongly agree'."

1. The MVP program has improved my parenting skills.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

2. The MVP program has brought me and my child closer.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

3. The MVP program was worth the time and effort.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

4. I would recommend the MVP program to my friends.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

5. The MVP program was easy for me to do.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

6. I am aware of the main ideas of the MVP program.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

Disagree Disagree Disagree Agree Agree Agree

7. I knew what I was expected to do to during my participation in the MVP program.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

8. I am comfortable using the main ideas of the MVP program with my child.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

9. The main ideas of the MVP program are in-line with my beliefs about how parents and children should interact.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

10. I believe the MVP program has been helpful in reaching my parenting goals.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

11. I believe the MVP program has been good for my family.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

12. The MVP program has not been stressful for me.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

13. I will continue to use the skills that I've learned from the MVP program.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Barely Disagree	Barely Agree	Moderately Agree	Strongly Agree

APPENDIX E

SHARING THE FOCUS OF ATTENTION



Sharing the Focus of Attention happens when **you notice what your child is doing or paying attention to** and you try to share this moment with your child.



For example, you may notice that your child has picked up a favorite book. If you were then to turn your attention to this book, you would be *sharing the focus of attention* with your child.

Or you might realize your child is hungry because they were pointing at a bottle and crying. When you looked at where your child was pointing you were *sharing the focus of attention*.

Why is it important?

Sharing the focus of attention helps **you** to:

- Notice what your child is doing or feeling
- Understand what your child is interested in and what your child needs from you
- Know more about your child, helping you and your child to be more connected
- Join your child in an activity

Sharing the focus of attention helps **your child** to:

- Feel valued and cared for
- Be more independent and develop his or her own interests
- Know that his or her thoughts and feelings are ok with you, helping your child feel comfortable with these emotions
- Learn about the world by interacting with you



APPENDIX F

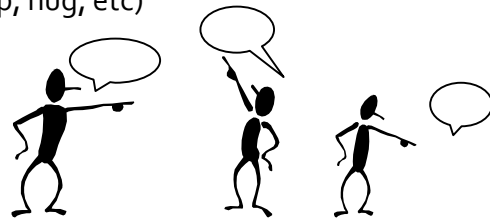
NOTICING AND ENCOURAGING



Noticing and Encouraging is when you first join your child in what he or she is interested in, and then respond by either:

- Giving a name to what your child is paying attention to, what you or your child is feeling, or what is happening.
- Encouraging your child with words by praising (ex: "Good job handing me the book!"), rephrasing or repeating (ex: "You said mama's name."), or letting your child know that his or her feeling are okay (ex: "It's okay that you're crying.")
- Using your body language to let your child know that you have noticed them (e.g., giving a high five, thumbs up, hug, etc)

Why is it important?

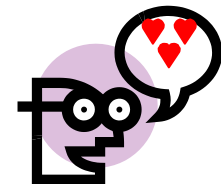


Naming:

- You can name everything for your child! You can name emotions, objects, people, events, and anything else that happens in your daily life.
- Naming lets you share information about the world
- Naming increases your child's language and vocabulary
- Helps your child learn to communicate better and share his or her own thoughts

Encouraging with words:

- Lets your child know that you are noticing them and are interested in them
- Tells your child that his or her thoughts and feelings are okay
- Lets your child know that you are available whenever he or she needs you
- Increases your child's confidence



Body Language:

- Shows your child that you notice them and think they are doing great things
- Increases your child's confidence and independence





APPENDIX G

TURN-TAKING

Turn-taking is when you and your child respond to each other using words or body language in a back and forth fashion. During *turn-taking*, one person acts and the other person watches and waits and then responds.



During *turn-taking*, it helps to **wait** and **watch** for your child to respond to you. Children need more time to respond than adults. When you watch and wait for your child to respond you are supporting their development. When you respond to your child you are building a bond and teaching them about how to be with others.

Why is it important?

Turn-taking allows **you** to:

- Have fun with your child
- See what kind of supports your child needs to develop
- Build a closer bond with your child



Turn-taking allows **your child** to:

- Learn how to interact well with others
- Feel confident and independent when interacting with others
- Feel heard
- Know that you care about his or her thoughts and feelings
- Have a close bond with you
- Learn how to cooperate with others



APPENDIX H

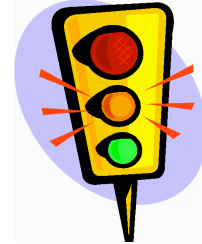
BEGINNINGS AND ENDINGS

Good *beginning and endings* happen when you let your child know that an activity is about to start or end. You can use your words or your body language.



First we're going to
change you then...

Why is it important?



Sometimes going from one activity to the next can be difficult for infants, toddlers, and children. Letting your child know when an activity is about to begin or end will help your child prepare for the transition to the next activity. When children know what is about to happen, they are less likely to worry and feel anxious and are more likely to move on to the next activity.

Beginnings and endings allows **you** to:

- Move through routines more smoothly
- Have more enjoyment in daily activities with your child
- Notice when your child is ready to begin a new task

Beginnings and endings allows **your child** to:

- Feel more comfortable going from one activity to the next
- Be less worried or anxious because your child knows what is happening next
- Learn about everyday routines
- Feel more secure and independent
- Feel like his or her voice is heard



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