

Published in final edited form as:

Child Abuse Negl. 2013 August ; 37(8): 585–595. doi:10.1016/j.chiabu.2013.02.010.

Training maltreating parents in elaborative and emotion-rich reminiscing with their preschool-aged children

Kristin Valentino^a, Michelle Comas^a, Amy K. Nuttall^a, and Taylor Thomas^a

^aDepartment of Psychology, University of Notre Dame, Haggar Hall, Notre Dame, IN 46556 USA

Abstract

Objective—In the current study, the effects of training maltreating parents and their preschool-aged children in elaborative and emotion-rich reminiscing were examined.

Method—44 parent-child dyads were randomly assigned to a training (reminiscing) or wait-list (control) condition. All participating parents had substantiated maltreatment and were involved with the Department of Child Services at the time of enrollment. Children were 3–6 years old ($M = 4.88$, $SD = .99$) and living in the custody of the participating parent. Dyads in the reminiscing condition received four, weekly, in-home sessions in elaborative and emotion rich reminiscing.

Results—At a follow-up assessment, maltreating parents in the reminiscing condition provided more high-elaborative utterances, references to children's negative emotions, and explanations of children's emotion during reminiscing than did parents in the control condition. Children in the reminiscing condition had richer memory recall and made more emotion references than did children in the control condition during reminiscing with their mothers, but not with an experimenter.

Conclusion—The findings suggest that maltreating parents can be taught elaborative and emotion-rich reminiscing skills, with benefits for child cognitive and emotional development. The potential clinical utility of a reminiscing-based training for maltreating families with young children is discussed.

Keywords

Parent training; early childhood; child abuse; maltreatment; reminiscing; intervention; home-visiting

Child maltreatment is destructive to children's development in multiple domains (Cicchetti & Valentino, 2006). With approximately 700,000 child victims of substantiated abuse and neglect in the United States each year, and 5 times as many children investigated by the child welfare system (US DHHS, 2012), child maltreatment undoubtedly is a significant public health concern. Among those investigated, up to 50% exhibit clinically significant mental health symptoms (Burns et al., 2004), with approximately 68.1% of preschool-aged children exhibiting substantial behavioral, emotional, and/or developmental problems (Stahmer et al., 2005). As such, there is a need for interventions for maltreatment that are

© 2013 Elsevier Ltd. All rights reserved.

Corresponding Author: Kristin Valentino, Ph.D. Department of Psychology, University of Notre Dame. 128 Haggar Hall, Notre Dame, IN 46556. Kristin.valentino@nd.edu Phone: 574-631-1641, Fax: 574- 631-8883.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

theoretically and empirically driven by research on risk and protective factors, and are implemented during early childhood.

Intervening with maltreating parents and their children during early childhood may provide the most beneficial impact on the child and family due to the rapid developmental changes at this age and the high prevalence of abuse and neglect in children under the age of 7 (US DHHS, 2012). Despite theoretical support and practical need for interventions for maltreating parents and their young maltreated children, there are few empirically validated treatments for the preschool age period, and even fewer that involve both the maltreating parent and the child in the intervention (Cicchetti & Valentino, 2006; MacMillan et al., 2009). Addressing the parent and the parent-child relationship should be a critical focus of maltreatment interventions, as more than 80% of maltreated children are victimized by a parent and the vast majority of child maltreatment victims remain in, or are returned to the custody of their parents (US DHHS, 2012).

The development of a brief, focused intervention for this age group is needed given meta-analytic evidence that brief (5–16 week), dyadic interventions focused on parent interactive behavior and sensitivity are more effective and less costly than longer-term (20–52 week) parenting programs (Bakermans-Kranenburg, van Ijzendoorn, & Juffer, 2003). Although long-term, and/or multi-component approaches to addressing maltreatment have shown positive effects (i.e., Parent-Child Interaction Therapy; Chaffin et al., 2004; Nurse Home-Visiting Program, Olds et al., 1997, 1998), more recent findings demonstrate that short-term, dyadic, home-visiting programs are also efficacious for maltreating families (e.g., Moss et al., 2011). Furthermore, likely due to budgetary constraints, long-term, multicomponent programs are not widely implemented as the leading services provided by the child welfare system. Instead, case management and/or didactic group parent education classes more frequently continue to be employed, neither of which directly involves the child, nor targets individual parent-child relationships; only 2% of these parent education programs are supported as efficacious by empirical evidence (Hurlburt et al., 2007). Given the potential advantage of brief parenting interventions in early childhood, as well as limitations on funds for maltreatment intervention services, the current study addresses a notable gap in the literature by providing the results of a pilot study of a brief, dyadic training (Reminiscing and Emotion Training; RET) for maltreating parents and their preschool-aged children. RET focuses on facilitating elaborative and emotionally supportive parent-child communication, an important component of the parent-child relationship, which had been extensively supported in the developmental literature for improving parenting and child functioning in multiple domains (Nelson & Fivush, 2004), and can be taught effectively via brief training (Salmon, Dadds, Allen, & Hawes, 2009).

Positive parenting is vital in supporting young children's cognitive development, and in providing external emotional regulation for the child (e.g., Bowlby, 1969; Sroufe, Carlson, Levy, & Egeland, 1999). As children's verbal skills develop, parents' ability to co-construct open, elaborative and emotionally supportive narratives about children's emotional experiences becomes critical in supporting children's cognitive and socio-emotional development and in shaping children's representational models (Fivush, Haden & Reese, 2006; Thompson, 2006). There are clear individual differences in parental reminiscing style (e.g., Fivush & Fromhoff, 1988; McCabe & Peterson, 1991). Mothers who are able to talk in rich, detailed ways with their children about past events and thus in a high elaborative reminiscing style (in contrast to using a low elaborative or repetitive style), have children who are able to discuss the past more elaboratively during parent-child conversations (Engel, 1995; Fivush & Fromhoff, 1988; McCabe & Peterson, 1991; Reese, Haden, & Fivush, 1993). Similarly, elaborative reminiscing is positively related to children's independent memory recall, outside of the context of the mother-child discourse (Hudson,

1993; Leichtman, Pillemer, Wang, Koreishi, & Han, 2000) and benefits preschool-aged children's autobiographical memory, language and literacy development (Nelson & Fivush, 2004; Peterson, Jesso, & McCabe 1999; Reese et al., 1993). Moreover, longitudinal research reveals that elaborative maternal reminiscing is associated with more detailed memory for past events in children, both concurrently and subsequently (Harley & Reese, 1999, Reese et al., 1993).

Experimental research provides further evidence for the central role of parent-child reminiscing in relation to children's memory; in these studies, elements of an elaborative reminiscing style have been taught to parents of middle and low socioeconomic statuses and of diverse backgrounds (Boland, Haden, & Ornstein, 2003; Peterson, et al., 1999; Reese & Newcombe, 2007; Salmon, et al., 2009, Van Bergen, Salmon, Dadds, & Allen, 2009). Following training, mothers were more elaborative than those who were not trained, and children of elaborative mothers had richer memories, as indicated by increased contributions of unique memory information during reminiscing, than children of untrained mothers.

Parent-child reminiscing affects not only memory content, but it also serves an important function in children's emotional development. In particular, elaborative mother-child reminiscing has been positively associated with children's self-understanding, coping skills, and reduced internalizing and externalizing symptoms over time (Haden, Haine, & Fivush, 1997; Nelson & Fivush, 2004; Peterson & McCabe, 1992, 1994; Wareham & Salmon, 2006). Mother-child reminiscing that highlights shared positive emotional experiences may serve to reinforce and foster positive aspects of the parent-child relationship, increase positive parental representations (Toth, Cicchetti, & Kim, 2002), and improve the quality of the parent-child relationship (Nelson & Fivush, 2004; Wareham & Salmon, 2006). Parent-child communication exclusively about positive emotions, however, may not be effective in alleviating children's psychological distress (Gomulak-Cavicchio, Davies & Cummings, 2006). In fact, supportive reminiscing of *negative* emotions specifically, including validation of children's feelings, and explanation of emotion causes and resolutions, is positively associated with children's emotion regulation (Fivush et al., 2006), high self-esteem (Bohanek et al., 2008), positive representations of relationships (Laible, 2004), and attachment security (Laible, 2011), whereas reminiscing of positive emotions alone are not. If parents cannot engage in emotional discussion, and are dismissing or avoidant of children's negative emotions, then children are left without adequate coping skills and are at increased risk for psychopathology (Koren-Karie, Oppenheim, & Getzler-Yosef, 2004).

Given the importance of elaborative and emotionally-supportive reminiscing in shaping children's cognitive and emotional development during the preschool years (Fivush et al., 2006; Thompson, 2006), coupled with evidence that parents can develop these skills following brief training (e.g., Salmon et al., 2009; Van Bergen et al., 2009), researchers have begun to explore the clinical utility of training parents in elaborative and emotionally-supportive reminiscing. For example Salmon and colleagues examined the effects of training parents in elaborative, emotion-rich reminiscing as an adjunct to Parent Management Training (PMT) with parents of children with oppositional behaviors (Salmon, et al., 2009). Results indicated that children in both the PMT and PMT plus reminiscing groups improved in their behavior, and that training parents in an emotion-rich reminiscing style resulted in greater parent and child use of elaborations and emotion references during shared conversations. Given well established associations between parent emotion talk and children's later emotional competence, this research has important implications for interventions involving children who have compromised emotion regulation skills and are at risk for the development of psychopathology, especially maltreated children.

Because research with maltreated children demonstrates significant impairments in memory (Valentino, Cicchetti, Rogosh, & Toth, 2008; Valentino, Toth, & Cicchetti, 2009), self-system functioning, emotion regulation, and increased risk for psychopathology (see Cicchetti & Valentino, 2006 for review), training maltreating mothers in elaborative and emotionally supportive reminiscing about positive and negative every-day past events may augment the protective effects of a positive parent-child relationship (Toth et al., 2002), increase parental sensitivity, and address multiple developmental sequelae of maltreatment. A reminiscing-based training strategy is particularly relevant for maltreating families because mothers from abusing families engage in fewer verbal interactions with their children throughout infancy (Valentino, Cicchetti, Toth, & Rogosch, 2006) and the preschool years (Alessandri, 1992). When reminiscing, maltreating mothers are less likely to discuss causes and consequences of emotions with their children, which is associated with poor emotion understanding (Shipman & Zeman, 1999), and poor emotion regulation (Shipman et al., 2007) in their children. Importantly, maternal emotion discussion has been shown to mediate the association between maltreatment and children's emotion regulation (Shipman et al., 2007), making elaborative and emotionally supportive reminiscing about everyday events a prime target for intervention with this sample.

Among school-aged children and adolescents, there is substantial evidence that detailed discussion of traumatic events with a supportive parent is a central component of effective interventions for posttraumatic stress (Cohen, Mannarino, & Deblinger, 2006) and child physical abuse (Kolko, 1996) as long as the parent (offending or nonoffending) is able to respond sensitively and appropriately to the child's memory and emotions (Cohen et al., 2006; Kolko, 1996). Thus, training maltreating parents in elaborative and emotionally supportive reminiscing in the context of discussion of everyday events provides a nonthreatening framework from which to develop and practice these critical skills with guidance and supervision. Moreover, in the absence of child posttraumatic stress symptoms, this approach coheres with intervention recommendations for young maltreated children to focus on understanding and coping with emotions, rather than on recalling the trauma, because of inconsistent research regarding the extent to which young children remember traumatic events (Toth & Valentino, 2008). Through increasing elaborative and emotionally-supportive parent-child communication, reminiscing-based training may be critical in encouraging healthy cognitive and emotional development in maltreated children.

Hypotheses

In the current study, we randomized parent-child dyads to a 4-week reminiscing or wait-list control condition. Before and after the training (or wait period for families in the control condition), parent-child dyads were assessed for the elaborative and emotionally-supportive style of their shared memory conversations. Our primary hypotheses were that parents in the reminiscing condition would demonstrate greater increases in their elaborations and emotion references as well as explanations of negative emotions, relative to the control group following the training. Similarly, we anticipated that children in the reminiscing condition would provide richer memories and increased ability to reference their own emotions relative to the control condition. Finally, we anticipated that children's reminiscing skills would transfer to other contexts independent of maternal support, such that children in the reminiscing group would contribute more new information to memory conversations and more emotion references than children in the control group during reminiscing conversations with an experimenter.

Method

Participants

44 parent-child dyads were enrolled into the training study, which randomly assigned dyads to the reminiscing training (reminiscing) or wait-list (control) condition. All participating parents had substantiated maltreatment cases (i.e., were perpetrators) that were ongoing in Probate Court; as such, all parents were actively involved with the Department of Child Services (DCS) at the time of enrollment. All children were 3–6 years of age ($M = 4.88$, $SD = .99$), and were living in the primary custody of the participating parent. Parents were all primary caregivers (87% mothers, 9% fathers, and 3% grandmothers). Families were recruited from DCS where information was provided to families by individual case workers and via informational flyers posted in the DCS office. DCS caseworkers informed all eligible families of the research project and referred those families who were interested in learning more about the research to the project staff. Project staff then contacted families to obtain informed consent. Families were asked to participate in an intervention to help them learn new skills for talking with their children. The intervention was presented as a program that could help improve parents' communication skills and relationships with their children. The intervention did not replace or interfere with any ongoing services mandated by or provided to families by DCS,

Of the 44 families enrolled, four did not participate after the pre-assessment (9%). There were no differences in attrition rates between the reminiscing ($n = 2$) and control ($n = 2$) groups, thus 20 dyads participated in each group. Participating families were racially diverse (42.2% African American), and of low socioeconomic status; 71.1% of families reported an annual income of less than \$12,000. If a family had more than one child in the eligible age range, the parent was asked to select only one child to participate in the study.

Procedure

Families in all conditions completed a pre-assessment in the laboratory and were then randomized into either the reminiscing or control conditions. Families randomized to the reminiscing condition participated in 4, weekly, in-home training sessions each lasting 1 hour with one of three female family coaches. Families met with the same coach each week. Approximately 6 weeks after the initial pre-assessment (and following completion of the intervention for families in the reminiscing condition), all families participated in a post-assessment at the laboratory. Experimenters involved in the pre and post-assessments were blind to families' group status. Following the post-assessment, families in the control condition were offered the training.

Training Conditions

Reminiscing and Emotion Training (RET)—Based on the interventions of Salmon and Van Bergen (Salmon et al., 2009; Van Bergen et al., 2009), the RET condition included 4, weekly, in-home training sessions in elaborative parent-child reminiscing and emotion understanding for one hour each. Sessions were led by bachelors-level home-visitors, herein referred to as family coaches. Specific target behaviors include training parents to (a) ask more open-ended questions (e.g. “What happened next?”), (b) use detailed descriptions that describe the event and build on the children's descriptions, (c) make causal connections between children's experiences and their children's emotions (e.g. “I could tell you felt scared because...”), and (d) talk about resolutions for children's *negative* emotions (e.g. “how did you get over felling sad?”, or “I gave you a hug and you felt better”). Training focused on encouraging parents to include all of the aforementioned skills into each conversation (open-ended questions, elaborations, discussion/explanation of emotions), rather than specifying a goal length of time. These conversations focused on every-day past

events, and did not target traumatic events, though negative emotions were emphasized. During the first training session, parents watched a training video describing and demonstrating the parent-child reminiscing techniques, and were led through a training booklet by the family coach, which was given to the parent to help her practice. The parent was then asked to practice the reminiscing skills with the child during the session, which was videotaped and immediately viewed with the parent for feedback. Video feedback procedures allow clinicians to help parents focus on interactive behavior, to reinforce positive interactions, and to identify areas for improvement (Rusconi-Serpa, Rossignol, & McDonough, 2009). The use of video-feedback procedures has been associated with larger effect sizes in preventive parent-child interventions compared to those that do not (Bakermans-Kranenburg et al., 2003), and may be especially promising for use in increasing sensitivity among maltreating parents (Moss et al., 2011). At the conclusion of the session, parents were asked to practice the skills with their child everyday for 5 minutes each, and to record one practice session on audiorecorder (provided). To facilitate the parent-child conversations, parents additionally received a blank scrapbook that contained several activity pages with reminiscing “prompts” and parents were instructed to work on completing the scrapbook with their children throughout the intervention.

All subsequent sessions involved reviewing the previous week’s practice audiotape, and live, videotaped, parent-child reminiscing practice which was immediately viewed with the parent for feedback. If a parent failed to record a practice conversation during the week, two live practice conversations were included in the session so that all families received feedback on two conversations each week. Family coaches were trained to find examples of positive parent-child communication and interaction throughout intervention sessions, and to provide parents with praise and positive feedback regarding these specific moments. When selecting topics for discussion, the family coaches encouraged mothers to discuss a range of emotions (e.g., happy, sad, angry and afraid) across the training period and to choose one they had not practiced previously. Also, family coaches modeled skills as necessary, such as how to explain why a child might have felt a certain way, and to discuss how the child was able to overcome that emotion (or could do in the future to cope with negative feelings).

Waitlist Control Condition—Following the pre-assessment, families who were randomly assigned to the treatment as usual waitlist control condition scheduled a post-assessment for 6 weeks later. They were informed that following the second assessment that they may elect to receive the training if they desired.

Measures

Pre- and post-assessment tasks assessed parent-child and experimenter-child reminiscing conversations. Child language was assessed and utilized as a control variable given evidence that child language skill is associated with children’s recall ability (e.g., McGuigan & Salmon, 2004). Parent language was also assessed to ensure the two groups were comparable on this ability. Sessions were videotaped and audio-taped, and later transcribed for coding.

Memory Conversations

Parent-child memory conversations: Parents were asked to nominate on paper four events that were one-time occurrences and had been experienced by the parent and child together (see Fivush, et al., 2006; Salmon et al, 2009). Thus, the topics of discussed events were open. Examples of common discussion topics include being happy visiting McDonalds, being angry when the child didn’t get his/her way, and being scared during a thunderstorm. The experimenter randomly selected one of the four nominated events for use in the experimenter-child task, and parents were asked to discuss the remaining three events with

their child, as they normally would, while the experimenter left the room. No guidelines regarding the length of the conversations were specified.

Experimenter-child memory conversations: Following parent-child memory conversations, the experimenter discussed the remaining one event with the child. Parents provided experimenters with brief explanations of the selected event prior to the experimenter-child discussion. Following the procedure of Reese and Newcombe (2007), the experimenter began the discussion by inviting the child to draw. After both the experimenter and child had been drawing for a few minutes, the experimenter said “Your mom told me that you (event) the other day. Tell me everything you can remember about that.” Experimenters used open-ended prompts including “tell me more” and “uh-huh” to encourage the child to provide more information. The experimenters also used general encouragement words and phrases such as “cool” and “wow” as well as repeating the child’s words verbatim until it was clear that the child was finished discussing the event.

Parent and child language—The Peabody Picture Vocabulary Test (PPVT- 4; Dunn & Dunn, 2007) was utilized to assess parents’ and children’s receptive language. The PPVT-4 is an individually administered, multiple-choice test designed to assess receptive vocabulary skills in individuals aged 2–90 years old. Additionally, child expressive language was measured with the Expressive Vocabulary Test (EVT-2; Williams, 2007).

Coding

Parent-child and experimenter-child reminiscing conversations during pre and post assessment sessions were transcribed verbatim. Each utterance (subject-verb proposition) was coded. In addition, children’s utterances were coded once during parent-child conversations and once during experimenter-child conversations (see Harley & Reese, 1999; Peterson et al., 1999; Van Bergen et al., 2009 for similar schemes). Coders were blind to participant group status.

Parent coding—Each utterance was first coded for the presence or absence of elaboration. Elaborative utterances included open-ended Wh-questions and memory elaborations. Memory elaborations are utterances that provided the child with new information about the event (i.e., who was there, where it occurred, etc.). The total number of elaborative utterances made by each mother was counted and summed across event discussions.

Utterances were also coded for emotional content. Following Fivush et al. (2003) and Van Bergen et al., 2009, emotion content coding included coding for both positive and negative emotion attributions (e.g. “you were sad”), and emotion causes/explanation (e.g. “you were angry *because*”). Emotion attributions by valence (positive and negative) and emotion causes/explanations were counted and summed across events. Because we were most interested in emotional utterances about negatively valenced emotions, negative emotion attributions and total emotion causes/explanations were used in our analyses below.

Child coding—Each utterance was first coded for whether it represented a unique contribution to the memory conversation, where the child provided an independent memory elaboration that was not already provided by the parent (Reese & Newcombe, 2007). The total number of unique memory contributions made by the child was counted and summed across event discussions.

Utterances were also coded for emotional content. Specifically, each utterance was coded for whether or not the child referenced/labeled their own emotions and for valence of emotion. Emotion references were counted and summed across events. Because child

emotion references were relatively infrequent, especially during the pre-test, positive and negative emotion references were collapsed into a single emotion reference variable.

Reliability—Two experimenters coded the reminiscing transcripts utterance by utterance, including parent and child variables. Inter-rater reliability was based on 20% of transcripts across the two assessment sessions and calculated using Cohen's Kappa. For parent reminiscing coding, interrater reliability exceeded .90 for all variables. For child coding, reliability for unique memory contributions was .99 and for emotion references was .86 during mother-child conversations and .96 and .75, respectively, during experimenter-child conversations. Disagreements were discussed and consensus reached.

Results

Preliminary Analyses

Of the 44 dyads enrolled, 40 dyads completed the study. There were no differences in attrition as a function of group assignment, $\chi^2(1) = .17, n.s.$ Additionally, those who completed the study were not different from those who were lost to attrition on any demographic variables, including child gender, $\chi^2(1) = .45, n.s.$, child age, $t(43) = 1.42, n.s.$, parent gender, $\chi^2(1) = .70, n.s.$, and parent employment status, $\chi^2(2) = .50, n.s.$

Table 1 presents demographic and pre-test assessment results by group (reminiscing vs. control). There were no significant differences between reminiscing and control groups on any demographic variables. Additionally, there were no significant differences between groups on parent language, $t(38) = .12, n.s.$, or child language, $t(38) = .51, n.s.$, as measured with the PPVT-4, or with child expressive language as measured with the EVT-2, $t(38) = .61, n.s.$

Parent Reminiscing

Square-root transformations were utilized to normalize the distributions of the parent reminiscing variables. Child language skills (PPVT-4 standard scores) and age were used as covariates in all analyses (Van Bergen et al., 2009) as were pre-assessment parental reminiscing skills (Rausch, Maxwell, & Kelley, 2003). MANCOVA analyses (on parent elaborative utterances, negative emotion attributions, and emotion causes/explanations) indicated that parents in the reminiscing group ($n = 20$) demonstrated significantly more elaborative and emotion rich reminiscing compared to the control group, $F(3, 31) = 6.36, p < .01$, at the post assessment. Specifically, univariate tests indicated a trend approaching significance where parents in the reminiscing group used more elaborative utterances than did parents in the control group, $F(1, 33) = 3.34, p = .08, d = .59$. Parents in the reminiscing group made significantly more attributions of children's negative emotions than did parents in the control group, $F(1, 33) = 13.91, p < .01, d = 1.2$. Untransformed pre and post-test means by group are presented in Figure 1. Parents in the reminiscing group additionally provided more causes/explanations of children's emotions ($M = .48, SD = .62$) than did those in the control group ($M = 0.0, SD = 0.0, F(1, 33) = 10.64, p < .01, d = 1.09$). There were a large number of parents who provided no emotion explanations/causes, thus the skewness of this variable remained high ($1.8, SE = .37$) despite a square-root transformation. Therefore, to verify that the degree of skewness did not affect the findings, a supplementary nonparametric test of condition was conducted using the Mann-Whitney procedure. Findings were consistent with the ANOVA, again indicating significant differences between groups on explanations/causes of emotion, $U = 120, p < .01$ such that parents in the reminiscing group provided more emotion explanations/causes than did parents in the control group. Parallel analyses were conducted replacing child PPVT-4 scores with performance on the EVT-2 (a test of expressive rather than receptive language) and identical results were found.

Additionally, parent reminiscing skills were examined as a function of parent gender; no significant differences in pre- or post- reminiscing skills by gender were detected. Inspection of reminiscing means over time for the intervention group indicated that the intervention was moderately successful for many parents, with positive change observed in 60% of parents for the use of elaborative utterances and 55% for negative emotion attributions. Overall, these key findings demonstrate that maltreating parents can be taught to utilize elaborative and emotion rich reminiscing skills.

Child Reminiscing

Parent-child context—Square-root transformations were used to normalize the distribution of the child reminiscing variables. MANCOVA analyses of child performance during parent-child reminiscing, controlling for child pre-assessment reminiscing performance child language and age, indicated that cognitive and emotional aspects of children's reminiscing in the reminiscing group was significantly better than was children's reminiscing in the control group, $F(2, 33) = 10.69, p < .001$. Univariate tests revealed that children in the reminiscing group made significantly more unique memory contributions than children in the control group, $F(1, 34) = 9.48, p < .01, d = .71$. Additionally children in the reminiscing group made more frequent references to their own emotions during reminiscing than did children in the control group, $F(1, 34) = 18.26, p < .001, d = 1.35$, Figure 2). Untransformed pre and post-test means by group are presented in Figure 2. Again, parallel analyses were conducted replacing child PPVT-4 scores with performance on the EVT-2 and identical results were found. Inspection of reminiscing means over time for the intervention group indicated that the intervention was successful for many children, with positive change observed in 90% of children for unique memory contributions and 50% of children for emotion references.

Experimenter-child context—MANCOVA analysis of child performance during experimenter-child reminiscing, controlling for child pre-assessment reminiscing and language, did not indicate significant differences in child unique memory contributions or child emotion references as a function of group, $F(2, 30) = 1.06, n.s.$

Discussion

In the current study, we successfully taught maltreating parents to use a more elaborative and emotion-rich reminiscing style with their preschool-aged children following a brief training. After four weeks of home-based training, parents in the reminiscing condition included more elaborative utterances, emotion references for children's negative emotions, and explanations of children's emotions during reminiscing about past events. This finding is consistent with prior literature where mothers have been able to learn these reminiscing skills following brief training (Boland et al., 2003; Peterson et al., 1999; Reese & Newcombe, 2007; Salmon et al., 2009; Van Bergen et al., 2009), and provides the first evidence that maltreating parents can benefit from training in parent-child reminiscing. Demonstrating improvements in maltreating parents' elaborative and emotion rich reminiscing is important as aspects of mother-child communication generally (Valentino et al., 2006), and emotion-reminiscing specifically (Shipman et al., 2007) have been found to be deficient among maltreating parents.

Moreover, this study demonstrates that a reminiscing-based training with maltreating parents and their preschool-aged children is feasible. Participation was excellent, with 9% attrition observed. Although our study followed families for 6 weeks versus 6 months (Van Bergen et al. 2009) or longer, the high participation rate is similar to that of Reese and Newcombe (2007) who followed families for 18 months. Importantly, both Reese and Newcombe

(2007) and the current study implemented the training via home visitation, whereas high attrition was observed when lab-based training was utilized (Van Bergen et al., 2009); thus, home visitation may be key for successfully retaining families in a reminiscing training.

Parental elaborative reminiscing has been linked to children's subsequent cognitive abilities in a number of domains including preschool-aged children's memory, language and literacy development (Nelson & Fivush, 2004; Peterson et al., 1999; Reese et al., 1993). Thus, improving parental reminiscing style during the preschool years may be a useful preventive intervention for maltreated children's memory by providing children with increased opportunities to rehearse, understand, and organize past events into their autobiographical memory (Fivush et al., 2003). Indeed, following training, children in the reminiscing group provided richer memories than did children in the control group during parent-child reminiscing. Such improvements in child memory are particularly important for maltreated preschool-aged children as maltreated children have been shown to have impairments in memory recall during middle-childhood (Valentino et al., 2009), especially in the context of maternal stimuli (Valentino et al., 2008). Specifically, abused children have been shown to demonstrate higher rates of overgeneral memory, characterized by greater difficulty in retrieving memories of discrete autobiographical events, compared to nonmaltreated children (Valentino et al., 2009). Overgeneral memory has been identified as a significant predictor of both depressive and posttraumatic stress symptoms (see Moore & Zoellner, 2007 for review). Thus, improvement in maltreated children's ability to contribute unique memory information to past event discussions with their parents is an important outcome of the current study. Future research should examine whether such improvements decrease subsequent risk for an overgeneral memory style and psychopathology in middle childhood.

In addition to cognitive outcomes, an elaborative and emotion-rich parent reminiscing style has been shown to benefit children's emotional development such as the ability to label and discuss their own emotional states and those of others (Fivush et al., 2006). Reminiscing about past emotional experiences may be especially helpful in scaffolding maltreated children's developing knowledge about emotions and emotion situations, may help children understand the meaning of past experiences, and may guide children's subsequent behavior and problem solving abilities when presented with similar emotion situations in the future (Fivush et al., 2003; Pillemer, 2003). Thus our finding that maltreating parents improved in their ability to reference their children's negative emotions during reminiscing may be especially helpful in improving emotion regulatory abilities in maltreating children. Importantly, maltreating parents in the training condition not only referenced children's negative emotions more than those in the control condition, they additionally provided more explanations of children's emotions. The ability of parents to explain the causes and consequences of children's emotions is essential, as prior research has shown that when children are left to make sense of negative emotions on their own, it is not always beneficial to their well-being (Fivush, Marin, Crawford, Reynolds, & Brewin, 2007). As such, improving emotion rich reminiscing among maltreating parents may have important long term implications for child emotion regulation and the prevention of psychopathology, though that remains a question for empirical investigation.

Maltreated children improved in their ability to reference their own emotions during parent-child reminiscing following training relative to the control group. Because awareness of emotion states and the ability to use emotion vocabulary are thought to be core skills of emotional competence (i.e., Buckley, Storino, & Saarni, 2003), improvements in children's ability to label and discuss their emotions during parent-child conversations may be especially important for maltreated children, as they are at risk for significant problems with emotion regulation (i.e., Kim & Cicchetti, 2010) and for the development of psychopathology (Cicchetti & Valentino, 2006).

In the current study, children in the reminiscing condition did not improve in their ability to contribute new memory information or emotion references during reminiscing with an experimenter. Although this finding differs from others where independent transfer outside the context of parent-child reminiscing was observed (i.e., Leichtman et al., 2000; Reese & Newcombe, 2007), our findings are consistent with those of Van Bergen and colleagues (2009). In both the current study, and the Van Bergen (2009) study, children's reminiscing skills with an experimenter was only assessed immediately after the training. In contrast, in studies where independent transfer was apparent, such improvements were observed 18 months after the conclusion of the reminiscing training (Reese & Newcombe, 2007). Thus in our study, the children may have not yet gained enough experience reminiscing with a high elaborative and emotion rich reminiscing style to internalize these skills. Longer term follow up would help address whether parents are able to maintain higher elaborative and emotionally supportive reminiscing and whether children show increased independent recall and emotion references.

Although the current study provides promising initial data about the benefits of parent-child training in elaborative and emotion rich reminiscing, it is not without limitations. Most significantly, because this study utilized a waitlist control design, we were unable to examine long-term effects of the training as all families were ultimately offered RET. Thus any subsequent comparisons between those who did and did not receive the reminiscing training would be confounded by selection biases. Similarly, although we have presented preliminary evidence that RET is efficacious, such that findings are not due to the effects of assessment procedures or time, we are unable to attribute differences between groups to the RET specifically, or to the provision of opportunities for professional guidance more generally, as the wait-list comparison group did not receive comparable face-to-face contact (Chambless & Hollon, 1998). Thus although the current study is an important first step towards evaluating the potential benefits of training maltreating parents and their preschool-aged children in elaborative and emotion rich reminiscing, the results must be interpreted with caution. Longitudinal research with a randomized controlled design is necessary in order to determine whether maltreating parents are able to maintain improvements in reminiscing, and whether maltreated children show the associated improvements in cognitive and emotional skills (outside of the parent-child reminiscing context) that have been documented in the developmental literature (Fivush et al., 2006).

Similarly future research should include longitudinal assessment of the parent-child relationship and examine parenting behaviors specifically. Although prior research has indicated that elaborative and emotion rich reminiscing may improve the quality of the parent-relationship (Nelson & Fivush, 2004, Wareham & Salmon, 2006), assessment of the quality of the parent child interaction, and ongoing monitoring of any subsequent revictimization as part of the evaluation of the current parent-training needs to be directly addressed, as the goals of child welfare services are to support child safety and to strengthen families. In particular, training mothers to be more emotionally-supportive during reminiscing may increase parental sensitivity, and improving sensitivity appears to be quite beneficial for enhancing the quality of parent-child interactions among maltreating families (Moss et al., 2011). With regard to the intervention itself, more detailed data regarding parental adherence should be documented, such as how often parents completed the daily five minute practice conversations and weekly recorded practice. Additionally, measurement of parent reminiscing skills should include assessment of emotional supportiveness and sensitivity towards the child. Finally, we did not code the DCS records for the subtype and severity of children's maltreatment experiences. It will be important to examine maltreatment subtype and severity as potential moderators of training effects in larger samples with sufficient power for such analyses. Evaluating individual differences in the

effectiveness of the parent-training across a range of parent and child variables is essential for identifying for whom this intervention works best and why.

In summary, we observed improvements in parent and child elaborative and emotion-rich reminiscing following a brief training with maltreating parents and their preschool-aged children. Given extant research in the developmental literature which documents the positive benefits of elaborative and emotionally supportive reminiscing for child cognitive and emotional development, as well as for parenting (see Fivush et al., 2006 for review), reminiscing-based parent training may be useful to foster the healthy development of maltreated children. It will be important for future research to examine the long-term effects of training maltreating parents and children in elaborative and emotion rich reminiscing in a large randomized controlled design, including the identification of the mechanisms underlying beneficial treatment outcomes.

Acknowledgments

We would like to thank Lauren Poinatte, Rosemary Salinas, Starla Ross, Jeanne Mattei, the Department of Child Services of St. Joseph County and the Development and Psychopathology lab for their assistance with this project. We also thank all of the children and families who participated in this program. This research was supported by grants to the first author from the Indiana Clinical and Translational Sciences Institutes, NIH grant RR025761, and the Institute for Scholarship in the Liberal Arts, University of Notre Dame.

References

- Alessandri S. Mother-child interactional correlates of maltreated and nonmaltreated children's play behavior. *Development and Psychopathology*. 1992; 4:257–270.10.1017/S0954579400000134
- Bakermans-Kranenburg M, Van Ijzendoorn M, Juffer F. Less is more: Meta-analyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin*. 2003; 129:195–215.10.1037/0033-2909.129.2.195 [PubMed: 12696839]
- Bohanek JG, Marin KA, Fivush R. Family narratives, self, and gender in early adolescence. *The Journal of Early Adolescence*. 2008; 28:153–176.10.1177/0272431607308673
- Boland AM, Haden CA, Ornstein PA. Boosting children's memory by training mothers in the use of an elaborative conversational style as an event unfolds. *Journal of Cognition and Development*. 2003; 4:39–65.10.1207/S15327647JCD4,1-02
- Bowlby, J. *Attachment and loss*. Vol. 1: Attachment. New York, NY, US: Basic Books; 1969.
- Buckley M, Storino M, Saarni C. Promoting emotional competence in children and adolescents: Implications for school psychologists. *School Psychology Quarterly*. 2003; 18:177–191.
- Burns B, Phillips S, Wagner H, Barth R, Kolko D, Campbell Y. Mental health need and access to mental health services by youths involved with child welfare: A national survey. *Journal of the American Academy of Child Adolescent Psychiatry*. 2004; 43:960–970.10.1097/01.chi.0000127590.95585.65 [PubMed: 15266190]
- Cicchetti, D.; Valentino, K. An ecological-transactional perspective on child maltreatment: Failure of the average expectable environment and its influence on child development. In: Cicchetti, D.; Cohen, DJ., editors. *Developmental psychopathology*. Vol. 3: Risk, disorder, and adaptation. 2. Hoboken, NJ, US: John Wiley & Sons, Inc; 2006. p. 129-201.
- Chaffin M, Silovsky J, Funderburk B, Valle LA, Brestan EV, Balachova T, et al. Parent child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology*. 2004; 72:491–499. [PubMed: 15279532]
- Chambless DL, Hollon SD. Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology*. 1998; 66:7–18. [PubMed: 9489259]
- Cohen, JA.; Mannarino, AP.; Deblinger, E. *Treating trauma and traumatic grief in children and adolescents*. New York, NY, US: Guilford Press; 2006.
- Dunn, LM.; Dunn, DM. *Peabody Picture Vocabulary Test*. 4. Minneapolis, MN, US: NCS Pearson; 2007.

- Engel, S. *The stories children tell: Making sense of the narratives of childhood*. New York: WH Freeman; 1995.
- Fivush R, Berlin LJ, Sales JM, Mennuti-Washburn J, Cassidy J. Functions of parent-child reminiscing about emotionally negative events. *Memory*. 2003; 11(2):179–192.10.1080/09658210244000351 [PubMed: 12820830]
- Fivush R, Fromhoff F. Style and structure in mother child conversations about the past. *Discourse Processes*. 1988; 11(3):337–355.10.1080/01638538809544707
- Fivush R, Haden C, Reese E. Elaborating on elaborations: Role of maternal reminiscing style in cognitive and socioemotional development. *Child Development*. 2006; 77:1568–1588.10.1111/j.1467-8624.2006.00960.x [PubMed: 17107447]
- Fivush R, Marin K, Crawford M, Reynolds M, Brewin CR. Children's narratives and well-being. *Cognition & Emotion*. 2007; 21:1414–1434.10.1080/02699930601109531
- Fivush R, Sales J. Coping, attachment, and mother-child narratives of stressful events. *Merrill - Palmer Quarterly*. 2006; 52(1):125.10.1353/mpq.2006.0003
- Gomulak-Cavicchio B, Davies P, Cummings E. The role of maternal communication patterns about interparental disputes in associations between interparental conflict and child psychological maladjustment. *Journal of Abnormal Child Psychology*. 2006; 34:757–771.10.1007/s10802-006-9050-y [PubMed: 17066223]
- Haden C, Haine R, Fivush R. Developing narrative structure in parent-child reminiscing across the preschool years. *Developmental Psychology*. 1997; 33(2):295–307.10.1037/0012-1649.33.2.295 [PubMed: 9147838]
- Harley K, Reese E. Origins of autobiographical memory. *Developmental Psychology*. 1999; 35(5): 1338–1348.10.1037/0012-1649.35.5.1338 [PubMed: 10493658]
- Hudson J. Reminiscing with mothers and others: Autobiographical memory in young two-year-olds. *Journal of Narrative and Life History*. 1993; 3(1):1–32.
- Hurlburt, MS.; Barth, RP.; Leslie, L.; Landsverk, JA.; McCrae, J. Building on strengths: Current status and opportunities for improvement of parent training for families in child welfare. In: Haskins, R.; Wulczyn, F.; Webb, M., editors. *Child protections: Using research to improve policy and practice*. Washington, DC, US: Brookings Institution; 2007. p. 81-106.
- Kaminski JW, Valle LA, Filene JH, Boyle CL. A Meta-analytic Review of Components Associated with Parent Training Program Effectiveness. *Journal of Abnormal Child Psychology*. 2008; 36:567–589.10.1007/s10802-007-9201-9 [PubMed: 18205039]
- Kim J, Cicchetti D. Longitudinal pathways linking child maltreatment, emotion regulations, peer relations and psychopathology. *Journal of Child Psychology and Psychiatry*. 2010; 51:706–716.10.1111/j.1469-7610.2009.02202.x [PubMed: 20050965]
- Kolko DJ. Clinical monitoring of treatment course in child physical abuse: Psychometric characteristics and treatment comparisons. *Child Abuse & Neglect*. 1996; 20:23–43.10.1016/0145-2134(95)00113-1 [PubMed: 8640423]
- Koren-Karie N, Oppenheim D, Getzler Yosef R. Mothers who were severely abused during childhood and their children talk about emotions: Co-construction of narratives in light of maternal trauma. *Infant Mental Health Journal*. 2004; 25:300–317.10.1002/imhj.20007
- Laible D. Mother-child discourse in two contexts: Links with child temperament, attachment security, and socioemotional competence. *Developmental Psychology*. 2004; 40:979–992.10.1037/0012-1649.40.6.979 [PubMed: 15535752]
- Laible D. Does it matter if preschool children and mothers discuss positive vs. negative events during reminiscing? Links with mother-reported attachment, family emotional climate, and socioemotional development. *Social Development*. 2011; 20(2):394–411.10.1111/j.1467-9507.2010.00584.x
- Leichtman M, Pillemer D, Wang Q, Koreishi A, Han J. When baby maisy came to school - mothers' interview styles and preschoolers' event memories. *Cognitive Development*. 2000; 15(1):99–114.10.1016/S0885-2014(00)00019-8
- MacMillan H, Wathen C, Barlow J, Fergusson D, Leventhal J, Taussig H. Child maltreatment 3: Interventions to prevent child maltreatment and associated impairment. *Lancet: British Edition*. 2009; 373:250–266.10.1016/S0140-6736(08)61708-0

- McCabe, A.; Peterson, C. Getting the story: A longitudinal study of parentally styles eliciting narratives and developing narrative skill. In: McCabe, A.; Peterson, C., editors. *Developing narrative structure*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc; 1991. p. 217-253.
- Moss E, Dubois Comtois K, Cyr C, Tarabulsy G, St Laurent D, Bernier A. Efficacy of a home-visiting intervention aimed at improving maternal sensitivity, child attachment, and behavioral outcomes for maltreated children: A randomized control trial. *Development and Psychopathology*. 2011; 23:195–210.10.1017/S0954579410000738 [PubMed: 21262048]
- Nelson K, Fivush R. The emergence of autobiographical memory: A social cultural developmental theory. *Psychological Review*. 2004; 111:486.10.1037/0033-295X.111.2.486 [PubMed: 15065919]
- Olds D, Eckenrode J, Henderson C, Kitzman H, Powers J, Cole R, et al. Long-term effects of home visitation on maternal life course and child abuse and neglect. *Journal of the American Medical Association*. 1997; 278:637–643. [PubMed: 9272895]
- Olds D, Henderson C, Cole R, Eckenrode J, Kitzman H, Luckey, et al. Long-term effects of home visitation on children's criminal and antisocial behaviour. *Journal of the American Medical Association*. 1998; 280:1238–1244. [PubMed: 9786373]
- Peterson C, Jesso B, McCabe A. Encouraging narratives in preschoolers: An intervention study. *Journal of Child Language*. 1999; 26(1):49.10.1017/S0305000998003651 [PubMed: 10217889]
- Peterson C, McCabe A. Parental styles of narrative elicitation: Effect on children's narrative structure and content. *First Language*. 1992; 12(36):299–321.10.1177/014272379201203606
- Peterson C, McCabe A. A social interactionist account of developing decontextualized narrative skill. *Developmental Psychology*. 1994; 30(6):937–948.10.1037/0012-1649.30.6.937
- Pillemer DB. Directive functions of autobiographical memory: the guiding power of the specific episode. *Memory*. 2003; 11:193–202.10.1080/741938208 [PubMed: 12820831]
- Rausch JR, Maxwell SE, Kelley K. Analytic methods for questions pertaining to a randomized pretest, posttest, follow-up design. *Journal of Clinical Child and Adolescent Psychology*. 2003; 32:467–486. [PubMed: 12881035]
- Reese E, Haden C, Fivush R. Mother-child conversations about the past - relationships of style and memory over time. *Cognitive Development*. 1993; 8(4):403–430.10.1016/S0885-2014(05)80002-4
- Reese E, Newcombe R. Training mothers in elaborative reminiscing enhances children's autobiographical memory and narrative. *Child Development*. 2007; 78:1153–1170.10.1111/j.1467-8624.2007.01058 [PubMed: 17650131]
- Rusconi-Serpa S, Rossignol A, McDonough S. Video feedback in parent-infant treatments. *Child and Adolescent Psychiatric Clinics of North America*. 2009; 18:735.10.1016/j.chc.2009.02.009 [PubMed: 19486848]
- Salmon K, Dadds M, Allen J, Hawes D. Can emotional language skills be taught during parent training for conduct problem children? *Child Psychiatry and Human Development*. 2009; 40:485–498.10.1007/s10578-009-0139-8 [PubMed: 19373551]
- Shipman KL, Schneider R, Fitzgerald MM, Sims C, Swisher L, Edwards A. Maternal emotion socialization in maltreating and non-maltreating families: Implications for children's emotion regulation. *Social Development*. 2007; 16:268–285.10.1111/j.1467-9507.2007.00384.x
- Shipman K, Zeman J. Emotional understanding: A comparison of physically maltreating and nonmaltreating mother-child dyads. *Journal of Clinical Child Psychology*. 1999; 28:407–417.10.1207/S15374424jccp280313 [PubMed: 10446690]
- Sroufe L, Carlson E, Levy A, Egeland B. Implications of attachment theory for developmental psychopathology. *Development and Psychopathology*. 1999; 11:1–13. [PubMed: 10208353]
- Stahmer AC, Leslie LK, Hurlburt M, Barth RP, Webb MB, Landsverk JA, et al. Developmental and behavioral needs and service use for young children in child welfare. *Pediatrics*. 2005; 116:891–900. [PubMed: 16199698]
- Thompson R. Conversation and developing understanding: Introduction to the special issue. *Merrill-Palmer Quarterly*. 2006; 52:1–16.
- Toth S, Cicchetti D, Kim J. Relations among children's perceptions of maternal behavior, attributional styles, and behavioral symptomatology in maltreated children. *Journal of Abnormal Child Psychology*. 2002; 30:487–501. [PubMed: 12403152]

- Toth, S.L.; Valentino, K. Translating research on children's memory and trauma into practice: Clinical and forensic implications. In: Howe, M.; Goodman, G.; Cicchetti, D., editors. *Stress, trauma, and children's memory development: Neurobiological, cognitive, clinical and legal perspectives*. New York, NY, US: Oxford University Press; 2008. p. 363-399.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families. *Child maltreatment 2011*. 2012. Available from <http://www.acf.hhs.gov/sites/default/files/cb/cm11.pdf>
- Valentino K, Cicchetti D, Toth S, Rogosch F. Mother-child play and emerging social behaviors among infants from maltreating families. *Developmental Psychology*. 2006; 42:474–485.10.1037/0012-1649.42.3.474 [PubMed: 16756439]
- Valentino K, Cicchetti D, Rogosch F, Toth S. Memory, maternal representations, and internalizing symptomatology among abused, neglected, and nonmaltreated children. *Child Development*. 2008; 79:705–719.10.1111/j.1467-8624.2008.01152.x [PubMed: 18489422]
- Valentino K, Toth S, Cicchetti D. Autobiographical memory functioning among abused, neglected, and nonmaltreated children: The overgeneral memory effect. *Journal of Child Psychology and Psychiatry and Allied Disciplines*. 2009; 50:1029–1038.10.1111/j.1469-7610.2009.02072.x
- Van Bergen P, Salmon K, Dadds M, Allen J. Training mothers in emotion-rich elaborative reminiscing: Facilitating children's autobiographical memory and emotion knowledge. *Journal of Cognition and Development*. 2009; 10:162–187.10.1080/15248370903155825
- Wareham P, Salmon K. Mother-child reminiscing about everyday experiences: Implications for psychological interventions in the preschool years. *Clinical Psychology Review*. 2006; 26:535–554.10.1016/j.cpr.2006.05.001 [PubMed: 16815615]
- Williams, K.T. *Expressive Vocabulary Test. 2*. Minneapolis, MN, US: Pearson Assessments; 2007.

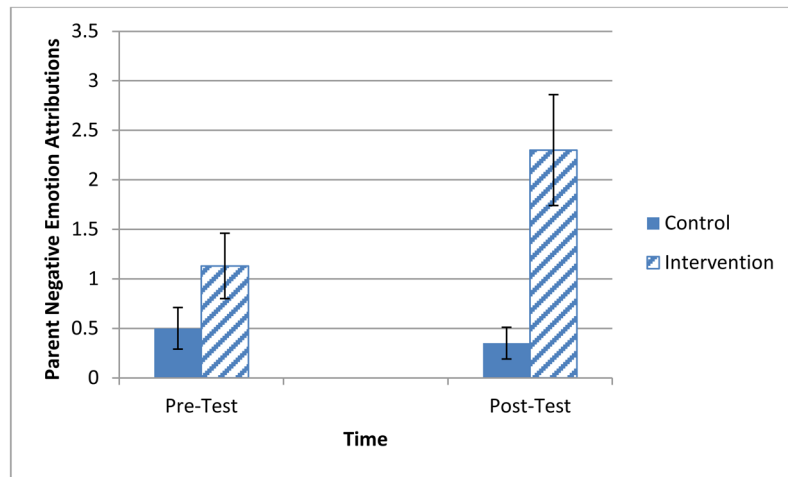


Figure 1. Parents average negative emotion attributions during reminiscing, as a function of time and training.

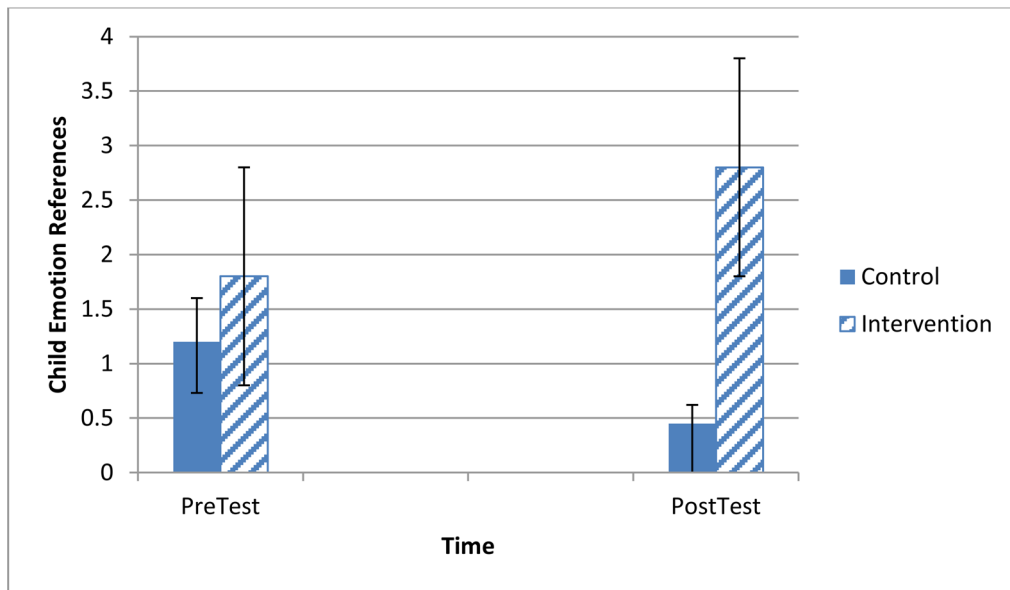
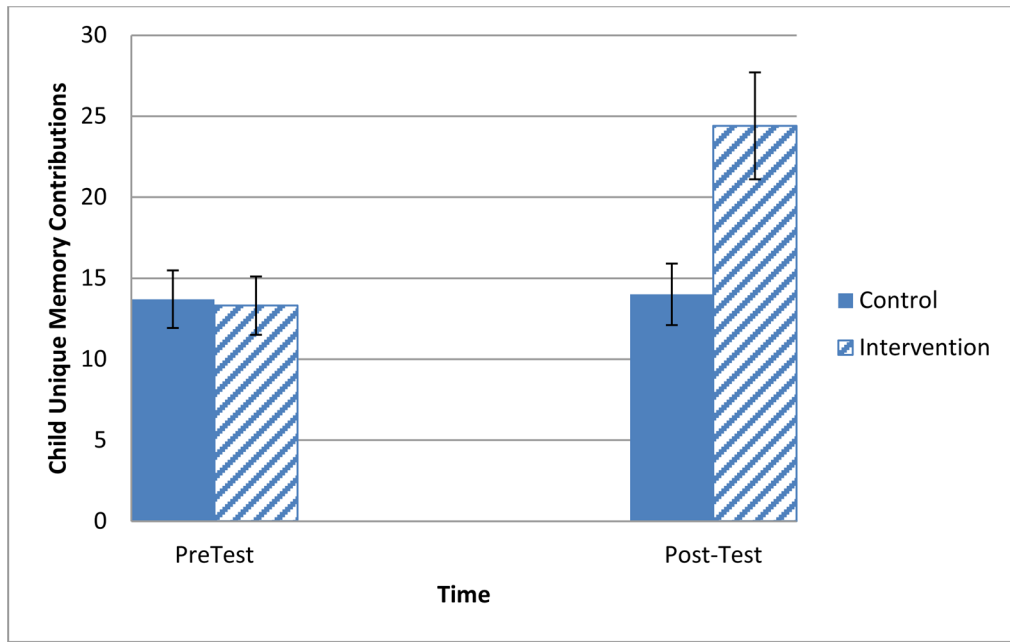


Figure 2. Children’s average unique memory contributions and emotion references during shared recall, as a function of time and training

Table 1

Demographic Data by Intervention Condition

Variable	Reminiscing <i>n</i> = 20	Control <i>n</i> = 20
Parent Gender		
Female	95.5%	80.0%
Child Gender		
Female	55.0%	55.0%
Child Age	5.44(.23)	5.59(.22)
Child Ethnicity		
African American	56.5%	36.4%
Caucasian	30.4%	40.9%
Biracial	8.7%	13.6%
Other	4.3%	9.1%
Parent Employment Status		
Employed	25.0%	26.3%
Family Annual Income		
< \$12,000	72.7%	65.0%
Parent PPVT-4 Score	89.70(7.0)	89.26(14.4)
Child PPVT-4 Score	93.10(12.6)	95.00(11.1)
Child EVT-2 Score	95.26(13.0)	92.55(14.8)