THESIS

EMOTIONAL AVAILABILITY (EA) TELEINTERVENTION FOR ADOPTIVE FAMILIES

Submitted by

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ABSTRACT

EMOTIONAL AVAILABILITY (EA) TELEINTERVENTION FOR ADOPTIVE FAMILIES

This study evaluated the new online Emotional Availability (EA) Intervention for use with adoptive families in enhancing parent-child EA, parental perceptions of EA, child attachment behaviors, parent-child emotional attachment, and reducing parent-reported child behavioral problems and parenting-related stress. Participants in this study were adoptive parents and their adopted children ages 1.5 – 5 years old (N = 15 dyads). Participants were placed in an immediate intervention group (IG) or a delayed intervention group (DG) that would receive the 6-week EA Intervention after the IG. Results revealed significant differences in the IG in child behavioral problems, parent-child EA, parental perceptions of EA, and parent-child emotional attachment, improvements not seen in the DG. Analysis of effects of the DG after receiving the EA Intervention revealed significant differences over time also in child behavioral problems, parent-child EA, parental perceptions of EA, and parent-child emotional attachment. Implications, limitations, and future directions are discussed.

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Chapter I

INTRODUCTION

International and domestic adoption in the U.S. has become increasingly commonplace (Evan B. Donaldson Adoption Institute [EBDAI], 2010). Although most adopted children develop comparably to nonadopted children, it is estimated that 2% of U.S. children (i.e., 1.5 million) are adopted and comprise 5-15% of mental health referrals (EBDAI, 2010; Miller et al., 2000). Additionally, adopted children tend to be more insecure or disorganized in their attachments (van IJzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992) and display more internalizing and externalizing behavioral problems than their nonadopted peers (Juffer, 2006; Juffer & van IJzendoorn, 2005; Stams, Juffer, Rispen, & Hoksbergen, 2000).

These behavioral and attachment issues, as well as adoptive parents' negative perceptions of their children, are the biggest predictors of adoptive parenting stress (Judge, 2003, 2004; Mainemer et al., 1998; McGlone et al., 2002). However, little attention has been paid to the nuances present in adoptive parent-child dyadic interactions (Suwalsky, Hendricks, & Bornstein, 2006) and whether focusing intervention efforts on such interactions can reduce negative outcomes, such as parenting-related stress and negative perceptions pertaining to the parent-child relationship and children's social competence.

A large predictor of positive outcomes in adoptive families is utilization of support (U.S. Children's Bureau, 2007). Reilly and Platz (2004) suggested that an adoptive family's unmet support needs (e.g., postadoptive programming and services) may be associated with perceived problems in the adoptive parent-child relationship and an overall negative impact on the family. In fact, postadoptive supports that have been evaluated are relatively rare (Barth & Miller, 2000),

and families report the lack of postadoption services and inability to access such services as contributing to their stress and feelings of inadequacy in dealing with child behavioral problems and insecure or disorganized attachment behaviors (EBDAI, 2010). Ameliorating such risk factors as stress, negative perceptions of children, and behavioral and attachment issues will require changes in the availability and implementation of postadoption programs for parents and children.

Limitations of Current Postadoption Programs

The field of postadoption services is scattered with various programs, intervention models, therapies, and new innovative approaches (EBDAI, 2010). However, a significant gap between service need and usage exists (Rosenthal, Groze, & Morgan, 1996; Reilly & Platz, 2004; Festinger, 2006). Parents of children with serious behavioral and emotional problems are the most likely to have unmet service needs (Rosenthal et al., 1996; Wind, Brooks, & Barth, 2007).

Most states have some postadoption services in place (Howard & Smith, 1997), yet relatively few of these services have published accounts of their effectiveness (Barth & Miller, 2000). Some more well-known and nonscientific-based programs include Oregon's Post-Adoption Family Therapy (PAFT) Project, a collaboration between Medina Children's Services and HOME BUILDERS of Tacoma, Washington, the Adoption Preservation Project of Illinois, the Model Approach to Partnerships in Parenting/Group Selection and Participation of Foster and/or Adoptive Families (MAPPS/GPS; Puddy & Jackson, 2003), and the Post-Adoption Resources for Training, Networking, and Evaluation Services (PARTNERS) of Iowa (Groze & Gruenewald, 1991). The quality and scope of these programs vary widely with effects depending

largely on facilitator training, and most evaluations measured the rates of adoption dissolution only (Barth & Miller, 2000).

In addition to community-based programming, attachment-based interventions within the developmental literature exist, as attachment is one of the most studied variables in adoption research (Howard & Smith, 1997; Juffer, 2006). Two attachment-based interventions are the Video-feedback Intervention to Promote Positive Parenting (VIPP; Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2008) and the Attachment and Biobehavioral Catch-up (ABC; Dozier, Peloso, Lewis, Laurenceau, & Levine, 2008) intervention, which is largely for foster caregivers but has been extended to children adopted from the foster care system. The VIPP has been evaluated in terms of enhancing parental sensitivity and parent-child attachment (Juffer et al., 2008), and the ABC intervention in terms of attachment and the regulation of physiology and behavior (measured through cortisol sampling; Dozier et al., 2008). Both interventions focus on very young children, typically infants and toddlers.

To assess attachment styles in young children, the Strange Situation Procedure (SSP; Ainsworth et al., 1978) is often utilized, which calls for a stress situation that may not be appropriate given some adopted children's past histories (Ponciano, 2010). In addition, most attachment-related interventions for adoptive samples focus on changing parental sensitivity, which is only one avenue of connection between a parent and child (Bretherton. 2000; Emde, 2000). Moreover, the training to evaluate the SSP and cortisol sampling is quite extensive and may not be realistic for real-world programming (Garber, 2009). Lastly, information regarding reduction in parental stress and parents' perceptions of the relationships with their children were not gathered. This is important to note given the role parental perceptions of the parent-child

relationship and parental stress plays in parent-child attachment and children's overall adaptation (Dozier, Stovall, Albus, & Bates, 2001).

For both scientific and nonscientific-based postadoptive programs, practical issues arise. These programs are conducted away from parents' homes, which makes unrealistic demands upon parents to find childcare, transportation, time, and money (EBDAI, 2010). Parents in rural areas are at an even greater disadvantage (Barth & Miller, 2000). Moreover, the feasibility and cost-effectiveness of implementing these programs on a larger scale is questionable.

Teleintervention Approaches to Postadoptive Support

Videoconferencing (VC) is a means of telecommunication by which individuals or groups can interact with one other on a computer or video monitor in real-time (Nelson, Bui, &Velasquez, 2011). Advances in telecommunication technology and cost-effectiveness make home-based programming increasingly accessible to adoptive parents. In fact, the technology gap among disadvantaged groups in the U.S. has narrowed in recent years due in part to increased mobile phone internet access (Pew Research Center, 2012) and federal policies like the National Broadband Plan (Federal Communications Commission, 2009). Outcome research on teleintervention, services using communicative devices such as VC to provide therapeutic treatment and consultation, has supported such services as effective alternatives to in vivo treatment (Myers, Valentine, & Melzer, 2007). However, formal evaluation of group teleintervention services for the adoptive community as alternative postadoption support remains unexplored.

Currently, most teleintervention studies and programs deal with health-specific outcomes and provide services and assessments on the individual level (Yuen, Goetter, Herbert, & Forman, 2012). Studies that have evaluated the effects of individual teleintervention treatment for

nonadoptive families find participants' satisfaction with the VC interface high in addition to significant effect sizes on measured outcomes (Glueckauf et al., 2002; Nelson, Barnard, & Cain, 2006). It seems that teleintervention is a viable option for parent programming in the 21st century and may fill the gaps of current postadoption programs.

The Online Emotional Availability Intervention

The current pilot study will measure the effectiveness of the online EA Intervention for parents (Biringen et al., 2008) to determine whether it is beneficial for adoptive families as a postadoption support using an interactive videoconferencing system (Skype group conferencing) as well as a HIPAA-approved website through the www.emotionalavailability.com portal.

Due to the presence of unique emotional circumstances found in adoptive families, the EA Intervention, which is based on the tenets of attachment theory (Bowlby, 1969, 1980), the EA framework (Biringen, 2008a; Biringen & Robinson, 1991; Biringen et al., 1998), and systems (Guttman, 1991) and transactional perspectives (Sameroff, 1975), provides the tools necessary for the development of emotionally connected adoptive parent-child dyads, in which more than just parental sensitivity is a focus of change (Bretherton, 2000). Also, given the risk adopted children face for developing behavioral and emotional problems, particularly in middle childhood and adolescence (Barth & Miller, 2000; van IJzendoorn & Juffer, 2005), the EA Intervention may act as a preventive intervention in terms of increasing parent-child relationships' emotional communication and availability. Lastly, this intervention adheres to the guidelines put forth by adoption scholars for effective postadoption supports (for a review, see EBDAI, 2010).

EA is predominantly measured by the EA Scales (Biringen, 2008), which have six scales that measure the caregiver (Sensitivity, Structuring, Nonintrusiveness, and Nonhostility) and

child (Responsiveness and Involvement of the caregiver) sides of a relationship. On the caregiver side, sensitivity refers to the degree to which the caregiver accurately responds to and perceives the child's cues, the caregiver's engagement and interest in the child, as well as the caregiver's affective quality and conflict resolution within the relationship, taking into account recovery from dyadic missteps that occur (Biringen, 2000, 2008). Structuring refers to the caregiver's ability to provide consistent scaffolding, framework, and expectations within interactions that are developmentally appropriate and that encourage child responsiveness (Biringen, 2000). Nonintrusiveness refers to the quality of "being there" emotionally for the child without overmentoring or interfering, thus allowing for the development of autonomy (Biringen, 2000). Nonhostility, covert or overt, refers to ways of interacting with the child, self, or other items in the environment with context-specific emotion regulation that allows for patient and harmonious exchanges (Biringen, 2000, 2008).

On the child's side of the relationship, responsiveness refers to a balance between connection with the caregiver and autonomy that is both age and context specific in terms of affective availability (Biringen, 2000). Child involvement of the caregiver refers to the child's ability to display secure base behavior (Ainsworth et al., 1978), in which the child feels secure enough to autonomously explore his or her environment while periodically involving the caregiver in such initiatives through verbal and nonverbal (e.g., eye contact) means (Biringen, 2000, 2008).

The in vivo EA Intervention for parents has been evaluated with nonadoptive parents from two different Colorado counties, differing in SES, and was found to ameliorate parenting-related stress as well as increase parent-child EA (Biringen et al., 2009). A similar program, the EA Intervention for professional caregivers, has been evaluated and found to be effective at

increasing the EA domains of Caregiver Structuring and Child Involvement of the caregiver within the context of center-based care (Biringen et al., 2012).

Compared to many attachment-based assessments, certification for facilitating and evaluating the EA Intervention using EA assessments (The EA Scales, 4th ed., Biringen, 2008a and the EA Clinical Screener [EA-CS], Biringen, 2008a) is quite feasible. Certified use of the EA assessments and intervention requires 32 hours of in vivo and/or online training, plus an additional 8 hours to establish reliability. Intervention training is also conducted during this time. Expert codes determine the raters' accuracy; once reliable, individuals can competently use the assessments to assess the EA Intervention in either research or practice. Reliable users of the EA assessments and intervention have ranged from well-seasoned researchers to novice teachers, social workers, and childcare providers, among others, who do not necessarily come from an attachment perspective in terms of educational background. Therefore, it is reasonable that practitioners in the human services field would find the EA system feasible as well.

One additional advantage of the EA Intervention is that it can be provided via multiple modalities (i.e., in vivo, fully online, or partly online) and used with caregivers of children up to age 14 rather than just infants or toddlers. The EA Intervention is also provided weekly for approximately 2 hours each session for 6 weeks. Studies have found these shorter, 'piecemeal' approaches to be adequate for attachment-relevant change (Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003). The importance here is that the EA Intervention is a feasible program that can be used in either research or practice within the human services field.

The Present Study

The current pilot study utilized the online EA Intervention for parents in order to improve adoptive parent-child relationships, thereby also affecting the presence of child behavioral

problems and parent-reported stress. Self-report in addition to observational EA will be used in order to measure parental perceptions of their relationships with their children. Parental perceptions will also be used to measure parenting stress and child behavioral problems. Measuring parental perceptions is important because parental state of mind has been found in past studies to be related to parent-child attachment (Dozier et al., 2001; van IJzendoorn, 1995) and EA Sensitivity and Structuring (Biringen, Matheny, Bretherton, Renouf, & Sherman, 2000). Another goal of the current study was to test the new, online modality of the EA Intervention. This study involved an immediate Intervention Group (IG), who received the 6-week, online EA parent intervention (across Time 1 and Time 2), and a Delayed Intervention Group (DG) who did not receive the online EA parent intervention across Time 1 and Time 2. Hypotheses for the main design (Part IA) are shown below. An ancillary component of the design included intervention for the control group, and hence that intervention was offered between Time 2 and Time 3 (Part IB), with hypotheses shown below.

Main Research Hypotheses (Part IA)

1. The IG will show more enhanced parent-child EA (observed) as compared to the DG.
2. The IG will show more enhanced parent-child emotional attachment (observed) as compared to the DG.
3. The IG will show improved parent-child emotional quality (as reported) compared to the DG.
4. The IG will show reductions in parenting stress (reported), as compared to the DG.
5. The IG will show reductions in children's behavior problems (reported), as compared to the DG.

6. The IG will show improvements in attachment security (reported) as compared to the DG.

Ancillary Research Hypotheses (Part IB)

1. The DG will show a significant increase from Time 2 to Time 3 in observed parent-child EA.
2. The DG will show a significant increase from Time 2 to Time 3 in observed parent-child emotional attachment.
3. The DG will show a significant increase from Time 2 to Time 3 in reported parent-child emotional quality.
4. The DG will show significant reductions in parenting stress (reported) from Time 2 to Time 3.
5. The DG will show significant reductions in child behavior problems (reported) from Time 2 to Time 3.
6. The DG will show significant improvement in attachment security (reported) from Time 2 to Time 3.

Chapter II

METHOD

Participants

Fifteen adoptive dyads (i.e., adoptive parents and their adopted children) participated in the pilot study (8 in the IG and 7 in the DG). An additional 13 spouses or partners of participating adoptive parents participated in the individualized sessions (two were single parent families). Inclusion criteria consisted of children needing to be between the ages of 1.5 – 5 years old due to age constraints on measurements and be legally adopted by nonbiologically related parents. Parents needed high-speed internet access and a device (i.e., computer, iPad, etc.) that allowed for participation in the intervention sessions and videotaping. Households that had more than one adoptive parent and adopted child within the specified age range could participate in the study as a separate dyad (one household met this criterion). No participants left the study after consenting to participation.

Parents were on average 39 years of age (32 – 46 years), with 4 years of college experience (53%) or more (33%). Ethnicity of parents was generally Caucasian, with a small number of parents reporting themselves as multiracial. In terms of average household income, 13% made $40,000 - $60,000 per year, 27% made $60,000 - $80,000 per year, 33% made $80,000 - $100,000 per year, and 27% made over $100,000. Parents generally reported themselves as married, with two parents reporting themselves as single. Twelve mothers and three fathers participated in the study.

Children were on average 42 months old at pretest (23 – 62 months) and 46 months at posttest (26 – 66 months), with 9 boys and 6 girls participating. Over half of the children were Caucasian (53%), 13% were Asian-American, 13% Hispanic/Latino, and 20% were multiracial.

Children were typically 0-3 months old when adopted domestically (47%), internationally (13%), or from the foster care system (40%), although 1/3 of children were adopted from 4 – 52 months of age. Forty percent of children had fully closed adoption plans, 32% had semi-open plans, and 27% had fully open plans. In terms of placement history, 47% of children were adopted at birth, 47% experienced one placement, and one child experienced 3 placements prior to adoption. Nearly all parents reported their children as experiencing some type of in-utero maltreatment (i.e., substance abuse, physical harm, etc.), and one child was reported as experiencing postbirth physical maltreatment. Lastly, all children were reported to have developmental/intellectual, emotional, behavioral, and/or attachment-related challenges.

Procedure

Participants were recruited nationally via emails, mailings, and website and newsletter announcements from adoption agencies (letters of support obtained from executive directors; see Appendix IV), as well as from the Oregon Post-Adoption Resource Center (ORPARC; see Appendix IV). Additionally, online social networking (e.g., study website and Facebook page; see Figures 4 and 5) and word-of-mouth were used.

Upon showing interest in the study, participants were randomly assigned to the IG or DG. Parents and their partners (for individualized sessions) then provided informed consent and child assent (see Appendix II), by which they were mailed informed consent and assent documents.

Next, participants were mailed study surveys, which were completed in addition to the Attachment Q Sort self-report (version 3.0; Waters, 1995) for the assessment of attachment security with a researcher via Skype before and after receiving the intervention. For the DG, assessments were completed at three time points. All surveys were mailed back to researchers via pre-addressed and prepaid envelopes provided to participants.

Parent-child dyads from both groups were filmed in their homes for an average of 20 minutes interacting with one another in free play, at both pre and posttest time points and within 3 weeks prior to the start of the IG intervention. Interactions were observed online via Skype group video conferencing system with a researcher recording the interactions by pointing a video camera at the computer screen (see Figure 3). The instructions for both groups were to "interact with each other as you normally do," and the researcher was asked not to interact with the children while recording.

It is important to note that Time 1 (T1) and Time 2 (T2) for the IG and DG did not run concurrently. The DG completed T1 assessments and then waited 6 weeks (the length of the intervention), at which point they completed T2 assessments. Due to issues with participants' availability, the IG did not complete T1 assessments or participate in the EA Intervention until after the DG completed T2 assessments. Therefore, the DG and IG participated in the EA Intervention together. After completing the intervention components and postintervention assessments, both groups were debriefed (see Appendix II).

For the purposes of consistency, we will refer to T1 for both groups as when they completed baseline data. T2 will be used to describe when the IG completed postintervention data, and the DG completed post-'business as usual' data. T3 will be used to describe when the DG completed assessments postintervention.

EA Intervention. The online EA Intervention for parents (Biringen et al., 2009) is a six-week program that involves a video feedback component and information on EA and attachment and designed for 6-10 parents per session. The EA Parent Curriculum (Biringen, 2008b) offers a step-by-step process for intervention facilitators to engage parents. This particular EA Intervention for parents was conducted online through a group video conferencing system, Skype

(see Figure 2), and also used a secure, HIPAA-approved site accessed through the www.emotionalavailability.com portal, for the video feedback component (see Figure 1). The intervention facilitator had several years of experience working with adoptive families and extensive knowledge of adoption research. A licensed clinical and developmental psychologist oversaw the sessions. Adoption adaptations were made during the discussion segments of the intervention sessions.

Each session began with participating parents watching a video together (approximately 45 minutes) that provided pertinent information about EA and attachment. This was done via a webcam facing a computer playing the video so the group could watch simultaneously. The videos were also available to participants through the secure site. The remainder of each session included activities and discussions regarding ideas presented in the video, as well as watching example videos of parents and their children interacting with one another using the same modality as the instructional videos.

In between sessions, parents read chapters from two books, detailing EA concepts (Biringen, 2004, 2009) and completed questions and activities in a Parent Workbook (Biringen, 2008b), which were also discussed during the sessions. During the last and second to last sessions, parents watched their videos of themselves interacting with their children that were taped at pretest. The videos were posted on the secure site, with positive comments on certain clips of the videos posted and visible to all participants by the intervention facilitator, using a strengths-based approach to video feedback (see Figure 1).

At the end of the 6-week intervention, participants and their spouses each completed one, 1-hour individualized session via Skype with the intervention facilitator which included

discussion of their videos and possible child relationship concerns. Spouses or partners were included to follow a family systems approach (Cox & Paley, 1997).

Dosage and implementation of the EA Intervention was processed by the intervention facilitator through the use of a log sheet (see Measures). All participants completed all intervention components after make-up sessions were and therefore were included in analyses.

Measures

Demographic questionnaire. Participants completed a brief demographic questionnaire which was developed based on the adoption literature (see Appendix III). Parents' and children's ages, parents' relationship status, parental education level, parent and child gender, annual household income, and parent and child ethnicity was obtained through selection of categories or self-report (write-in). In terms of adoption-specific questions, type of legal adoption, adoption plan, age of child when adopted, pre-adoption history of children, number of placement changes experienced prior to adoption, and whether or not their children had any developmental, behavioral, emotional, and/or attachment-related 'challenges' were obtained also through selection of categories or self-report (write-in).

Implementation. A log sheet was created and used by the intervention facilitator to measure the EA Intervention's implementation (see Appendix III). The following were tracked: 1) Length of intervention session, 2) attendance, 3) completion of workbook items and reading assignments, and 4) whether or not technology issues occurred. Activities and discussions were rated on a Likert scale of 1 (*poor*) to 4 (*great*) in terms of the facilitator's perception of overall quality (e.g., participant interaction, participant understanding, depth of discussion, etc.). An overall mean score for discussion and activity ratings was computed (M = 3.42). Three parents

missed one intervention session but participated in make-up sessions prior to the start of the next regularly scheduled intervention session.

Emotional availability observation. The Emotional Availability Scales (4th ed., EA Scales; Biringen, 2008a) assess six qualities: Caregiver Sensitivity, Caregiver Structuring, Caregiver Nonintrusiveness, Caregiver Nonhostility, Child Responsiveness to the caregiver, and Child Involvement of the caregiver (See Tables 1 and 2). Each scale consists of seven subscales, in which the first two subscales are rated from 1 (*nonoptimal*) to 7 (*optimal),* and the last five subscales rated from 1 (*nonoptimal*) to 3 (*optimal*). Raters also give each dimension a direct global score from 1 (*nonoptimal*) to 7 (*optimal*).

Evidence for its reliability and validity was collected from children of different ages and genders of normative and special needs samples, low and high social-risk populations, and dyads from different nations, such as Australia, Canada, U.S., Germany, Latvia, Portugal, Sweden, Turkey, Belgium, Finland, Israel, and the Netherlands (Bornstein et al., 2008; Oyen, Landy, Hilburn-Cobb, 2000; Ziv, Aviezer, Gini, Sagie, & Koren-Karie, 2000; Sagi, Koren-Karie, Gini, Ziv, & Joels, 2002). Retest reliability is .59 to .67 over 5 months, and dyadic EA mean levels were stable in mother-infant normative dyads over 1 and 2 week intervals across contexts (Bornstein et al., 2006; Bornstein et al., 2008).

Coders (two) were aware an intervention took place but were naïve to other information, such as group membership, other dependent measures, background information of participants, etc. Two videos were not of high enough quality to code, which typically was a result of participants' internet connection speed. Both were from the DG, one at baseline and the other at T2. Therefore, there were 35 videos total (two from each participant in the IG, three from each participant in the DG minus the two videos that were of poor quality). Interrater reliability was

tested on 30% of the total videos. This reliability was garnered using intraclass correlation (ICC). On 10% of the cases, the coded values differed by more than one point. Therefore, conferenced scores between the two coders were used. ICC for 20% of the videos was .70.

Emotional availability self-report. The Emotional Availability-Self-Report (EA-SR; Biringen et al., 2002) is a 36-item self-report survey that measures a caregiver's (in this case, adoptive parent) perceptions of the emotional quality of a relationship with a child. The EA-SR consists of five subscales rated on a 5-point Likert scale and coded as 0 (*do not agree at all)* to 4 (*totally agree*): Capacity to involve the parent, Mutual Attunement, Affect Quality, Intrusiveness, and Hostility (see Tables 1 and 2). Sample items include, 'In my opinion, I constantly have to stimulate my child to do new things' (Intrusiveness); 'It happens that I shout at my child to make something clear' (Hostility); 'My child engages me in his or her play' (Capacity to involve parent); 'I do understand my child, when he or she cries' (Mutual Attunement); 'I'm happy with this child' (Affect Quality).

Internal reliabilities range between .71 and .84 for the scales (Vliegen, Luyten, & Biringen, 2009). The EA-SR is correlated with the EA Scales (3rd ed.; Biringen et al., 1998), demonstrating convergent validity. In terms of construct validity, the EA-SR discriminates between caregivers experiencing clinically significant depression and anxiety symptoms and caregivers in normative samples (Biringen et al., 2002) and is not related to demographic variables (e.g., maternal age and educational level and age and gender of the child). Specifically, Mutual Attunement and Affect Quality were negatively related to maternal feelings of depression and state and trait anxiety, and Hostility was positively related to maternal feelings of trait anger (Vliegenet al., 2009). Cronbach alphas for the entire sample across time points ranged from .55 -

.92 for Mutual Attunement, .95 - .97 for Capacity to involve the parent, .68 - .94 for Hostility, .61 - .84 for Intrusiveness, and .64 - .68 for Affect Quality.

Emotional attachment. The Emotional Availability Clinical Screener (EA-CS; Biringen, 2008) is an observational scale used to assess caregiver-child emotional attachment. The EA-CS provides a scale from 1-100 to place relationships in one of four zones: Emotionally Available (81 – 100), Complicated Emotionally Availability (61 – 70), Emotionally Unavailable/Detached (41 – 60), and Problematic/Traumatized (1 – 40). The EA-CS is a relatively new instrument and has limited validity and reliability information. Two studies have utilized this component of the EA system and one reports a link between the EA-CS and the DC 0-3 PIRGAS (Moltz et al., 2010) and another with the Attachment Q-Set (Baker & Biringen, 2012).

Attachment behaviors. The Attachment Q Sort (AQS, version 3.0; Waters, 1995) contains 90 behavioral descriptions and utilizes a Q-sort methodology to assess secure attachment behaviors in the context of caregiver-child interactions. The AQS is a sorted measure using a fixed distribution. Caregivers of children ages 1-5 years distribute the 90 items via cards from 1 (*extremely uncharacteristic*) to 9 (*extremely characteristic*). Items that are neither characteristic nor uncharacteristic are placed in the center distribution (categories 4-6). To derive a score for attachment security, the profile scores given by caregivers are correlated with the profile for the hypothetically "very secure child" (Waters, 1995), which results in a correlation coefficient between -1 and 1. A score of .33 was used as a cut-off for security (Waters, 1995). Cronbach alpha for this sample at baseline was .80.

The AQS self-report is most reliable when used with low risk samples (Teti & McGourty, 1996). Evidence for its reliability and validity was found across multiple cultures, contexts, and

ages (Posada, Waters, Crowell, & Lay, 1995; Verissimo & Salvaterra, 2006). Derived from attachment experts, internal consistency for the attachment security score is .96 (Waters, 1995). The self-report AQS is moderately correlated with the Adult Attachment Interview (George, Kaplan, & Main, 1984; Posada et al.) and observer AQS ratings (Teti & McGourty, 1996), demonstrating convergent validity. In terms of criterion validity, the self-report AQS discriminates between secure and insecure attachment in the SSP and is related to caregiver sensitive responsiveness and socioemotional competence (van IJzendoorn et al., 2004).

Using Teti and McGourty's (1996) guidelines, the AQS cards were sent to participants two weeks prior to data collection in order for them to become acquainted with the items. Also following these guidelines, researchers first had the participants sort the cards as to whether each card was *like* or *unlike* their child, prior to sorting into the 9-category distribution. Lastly, researchers explained to parents to think of their children's behaviors within the past two weeks.

Parenting stress. The Parenting Stress Index (PSI; Abidin, 1995) is a 120-item self-report instrument that consists of three subscales on a 5-point Likert-type scale from 1 (*strongly agree*) to 5 (*strongly disagree*) and measures the stress a parent experiences in a relationship with a particular child (Abidin, 1995). Sample items include: 'My child is much more active than I expected' (Child Domain); and 'being a parent is harder than I thought it would be' (Parent Domain). For the purposes of this study, only the Total Stress score was analyzed (see Table1), which was obtained by summing the Parent and Child Domains and subtracting the summed score from a Defensive Responding composite. Also, certain items on the PSI were re-written to be more appropriate for adoptive parents. For example, item number 55 ('Since I brought my last child home from the hospital, I find that I am not able to take care of this child as

well as I thought I could. I need help') was modified slightly to exclude the phrase 'from the hospital' to just 'brought my last child home'.

Evidence for its reliability and validity was collected from mothers of preschool children and children with various types of disabilities, first-time mothers experiencing postpartum depression, abusive mothers, and mothers from a wide array of cultures, including Bermuda, Puerto Rica, and Israel (Conoley, Impara, & Murhpy, 1995). Internal reliabilities for each of its scales are high, including .93 for the Parent Domain, .90 for the Child Domain, and .95 for Total Stress. Retest reliability is .65 for a 1-year interval and .96 for 1-3 months (Conoley et al., 1995). The PSI is correlated with the Achenbach Child Behavior Checklist (Achenbach, 1991), the Parenting Sense of Competence Scale (Johnston & Mash, 1989), and the Infant Temperament Questionnaire (Hutcheson & Black, 1996), demonstrating convergent validity. In terms of construct validity, the PSI discriminates between abusive and nonabusive parents and is related to maternal distress (Conoley et al., 1995). Cronbach's alpha for this sample was .93 at baseline for the Total Stress scale.

Child behaviors. The Child Behavior Checklist-Parent Report for ages 1.5 – 5 years (CBCL; Achenbach & Rescorla, 2000) is a 102-item self-report instrument that uses a 3-point Likert-type scale and measures specific social, emotional, and behavioral problems that characterize preschool children on 99 of its items. The other three questions are open-ended items for describing additional problems, such as illnesses and disabilities, what concerns the respondent most, and the best things about the child. Parents are asked to rate the degree to which they believe each item on the CBCL is true about their child's behavior within the past 2 months on a scale from 0 (*not true*) to 2 (*very true or often true*). The CBCL includes three general scales, Internalizing problems (subscales Emotionally Reactive, Anxious/Depressed,

Somatic Complaints, and Withdrawn), Externalizing problems (subscales Attention Problems and Aggressive Behavior), and Total problems (sum of all scales, including Other Problems subscale). Only the Total Problems scale will be used in this study. T-scores of the Total Problems scale were derived from Achenbach and Recorla (2000). Cronbach's alpha for this sample at baseline was .91.

Achenbach and Rescorla (2000) reported high reliabilities for the Internalizing and Externalizing scores. Eight-day retest estimates were .87 for the Externalizing Scale and .90 for the Internalizing Scale. Cronbach alphas were .92 and .89, respectively. Validity has been supported in numerous studies showing significant correlations between CBCL scores and (a) teacher reports of behavior problems, (b) other measures of preschool behavior problems, and (c) clinician assessments of child psychopathology (Arend, Lavigne, Rosenbaum, Binns, & Christoffel, 1996; Calkins & Dedmon, 2000; Koot,van Den Oord, Verhulst, & Boomsma, 1997; Mesman & Koot, 2001; Shaw, Vondra, Hommerding, & Keenan, 1994).

Analytic Procedures

Bivariate correlations were used to determine relationships among study variables across time points for the entire sample and by group. Only relationships of hypothesis-driven variables are reported (see Results). Comparability of groups at baseline was determined using independent t tests across the set of dependent variables. Two of the 15 dependent variables differed at baseline, and thus, T1 scores were covaried for these two dependent measures.

Based on the extant attachment-related adoption literature, potential demographic covariates (child characteristics) were also tested by way of their associations with dependent variables for the combined sample. Of these, child's age when adopted was negatively associated with EA-SR Capacity to involve the parent at T1 (r = -.51, p < .05) and T2 (r = -.68, p < .001)

and EA-SR Intrusiveness (r = -.65, p < .001) and Affect Quality (r = -.57, p < .05) at T2. The number of child placements experienced prior to adoption was negatively associated with EA-SR Capacity to involve the parent at T1 (r = -.63, p < .05) and T2 (r = -.61, p < .05) and EA-SR Intrusiveness at T2 (r = -.63, p < .05). The child's age at pretest was negatively related to AQS Security at T1 (r = -.55, p < .05), EA-CS emotional attachment at T2 (r = -.62, p < .05), EA Structuring at T2 (r = -.71, p < .05), and EA Nonintrusiveness at T2 (r = -.58, p < .05). The child's age at posttest was negatively related to AQS Security at T1 (r = -.56, p < .05) and EA Structuring (r = -.72, p < .001), Nonintrusiveness (r = -.60, p < .05), Nonhostility (r = -.62, p < .05), and Involvement (r = -.57, p < .05) at T2. However, due to the small sample size and potential issues of power, potential demographic covariates were not included in analyses.

Analysis of Covariance (ANCOVA), covarying baseline data to reduce within-group variability, was used to analyze dependent measures of which significant differences exist at baseline. A mixed Analysis of Variance (ANOVA)[1] was used to analyze T1 and T2 data from the IG and DG. A Repeated Measures Analysis of Variance (RM-ANOVA) was used to analyze T1, T2, and T3 data for the DG only.

For violations of sphericity, Greenhouse-Geisser was used for epsilons less than .75; Huynh-Feldt was used for epsilons greater than .75 in order to adjust the degrees of freedom. Pairwise comparisons were used to determine in which group posttest improvements reside. Cohen's *d* (Cohen, 1988) was used to measure the magnitude of the differences in means in order to highlight the practical significance of the study (Kirk, 1996). For main hypotheses (see

[1] The data were also analyzed in other ways, including Multivariate Analysis of Variance (MANOVA) and Repeated Measures MANOVA, pooling the pre-test and post-test occasions of measurement for the IG and DG to achieve a larger sample size and examine main effects. Composite scores were created for the EA Scales and EA-SR by summing each participant's scores for each variable (reverse coding for EA-SR, where needed). Significant multivariate effects were followed by one-way ANOVAs to compare pre-test to post-test changes. The pattern of results was essentially the same for all variables.

Table 1), *d* was calculated by using the formula, *d* = M1 - M2 / σspooled. For ancillary hypotheses, *d* was calculated using Morris and DeShon's (2002) correction for dependence between means (Equation 8). The following guidelines proposed by Cohen (1988) were used to interpret *d*: less than .20 = trivial, .20 - .50 = small, .50 - .80 = medium, and .80 – 1.00 = large.

Pearson product moment correlation coefficients (*r*) were used to analyze correlations among dependent measures. The following guidelines proposed by Cohen (1960) were used to interpret *r*: .10 - .30 = weak relationship, .30 - .50 = moderately strong relationship, and .50 – 1.0 = strong relationship. Lastly, Wilk's lambda (λ) was used as the multivariate test statistic for analyses of intervention effects for the IG and DG at T1 and T2 to determine the amount of variance accounted for in the dependent variable by the independent variable using the formula 1 – Wilk's λ.

Due to the small-sample size and that this is an exploratory pilot study, the Bonferroni correction was not used in order to preserve power. Power analyses were conducted for a few of the main study variables, namely AQS Security, EA Sensitivity, and EA Responsiveness, and were found to have adequate (81%; American Psychological Association, 2009) power to detect moderate to large effect sizes.

Table1

Means (standard deviations) and Cohen's d of dependent variables for intervention and delayed control groups at Time 1 and Time 2.

		Time 1	Time 2	Time 1	Time 2	
Measure		Intervention Group		Delayed Control Group		Cohen's *d*
Emotional Availability Scales	Sensitivity	4.3 (1.05)	5.7 (.32)	4.0 (.90)	4.2 (1.02)	1.98
	Structuring	4.4 (.93)	6.0 (.58)	4.5 (.70)	4.3 (.82)	2.39
	Nonintrusiveness	5.0 (1.73)	6.6 (.50)	4.5 (.84)	4.0 (1.05)	3.16
	Nonhostility	5.6 (1.46)	7.0 (.00)	6.3 (.80)	6.1 (.92)	1.38
	Responsiveness	4.2 (1.05)	5.4 (.38)	3.9 (.75)	4.1 (.89)	1.90
	Involvement	4.5 (1.07)	5.7 (.61)	3.9 (.86)	4.3 (.78)	2.00
Attachment Q Sort	Security	.05 (.19)	.16 (.28)	- .31 (.21)	- .19 (.22)	1.39
Child Behavior Check List	Total Problems	49.6 (19.07)	22.5 (12.01)	51.3 (22.17)	52.6 (22.17)	1.69
Parenting Stress Index	Total Stress	239.0 (22.70)	225.0 (26.62)	270.6 (25.68)	233.6 (30.85)	.30
Emotional Availability Self-Report	Mutual Attunement	24.4 (8.80)	37.0 (9.89)	25.1 (4.02)	25.3 (6.42)	1.40
	Affect Quality	19.4 (3.54)	20.8 (2.70)	21.0 (3.11)	20.6 (3.78)	.06
	Hostility	20.1 (6.01)	12.9 (6.31)	22.9 (3.09)	19.9 (5.80)	1.16
	Intrusiveness	21.6 (6.39)	20.5 (3.82)	20.6 (4.04)	21.4 (5.16)	.20
	Child capacity to involve parent	36.8 (8.05)	42.5 (4.07)	30.3 (7.80)	35.4 (8.50)	1.07
Emotional Availability Clinical Screener	Emotional Attachment	65.9 (11.64)	82.6 (4.02)	61.8 (9.19)	62.9 (9.31)	2.75

Chapter III

RESULTS

Correlations among Dependent Variables

Given the small sample size, associations between the AQS and EA-related dependent variables (i.e., EA Scales, EA-CS, and EA-SR) were analyzed for the combined sample within T1 and T2 and then by group for T2 and T3. The dependent variables for such analyses were chosen based on theory and findings from past studies (Baker & Biringen, 2012; Biringen et al., 2012; Vliegen et al., 2009).

Combined sample at T1. At T1, AQS Security was strongly and negatively related to EA-SR Hostility (r = -.54, p < .05) and EA-SR Affect Quality (r = -.70, p < .05). As expected, as participants reported more hostility in their relationships with their children, they subsequently reported lower quality secure attachment behaviors from their children, and vice versa. Curiously, a similar relationship was found for perceived affect quality and child attachment behaviors.

Combined sample at T2. At T2, AQS Security was strongly and positively related to the EA-CS (r = .57, p < .05), EA Nonintrusiveness (r = .61, p < .05), EA Involvement (r = .55, p < .05), and EA-SR Mutual Attunement (r = .95, p < .001), and strongly and negatively related to EA Sensitivity (r = -.56, p < .05) and EA-SR Hostility (r = -.93, p < .001). As expected, the more nonintrusive behaviors parents display and the more involving children are of their parents, the more likely parents were to perceive secure attachment behaviors from their children and mutual attunement in interactions with their children, as well as have observed parent-child emotional security. Also, the more hostility perceived by parents in interactions with their children the less likely they were to report their child's attachment behaviors as secure at T2.

Surprisingly, the more sensitive parents were toward their children the less likely they were to perceive secure attachment behaviors from their children at T2, and vice versa.

Association by group at T2 and T3. At T2 for the IG, AQS Security was strongly and positively related to the EA-CS ($r = .89$, $p < .001$). As expected, after receiving the intervention, parents in the IG were more likely to observe their child's attachment behaviors as secure if their relationships with their children were observed to be emotionally secure, and vice versa. No significant correlations were found between AQS Security and the EA-related variables at T2 or T3 for the DG.

Tests of Intervention Effects for the IG versus DG at T1 and T2 (Part IA)

Tests of comparability at baseline using independent t-tests resulted in nonsignificant differences in 13 of the 15 dependent variables (EA Sensitivity, Structuring, Nonintrusiveness, Nonhostility, Child Responsiveness and Involvement, EACS, CBCL Total Problems, EA-SR Mutual Attunement, Affect Quality, Hostility, Intrusiveness, and Capacity to involve the parent). AQS Security, $t(13) = 2.81$, $p < .05$, and PSI Total Stress, $t(13) = -2.53$, $p < .05$, were found to differ at baseline. Thus, ANCOVA was used to examine differences in these dependent measures by group at T2, using baseline as a covariate. No significant differences by group were found for Security ($p = .40$, $\eta^2 = .064$), but a large effect size was found (Cohen, 1988; see Table 1). Similarly, no significant differences by group were found for Total Stress ($p = .69$, $\eta^2 = .015$), but a small effect size was observed (Cohen, 1988; see Table 1).

Here, I report time by group (Time X Group) interactions for the IG and DG for T1 and T2. A Time X Group effect indicates differential change, which determines whether the IG showed improvements not observed in the DG.

EA-CS. The EA-CS was significantly different over Time X Group. EA-CS scores increased from T1 to T2 in the IG, whereas DG scores only showed a very slight increase, Wilk's $\lambda = .376$, F (1, 11) = 18.28, $p = .001$, $\eta^2 = .624$. These results indicate that participants in the IG showed a statistically significant increase in parent-child observed emotional attachment from pre-test to post-test, when compared to participants who were in the control group. Results further indicate that the effects of the EA Intervention on the IG compared to the DG was large (Cohen, 1988; see Table 1), and 62.4% of the variance in EA-CS scores was accounted for by participation in the intervention.

EA Scales. For the Caregiver EA Scales, all scales were significantly different over Time X Group. Specifically, Sensitivity increased from T1 to T2 in the IG, Wilk's $\lambda = .543$, F (1, 11) = 9.25, $p < .05$, $\eta^2 = .457$. These results indicate that participants in the IG showed a statistically significant increase in observed adult EA Sensitivity from pre-test to post-test, when compared to participants who were in the DG. Results further indicate that the effect of the EA Intervention on the IG compared to the DG was large (Cohen, 1988; see Table 1), and 45.7% of the variance in Sensitivity was accounted for by participation in the intervention.

Structuring increased in the IG and decreased slightly in the DG from T1 to T2, Wilk's $\lambda = .481$, F (1, 11) = 11.85, $p < .05$, $\eta^2 = .519$. These results indicate that participants in the IG showed a statistically significant increase in observed adult EA Structuring from pre-test to post-test, when compared to participants who were in the DG. Results further indicate that the effect of the EA Intervention on the IG compared to the DG was large (Cohen, 1988; see Table 1), and 51.9% of the variance in Structuring was accounted for by participation in the intervention.

A similar pattern occurred with Nonintrusiveness, Wilk's $\lambda = .617$, F (1, 11) = 6.83, $p < .05$, $\eta^2 = .383$, and Nonhostility, Wilk's $\lambda = .682$, F (1, 11) = 5.12, $p < .05$, $\eta^2 = .318$. These

results indicate that participants in the IG showed a statistically significant increase in observed adult EA Nonintrusiveness and Nonhostility from pre-test to post-test, when compared to participants who were in the DG. Results further indicate that the effects of the EA Intervention on the IG compared to the DG were large (Cohen, 1988; see Table 1), and 38.3% of variance in Nonintrusiveness and 31.8% of variance in Nonhostility was accounted for by participation in the intervention.

For the Child EA Scales, Responsiveness was significantly different over Time X Group. Responsiveness increased in the IG, with a slight increase in the DG as well, from T1 to T2, Wilk's $\lambda = .576$, $F (1, 11) = 8.08$, $p < .05$, $\eta^2 = .424$. These results indicate that participants in the IG showed a statistically significant increase in observed child Responsiveness from pre-test to post-test, when compared to participants who were in the DG. Results further indicate that the effect of the EA Intervention on the IG compared to the DG was large (Cohen, 1988; see Table 1), and 42.4% of the variance in Responsiveness was accounted for by participation in the intervention. A similar pattern of changes was observed for Involvement but with no significant differences over Time X Group ($p = .13$, $\eta^2 = .196$). However, a large effect size existed (Cohen, 1988; see Table 1).

EA-SR. For the EA-SR measures, significant differences in Mutual Attunement and Capacity to involve the parent over Time X Group were found. Specifically, Mutual Attunement, Wilk's $\lambda = .594$, $F (1, 13) = 8.87$, $p < .05$, $\eta^2 = .416$, and Capacity to involve the parent, Wilk's $\lambda = .617$, $F (1, 13) = 8.02$, $p < .05$, $\eta^2 = .381$, showed significant increases in the IG from T1 to T2. These results indicate that participants in the IG showed a statistically significant increase in self-reported EA Mutual Attunement and Capacity to involve the parent from pre-test to post-test, when compared to participants who were in the DG. Results further

indicate that the effects of the EA Intervention on the IG compared to the DG were large (Cohen, 1988; see Table 1), and 41.6% of the variance in Mutual Attunement and 38.1% of the variance in Capacity to involve the parent was accounted for by participation in the intervention. Decreases in Intrusiveness and Hostility and an increase in Affect Quality were observed for the IG from T1 to T2 but not at significant levels (p = .14 - .39, η^2 = .056 - .163). However, a large effect size was found for Hostility, and a small effect size was found for Intrusiveness (Cohen, 1988; see Table 1).

CBCL. In terms of the CBCL Total Problems subscale, significant differences over Time X Group were found. Total Problems reduced in the IG and slightly increased in the DG from T1 to T2, Wilk's λ = .366, F (1, 13) = 22.51, p < .001, η^2 = .634. These results indicate that participants in the IG showed a statistically significant decrease in self-reported child behavioral problems from pre-test to post-test, when compared to participants who were in the DG. Results further indicate that the effect of the EA Intervention on the IG compared to the DG was large (Cohen, 1988; see Table 1), and 63.4% of the variance in Total Problems was accounted for by participation in the intervention.

Tests of Intervention Effects for the DG across Three Time Points (Part IB).

EA Scales. In terms of the Caregiver EA Scales, results indicated significant differences in Sensitivity, F (2, 8) = 26.41, p < .001, η^2 =.868. The average score increased minimally from T1 to T2 and increased substantially from T2 to T3. In support of this, polynomial contrasts indicated that there was a significant quadratic trend, F (1, 4) = 18.00, p = .05, η^2 = .818. These results suggest that participants in the IG showed a statistically significant increase in observed adult EA Sensitivity from pre-test to post-test, with nearly 87% of the variance in Sensitivity was

accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

A similar trend was found for Structuring, F (1.26, 5.04) = 11.80, $p < .05$, $\eta^2 = .747$. Examination of means from T1 to T2 shows a minimal decrease in scores and a substantial increase from T2 to T3. In support of this, polynomial contrasts indicated a significant quadratic trend, F (1, 4) = 10.27, $p < .05$, $\eta^2 = .720$. These results indicate that participants in the DG showed a statistically significant increase in observed adult EA Structuring from pre-test to post-test, with nearly 75% of variance in Structuring accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

Additionally, results indicated differences in Nonintrusiveness, F (1.45, 5.84) = 27.42, $p = .001$, $\eta^2 = .873$, with a minimal decrease in means from T1 to T2 and a substantial increase from T2 to T3. Again, polynomial contrasts indicated a significant quadratic trend, F (1, 4) = 8.73, $p = .05$, $\eta^2 = .686$. These results indicate that participants in the DG showed a statistically significant increase in observed adult EA Nonintrusiveness from pre-test to post-test, with 87% of variance in Nonintrusiveness accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2). No significant differences were found for Nonhostility ($p = .22$), but a large effect size existed (Cohen, 1988; see Table 2).

For the Child EA Scales, results indicated significant differences in Responsiveness, F (1.45, 5.81) = 22.31, $p < .05$, $\eta^2 = .848$. Examination of means suggests that participants increased in Responsiveness minimally from T1 to T2 but substantially increased from T2 to T3. Polynomial contrasts indicated that there was a significant linear trend, F (1, 4) = 20.17, $p < .05$, $\eta^2 = .894$, but with a nonsignificant quadratic trend ($p = .06$). These results indicate that participants in the DG showed a statistically significant increase in observed child EA

Table 2

Means (standard deviations) and effect sizes for the delayed control group at Time 2 and Time 3.

Measure		Time 2	Time 3	Cohen's *d*
		Delayed Control Group		
Emotional Availability Scales	Sensitivity	4.2 (1.02)	5.7 (.55)	4.53
	Structuring	4.3 (.82)	5.9 (.24)	7.16
	Nonintrusiveness	4.0 (1.05)	6.5 (.65)	2.92
	Nonhostility	6.1 (.92)	6.9 (.76)	1.03
	Responsiveness	4.1 (.89)	5.4 (.38)	3.02
	Involvement	4.3 (.78)	5.3 (.47)	1.31
Attachment Q Sort	Security	- .19 (.22)	.04 (.35)	.55
Child Behavior Check List	Total Problems	52.6 (22.17)	25.57 (12.11)	3.94
Parenting Stress Index	Total Stress	233.6 (30.85)	267.0 (26.91)	.98
Emotional Availability Self-Report	Mutual Attunement	25.3 (6.42)	41.1 (2.73)	4.32
	Affect Quality	20.6 (3.78)	22.6 (1.62)	.91
	Hostility	19.9 (5.80)	11.9 (3.02)	1.45
	Intrusiveness	21.4 (5.16)	21.4 (2.57)	.00
	Child capacity to involve parent	35.4 (8.50)	43.2 (3.30)	2.41
Emotional Availability Clinical Screener	Emotional Attachment	62.9 (9.31)	79.7 (5.11)	3.88

Note. Cohen's *d* was calculated using Morris and DeShon's (2002) correction (equation 8) for dependence between within-group means.

Responsiveness from pre-test to post-test, with nearly 85% of the variance accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

In addition, significant differences were found in Involvement, $F(2, 8) = 9.91$, $p < .05$, $\eta^2 = .71$, which indicated that children increased in Involvement of their parents minimally from T1 to T2 and substantially from T2 to T3. In support of this, polynomial contrasts again indicated

that there was a significant linear trend, F (1, 4) = 15.56, $p < .05$, $\eta^2 = .795$, but a nonsignificant quadratic trend ($p = .10$). These results indicate that participants in the DG showed a statistically significant increase in observed child EA Involvement from pre-test to post-test, with 71% of the variance accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

EA-CS. In terms of the EA-CS, results indicated significant differences in parent-child emotional attachment, F (1.21, 4.84) = 36.36, $p < .05$, $\eta^2 = .901$. Examination of means suggests that participants increased in EA-CS scores minimally from T1 to T2 and substantially from T2 to T3. In support of this, a significant quadratic trend existed, F (1, 4) = 10.10, $p < .05$, $\eta^2 = .716$. These results indicate that participants in the DG showed a statistically significant increase in observed parent-child emotional attachment from pre-test to post-test, with 90% of the variance in emotional attachment accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

EA-SR. In terms of the EA-SR, results indicated significant differences in Hostility, F (1.43, 8.58), $p < .05$, $\eta^2 = .77$. Examination of means suggests that participants minimally decreased in self-reported hostility from T1 to T2, and substantially decreased in scores from T2 to T3. Polynomial contrasts indicated that there was a significant linear trend, F (1, 6) = 60.50, $p < .05$, $\eta^2 = .91$, but a nonsignificant quadratic trend existed ($p = .21$). These results indicate that participants in the DG showed a statistically significant increase in self-reported EA Hostility from pre-test to post-test, with 77% of the variance in Hostility explained by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

In addition, results indicated significant differences in Mutual Attunement, F (2, 12) = 57.34, $p < .001$, $\eta^2 = .91$. Examination of means suggests that participants increased minimally in self-reported Mutual Attunement from T1 to T2, but increased substantially in scores from T2 to T3. There was also a significant quadratic trend, F (1, 6) = 20.60, $p < .05$, $\eta^2 = .774$. These results indicate that participants in the DG showed a statistically significant increase in self-reported EA Mutual Attunement from pre-test to post-test, with 91% of the variance in Mutual Attunement accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

Lastly, there were significant differences in Capacity to involve the parent, F (1.20, 7.19) = 13.39, $p < .05$, $\eta^2 = .69$, suggesting that participants substantially increased in self-reported child capacity to involve the parent from T2 to T3. A minimal increase in mean scores was observed from T1 to T2. In support of this, a significant linear trend was observed, F (1, 6) = 12.49, $p < .05$, $\eta^2 = .675$. These results indicate that participants in the DG showed a statistically significant increase in self-reported EA Capacity to involve the parent from pre-test to post-test, with 69% of the variance explained by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

No significant differences in Affect Quality ($p = .11$) or Intrusiveness ($p = .77$) were found. However, results indicate that the effect of the EA Intervention on the DG in terms of Affect Quality was large (Cohen, 1988; see Table 2).

CBCL. In terms of the CBCL for the DG across time points, results indicated significant differences for the Total Problems scale, F (2, 12) = 19.39, $p < .05$, $\eta^2 = .76$. Examination of mean scores suggests that participants minimally increased in self-reported total behavioral problems from T1 to T2, with substantial decreases occurring from T2 to T3. In support of this,

there was a significant quadratic trend, F (1, 6) = 19.70, $p < .05$, $\eta^2 = .767$. These results indicate that participants in the DG showed a statistically significant decrease in self-reported child behavioral problems from pre-test to post-test, with 76% of the variance accounted for by Time. Results further indicate that the effect of the EA Intervention on the DG was large (Cohen, 1988; see Table 2).

PSI. In terms of Total Stress, significant differences were not found across time points for the DG ($p = .051$). A closer examination of mean scores revealed a substantial increase from T1 to T2 and a minimal decrease from T2 to T3, with the lowest mean score at T1. A significant linear trend existed, F (1,6) = 10.38, $p < .05$, $\eta^2 = .634$. However, a large effect (Cohen, 1988; see Table 2) of the EA Intervention on the DG also existed.

AQS. In terms of AQS Security, significant differences were not found across time points ($p = .07$). A closer examination of mean scores revealed T1 as the lowest score and highest mean score occurring at T3. A significant linear trend existed, F (1,6) = 9.80, $p < .05$, $\eta^2 = .620$, with a moderate effect size (Cohen, 1988; see Table 2).

Chapter IV

DISCUSSION

Given the gap in service usage and need of adoptive families (Rosenthal et al., 1996) and their unique emotional needs (Juffer, 2006), the current study extended the EA Intervention to a new online modality with adoptive families in order to act as a postadoption support in ameliorating child behavioral problems and parenting-related stress and enhancing observed and reported parent-child EA, observed parent-child emotional attachment, and children's attachment behaviors.

Most aspects of EA were significantly enhanced for both groups after participating in the online version of the EA Intervention for parents. For those scales (i.e., Nonhostility and Involvement) that were not statistically significant, large effect sizes were observed. Such findings support the hypothesis that improvements in parent-child EA would be observed after participating in the intervention. Changes found on both the child and adult's sides speak to the dyadic nature of EA in that one side cannot 'look good' without the other (Biringen, 2000).

In addition, parents' perceptions of EA in their relationships with their children significantly increased in the domains of Mutual Attunement and Capacity to involve the parent, as well as significantly decreased in Hostility for the delayed control group. These changes are important to note given the difficulty present in changing parental perceptions of their relationships with their children (Bick & Dozier, 2008), as such change often requires higher-level introspection (Vliegen et al., 2009). In fact, discrepancies between self-report and observed EA have been found in past studies (Vliegen et al. 2005), with the exception of Mutual Attunement (Vliegen et al., 2009). Even with the self-reported EA subscales (i.e., Intrusiveness, Hostility, and Affect Quality) that did not significantly differ between groups, large effect sizes

existed for most of these measures, thus supporting the hypothesis that participation in the EA Intervention would enhance parental perceptions of EA in their relationships with their children.

As hypothesized, parent-reported child behavioral problems (which includes internalizing and externalizing symptomology) significantly decreased in the intervention group and delayed control group postintervention, with large effect sizes observed. This is of particular significance because parents of adopted children with behavioral and emotional problems tend to be the most likely to require and seek postadoption services (Rosenthal et al., 1996; Wind et al., 2007). Adopted children are also overrepresented in mental health referrals and are reported to display more externalizing and internalizing behavioral problems (Juffer, 2006; Juffer & van IJzendoorn, 2005; Stams et al., 2000). During the last intervention sessions, many parents reported feeling more confident in proactively structuring interactions with their children to avoid negative behaviors in the first place. A significant increase in EA Structuring observed in both groups postintervention supports these sentiments.

Most importantly, the moderate to large effect sizes found for all the dependent measures (with the exception of reported Intrusiveness in the delayed control group) speak to the effectiveness of the new online modality of the intervention. Although many studies utilizing teleintervention strategies in the field of psychological and behavioral health have found similar outcomes to in vivo programming (Glueckauf et al., 2002; Nelson et al., 2006), their efficacy compared to in vivo training is still being developed. Many participants in the current study seemed at ease with the use of technology and even admitted to disclosing more about their thoughts and feelings than they would in-person. Self-disclosure, not including disclosure of financial information, tends to be higher online than in-person, and generally speaking, is linked to mutual understanding and greater honesty (Laurenceau, Barrett, & Pietromonaco, 1998).

Furthermore, disclosure within groups can serve to enhance trust between group members, as well as legitimize group membership and strengthen group identity (Galegher, Sproull, & Kiesler, 1998). Participants may have felt more trusting of one another, as well as with the intervention facilitator, and thus, may have disclosed more and in return received more personalized feedback related to their relationships with their children.

Surprisingly, AQS Security and PSI Total Stress were not found to be significantly different postintervention. Past studies utilizing the EA Scales and EA Intervention have found links between the EA Scales and AQS Security (Biringen et al., 2012) as well as changes observed pre to postintervention in parenting-related stress domains (Biringen et al., 2009). Given the small sample size and that this was an exploratory pilot study, these findings are hardly surprising. However, what is important to note is that AQS Security and PSI Total Stress had moderate and large effect sizes, respectively. These findings support the practical significance of the EA Intervention in terms of changing parenting stress and attachment security.

Absence of statistically significant differences in AQS Security is in line with past intervention work that found attachment status difficult to change, and thus the focus has been on changing parental sensitivity (Juffer et al., 2008). Interestingly and as hypothesized, the EACS, which measures emotional attachment rather than just child attachment behaviors like the AQS was significantly different for both groups postintervention. It appears that parental participation in the EA Intervention significantly impacted the emotional side of the parent-child attachment relationship, which is quite important given the need for adoptive dyads to have open communication and emotions-based dialogue about adoption (Brodzinsky, 2006; Juffer, 2006).

In terms of the PSI, it may be that a scale that adhered more to specific adoption-related stress, also termed 'adoptive strains' (Brodzinsky, 1984), may have been more sensitive to this sample's experiences. In fact, there were some items on the PSI that did not relate to some of the participants at all (e.g., items referring to 'having a support system to talk to about parenting issues'). Analysis of specific parent and child domains of the PSI may have garnered significant differences pre to postintervention, as past studies utilizing the EA Intervention found changes in specific domains (i.e., Parent and Child Domains) of the PSI rather than total parenting stress (Biringen et al., 2009). Given the small sample size, only total parenting stress was analyzed in order to limit the number of dependent measures thereby reducing threats to power.

Implications

The implications of the current pilot study's findings are that parents who participated in the online EA Intervention significantly improved in reported behavioral problems, observed EA, perceptions of EA with their children, and observed emotional attachment, with large effect sizes observed for many of the dependent measures. Given the need for postadoption services that are both accessible by adoptive parents and scientifically evaluated (Barth & Miller, 2000), it appears that the online EA Intervention can address both of these needs adequately. However, due to the small sample size, the findings are not generalized to the adoptive population but rather discussed in terms of applicability to the field of human services.

Currently, adoptive parents seek postadoption services through public (e.g., university programs or governmental initiatives) or private (e.g., adoption agencies) means, most making unrealistic demands regarding childcare, transportation, time, and money (Barth & Miller, 2000). With the increase in technology use (Pew Research Center, 2010) and teleintervention platforms for mental and behavioral health in the U.S. (Yuen et al., 2012), it seems reasonable that the

creation of online platforms by which adoptive families can receive support from the comfort of their own homes has to potential to follow suit.

Limitations and Future Directions

The most notable limitation of the current pilot study is the small sample size. This made tests of differences within subsamples (e.g., different types of adoption plans, family structure, ranges in placements changes, pre-adoption histories, cultural background, parent genders, etc.) difficult. Therefore, future studies should garner not only a larger but more diverse sample in order to better represent adoptive families.

Another limitation of the current study was the specific time of day (or night, rather) chosen by the participating parents to conduct the intervention sessions (8:15 – 10:15 p.m.). Participants chose night-time sessions because their children would be asleep, minimizing the risk of interruption. However, most parents still left the sessions for a few minutes at a time to attend to their children. In addition, many participants seemed fatigued during the sessions after working and parenting during the day. Therefore, future online intervention programs should make an effort to schedule sessions at more reasonable hours. If night-time sessions must be scheduled, facilitators should do their best to sustain parental engagement through the use of creative activities.

It is inevitable that technological issues will occur in teleintervention programs. Many technological issues are a result of human error, which underscores the importance of properly training facilitators and participants on the specific technology used (Yuen et al., 2012). In the current study, the facilitator obtained the highest speed cable internet connection possible and avoided DSL, dial-up, and wireless connections. This largely reduced the most common technological problems with teleinterventions – poor sound and video quality – even if the

participants used one of the three aforementioned less effective forms of connections (Yuen et al., 2012). The current study also held an introductory session prior to the start of the intervention sessions in order to introduce participants to the VC interface. Step-by-step instructions for the VC interface and website were provided to participants via email, as well as contact information of website support professionals. Although hardware (e.g., computers) and software (e.g., applications) are expected to continually improve as time passes (Horrigan, 2009), it is important that future teleintervention work follows the guidelines presented in the current study to reduce technological problems and thus reduce participant frustration and possible resulting attrition.

Our findings are in support of previous attachment interventions with parents and infants that find shorter, 'piecemeal' approaches sufficient for attachment-relevant change (Bakermans-Kranenburg et al., 2003) and that one to two video feedback components (one during the intervention and one during the individualized session) are sufficient for modeling such change. It would be important for future work to compare online programming to other postadoption programs, particularly those that are not conducted online, to further evaluate the efficacy of online programming for postadoption support.

Conclusion

Ultimately, the findings of the current study showed that the group receiving the intervention improved in reported behavioral problems and EA, including their perceptions of EA and emotional attachment, whereas the control group did not show this pattern until after receiving the intervention. It appears that online postadoption programming is a viable option for adoptive families in today's ever-growing technological world.

Figure 1. Video library is on the left where participants can view all participants' videos from their group with comments on specific video clips (to the right) for each video during the video feedback portion of the intervention (face blocked out to ensure confidentiality; faces are visible to participants).

Figure 2. Illustrative example of the intervention facilitator conducting EA Intervention session three for the IG using Skype video conferencing for group/conference video calls. Up to 10 participants can be viewed at one time.

Figure 3. Example of the process of videotaping parent-child interactions through Skype VC system using a video camera pointed at the computer screen while parents are interacting in real-time.

Figure 4. Example of the use of social media (Facebook) for recruitment of participants.

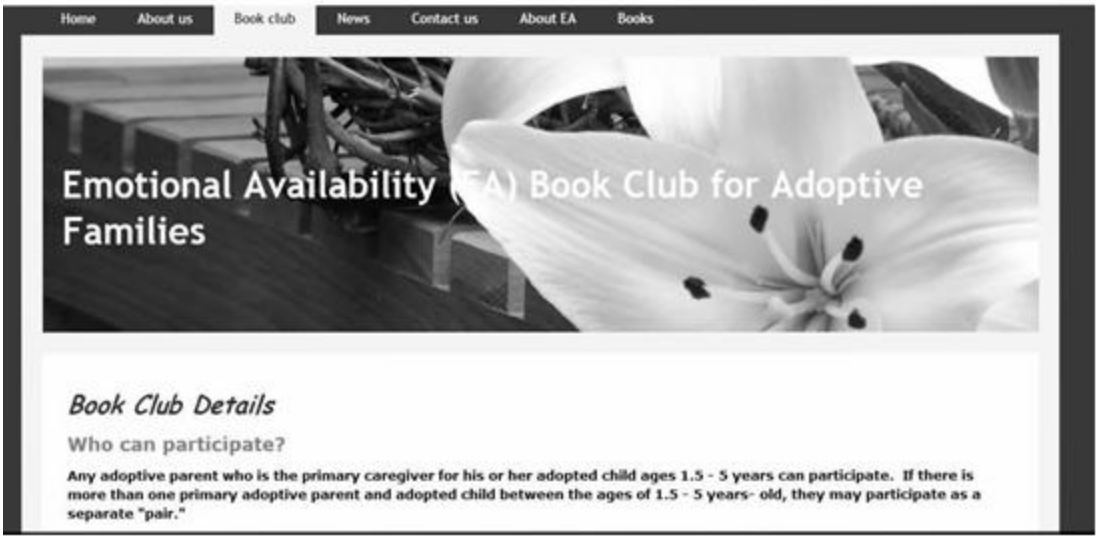

Figure 5. Illustrative example of the use of a website for recruitment purposes.

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Appendix I: Literature Review

International and domestic adoption in the U.S. has become increasingly commonplace (Evan B. Donaldson Adoption Institute [EBDAI], 2010). Although most adopted children develop comparably to nonadopted children, adopted children are overrepresented in mental health populations and display more internalizing and externalizing disorders (Juffer, 2006; Juffer & van IJzendoorn, 2005; Landsford, 2001; Rosnati, Montirosso, & Barni, 2008; Stams, Juffer, Rispen, & Hoksbergen, 2000) and tend to be more insecure and disorganized in their attachments than their nonadopted peers (van IJzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992). In fact, it is estimated that 2% of U.S. children (i.e., 1.5 million) are adopted and comprise 5-15% of mental health referrals (EBDAI; Miller et al., 2000). In turn, these behavioral and attachment issues are significantly related to adoptive parents' feelings of stress and negative perceptions of their relationships with their children (Judge, 2004; Mainemer, Gilman, & Ames, 1998). Reilly and Platz (2004) suggested that an adoptive family's unmet support needs (e.g., postadoptive programming, counseling, etc.) may be associated with perceived problems in the relationship between an adoptive parent and child and an overall negative impact on the family. In fact, postadoptive supports are relatively rare (Barth & Miller, 2000). This begs the question: Can an intervention focused on improving adoptive parent-child emotional connections ameliorate such risks?

Factors contributing to adopted children's outcomes have been investigated and synthesized to include age at placement, pre-adoption maltreatment (Brodzinsky & Pinderhughes, 2002; Rushton, 2004), as well as individual child characteristics, including special needs of the child (Palacios & Sanchez-Sandoval, 2005). However, little attention has been paid

to the nuances present in adoptive parent-child dyadic interactions (Suwalsky, Hendricks, & Bornstein, 2006) and whether focusing intervention efforts on such interactions can reduce negative outcomes, such as parental stress and negative perceptions pertaining to the parent-child relationship and children's social competence.

Indeed, adaptation in adoptive children has been found to be a product of both genetic history and present circumstances, including, to a large extent, the parent-child relationship (Jaffari-Bimmel, Juffer, van IJzendoorn, Bakermans-Kranenburg, & Mooijaart, 2006). Thus, the proposed study will determine whether an intervention aimed at enhancing emotional availability of the dyad is, in fact, beneficial for the observed and reported emotional quality and attachment security of parent-child relationships, as well as parent-reported child problems and stress.

Theoretical Perspectives within Parent-Child Interactions

Adoptive parents are typically those who experienced infertility and chose to adopt after years of trying to conceive biological children (Bird, Peterson, & Miller, 2002). Approximately 25% of infertile couples make the decision to adopt and undergo legal and home assessments and waiting periods (Barth & Miller, 2000; EBDAI, 2010). If a child is placed with them, each side of this unique adoptive parent-child dyad must work to negotiate smooth interactions to build an emotional connection (Howe, 1998; Schofield & Beek, 2006), in which a foundation for many developmental outcomes are initially formed (van IJzendoorn, & Juffer, 2006). For example, the development of a secure attachment has been linked to and is predictive of healthy cognitive and socio-emotional outcomes (Stams, Juffer, van IJzendoorn, & Hoksbergen, 2001), and has also been found to act as a protective factor against certain developmental risks (Cicchetti & Toth, 1995, 2006). Alternatively, adopted children who are insecure or disorganized in their attachment to their parents have been found to be at greater risk for developing externalizing and

internalizing behavior problems (Juffer & van IJzendoorn, 2005), which in turn influences parental stress (Mainemer et al., 1998), the overall emotional quality of the adoptive parent-child relationship (Juffer, 2006; Stams et al., 2000), and the risk of placement breakdown (Dozier, Stovall, Albus, & Bates, 2001; Steele, Hodges, Kaniuk, Hillman, & Henderson, 2003).

Adoption by its very nature implies stress, loss, and the formation of new emotional connections (Brodzinsky, 1990, 1993; Juffer, 2006), which makes attachment theory an appropriate theoretical framework for the proposed study. Attachment-relevant behaviors have been theorized to be observable at birth (Bowlby, 1969, 1980), but adoptive families cannot experience such interactions until a child is legally placed with them. Once placement occurs, each side of the adoptive dyad brings emotional and behavioral history to their new attachment relationship (Howe, 1998; Steele, 2006), and the risks associated with such history include the adopted children's ages at adoption, number of placements pre-adoption, presence of special needs, and maltreatment (e.g., in utero trauma, institutionalization, neglect) (see Brodzinksy & Pinderhughes, 2002; Palacios & Sanchez-Sandoval, 2005), as well as the adoptive parents' previous feelings of loss due to infertility (Brodzinsky, 1993).

According to attachment theory, experiences of loss may negatively affect the development of subsequent attachment relationships (Bowlby, 1969, 1980). However, even following a disruption in care, adopted children have been capable of organizing their behavior around the availability and nurturance of new caregivers (Dozier, 2003; Dozier & Rutter, 2008; van IJzendoorn, Juffer, & Duyvesteyn, 1995). For adoptive parents who struggled with infertility, those who are autonomous and secure with respect to their own loss histories are better able to be sensitive to their children's needs and create new interactions for the safe expression of attachment behaviors (Dozier & Rutter, 2008). Indeed, most adopted children are

able to develop secure attachment relationships with their caregivers. However, in general, adopted children show more insecure and disorganized attachments than nonadopted comparisons. For example, in a meta-analysis examining attachment security in 10 studies of over 400 adopted children, on average, 47% of the adopted children were found to be securely attached, and 53% were found to be insecurely attached. In nonadopted samples, 67% of children are securely attached to their primary caregivers (van IJzendoorn et al., 1992).

Attachment behaviors have traditionally been measured using the Strange Situation Procedure (SSP; Ainsworth et al.), which uses a separation and reunion context to elicit attachment behaviors. More recently, the Attachment Q-Set (AQS; Waters, 1995; Waters & Deane, 1985) has been used as an alternative to the distress context for measuring secure attachment and found to be more appropriate for caregiver-child dyads in which the child has experienced multiple caregivers (Ponciano, 2010). The AQS (Waters; Waters & Deane) has been used with adoptive samples with similar findings as the SSP (Ainsworth et al., 1978) in regard to adopted children's attachment behaviors (van IJzendoorn et al., 2004). For example, in a study utilizing the revised AQS (Waters, 1995) to measure secure base behaviors and social cognition, adopted children were found to be more insecurely attached and less able to understand emotions than nonadopted comparisons (Vorria et al., 2006).

In addition to attachment behaviors, general parent-child interactions have been associated with adopted adolescents' and young adults' functioning. Parent-child interactions positively related to adjustment have consistently been characterized as those that are sensitive, supportive, and openly communicative (Steinberg, 2001). However, much more research uses a retrospective self-report methodology of biologically intact families or children adopted from harsh environments rather than observations of dyadic interactions (Brodzinsky, 2006; Suwalsky

et al., 2006; Viana & Welsh, 2010). The latter supports a transactional perspective (Sameroff & Fiese, 2000) of development, which takes into account reciprocal contributions between a person and his or her context (e.g., parent-child relationship). Examining an adoptive parent-child relationship from a transactional perspective allows observers to measure the contributions from both sides of the adoptive parent-child relationship as dynamic and influencing of one another (Suwalsky et al.; Viana & Welsh).

The few studies that have examined adoptive parent-child relationships from a dyadic perspective have generally found differences between adopted and nonadopted dyads. For example, a study that examined adoptive mother-infant interactions found that for the adoptive dyads, maternal coherence of socio-emotional behaviors, in which maternal behaviors and perceptions of their children's social and emotional competencies are congruent, was less frequent when interacting with their infants than nonadopted dyads (Suwalsky et al., 2006). Similarly, a study conducted with adoptive primary caregivers of adopted children placed at 12 months found that adoptive caregiver-child dyadic mutuality (i.e., capacity of caregiver-child interactions to be emotionally warm and synchronous) was inversely related to behavior problems (Deater-Deckard & Petrill, 2004).

To better understand the differences in interactions observed with adoptive dyads, research has uncovered a unique emotional basis for adaptation in adoptive families. For example, adoptive parents' adaptation to their adopted infant's emotion-related behaviors through the use of appropriate responsiveness (Grotevant, McRoy, & Jenkins, 1988) and open communication (Brozinsky, 2006) was found to play a pivotal role in optimal adoptive family functioning (Grotevant et al.). Similarly, lack of parental sensitivity to a child's adoption-related emotional needs or bringing ambivalence into interactions with the adopted child was found to

negatively affect the adoptive parent-child relationship and subsequent development (Brinich, 1995; Howe, 1997). Additionally, Viana and Welsh (2010) examined internationally adopting mothers and found that the interplay of maternal perceptions and child behavioral and emotional problems predicted parenting stress above and beyond the child's pre-adoption risk factors. Regardless of adoption type or pre-adoption risks, the link to developmental success for adopted children is adoptive parent-child interactions that are sensitive, emotionally accessible, openly communicative, and responsive in a reciprocal way that should be measured as such in order to obtain a full view of adjustment.

Emotional Availability

For the proposed study, the Emotional Availability (EA) framework will be used to fill the need for an explicit emotional and dyadic concept and assessment of interactions in the adoptive parent-child relationship. The EA framework involves the integration of attachment theory (Bowlby, 1969,1980) and emotional perspectives (Emde, 1980; Mahler, Pine, & Bergman, 1975), and influenced by systemic theories, which recognize change in terms of the systems of interactions between family members (e.g., Guttman, 1991). As a construct, EA refers to the propensity of a dyad to reciprocally create an emotional connection that is affectively healthy and conjointly advantageous (Biringen, 2000). The construct of EA has been measured by the EA Scales (4th ed.; Biringen, 2008a), which are used by raters to measure the multiple dimensions of each partner's contributions to a relationship (Biringen, 2000; Biringen & Robinson, 1991; Biringen, Robinson, & Emde, 1998). The four caregiver dimensions include sensitivity, structuring, nonintrusiveness, and nonhostility; two dimensions measure the child's responsiveness to the caregiver and involvement of the caregiver (Biringen, 2008a). In recent years, a self-report version of EA (EA-SR) was developed (Biringen, Vliegen, Bijttebier, &

Cluckers, 2002; Vliegen, Luyten, & Biringen, 2009) in order to consider the caregivers' perceptions of EA in their relationships.

In contrast to attachment theory and assessments, EA focuses more explicitly on emotional and dyadic components of each partner in a relationship (Biringen, Matheny, Bretherton, Renouf, & Sherman, 2000), explicitly examines repairs of interactional missteps and mutual negotiation (Bretherton, 2000; Easterbrooks, Biesecker, & Lyons-Ruth, 2000), and encompasses behaviors that are not solely derived for the context of distress (Easterbrooks & Biringen, 2009). Furthermore, EA pays particular attention to the difference between "behavioral" versus "emotional" sensitivity and responsiveness (Bretherton, 2000). Thus, observers are able to give more credence to the nuances of the interaction and recognize positive affect and warmth lacking attunement to emotional cues, termed "apparent sensitivity" (Biringen, 2000).

In terms of social competence in biological dyads, the EA dimensions of maternal structuring and sensitivity, as well as child responsiveness and involvement, predicted lower levels of observed aggression and/or victimization, as well as teacher-reported internalizing and externalizing behaviors, during the transition to kindergarten and at the end of the kindergarten school year (Biringen, Skillern, Mone, & Pianta, 2005). Similar findings in Hispanic-heritage families showed that maternal sensitivity and structuring predicted children's prekindergarten social competence and exclusion by peers (Howes & Hong, 2008). Interestingly, sensitive parenting was also found to help regulate the stress response of highly inhibited preschool children (Kertes et al., 2009). These findings implicate the use of the EA framework in nonbiological dyads, in which the need for postadoption services that have a firm emotional basis has been well documented (Brinich; Brodzinsky, 1993; Juffer, 2006). This will be the first

published account of observed emotional quality and reported emotional quality of relationships in adoptive parent-child interactions.

Child Problems

Based on the transactional perspective, behaviors organize from multi-directional influences between a child and his or her interactions with the caregiving environment (Sameroff, 1975; Sameroff & Fiese, 2000; Sroufe, 1979, 1995, 2005). Internalizing and externalizing symptoms have been measured in children as young as 12 months (van Zeigl et al., 2006), although the onset of physical aggression has not been found to develop enough for assessment until 12-17 months (Tremblay et al., 1999). Infants and toddlers experience rapid developmental advances, and parents need to continuously attune their parenting behaviors to their developing child (Sroufe, 1995). It is within these parent-child interactions that self-regulatory processes are initially formed, and thus, disruptions in such processes have been associated as contributors to the development of internalizing and externalizing behaviors in early and middle childhood (Deater-Deckard & O'Connor, 2000; Sroufe, 2005; van Zeijl et al.). For example, a longitudinal study of infant-placed internationally adopted children, first assessed at 6-9 months and again at 7 years, found that higher quality of adoptive mother-child relationships in terms of maternal sensitivity and attachment security predicted better social development (Stams, Juffer, & van IJzendoorn, 2002).

Adoptive children are consistently overrepresented in the literature as more at risk for the development of internalizing and externalizing behavior problems (Deater-Deckard & Petrill, 2004; Juffer & van IJzendoorn, 2005; Lewis et al., 2007; Rosnati et al., 2008). For example, in a meta-analysis including international, domestic, and nonadopted children, adoptees presented

more internalizing, externalizing, and total behavior problems than nonadoptees (Juffer & van IJzendoorn, 2005). Adoptees were also overrepresented in mental health services (d = 0.72), and interestingly, international adoptees showed fewer internalizing, externalizing, and total behavior problems and mental health referrals than domestic adoptees (d = 0.81; Juffer & van IJzendoorn). In addition, it is important to note that age at adoptive placement was not found to be a significant moderator: Infant-placed adoptees presented the same levels of behavior problems as later-placed adoptees (Juffer & van IJzendoorn).

Between the ages of 5 and 7 and depending on the level of communicative openness within the adoptive family (Brodzinsky, 2006), adopted children begin to understand the implications of being adopted (Brodzinsky, Singer, & Braff, 1984). Behavioral problems exhibited by an adopted child have been conceptualized as an expression of underlying emotional struggles due to the realization and processing of a child's adoptive status (Brodzinsky, 1993; Juffer, 2006). For example, a study comparing infant-placed 7-year-old internationally adopted children to nonadopted children found that adopted children showed elevated rates of parent-reported problem behaviors at home, with somewhat large proportions of adopted boys classified as clinical (i.e., 40% internalizing behaviors, 25% externalizing behaviors, and 33% total behaviors; Stams et al., 2000). Findings such as these suggest the importance of targeting intervention efforts aimed at enhancing emotional communication in early childhood before emotional struggles pertaining to knowledge of adoptive status occurs (Juffer, 2006).

Parenting Stress

Parenting stress occurs within the caregiver-child system and is caused by a disparity between perceived strain of parenting and resources to meet such strain (Abidin, 1990). For the

most part, adoptive parents have been comparable to biological parents in terms of reported parenting stress (Bird et al., 2002; Levy-Shiff, Zoran, & Shulman, 1997; Palacios & Brodzinsky, 2005). However, although the amount of stress reported by adoptive parents is comparable to biological parents, the origins of such stress (e.g., communication about adoption) may be different from that of typical families. Thus, such origins have been termed "adoptive strains" in order to capture the unique experiences of adoptive families (Brodzinsky, 1984, 1990).

Adopted children's behavior problems, insecure or disorganized attachments, and adoptive parents' perceptions and expectations of their children are the biggest predictors of adoptive parenting stress (Judge, 2003, 2004; Mainemer et al., 1998; McGlone et al., 2002), and it has been theorized that children's adjustment to adoption is mediated by stress associated with the transition to adoptive parenthood (Brodzinksy & Huffman, 1988; Brodzinsky & Schechter, 1990). Unlike biological parents, adoptive parents do not have the previous nine months to build mutual adaptation and preparedness and have to communicate details of the adoption as the child matures (Howe, 1998; Schofield & Beek, 2006). Most studies involve adoptive parents that have other sources of tension, including those who adopted institutionalized children from Eastern Europe (Judge, 2003; O'Connor, Caspi, DeFries, & Plomin, 2003; Rutter,1998), children with maltreatment histories or special needs (McGlone et al.; Shonkoff & Kraus, 2001), and of older children from multiple placements, such as foster care (Lewis et al., 2007). In these studies, the child's characteristics developed pre-adoption are the source of parenting stress, and stressors that may stem from or affect the adoptive parent-child relationship have received less attention (Palacios & Brodzinsky, 2005).

Consistent with parent-child interactions previously described, a recent study of parents and 104 Spanish children adopted domestically found a combination of child (i.e., special needs)

and parent (i.e., lower use of affect and communication) characteristics predictive of mother-reported stress (Palacios & Sanchez-Sandoval, 2005). Similarly, Mash and Johnston (1990) found that child hyperactive behaviors negatively affected the parent-child relationship, which in turn increased parenting stress. Although, the authors did not investigate whether the relationship between the behavior problems and parent-child interactions was reciprocal in nature, this finding suggests that stress is likely a result of the interplay of parent and child characteristics within their interactions.

Postadoption Programs and Interventions

Postadoptive programming is relatively rare in comparison to pre-adoptive parent training (Barth & Miller, 2000). Most states have some postadoptive services in place (Howard & Smith, 1997), yet relatively few of these services have published accounts of their effectiveness (Barth & Miller, 2000). There are approximately four programs that have addressed their performance in terms of adoption disruption, but rarely in terms of service effectiveness on other variables.

The first of these is the Oregon's Post-Adoption Family Therapy (PAFT) Project, which includes intervention with adoptive families by an adoption worker and family therapist in the home of the adoptive family. Sessions focus on helping parents develop better ways of relating to their children's confused belief systems, which may be the cause of the children's inappropriate behaviors (Prew, 1990). Only 8% of participating families experienced disruption by the end of the service period (3.5 months; Prew, Suter, & Carrington, 1990).

The second identified program is a collaboration between Medina Children's Services (a special needs adoption agency) and HOME BUILDERS of Tacoma, Washington. This program involves four week (three to five, two hour sessions) intensive in-home therapy, with therapists

giving services to two families at a time, lasting four weeks. One year postprogram, 41-59% of families experienced disruption.

The Adoption Preservation Project of Illinois provides a wide range of services for prevention of adoption dissolution to families referred to agencies for preservation services. At service end, parents reported a significant decrease in child behavioral problems, and 82% of children remained in the home.

Lastly, Post-Adoption Resources for Training, Networking, and Evaluation Services (PARTNERS) of Iowa provides support groups, sustained adoption counseling, and intensive services to adoptive families (Barth, 1991; Groze et al., 1991). PARTNERS consist of five phases - screening, assessment, treatment planning, treatment, and termination. Two therapists address issues, such as family integration, normalizing the experiences of the adoptive family, re parenting, and increasing the family's access to resources (Groze et al., 1991). Twenty-nine percent of participating families had children in out-of-home placements by the end of the service period, due to sexual offenses and not adoption-related issues (Groze et al., 1991).

As illustrated, these postadoption services attend to families at-risk for disruptions. However, the majority of children adopted domestically or internationally from satisfactory environments do not show severe or persistent psychopathology. In general, adoption disruption remains low, where most families require services to deal with adoption-related issues arising in intact adoptive homes, in which dissolution has yet to be considered (Barth & Miller, 2000).

In terms of the scientific literature, one of the most studied variables in the adoption research is attachment (Howard & Smith, 1997). Attachment-based interventions typically focus on changing parental sensitivity, as reorganizing attachment security has proven to be more difficult (Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2005). One attachment-based

intervention study with internationally adopted children and their parents (Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2008) found that interventions with video feedback and books on parental sensitivity and attachment produced the most effective results (i.e., increase in parental sensitivity), as opposed to just the information or just the videofeedback component. In a similar intervention study utilizing video feedback and informational components with internationally adoptive families, Juffer and colleagues found shorter, 'piecemeal' approaches and interventions with modest aims to be more effective, rather than longer and more intensive therapeutic preventive interventions targeting multiple outcomes from different developmental domains. Juffer and colleagues even went so far as to argue that within parental sensitivity, using techniques that allow for proper structuring of children's tasks, nonhostile communicative approaches, and attending to the emotional aspects of the unique needs adoptive families face may prove most beneficial.

One issue with attachment-based interventions is the mechanism of assessment. To assess attachment styles in the adopted child, the Strange Situation Procedure (SSP; Ainsworth et al., 1978) is often utilized, which calls for a stress situation Given that adopted children may have experienced trauma related to multiple separation and reunion experiences, the AQS is expected to be a less disturbing methodology for this sample (Ponciano, 2010). In addition, most attachment-related interventions for adoptive samples focus on changing parental sensitivity, which is only one avenue of connection between a parent and child (Bretherton. 2000; Emde, 2000). Lastly, many professionals have trouble discerning attachment disorders or problems in attachment organizations from other behavioral and emotional disorders (Welsh, Viana, Petrill, & Mathias, 2007), which shows the importance of assessing attachment and behavior problems through separate assessments.

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Appendix II: Informed Consent, Child Assent, and Debriefing and Cover Letters

Informed Consent for IG

Human Development and Family Studies
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COLORADO STATE UNIVERSITY

INFORMATION AND CONSENT FORM FOR PARENTS

TITLE OF PROJECT: *EMOTIONAL AVAILABILITY (EA) BOOK CLUB FOR ADOPTIVE FAMILIES*

NAME OF PRINCIPAL INVESTIGATOR: Zeynep Biringen, Ph.D
zeynep.biringen@colostate.edu; 970-491-5514

PURPOSE OF THE RESEARCH:
To understand the efficacy of the *EA BOOK CLUB* curriculum in improving adoptive parent-child emotional availability

PROCEDURES TO BE USED: We invite adoptive parents to participate together as a community in a series of group format workshops. All adults will participate in an informational first session, followed by six weeks of workshops, for up to 2 ½ hours, or a total of 12-16 hours, regardless of the number of sessions. These sessions will be online, through the use of a videoconferencing system, such as Skype, and may be filmed.

Parents will be asked to interact with their child for 20 minutes while being videotaped. This video will be viewed together as a community via our secure system, www.evirx.com. This will also be done after participating in the book club. If technological issues occur, parents may be asked to videotape their own interactions, in which case they can mail the video to the principal investigator in a prepaid and pre-addressed envelope given to them. Researchers may wish to videotape more than once before or after the book club sessions if technological issues or issues with viewing both the parent and child in the video occur.

Parents will be asked to complete a packet of questionnaires before and at the end of the workshop (demographic information, stress, their child's behaviors, and relationships). Parents will also be asked to participate in one, one-hour individualized sessions with their spouses or partners (if applicable; spouses or partners will also need to provide consent). Follow-up

assessments including 20 minute videotaped parent-child interactions and completion of questionnaires will again be conducted at 3 months after completing the book club and again at 6 months after completing the book club, using the same assessments. Parents will either be loaned or given e-copies of the reading material needed for this study, as well as a webcam (if needed).

There will be no payment for participation in this program and no cost to participants.

RISKS INHERENT IN THE PROCEDURES: There are no known risks from these procedures. In case of distress to an adult or child, at any point during this project we can offer you clinic referrals, including those that operate on a sliding scale fee basis. Although we will provide the referrals, you are responsible for the cost of such services. Although the program is a strengths-based approach and the instructors are trained to create a safe and supportive environment in the room, some participants may nonetheless feel that the group or the instructor did not appreciate their caregiving strengths because in any program strengths as well as areas for growth will be discussed.

The principal investigator, Dr. Biringen, and Colorado State University have identified a potential conflict of interest, given that this is a curriculum which she has developed through her company, emotionalavailability.com, llc. To address this potential or perceived conflict of interest, she provides all necessary materials for this research at no profit to CSU research participants. You will, therefore, be given the materials you need to complete this workshop.

BENEFITS: There are no known direct benefits to participants, although participation in this study could help to better understand parenting beliefs and skills. The program may or may not help your relationship skills, however.

CONFIDENTIALITY: Exceptions to confidentiality refer to our learning about situations where we are required to report. This includes things like child abuse/neglect or threat to harm yourself or others. Our knowledge of such situations would need to be reported. The instructors of the program will make every effort to discuss and create a confidential environment in the workshop, but you should be aware that a group setting is never fully confidential. Therefore, please share information (with the group) that you don't feel is *strictly confidential*. Otherwise, all information gathered during the course of this project is confidential. Your videotapes as well as packet of questionnaires/background information will be labeled through assignment of codes (numbers and letters) for all information. Only a master list will link the codes with the actual names; the master list will be available only to the principal investigator/her research coordinator and the instructor. For this study, in addition to your instructors and the group participants, only the principal investigator and her research staff will be able to view the videotapes.

LIABILITY: The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury. Questions about participants' rights may be directed to Janell Barker, Human Research Administrator, 970-491-1655.

PARTICIPATION: Your participation in this research is voluntary. But, to our knowledge, the *EA BOOK CLUB* is being offered for adoptive families at this time only as a study. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits that you are entitled to. If you do not intend to or, due to unforeseen circumstances are not able to, participate in the entire program, your participation in the program will need to be terminated**.**

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 3 pages. This consent form was approved by the CSU Institutional Review Board for the protection of human subjects on April 16, 2012.

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 5 pages.

_____ _____

Signature of person agreeing to take part in the study Date

Printed name of person agreeing to take part in the study

_____ _____

Name of person providing information to participant Date

_____

Signature of Research Staff

PARENTAL SIGNATURE FOR MINOR

As parent or guardian I authorize _____ (print name) to become a participant for the described research. The nature and general purpose of the project have been satisfactorily explained to me by _____ and I am satisfied that proper precautions will be observed.

Minor's date of birth

Parent/Guardian name (printed)

_____ _____

Parent/Guardian signature Date

CHILD VERBAL ASSENT FOR CHILDREN 7 OR UNDER 7 YEARS

Parents need to obtain verbal assent of the child and sign below that this verbal assent was obtained. To ask for verbal assent, the parent might say, "I would like to take part in some workshops all about things that really can help kids. We think it will be nice to film the two of us doing something fun together and watch it with a group of adults who are also interested in participating with their own kids. Does this sound like something that's fun or at least okay for you?"

_____

Signature of parent Date

_____ _____

Name of Child *Child age*

ADDITIONAL RELEASES for adults (parents or professionals), specifically for Dr. Zeynep Biringen

Dr. Biringen, through her privately owned company, emotionalavailability.com, llc, conducts two related activities. Please check YES or NO for each numbered item.

1. DISTANCE TRAINING PROGRAM ON CAREGIVER-CHILD INTERACTIONS
   In addition to analyzing the videotapes for the current research project, Dr. Biringen also develops distance training programs for other professionals and parents. The purpose of the training program is to train others on methods that she has developed.

If you check YES below, she, or a party she designates, can share your tapes (of parent-child interaction) with other professionals or parents as part of this training program. The tapes may be shared with professionals or other parents, in national or international locations, for training purposes, either through face-to-face or distance training through sharing of tapes or through a secure website. Although the tape of individuals (who have consented) will be shared with communities for training and educational purposes, confidentiality will be observed by the use of an identification code rather than names, except when you or your child use names. Prior to the training program, Dr. Biringen sends a 'transfer of agreement' to individuals describing the strict confidential use of materials. There will be no cost to you at any time, although institutions/individuals may be charged a fee.

Because of its use in the training program, your tape will be archived by her as well as sent to other individuals/institutions. The tapes, therefore, will be available for future review and will not be destroyed.

If you check NO below, your tapes will only be used for the current research project and will not be used in the training program. Regardless of whether you checked YES or NO, the videotapes are not destroyed, but maintained in Dr. Biringen's current files for future review (at Dr. Biringen, P.O. Box 3625, Boulder, Colorado) or in a future location for her research/clinical activity.

Please check one: YES _____ NO _____

2. PROFESSIONAL MEETINGS, CONFERENCES, TRAINING SESSIONS
   If you check YES, Zeynep Biringen, Ph.D, or a third party, may show your tape at professional/scientific meetings, conferences, or training sessions in the context of professional presentations to professionals and/or parents, and to illustrate specific aspects of parents and children or interactions during the parenting classes. These presentations may be filmed.

Although individuals will not be specifically identified, it is possible that first names may be identifiable if the interactants used first names. The possibility of showing tapes at professional/scientific meetings, conferences, or training sessions may go beyond the period of the project. There will be no cost to you at any time, although institutions/individuals may be charged a fee.

If you check NO, your tapes will be used only for the current research project and will not be used in professional or scientific meetings and/or conferences. Regardless of whether you checked YES or NO, the videotapes are not destroyed, but maintained in Dr. Biringen's current files for future review or a future location for her research/clinical activity.

Please check one: YES _____ NO _____

May we contact you for any future studies or for any additional information pertaining to this study? YES_____ NO_____

Regardless of whether you have checked 'yes' or 'no' in different locations on this form, please, sign your name and print your name that you have read this form:
Signature:X Print name:X

If you have any questions related to the 'Additional releases', please contact Dr. Zeynep Biringen, Ph.D., www.emotionalavailability.com; 970-310-5506; or zbiringen@yahoo.com and she would be happy to talk to you.

Informed Consent for the DG

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COLORADO STATE UNIVERSITY

INFORMATION AND CONSENT FORM FOR PARENTS

TITLE OF PROJECT: *EMOTIONAL AVAILABILITY (EA) BOOK CLUB FOR ADOPTIVE FAMILIES*

NAME OF PRINCIPAL INVESTIGATOR: Zeynep Biringen, Ph.D
zeynep.biringen@colostate.edu; 970-491-5514

PURPOSE OF THE RESEARCH:
To understand the efficacy of the *EA BOOK CLUB* curriculum in improving adoptive parent-child emotional availability

PROCEDURES TO BE USED: We invite adoptive parents to participate together as a community in a series of group format workshops. All adults will participate in an informational first session, followed by six weeks of workshops, for up to 2 - 2½ hours, or a total of 12-16 hours, regardless of the number of sessions. These sessions will be online, through the use of a videoconferencing system, such as Skype, and may be filmed.

Before the start of the book club, parents will be asked to interact with their participating children for 20 minutes in front of their webcam while being videotaped remotely. Parents may need to videotape themselves interacting with their children and mail in a prepaid and pre-addressed envelope provided to them or email this video to the book club facilitator if technological issues persist. Video of their interactions will be provided to parents online via our secure system, www.evirx.com. Researchers may also need to re-tape parents interacting with their children if their videos are not completely viewable or issues of time occur.

Parents will do this again after a period of 6 weeks lapses, in which no participation in the research will occur during these 6 weeks. Parents will also complete questionnaires before the start of the book club/after a period of 6 weeks lapses.

After 6 weeks has passed, and the surveys and videotaped interactions have been completed for the second time, parents will participate in the book club sessions. Parents and their spouses or

partners (if applicable) will also need to participate in one, one-hour individualized session online (spouses or partners will need to also sign a consent form). Follow-up assessments including 20 minute videotaped parent-child interactions and completion of questionnaires will again be conducted at 3 months after completing the book club and again at 6 months after completing the book club, using the same assessments. Parents will either be loaned or given e-copies of the reading material needed for this study, as well as a webcam (if needed).

There will be no payment for participation in this program and no cost to participants.

RISKS INHERENT IN THE PROCEDURES: There are no known risks from these procedures. In case of distress *to an adult or* child, at any point during this project we can offer you clinic referrals, including those that operate on a sliding scale fee basis. Although we will provide the referrals, you are responsible for the cost of such services. Although the program is a strengths-based approach and the instructors are trained to create a safe and supportive environment in the room, some participants may nonetheless feel that the group or the instructor did not appreciate their *caregiving* strengths because in any *program* strengths as well as areas for growth will be discussed.

The principal investigator, Dr. Biringen, and Colorado State University have identified a potential conflict of interest, given that this is a curriculum which she has developed through her company, emotionalavailability.com, llc. To address this potential or perceived conflict of interest, she provides all necessary materials for this research at no profit to CSU research participants. You will, therefore, be given the materials you need to complete this workshop.

BENEFITS: There are no known direct benefits to participants, although participation in this study could help to better understand parenting beliefs and skills. The program may or may not help your relationship skills, however.

CONFIDENTIALITY: Exceptions to confidentiality refer to our learning about situations where we are required to report. This includes things like child abuse/neglect or threat to harm yourself or others. Our knowledge of such situations would need to be reported. The instructors of the program will make every effort to discuss and create a confidential environment in the workshop, but you should be aware that a group setting is never fully confidential. Therefore, please share information (with the group) that you don't feel is *strictly confidential*. Otherwise, all information gathered during the course of this project is confidential. Your videotapes as well as packet of questionnaires/background information will be labeled through assignment of codes (numbers and letters) for all information. Only a master list will link the codes with the actual names; the master list will be available only to the principal investigator/her research coordinator and the instructor. For this study, in addition to your instructors and the group participants, only the principal investigator and her research staff will be able to view the videotapes.

LIABILITY: The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury. Questions about participants' rights may be directed to Janell Barker, Human Research Administrator, 970-491-1655.

PARTICIPATION: Your participation in this research is voluntary. But, to our knowledge, the *EA BOOK CLUB* is being offered for adoptive families at this time only as a study. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits that you are entitled to. If you do not intend to or, due to unforeseen circumstances are not able to, participate in the entire program, your participation in the program will need to be terminated**.**

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 3 pages. This consent form was approved by the CSU Institutional Review Board for the protection of human subjects on April 16, 2012.

_____ _____

Signature of person agreeing to take part in the study Date

_____

Printed name of person agreeing to take part in the study

_____ _____

Name of person providing information to participant Date

_____

Signature of Research Staff

PARENTAL SIGNATURE FOR MINOR

As parent or guardian I authorize _____ (print name) to become a participant for the described research. The nature and general purpose of the project have been satisfactorily explained to me by ___ ___and I am satisfied that proper precautions will be observed.

_____

Minor's date of birth

_____

Parent/Guardian name (printed)

_____ _____

Parent/Guardian signature Date

CHILD VERBAL ASSENT FOR CHILDREN 7 OR UNDER 7 YEARS

Parents need to obtain verbal assent of the child and sign below that this verbal assent was obtained. To ask for verbal assent, the parent might say, "I would like to take part in some workshops, all about things that really can help kids. We think it will be nice to film the two of us doing something fun together and watch it with a group of adults who are also interested in participating with their own kids. Does this sound like something that's fun or at least okay for you?"

_____

Signature of parent *Date*

_____ _____

Name of Child *Child's age*

ADDITIONAL RELEASES for adults (parents or professionals), specifically for
Dr. Zeynep Biringen

Dr. Biringen, through her privately owned company, emotionalavailability.com, llc, conducts two related activities. Please check YES or NO for each numbered item.

1. DISTANCE TRAINING PROGRAM ON CAREGIVER-CHILD INTERACTIONS

In addition to analyzing the videotapes for the current research project, Dr. Biringen also develops distance training programs for other professionals and parents. The purpose of the training program is to train others on methods that she has developed.

If you check YES below, she, or a party she designates, can share your tapes (of parent-child interaction) with other professionals or parents as part of this training program. The tapes may be shared with professionals or other parents, in national or international locations, for training purposes, either through face-to-face or distance training through sharing of tapes or through a secure website. Although the tape of individuals (who have consented) will be shared with communities for training and educational purposes, confidentiality will be observed by the use of an identification code rather than names, except when you or your child use names. Prior to the training program, Dr. Biringen sends a 'transfer of agreement' to individuals describing the strict confidential use of materials. There will be no cost to you at any time, although institutions/individuals may be charged a fee.

Because of its use in the training program, your tape will be archived by her as well as sent to other individuals/institutions. The tapes, therefore, will be available for future review and will not be destroyed.

If you check NO below, your tapes will only be used for the current research project and will not be used in the training program. Regardless of whether you checked YES or NO, the videotapes are not destroyed, but maintained in Dr. Biringen's current files for future review (at Dr. Biringen, P.O. Box 3625, Boulder, Colorado) or in a future location for her research/clinical activity.

Please check one: YES _____ NO _____

2. PROFESSIONAL MEETINGS, CONFERENCES, TRAINING SESSIONS

If you check YES, Zeynep Biringen, Ph.D, or a third party, may show your tape at professional/scientific meetings, conferences, or training sessions in the context of professional presentations to professionals and/or parents, and to illustrate specific aspects of parents and children or interactions during the parenting classes. These presentations may be filmed. Although individuals will not be specifically identified, it is possible that first names may be identifiable if the interactants used first names. The possibility of showing tapes at professional/scientific meetings, conferences, or training sessions may go beyond the period of the project. There will be no cost to you at any time, although institutions/individuals may be charged a fee.

If you check NO, your tapes will be used only for the current research project and will not be used in professional or scientific meetings and/or conferences. Regardless of whether you checked YES or NO, the videotapes are not destroyed, but maintained in Dr. Biringen's current files for future review or a future location for her research/clinical activity.

Please check one: YES _____ NO _____

May we contact you for any future studies or for any additional information pertaining to this study? YES_____ NO_____

Regardless of whether you have checked 'yes' or 'no' in different locations on this form, please, sign your name and print your name that you have read this form:
Signature:X Print name:X

If you have any questions related to the 'Additional releases', please contact Dr. Zeynep Biringen, Ph.D., www.emotionalavailability.com; 970-310-5506; or zbiringen@yahoo.com and she would be happy to talk to you.

Debriefing Letter

Human Development and Family Studies
Behavioral Sciences Building
Colorado State University
Fort Collins, CO 80523
(970) 491-5558
FAX (970) 491-7975

Dear participant,

The purpose of this study is to determine whether participation in the online Emotional Availability Book Club causes changes in parent-child emotional availability, parent stress, child behaviors, and child attachment as compared to those who did not initially participate in the online Emotional Availability Book Club.

In this study, you were asked to fill out surveys related to you and your family's demographic characteristics, your parenting stress, and your child's general behaviors. You were also asked to complete a card sorting task regarding your child's attachment task. Additionally, you were asked to interact with your child for 20 minutes in order that observers could code you and your child's emotional availability. Lastly, you, your child, and your partner (if applicable) were asked to participate in a one-hour individualized session with the intervention facilitator.

As stated earlier, you and your child's names will be kept confidential. Codes are used instead of names. Only the book club facilitator will know your real name. We may use the data obtained from this study for publications, research conferences, and manuscripts.

Your participation will help us garner information about the Emotional Availability Book Club specifically for adoptive families and the new online administration. If you felt any sort of discomfort from participating in this study, the following resources are available to you: *The Parent National Hotline* 1-800-840-6537 and the *Crisis Intervention Hotline* 1-800-448-3000. You may also contact the organization and social worker associated with your adoption plan.

If you have any questions about this research, please feel free to contact Dr. Zeynep Biringen at (970) 491-5514 and zeynep.biringen@colostate.edu or Megan Baker at (970) 491-7039 and mabaker@lamar.colostate.edu.

Thank you very much for your participation!

Sincerely,

Zeynep Biringen, PhD Megan Baker

Cover Letter

Human Development and Family Studies
Behavioral Sciences Building
Colorado State University
Fort Collins, CO 80523
(970) 491-5558
FAX (970) 491-7975

Dear participant,

The purpose of this study is to determine whether participation in the online Emotional Availability Book Club will lead to improvements in parent-child relationships, parenting stress, and child adjustment.

In this study, you will be asked to fill out surveys related to you and your family's demographic characteristics, your parenting stress, your relationship with your child, and your child's general behaviors. You will also be asked to interact with your child for 20 minutes in order to observe you and your child's interactions.

You and your child's names will be kept confidential. Codes are used instead of names. Only the book club facilitator will know your real name. We may use the data obtained from this study for publications, research conferences, and manuscripts.

Your participation will help us garner information about the Emotional Availability Book Club, specifically for adoptive families and the new online administration. If you experience distress or discomfort during the time period of this study, please do not hesitate to contact the local organization and social worker associated with your adoption plan, and they will have names of referrals for you; you would be responsible for the cost of such services, however. Additional resources include: *The Parent National Hotline* 1-800-840-6537 and the *Crisis Intervention Hotline* 1-800-448-3000.

If you have any questions about this research, please feel free to contact Dr. Zeynep Biringen at (970) 491-5514 and zeynep.biringen@colostate.edu or Megan Baker at (970) 213-0949 and mabaker@lamar.colostate.edu.

Thank you very much for your participation!

Sincerely,

Zeynep Biringen, PhD Megan Baker

Appendix III: Assessments

Demographic Questionnaire

Code: _____

1. What is your date of birth? (Write in) _____
2. What is your child's date of birth? (Write in) _____
3. What is your gender? (Please circle one)
    a. Male
    b. Female
    c. Transgender

    3a. If <u>not</u> a single parent, what is the other parent's gender?
        a. Male
        b. Female
        c. Transgender
4. What is your child's gender? (Please circle one)
    a. Male
    b. Female
    c. Transgender
5. What is your current relationship status? (Please circle one)
    a. Single
    b. Divorced
    c. In a relationship – living with partner
    d. In a relationship – <u>not</u> living with partner
    e. Married
    f. Widowed
6. What ethnicity do you identify with? (Please write-in)

    _____

    6a. If <u>not</u> a single parent, what ethnicity does the other parent identify with?

    _____

7. What ethnicity is your child? (Write in)

   _____

8. What is the highest level of education you have achieved?
   a. High school
   b. Some college
   c. Bachelor's degree
   d. Graduate degree or beyond
   e. Other (write in) _____

   8a. If <u>not</u> a single parent, what is the other parent's highest level education?

      a. High school
      b. Some college or technical degree
      c. Bachelor's degree
      d. Graduate degree or beyond
      e. Other (write in) _____

9. What is your current household income? (Please circle one)
   a. 0 - $20,000
   b. $20,000 - $40,000
   c. $40,000 - $60,000
   d. $60,000 - $80,000
   e. $80,000 - $100,000
   f. $100,000 +

10. How old was your child when adopted? (include months if applicable)

    _____

11. What is the best way to describe your child's adoption plan? (Please circle all that apply)
    a. Fully closed
    b. Semi-closed
    c. Semi-open
    d. Fully open
    e. Other (write in) _____

12. What is the type of adoption? (Please circle all that apply)

a. Domestic (private)
b. International (private)
c. Foster care (public)
d. Kinship/relative
e. Other (write in) _____

12a. If your child was adopted from foster care, how many foster care placements did your child experience before s/he was adopted? (Write in) _____

13. What is your child's pre-adoption history? (Please circle all that apply)

a. Maltreatment before birth/while in utero (e.g., physical injury)
b. Maltreatment or neglect after birth
c. Substance abuse or other unhealthy habits before birth/while in utero
d. Other (write in) _____

14. Does your child experience challenges in any of the following categories? (Please circle all that apply)

a. Developmental or intellectual
b. Behavioral
c. Emotional
d. Attachment-related

14a. Please explain.

_____

Implementation Log Sheet: Introduction Session Example

Date	Total time	Introductions	Security Overview	Confidentiality Overview	Session Requirements	Discussion: EA Rewards	Activity
		Completed? Y or N Length: _____ 1—2—3—4	Completed? Y or N Length: _____ 1—2—3—4	Completed? Y or N Length: _____ 1—2—3—4	Completed? Y or N Length: _____ 1—2—3—4	Completed? Y or N Length: _____ 1—2—3—4	Completed? Y or N Length: _____ 1—2—3—4

Name of Participant	Check if Present	Workbook Complete?	Name of Participant	Check if present	Workbook Complete?
		Y or N 1—2—3—4			Y or N 1—2—3—4
		Y or N 1—2—3—4			Y or N 1—2—3—4
		Y or N 1—2—3—4			Y or N 1—2—3—4
		Y or N 1—2—3—4			Y or N 1—2—3—4
		Y or N 1—2—3—4			Y or N 1—2—3—4
		Y or N 1—2—3—4			Y or N 1—2—3—4
		Y or N 1—2—3—4			Y or N 1—2—3—4

Note any irregularities (e.g., some participants leaving session early, participants not completing workbook, technology issues, etc.):

_____
_____
_____
_____
_____
_____
_____

Appendix IV: Recruitment Materials

ORPARC Newsletter Announcement

Emotional Availability Book Club for Adoptive Families

Dr. Zeynep Biringen, (970) 491 – 7039, emotional.availability@gmail.com

www.eabookclub-adoptivefamilies.com

Colorado State University in Fort Collins, CO is conducting an online study in the format of a book club with adoptive parents and their adopted children. The study seeks adoptive parents and their adopted children ages 1 – 5. Participants must have an internet connection fast enough to view video with minimal interruption. E-books and e-materials are provided and/or loaned.

What are we studying?

- We are studying whether a book club designed around concepts of emotional availability and attachment helps adoptive parent-child relationships, parenting stress, and child behaviors.

What's involved?

- Parents will participate once per week for 6 weeks and about 2 hours each week online in book club sessions with other parents.
- Before and after the book club sessions, parents will fill out surveys, interact with their children for 20 minutes in front of a webcam, and complete a card-sorting task.
- At 3 months and 6 months after the book club sessions, parents will do these tasks again.

Why participate?

- Participation may provide another avenue of post-adoption support for adoptive families.
- Unlike many other workshops, this book club is completely free and online.

ORPARC Website Announcement

Emotional Availability Book Club for Adoptive Families

A path to secure attachment between you and your child

What is Emotional Availability Book Club?

The Emotional Availability (EA) Book Club is an online research study centered on attachment concepts in the form of a book club conducted by investigators, Dr. Zeynep Biringen and Megan Baker, at Colorado State University.

The book club is conducted online via a secure webpage, much like Skype. Participants meet once per week for 6 weeks and approximately 2 hours each time. Two books and a workbook are provided. Only parents participate in the book club sessions.

Who can participate?

Anyone who is the primary, adoptive caregiver of an adopted child ages 1 – 5 years old can participate. If more than one primary, adoptive caregiver and adopted child live in a household, they can participate as a separate "pair."

Parents also need to have internet that is fast enough to view video with minimal interruption. Webcams are provided if participants do not already have one. It does not matter where parents live, as the book club is completely online.

What's required?

Parents will fill out surveys, conduct a card sorting task, and be videotaped interacting with their child via a webcam online for 20 minutes before and after the book club and 3 months and 6 months after participating in the book club. Parents will also need to read designated chapters from two books each week and complete questions in a parent workbook, all provided electronically.

Why participate?

The EA Book Club has been conducted with biological parents and their children, as well as with childcare providers, and shown to be effective at reducing caregiver/parent stress and increasing parent/caregiver-child secure attachment. Help you and your child develop a secure attachment to increase the likeliness of positive developmental outcomes!

Also, this book club is the first of its kind, as far as we know, to be offered *completely online* and *free*. Many parenting- or relationship-related workshops are expensive and have physical locations, requiring parents to secure childcare. This book club is the *opposite*!

Questions?

If you have any questions or wish to participate, please contact Dr. Zeynep Biringen and Megan Baker at mabaker@lamar.colostate.edu or (970) 491 – 7039.

Colorado State University

Also, visit our website: http://www.eabookclub-adoptivefamilies.com. If you want to learn more about Emotional Availability (EA), visit http://www.emotionalavailability.com.

Standard Adoption Agency Letter or Email

Dear families,

We want to inform you of a research project conducted by a Colorado State University doctoral graduate student, Megan Baker, and professor and clinical psychologist, Dr. Zeynep Biringen, entitled *Emotional Availability (EA) Book Club for Adoptive Families.*

Megan is a birth mother who released her birth son, Tori, for open adoption in 2004 through The Village Family Services in Fargo, North Dakota. She has since volunteered her experiences and helped birth parents process through the decision to release their child for adoption at Adoption Dreams Come True, Inc. in Fort Collins. She recently returned to CSU as a graduate student in the Applied Developmental Science PhD program with the mission to support the needs of the adoptive community through research and program implementation. Her experiences as a birth mother have developed into a passion for adoption research.

Emotional Availability is a concept derived from attachment theory and developed by Megan's graduate program advisor, Dr. Zeynep Biringen. The concept has been related to and predictive of many positive developmental outcomes in over 20 countries and has been studied for over two decades. The general Emotional Availability Book Club was originally developed by Dr. Biringen, and Megan quickly saw its utility for the adoptive community.

Dr. Biringen implemented the program with parents and their biological children from two Colorado counties, as well as with Colorado daycare providers and their clients, with remarkable changes in their overall relationship quality in terms of emotional security, openness, communication, and attachment. In the study of Colorado parents, parenting stress was found to significantly reduce, and parents often commented on how establishing Emotional Availability in their relationships with their children leaked through to other relationships in their lives, making them smoother/less stressful and more open. Megan saw the book club's efficacy with enhancing Colorado parent- and caregiver-child relationships and immediately decided to facilitate an EA-focused book club for adoptive families.

Emotional Availability Book Club for Adoptive Families will be facilitated by Megan online through video-conferencing based on participants' schedules. The book club will meet online once per week (for approximately 2 hours) for 6 weeks with 6-10 parents in each book club session (and it's free!). Two books written by Dr. Biringen will be read: *Raising a Secure Child* and *Universal Language of Love.* Parents will also fill out questions in a parent workbook in between sessions. These books and workbook answers will be discussed. Megan will also present information on Emotional Availability and attachment, personalized to fit the needs of the families participating.

Only parents will participate in the book club (no children). And, because it's online, you must have a computer with an internet connection fast enough to handle video with minimal interruption. This computer does not necessarily have to be yours; it could be your friend's computer, work computer, library computer, etc. Megan will provide a webcam if the computer you choose to use does not already have one built-in or attached, or if you don't already own a webcam. Lastly, your adopted child must be between the ages of 1-5 because our study wants to

see the effects of the book club with children in the early childhood stage (although we hope to one day expand this).

Megan will assess the book club's efficacy by giving you 3 surveys asking general relationship and demographic questions before the start of the first book club session and after the start of the last book club session. Also, you and your child will interact for about 20 minutes before the start of the book club and after the book club ends in front of your computer's webcam (this is the only time your child will participate in this study). In addition, you will do an interesting card sorting task which takes about 30 minutes. To do this task, Megan will coach you over the phone or online.

To determine if the book club had somewhat long term benefits, you will be asked to fill out two surveys, interact with your child for 20 minutes, and do the card sorting task again 3 months and 6 months after participating in the 6 week book club (so two follow-up evaluations).

Everything you do or fill out is confidential (codes are used instead of names) and are destroyed once the information is obtained. Also, the book club in general is a judgment-free and fun zone. In fact, book club participants quickly create emotional security amongst each other! Parents will watch their first taped interactions with their children, and the facilitator and other book club members will help each other pick out when Emotional Availability was used or seen.

We are very excited for this project, as we believe it will be quite beneficial and provides another avenue of support for adoptive families. We also believe there should be more applied research related to adoption! Moreover, Megan wants to use the book club as a way to listen to adoptive parents' opinions about different issues under the broad umbrella of adoption they wish would be studied scientifically, as she is planning a full academic career around applied adoption research that focuses primarily on actual needs of adoptive families.

Please visit the book club website, www.eabookclub-adoptivefamilies.com, for more detailed information. If you wish to participate, you can contact Megan directly. Her phone number is (970) 213-0949 and email address is emotionalavailability@gmail.com or mabaker@lamar.colostate.edu.

Kind regards,

Dr. Zeynep Biringen	Megan A. Baker
Principle Investigator	Co-Principle Investigator