Family Context and Searching Among Internationally Adopted Adolescents

A thesis submitted by

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in partial fulfillment of the requirements for the degree of

Master of Arts

in

Child Development

Tufts University

May 2014

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Abstract

Searching is the term used to describe the phenomenon wherein an adoptee attempts to find their family of origin. Search rates vary by study, but not all adopted people consider searching. Previous research has explored personal attributes, descriptive characteristics, and some familial contextual factors that may contribute to the desire to search. However, the literature on searching is limited, dated, and has not focused on international or adolescent adoptees. The current study provides a newer understanding of the family context and its relation to searching among internationally adopted adolescents through secondary data analysis and a Systems framework. Results indicated that no relation exists between family ecology variables and the adoptee's desire to search. This aligns with more current research that suggests searching is a normative process of identity development and does not reflect pathological functioning of the adoptee or adoptive family. Limitations and considerations for future research are discussed.

Keywords: international adoption, searching, adolescents

Acknowledgements

This thesis would not have been possible without the love, support and encouragement I received from my parents, grandmother, brother, sister, my wonderful boyfriend, and amazing friends. I do not have words to adequately describe my gratitude for all they have provided me.

I have benefited greatly from the advising and mentoring of Ellen Pinderhughes, and the support and encouragement from Laurie Miller and Martha Pott. I chose to attend Tufts University because of the scholarship of Ellen Pinderhughes, and I am truly indebted to her for creating the space for scholarship in adoption that allows me to pursue what I love. I am additionally lucky to have found Laurie Miller whose work with, and commitment to adopted and orphanage children has made this piece possible through the use of her data. I hope to one day live up to the high esteem I am held in by these three women, for which I am deeply grateful and honored.

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Introduction

This paper shall serve as the description and rationale for the secondary analysis of an extant data set designed to examine adoptive family dynamics and how they may relate to interest in searching for birth family among internationally adopted adolescents. This introduction will briefly discuss the ecological systems of adoption, adoptive family ecology through a family systems theory perspective, and the existing literature on searching behavior. Finally, identity formation in adolescent adoptees will be briefly described as it relates to searching.

Ecological Systems of Adoption

Urie Bronfenbrenner first developed Ecological Systems Theory in 1979, eventually describing five nested environmental systems that contribute to and influence human development. Bronfenbrenner's model is a complex, multi-level model that emphasizes the individual, interactions, contexts and time. These nested systems include: the microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem. Jesús Palacios (2009) has applied Bronfenbrenner's Ecological Systems Theory to the current literature base on adoption in order to describe "the scope and limits of our knowledge on adopted people, and on the processes taking place in the complex reality of adoption" (72). His analysis suggests that there are significant gaps in the literature base, particularly those that analyze adoption in multiple contexts, as well as those that acknowledge the role of processes in context (Palacios, 2009).

The modern adoptive family sits within a larger ecological context that is constantly changing over time. Ecological systems analysis of the adoptive family microsystem, for example, involves consideration of the child's individual characteristics, interaction processes with parents and siblings and specifics of the family's home environment, rearing practices, etc. all analyzed over time (Palacios, 2009). Palacios argues that very few studies on the adoptive family

microsystem consider each – processes, personal characteristics, contexts and time – in single studies. As well, other microsystems that affect adopted children, school, in particular, are under researched (Palacios, 2009). Palacios has determined two aspects at the next contextual level, the mesosystem, that are relevant for analysis: the transitions from one setting to another (ecological transition) and the connections between settings (Palacios, 2009). Next, Palacios gives two examples of exosystem facets that are most relevant to the adoptive family, adoptive grandparents (on which there is no research) and the impact of adoption professionals. Finally, when discussing the macrosystem, Palacios adds the chronosystem to the picture, citing the long global history, the anthropology and the sociology of adoption. Within this context, the changing attitudes of adoptive parents towards adoption were analyzed by Hoksbergen and ter Laak (2005) who proposed four generations of adoptive parents in recent times: the 'traditional-closed' generation before 1970, the 'open and idealistic' generation between 1971 and 1981, the 'materialistic-realistic' generation between 1982 and 1992, and the 'optimistic-demanding' generation since 1993. The authors suggest these changes were fueled in part by research findings. This demonstrates the macrosystem values about adoption changing with the chronosystem.

Family Ecology

Both family systems theory and developmental psychology regard the family as a primary focus for understanding human behavior, and seek to find a way of conceptualizing the relationship between the family and the individual (Minuchin, 1985). Family systems theory is the application of systems theory to the family, and within ecological systems theory, the family constitutes a crucial part of the individual's microsystem. Minuchin (1985) succinctly reviews six basic principles of systems theory – housing both the origins of family systems theory and of ecological systems theory. Due to the scope of this paper, only three of the six principles are

most relevant here. The first principle posits that any system is an organized whole, and elements within the system are necessarily interdependent. The next states that any complex system is composed of subsystems, and following, the final states that subsystems within a larger system are separated by boundaries, and interactions across boundaries are governed by implicit rules and patterns. An individual within a system then, is an interdependent, contributing part of the system that controls his or her behavior. A family is both a system unto itself, and a set of sub-systems composed of individuals, dyads (and even triads).

Adoptive family dynamics. Adoptive family dynamics are similar to those of any other family, with an added layer – the adoption. At previous times in the adoption chronosystem, research on adoptive families focused on identifying differences between adoptive and non-adoptive families and how adoptive families dealt with those differences (e.g. Kirk, 1964). Findings from earlier research on family interactions comparing adoptive to non-adoptive families are inconsistent (e.g. Lansford, Ceballo, Abbey, & Stewart, 2001; Lanz, Iafrate, Rosnati, & Scabini, 1999), but generally demonstrate that these families ultimately have more similarities than differences (Reuter, Keyes, Iacono, & McGue, 2009). Although there may be many developmental tasks that are not impacted by the adoption, the adoptive family faces some tasks over and above that of the non-adoptive family. These processes within families evolve and change over time, and are developmental, normative and multi-leveled, occurring at the individual level, the dyadic level and family system level (Pinderhughes, 1996). For example, within identity development, the adoptive family must assist in scaffolding the child's emerging sense of self as an adopted person (Grotevant, Dunbar, Kohler, & Esau, 2000). This identity development may include the adoptee's individual cognitive and affective processes (individual level), communication about adoption between adoptee and parents (dyadic level), and the salience and meaning attributed to

adoption for each family member and the family as a whole (family level) (Brodzinsky & Pinderhughes, 2002). This identity development process may even include the adoptee's desire to step outside the adoptive family context and search out birth family, essentially bridging microsystems (the adoptive family and the family of origin). Adoptive families face the task of communication about adoption, including the adoption story and information about birth parents; for many, this is an ongoing process (Wrobel, Kohler, Grotevant, & McRoy, 1999). Adoptive parents can facilitate positive adolescent adjustment by maintaining open communication surrounding adoption related issues, and viewing the additional tasks of adoptive parenting as normative rather than problematic (Brodzinsky, Lang, & Smith, 1995). Thus, whereas many aspects of adoptive families may be comparable to non-adoptive families, there is the potential for additional complications and different normative patterns within adoptive families at multiple levels.

Searching

Searching is the term used to describe the phenomenon wherein an adoptee is interested in, and undertakes the process of attempting to find their family of origin (Wrobel, Grotevant, & McRoy, 2004). Searching encompasses a wide variety of behaviors, and can be thought of on a continuum with interest on one end to action at the other. Searching among domestic adoptees most often involves formal requests to adoption agencies or courts for background information (Wrobel, Grotevant & McRoy, 2004). Searching also includes attempts to locate and make contact with birth parents or members of the extended birth family.

Descriptive characteristics. Many studies on searching have focused on who searches (which kinds of adopted people) and how many (what proportion of adoptees). Selman (1999) argued that because adoptees generally have only limited access to records, the number of adoptees who actually engage in search is likely underreported. Although changes in laws in many

states have increased access for adoptees adopted domestically, it would also seem that with the widespread use of the internet, it is highly likely that a large proportion of searching behavior is now underreported. However, the level of interest in searching may be overstated due to convenience sampling methods (i.e. drawing from pools of adoptees who are members of search assistance groups) and those willing to participate. Studies have estimated that as many as 40-50% of adoptees engage in some kind of search in their lifetimes (Tieman, van der Ende, & Verhulst, 2008).

Gender. A number of studies have discovered significant gender differences in adoptees who search. Women are more likely to search than men (Müller & Perry, 2001). Müller and Perry (2001) have summarized the potential explanations for this gender difference. Studies have proposed that women are more likely to search due to having had the experience of pregnancy and childbirth themselves. These experiences are more likely to prompt thinking about life through generations, thoughts of their own births and birthmothers, as well as to recognize the importance of one's own medical history. Finally, it has also been suggested that women are more defined by social relationships.

Age. Although searching is not limited to any age group, most studies have reported searching is most often engaged by adoptees between the ages of 25 and 35 (Müller & Perry, 2001; Tieman, van der Ende, & Verhulst, 2008). Studies also show that adoptees who search were older at the time of placement. There are a limited number of studies that examine searching in adolescent adoptees, in part because as legal minors, adolescents are not able to search. One must note that this is true for children adopted into the U.S. and the legal restrictions and search process may be different in different adoptive countries. However Wrobel, Grotevant, and McRoy (2004) expanded our thinking about searching with their finding that adopted adolescents

engage in a significant amount of 'psychological work' related to searching. In another study, Benson, Sharma, and Roehlkepartain (1994) reported that 65% of adolescents who had no contact with their birthparents expressed desire to meet their birthparents, which suggests that adolescence may be an important time to investigate searching among adoptees.

Other descriptive characteristics. Many studies based on the psychopathological model of searching have expected to find dysfunction in adoptive families that can explain searching behavior. These studies (McWhinnie, 1967; Schwartz, 1970; Triseliotis, 1973) have suggested that searching is a symptom of adoption breakdown. Thus, a handful of studies have considered the adoptive parents' marriage stability, the parent-adoptee relationship, the adoptee's attitude towards adoption, and the adoptee's general psychological and behavioral functioning as potential predictors of searching at the individual, dyadic and family levels within the adoptive family context. However, it's important to note the dates of publication for these studies and recognize that psychological paradigms have changed in a newer adoption chronosystem.

Theories and motivations. Several theories have been posited to explain the adoptee's desire to search for biological family. Müller & Perry (2001) have condensed the available theories explaining adoptee searching into three broad models. The following will briefly summarize the models and name a few theories that fall into them.

The first broad model includes theories that suggest that searching is psychopathological. Many early theories posited that the desire to search was indicative of some personal deficiency within the adoptee, or some malfunctioning of the adoptive family (e.g. McWhinnie, 1967; Schwartz, 1970; Triseliotis, 1973). The rationale was that, if there were no problems with the adoptee or the adoptive placement, they would have no desire to seek out the birth family. Thus the adoptee was perceived as searching in order to fill a void or replace a relationship that was

unsatisfactory within the adoptive family. Examples of deficiencies that also fall under this model would include insecure attachment, lack of control, feelings of loss and negative adoption experiences (Bertocci & Schechter, 1991; Sants, 1964; Schechter & Bertocci, 1990). Wrobel, Grotevant, and McRoy (2004) tie this theory to the early focus on closed and confidential adoptions. They cite Schechter and Bertocci (1990), stating that the practice of confidential adoptions was based on a static concept of adoption, which understood the needs of adoptive parents, adopted children and birth mothers only in the context of the early phases of family life and development (i.e. without consideration of the developmental impact of confidentiality, secrecy and a lack of information provided to the adoptee). Within this earlier adoption chronosystem, adoptees and adoptive families were thought to be able to mimic non-adoptive families and pay little attention to the adoption (Wrobel, Grotevant, & McRoy, 2004), implying that those individuals and families who paid attention to the adoption were abnormal or malfunctioning.

Müller and Perry's (2001) second broad model of searching theories are those that consider searching a normative developmental task that adopted persons must complete as part of their psychosocial development (Feast & Howe, 1997). This psychosocial development involves the completion of age-related developmental tasks for all families, including identity formation, which may be more complicated or involve additional tasks for adoptive families. Within this model, Brodzinsky's (1987, 1990) Stress and Coping Theory explains searching as a problem-focused strategy for coping with the losses inherent in adoption. One of these psychosocial tasks for the adoptive family concerns the grief process, which becomes more complex and abstract through the adoptee's childhood, where the adoptee grieves not only the loss of birth parents and origins, but also the loss of a part of themselves. According to Stress and Coping Theory, if these losses are stressful enough, searching may represent a coping strategy to deal with this issue of

loss and resolve the associated psychosocial task. This new model reflects a more recent picture of the adoptive family within the current adoption chronosystem – where identity development among adoptees is seen as complex and likely involves some coming to terms with two families with which to identify (Wrobel, Grotevant, & McRoy, 2004; Selman, 1999; Grotevant, 1997). Searching as a normative task is affected by the adoptee and the adoptive family at all three levels (individual, dyadic and family), and also has been impacted by the changing macrosystem values of adoption and searching.

Müller and Perry's (2001) final model of searching theories are social-interactionist. Instead of focusing on psychological factors, these explanations place searching within the context of socio-cultural norms and expectations (the macrosystem). One theory that may fall into this category stems from Goffman's (1963) concept of social stigma and the process of social discrimination as described in March (1995). According to this theory, certain individuals are discredited for possessing unusual social traits or physical characteristics (in this case, being adopted). These individuals cause discomfort to the majority of others who do not depart negatively from the social expectations at issue, and thus are penalized for their deviance (by facing discrimination, and intrusive or personal questions about their families of origin). To gain social acceptance, these individuals must find a way to manage their stigmatized trait and limit its disruption of others' sensibilities. One management technique involves an attempt to correct the "objective basis" of their social failing and become as much like "normals" as possible (March, 1995). Thus, searching and reunion are ways to neutralize social stigma and gain greater social acceptability from others. Having searched and been reunited with birth family, adoptees then have answers to these questions about their origins that "cause discomfort" to non-adopted members of society. March (1995) faults this theory as having no way of describing how the

stigmatized learn they are stigmatized (though, an argument could be made that intrusive, personal questions asked of adoptees are a form of microaggressions (Baden, 2010), leading to the feeling of being stigmatized). Within this model of searching, changes in the adoption chronosystem and macrosystem are particularly relevant. Over time, adoptions have become much less closed (see Siegel & Smith, 2012, for a historical review of secrecy and stigma in adoption), but there is less indication of a decreased stigma on adoption (Palacios, 2009).

Other motivations have included the desire for a more complete genealogy. Adoptees may have curiosity over the events surrounding their own conception, birth and relinquishment. They may wish they had more information to pass down to their own children, or simply more details on their background (March, 1995). Sobol and Cardiff (1983) found that searchers were more likely to have had a traumatic adoption revelation experience, more strained adoptive family relationships, poorer self-concept, or the belief that having been adopted made one feel different or incomplete. The same research also indicated that developmental milestones in adulthood (e.g. marriage, birth of a child) might act as triggers of searching. Similarly, Wrobel, Grotevant, and McRoy (2004) suggest that adolescent milestones like graduation from high school or moving away for college might act as analogous milestones triggering searching among adolescent adoptees.

Searching and family systems. Unfortunately the extant literature on searching among adoptees does not reveal a pattern, so it is not possible to consider whether specific layers of family functioning might be related to interest and searching. The extant search literature, besides being dated, generally reports on adult adoptees' retrospective accounts of their relationships within their adoptive families (e.g. March, 1995; Sachdev, 1992; Aumend & Barrett, 1984; Sobol & Cardiff, 1983). However, because adolescents are situated within families, the family

may have a more proximal influence on the early interest and searching behavior than for adult adoptees. Several studies have suggested links between interest in searching and adoptive family dynamics. For example, Stein and Hoopes (1985) and Triseliotis (1973) suggest that family dynamics, including the perception of poor fit between adoptive parents and children, or adopted children's overall negative feelings about relationships within the family, prompt searching behavior. Additional studies by Sobol and Cardiff (1983) suggest that dissatisfaction with the way communication about adoption was handled within the family led to searching in adoptees. However more current research including Wrobel, Grotevant, and McRoy (2004) has challenged the notion that searching is related to negative relationships with adoptive parents. Tieman, van der Ende, and Verhulst (2008) found searching adopted adults were more likely to have divorced adoptive parents.

Identity Development

Identity formation is widely acknowledged to be one of the central tasks of adolescence (Erikson, 1968; Marcia, 1980; Waterman, 1985). Identity is a very complicated construct and identity may be formed and conceptualized differently for each individual. Our identities can be multiply layered and composed of various characteristics. The process of identity formation likely is more complicated for adopted adolescents, who may face the additional challenges in identity development such as a lack of knowledge about their pasts, an inability to access or acquire information and social attitudes that stigmatize adoption. McGinnes, Smith, Ryan, and Howard (2009) considered dual identities of an adopted person – one with respect to the adoptive family and one with respect to the family of origin – and added another layer if the adoption is also transracial. In sum, recent research recognizes the need to look at multiple layers or levels of

identity when describing the processes of identity formation in adoption (McGinnes, Smith, Ryan, & Howard, 2009; Grotevant, 1997).

Adoptive identity. Adoptive identity is defined as the sense of who one is as an adopted person (Grotevant, Dunbar, Kohler, & Esau, 2000). Adoptive identity can be a very complicated topic and Grotevant et al. (2000) propose three contexts of adoptive identity development: intra-psychic, the family environment and the contexts beyond the family. The nature of adoption for the adopted child involves complicated concepts like abandonment, rejection, grief, loss and gratitude. Some of these concepts have the potential to be very painful or even alienating for people who have been adopted. Many individuals who have been adopted have expressed concerns about "fitting in" or "belonging." Adopted individuals may feel that they belong neither to their adoptive families nor to their biological families or birth-countries (McGinnes, Smith, Ryan, and Howard, 2009). Conversely, adoptees may find a way to incorporate and integrate aspects of both families – their birth families and their adoptive families – into their emerging identities. Children who are able to integrate these aspects into a positive sense of self more often have parents who are more supportive, open and empathic in their discussions with their children (Brodzinsky, Schechter, & Henig, 1992). Research shows that access to information about adoption and pre-placement histories facilitates adoptive identity development (Brodzinsky, Schechter, & Henig, 1992; Grotevant, 1997) and that families with more open styles of communication about adoption issues have fewer adolescent identity problems (Stein & Hoopes, 1985). The McGinnes, Smith, Ryan, and Howard (2009) *Beyond Culture Camp* study found that of their sample of White adoptees, 70% rated their adoptive identity as important or very important during young adulthood. Furthermore, adoptive identity remains important over the life span (McGinnes, Smith, Ryan, and Howard, 2009).

Identity and searching. Adolescence is often described as a transitional period where adolescents desire greater autonomy and self-determination (Grotevant, 1998). For adolescents who have been adopted, this transitional period may also include normative transitions and choices unique to their status as adopted persons (Brodzinsky & Pinderhughes, 2002). Wrobel, Grotevant, and McRoy (2004) suggest that the decision to search for birthparents may be one of these transitions.

As mentioned previously, searching is now regarded as a normative choice, regardless of whether or not a search is implemented (Wrobel, Grotevant, & McRoy, 2004). This can be evidenced by the willingness of some adoptive parents to help their children search for their birth families (Kohler, Wrobel, Grotevant, & McRoy, 2000). However, many studies still explore searching behavior as related to some kind of issue or pathology. For example, Howe and Feast (2000) concluded in their study of adult searchers that many factors, including adoptive identity issues, likely influence the decision to search. Because adoptive identity development may involve the incorporation and integration of aspects of both their adoptive family and their birth family, adolescent adoptees may become interested in search as a way to accomplish this task. And because adolescent adoptees generally live with their adoptive families, the adoptive family may be additionally important in adolescent searching and identity formation.

Gaps in the Literature

This next section will describe some of the major gaps in the extant literature base regarding searching behavior among adolescent adoptees within the family context. First, as described above, the majority of the literature on searching was published over 25 years ago. And even the newest literature (e.g. Wrobel, Grotevant & McRoy, 2004; Tieman, van der Ende &

Verhulst, 2008) is over five years old at this point. Adoptive family functioning and search interest and behavior have been discussed essentially in a previous adoption chronosystem.

In addition, there are almost no studies on adoptee searching that look specifically at the searching interest among children adopted internationally (Tieman, van der Ende & Verhulst, 2008, represents a single exception). Previous studies have used samples of domestically adopted adolescents and adults, or have not distinguished between domestic and international adoptees. Although there may be no reason to suspect developmentally related differences in the presence or lack of a desire to search for birthparents, being adopted internationally does add a few layers of complication to the searching process, and may affect the expression of the desire to search.

Furthermore, in earlier studies on adoptee searching, researchers have dichotomized adoptees into two groups: "searchers" and "non-searchers" (e.g. Howe & Feast, 2000). However, more modern research has shown that these groups conceal an important variable: interest in searching (Tieman, van der Ende, & Verhulst, 2008; Wrobel, Grotevant, & McRoy, 2004). These more modern studies have delineated four groups of adoptees: "uninterested non-searchers" – those who have no interest in searching for their birth families (now or perhaps ever); "interested non-searchers" – those who have an interest in searching for their birth families, but have not participated in any activity that might constitute searching; "interested searchers" – those who are interested in finding birth family members and have undertaken steps to locate them; and finally, "reunited searchers" – including adoptees who had an interest in searching, underwent search activity and then participated in some kind of reunion with birth family members.

Finally, there have been an extremely limited number of studies on adolescent adoptee searching. In one of the rare studies examining this phenomenon, Wrobel, Grotevant and McRoy (2004) found that adopted adolescents do engage in a significant amount of psychological work

related to searching, and that the psychological groundwork of defining intent to search is laid during the adolescent developmental period. Furthermore, in a national study of adolescent adoptee adjustment, Benson, Sharma, and Roehlkepartain (1994) reported that over two thirds of adolescents in closed adoptions wanted to meet their birthparents suggesting adolescence may be a critical time to understand in terms of searching interest and behavior. More studies on this specific population can support findings of existing research and add layers to our understanding of this population.

The Current Study

The current study has been designed in an attempt to provide a refreshed picture of the relations between levels of family functioning and the international adoptee's level of interest in search through secondary analysis of data collected in the study described below. The current study seeks to shed light on the question, "In what ways are layers of the family ecology related to internationally adopted adolescents' interest in searching?" This study aimed to address multiple levels of family functioning: the individual (adolescent functioning), the dyadic (functioning of the adoptive parents' marriage) and the family (family cohesion and adaptability and adoption satisfaction). The secondary analysis involved the use of five measures collected by the original study and one composite measure created from individual items from a measure created for the original study. These measures are described in detail in the Constructs and Measures section. The design of the current study allows for an exploration of the data to see how certain aspects of relationships within the adoptive family system are related to the individual adoptee's desire and intent to search.

Contribution to the Field

There are several reasons why this particular study can make a contribution to the field. This study has added a new perspective to the adoption chronosystem with a more modern exosystem and macrosystem contextual understanding. The design of the current study addressed a parent report of the family ecology at multiple levels of functioning (individual, dyadic and family). Additionally, because the original data collection of this study was not designed to look at searching interest specifically, all adolescent participants were asked the same questions about interest in search and whether or not they had already engaged in any searching. This allowed for a sample that has been selected based on more than just interest in searching, and the potential for a quadripartite construction of the searching outcome variable.

Method

Participants

Data for this study were originally collected through Tufts Medical Center, headed by Laurie Miller and Linda Tirella. Their original study, "Outcomes of Internationally Adopted Children as Adolescents and Young Adults," was run in 2007. Participants were recruited through the International Adoption Clinic, now the Center for Adoptive Families, at Tufts-New England Medical Center. The study recruited adolescents previously seen through the clinic. All 259 adoptees, now 15 years and older when recruited, in the clinic database were invited to participate. Of the 161 located, 88 (41 male, 47 female) enrolled (55%). The teens were adopted from a range of different birth countries, or countries of origin (COOs), most from Eastern Europe (57%) or South America (24%). Mean age at arrival was 56 months (range 0-15 years); mean current age was 17 years (range 15-25 years). Half (50%) were receiving or had received special education services.

Constructs and Measures

The original data collection for this study included a series of demographic and informational questionnaires were completed by the adolescents and their parents, and reviewed along with clinic records from the arrival visit. The original study included a number of measures that will not be used in this secondary analysis. The following is a brief description of the measures assessing constructs that will be used in the current study. These measures include the Adoption Satisfaction Questionnaire (parent version), the Dyadic Adjustment Scale, the Family Adaptability and Cohesion Evaluation Scale (FACES II), and composite measures created from items in a survey of the adoptive parents and adolescents: an Academic Summary Score, a Social Summary Score and a Life Stress Score. Additionally, demographic information collected for the original study will be used. This information includes current age, gender, race, age at placement, country of origin, and whether or not the teen has siblings.

Family functioning. The family functioning construct was measured by the use of three questionnaires, The Family Adaptability and Cohesion Evaluation Scale (FACES II) and the Adoption Satisfaction Questionnaire (ASQ), and the Life Stress Summary Score.

The FACES II questionnaire (Olson, Portner, & Lavee, 1985) is a 20-item instrument that measures the degree of family adaptability and cohesion. This instrument was completed by one adoptive parent in this study, usually the mother. Adaptability items measure leadership, discipline, child control, roles and rules. Higher scores on the Adaptability subscale reflect greater adaptability within the family. Cohesion items measure emotional bonding, supportiveness, family boundaries, shared time and friends, and shared activities. Higher scores on the Cohesion subscale reflect greater cohesion within the family. The scale speaks to four levels of family cohesion: disengaged, separated, connected and enmeshed. There are also four levels of family

adaptability: chaotic, flexible, structured, and rigid. This creates 16 possible family systems: four balanced on both dimensions, four extreme on both dimensions, and eight mid-range. Reliability testing with varying samples showed the internal consistency reliability was .7 for the 10-item Cohesion scale, .62 for the 10-item Adaptability scale, and .68 of the total FACES II (Olson, Portner & Lavee, 1987). A copy of the FACES instrument is included in Appendix B.

The ASQ was originally developed by Pinderhughes (1998) to assess family and case-worker satisfaction with the adoptive placement. Separate versions were written for parent, child and caseworker. The scale uses a four-point scale to assess satisfaction with the adoptive experience, the adoptive parent's role, and the adopted child's role adapted for international adoption. The parent version has 16 items, where parents rate to what extent they agree with each statement. Sample parent items include, "The future of our adoptive placement looks promising to me;" "I often feel overwhelmed trying to make this adoptive placement work;" and "My adoptive child gives me more joy and pleasure than pain and disappointment." Higher scores represent greater satisfaction with the placement. Reliability analyses conducted in Pinderhughes (1998) showed high internal consistencies for each version, ranging from .82 (for mothers) to .92 (for fathers). A copy of the parent version of the ASQ is included in Appendix B.

A summary score of Life Stress was created from information on stressful events from the Parent's Questionnaire to represent another level of family functioning because the intended dyadic measurement could not be used. Questions asked whether the family had experienced: a death in the family, a divorce, a serious illness, a move, or "other." "Other" options might include "financial strain," "difficulty with services for one or more children in the family," or really any stressor the parents felt was important to indicated. If parents indicated that the family had

experienced the stressor, they received a point for each one listed. The Life Stress score had a range of 0 to 4, and higher scores reflect more stressful events having occurred.

Dyadic functioning. Dyadic functioning within the adoptive family was measured using one instrument, the Dyadic Adjustment Scale (DAS). The DAS was originally developed by Spanier (1976) to measure satisfaction, consensus, cohesion and affection within one's current romantic relationship, and it is the most widely used measure of relationship quality. The instrument is answered by one member of the couple, in this case, one of the adoptive parents (usually the mother). The questionnaire is a 32-item instrument where items are scored on a 0 ("Never" or "Always Disagree") to 5 ("All the time" or "Always Agree") scale, with higher numbers indicating more favorable adjustment. Example items include, "In general, how often do you think that things between you and your partner are going well?" and "Do you and your mate engage in outside interests together?" The sum of the 32 items is calculated for the total relationship adjustment score. Reliability estimates of total DAS scores range from .96 (Spanier, 1976) to .58-.96 (mean .915) in a meta-analysis of DAS reliability (Graham, Liu, & Jeziorski, 2006). However, review of the available data revealed missing data for a number of parents. Many parents in the current sample had adopted as single parents (in which case the DAS was not applicable) or had been separated or divorced and felt the DAS did not apply to them. Because of the number of single parents, and divorced or separated parents who failed to complete instrument, the DAS could not be used in analysis. A copy of the DAS is included in Appendix B.

Individual functioning. Measures of individual adolescent functioning created for the original study were used (Miller et al., forthcoming). Each is a summary score, one for academic functioning and one for social functioning. These scores were created using information gathered from the Teen and Parent Questionnaires including information on academic performance –

MCAS scores, GPAs, PSAT or SAT scores, and whether they were involved in any academic clubs or had received any academic awards. The social success summary score was created from questions on the Teen and Parent Questionnaires - about whether the teen indicated having a best friend, the number of friends, whether they were satisfied with their friendships, whether they considered their siblings friends, whether parents approved of the teen's friends, etc. Higher scores on both the academic and social summary scores indicate better academic and social functioning, respectively. Sample questions can be found in Appendix B.

Searching. For this construct, a four-level measure was created from a set of three yes-no questions asked of each adolescent participant. The first question was, "Have you ever seriously considered attempting to find your birth parents?" The second question was, "Have you ever actually attempted to find your birth parents?" And the final question was, "If yes, were you successful?" These three questions allowed for four potential differentiated groups. These groups were ordered from uninterested to reunited: "uninterested non-searchers," "interested non-searchers," "interested searchers," and finally, "reunited searchers."

Data Analytic Approach

The first step of data analysis was to examine the searching outcome variable. Although a four-way grouping was considered, it was determined that there were insufficient cell numbers to continue with a four-way group analysis. (See below in the results section for a more detailed description of the treatment of the searching outcome variable.) In brief, when a four-way grouping was rejected, a three-way grouping was considered (including uninterested nonsearchers, interested nonsearchers and interested searchers groups), however cell sample sizes were again insufficient for statistical analysis. This left a two group option – uninterested and interested - for the plan of data analysis. Next, descriptive statistics were used to characterize the sample varia-

tion and the range of individual and family functioning within the sample. The next step was to calculate the correlations among variables, including demographic information and adoption history information (e.g. age at placement). Additionally, because international adopted adolescents often have special needs, the sample was looked at descriptively in terms of special needs and level of individual functioning. A discussion of the consideration of special needs in the sample can be found in the results section.

Once the binomial grouping of the outcome variable was established and descriptive statistics were noted, the data analytic approach involved a series of ANOVAs to examine relations between searching and ecological variables. Because the resulting subgroup sizes led to concerns about power, theoretically informed decisions were made to reduce the data. Finally, ecologically informed logistic regressions were performed to examine the relation between remaining variables and interest in searching.

Missing Data. Missing case analysis showed 5% of data missing at random. To address this, two approaches were taken. First, complete data were analyzed, and second, multiple imputation methods were used (Rubin, 1987; Schafer, 1997).

Results

Demographics

Table 1 displays the demographic information about the sample. There were a total of 62 adoptees for whom searching information was available. However, only 58 adoptees were included in further analysis when the four adoptees in the reunited group were excluded (described below). The average age at adoption was 55 months (4 years, 7 months), with a range between 1 month and 15 years. Participants at the time of the study were between 14 and 21 years of age with a mean age of 16.5 years. With regard to Country of Origin, participants came from over 12

countries. The most represented country was Russia (n=19, 31%), followed by Romania (n=13, 21%), 6 participants (9.7%) were from China, and "Other". There were three participants (4.8%) from each Lithuania, Ecuador, Colombia and Paraguay. Two participants (3.2%) were from India and 1 each (1.6%) from Mexico, Ethiopia and Chile.

Descriptive Statistics

The descriptive statistics for all study variables (both included and eventually excluded) are displayed in Table 2.

Family Ecological Variables/Predictors

The FACES questionnaire is broken into two subscales – Adaptation and Cohesion. The Adaptation subscale scores ranged from 34 to 59, with an average score of 47.52, and SD of 6.19. The Cohesion subscale scores ranged from 49 to 77 with a mean score of 61.67, and SD of 7.72. The Adoption Satisfaction Questionnaire scores ranged from 3.67 to 16, with a mean score of 12.23, and SD of 3.68, suggesting relatively high levels of parental satisfaction with the adoptive placement.

Because many parents of adoptees in the sample were single parents, or divorced parents who chose not to answer the instrument, the Dyadic Adjustment Scale could not be used in the analyses. As an alternative, a summary score of Life Stress was created from information on stressful events from the Parent's Questionnaire to represent another level of family functioning. The Life Stress score had a mean score of 1.35, and a SD of 1.13. However, due to the inability to know *when* the stressful events had occurred (e.g. some parents had written in that a divorce was ten years previous, or the move was fifteen years ago), this variable was also dropped from subsequent analyses.

The summary scores for both academic and social success were previously developed by researchers at Tufts Medical Center for the original study (Miller et al., forthcoming). Academic summary scores ranged from -2 to 21, with a mean score of 8.75, and SD of 6.04. Social summary scores ranged from 5 to 19, with a mean score of 11.44, and SD of 3.2.

Searching Outcome Variable

The searching outcome variable was grouped. As previously discussed, the original intention was to analyze four potential groups: uninterested nonsearchers, interested nonsearchers, interested searchers and reunited searchers. Frequencies of the four way grouping are presented in Table 3. There were four participants in the sample who were categorized as reunited, but because these adoptees were not adoptees who had searched and found their birthparents, but rather children who had memory of their birth families, or open relationships with the birth family, it was determined that this experience was qualitatively distinct from search and reunion experiences and so these participants were not included in further analysis. This left three remaining groups. However, there were too few participants (n=7) in the interested searchers group to analyze the group separately. Thus, the interested nonsearchers and interested searchers were included in a single group, leaving two groups for analysis. There were 29 participants in each of the two remaining groups, uninterested and interested. All subsequent analyses were conducted with the sample of 58 adoptees, excluding the four from the "reunited" searching group.

Preliminary Analyses

Preliminary analyses with the full sample examined the relations of demographic variables to survey variables of individual functioning (academic and social), life stress, family cohesion and adaptation, and adoption satisfaction. There were no significant relations between study variables and demographic variables. The significant correlations among study variables them-

selves have been examined as part of the larger analysis of the entire study at Tufts Medical (Miller et al., forthcoming). The two subscales of the FACES II measure were significantly positively correlated ($r=0.717$, $p<0.000$). Both subscales were also significantly positively correlated with the Adoption Satisfaction Questionnaire (cohesion and satisfaction, $r=0.396$, $p<0.003$; adaptability and satisfaction, $r=0.470$, $p<0.000$). Adoption Satisfaction was significantly positively correlated with the individual functioning variables (Academic ($r=0.278$, $p<0.042$) and Social Success ($r=0.447$, $p<0.001$)). The Social Success variable was significantly positively correlated with the Academic Success variable ($r=0.314$, $p<0.019$). The Social Success variable was also significantly positively correlated with the Life Stress variable ($r=0.271$, $p<0.045$). This positive correlation may be spurious, or perhaps increased family stress may lead to better coping skills within the family, and better social skills for the adoptee. The bivariate correlations are summarized in Table 4.

Individual ANOVAs were run to see if there were any significant relations between study variables and adoptee interest in searching. There were no significant ANOVAs. These results can be found in Appendix A.

Regression Analyses

Stepwise logistic regression analyses were conducted with those interested in searching to examine the relation between 10 predictor variables including demographic variables – adoptee's age, age at adoption, adoptee's gender, adoptee's country of origin, adoptee's academic success, adoptee's social success, family life stress, adoption satisfaction, family cohesion and family adaptability – and one outcome variable: noninterest and interest in searching. However, a post-hoc power analysis showed insufficient power to analyze data using all ten predictor variables. These regression processes and results are summarized in Appendix A.

Following the rule of thumb (Vittinghoff & McCulloch, 2007), given the sample size, it was determined that three variables could be successfully run in regression analyses. Thus, all but three variables were dropped from the original analysis: adoptee's social success, family adaptability, and adoption satisfaction. The choice of these variables was theoretically driven. Recent literature (e.g. Wrobel, Grotevant & McRoy, 2004) on searching has suggested that families with positive functioning and good adoption communication are supportive of their adopted children engaging in search. Thus, adoption satisfaction and family adaptability were chosen as representatives of positive family functioning. Additionally, it was theorized that adoptees with good social functioning might be more likely to search.

A binomial logistic regression was completed using the three variables with the missing values imputed and showed no significant relations. Regression statistics are presented in Table 5. However, because there was trend level significance (0.073) for family adaptability, an interaction between adoption satisfaction and family adaptability was explored, and the social success variable was dropped from analysis. This second analysis, with family adaptability, adoption satisfaction and an interaction variable, showed no significant relations between predictor and outcome variables. The results from the regression with the interaction variable are displayed in Table 6.

Discussion

Internationally adopted adolescents and young adults indicate, like previously studied populations of adoptees, that searching for birth family may be of interest to them (Tieman, van der Ende, & Verhulst, 2008). This study aimed to explore the relation between various layers of the family ecology and the adopted adolescent's or young adult's interest in finding their birth families. The current analyses suggest that there is no relation between family and individual

variables examined and interest in searching. Adolescents and young adults whose families are either more or less adaptable, and whose families are more or less satisfied with the adoptive placement do not seem to have interest or a lack of interest in searching. Additionally, there is no apparent relation between the adoptee's social success and their interest in searching. These findings align with some of the more current research on searching that suggests that searching or the desire to search is a more normative process, and is not necessarily a feature of some subgroup of adoptees (e.g. Wrobel, Grotevant, & McRoy, 2004; Müller & Perry, 2001). These findings also align with a more current understanding of adoption in the current chronosystem, and the heterogeneity of adoptive families and adoptees in differing contexts across the country.

Searching, Gender and Age

The lack of association between interest in searching and either gender or age is not reflective of the existing research on searching. The vast majority of the existing literature on searching suggests that women are more likely than men to search and that those who search are older. However, because the majority of these studies were published in an earlier adoption landscape, these trends may no longer hold for current adopted adolescents and young adults. In this study, gender was not related to interest or lack of interest in searching. Additionally, the current sample may be too young to establish a relation between searching and age, as this sample consisted of primarily teenagers and emerging adults. Sobol and Cardiff (1983) suggest that developmental milestones in adulthood might act as triggers of searching. Perhaps this sample has not yet reached those milestones (e.g. marriage, birth of a child). However, Wrobel, Grotevant and McRoy (2004) did find interest in searching in adolescent adoptees (whose mean age of 15.7 years is very close to the mean age in this sample, 16.5 years). Although not all adoptees in their sample had indicated an interest in searching, questions about their adoptions, adoptive identi-

ties, families and birth parents indicated various levels of curiosity about their birth families and searching, as well as various cognitive processes involved – thinking about searching, ignoring the thoughts about birth families, or taking steps to search. They suggest that defining intent to search for one's birth family requires some psychological groundwork (Wrobel, Grotevant, & McRoy, 2004). One might consider what could be involved in searching in the current adoption chronosystem, and how that might impact the psychological groundwork. With respect to the adoption microsystem, adoption communication (Reuter & Koerner, 2008) would be a very important construct to consider here. For example, it is possible that many adopted children spend time talking with their adoptive parents about their adoptions, and those discussions may include information about birth families. Adopted children may ask questions about their birth families, and in the historical understanding of searching, that might not be considered searching. It could be that searching in the current context and understanding of adoption might be best considered as a continuum of interest and behavior, and therefore, that different aspects of psychological groundwork should be considered when studying this phenomenon. For example, an adoptee asking their adoptive parents about their families of origin, spending time thinking about the family of origin, or casually engaging in Internet searches, might all be considered relevant to searching and the underlying cognitive and psychological processes involved. With respect to this study, this suggests that whereas few adoptees in the sample had undertaken steps to search (n=7), the other 22 adoptees who had indicated interest in finding their birth families may be laying the psychological groundwork of defining their intent to search.

Other Potential Influences on Search Interest

Over half of the young adults and adolescents included in this study expressed interest in finding their birth families. Some of these internationally adopted adolescents and young adults

indicated that they had taken some steps in searching for their birth parents. However, in the current sample, there were no internationally adopted adolescents or young adults who had engaged in the search process with successful results. Rather, the four girls who indicated that they knew their birth parents or families indicated that they had memories of their birth parents or other family members and either had open adoption arrangements (e.g. visiting birth family members in Russia the summer before the questionnaire was filled), or had negative memories of their birth parents or families and had no current interest in rekindling the relationship. Although this group of adoptees was not included in the statistical analyses of this study, this study did not group adoptees by whether or not they had searched, but rather if they had interest in searching. This is an important distinction in the newest literature on adoptee searching (e.g. Tieman, van der Ende, & Verhulst, 2008; Wrobel, Grotevant, & McRoy, 2004). Additionally, given the increasing number of children placed at older ages (Pinderhughes, Matthews, Deoudes, & Pertman, 2013), future studies should account for the potential for memories of birth families that change the nature of the searching experience for international adoptees. Furthermore, with the increasing number of open adoptions, both domestically and internationally, the landscape of searching for and connecting with birth families is changing (Pinderhughes, Matthews, Deoudes, & Pertman, 2013), and needs to be accounted for in future studies of the phenomenon.

Additionally, there were a number of adoptees with special needs in this sample. We know that the international placement of children with special needs is increasing (Pinderhughes, Matthews, Deoudes, & Pertman, 2013), and that special needs may impact any or all levels of individual and family functioning. While many of the children with more severe special needs in this sample did not provide information on their interest or lack thereof in searching, those with more moderate needs who provided information were included. Special needs, depending on the

nature and severity, may have an impact on the child's identity development and on searching. It is conceivable that adoptive parents of children with special needs may not be communicating about birth families because they have other issues in the home going on, or perhaps the child's special needs interfere with the understanding of adoption or curiosity about the family of origin. This is a further area of study that would be important to consider in future research.

Because the sample is composed of adolescents adopted internationally, there are a number of other factors that may impact interest, and participation in searching. The simple fact that most of the adolescent participants in the study are legal minors limits their ability to search, as they may be legally restricted from engaging in search without parental permission. This would be a focus point in any study of children adopted into the U.S., but may differ when looking at adoptees in other countries who may have different legal restrictions. The international aspect of their adoptions also adds a number of potential complications. First, many of these adolescents were adopted from countries where English is not the primary language. This may mean that there is a language barrier to searching. Even making a request of an adoption agency is more difficult if one cannot make the request in the appropriate language. This language barrier might also impact the adoptee's interest in or ability to identify with their birth country of origin, or their family of origin. Their exposure to the language of their birth families may be impacted by a number of factors such as the adoptive family's interest in and comfort with exposing the adoptee to their language and culture of origin, or their geographic location in the United States and the accessibility of cultural and language resources. Children with less exposure to their birth culture and language may identify less with their birth families and that might impact their interest in or need to search for identity achievement purposes. Alternatively, recognizing that even if the birth family is found, adoptees may not be able to communicate due to language barriers may

have an impact on their interest in attempting those connections. Second, international adoptees may feel that searching for birth family and relatives across an ocean, in another country, is nearly impossible. They may have very little information about their birth families, feel like the task is too complicated, and give up before they start.

It would also be practically important to consider the existence and availability of birth country searchers, or the family's ability to hire private searchers or investigators to assist them in their search. The perceived complexity of searching internationally may have an impact on interest as well as behavior. International adoptees may feel that searching is impossible, and therefore may suppress or deny any interest in searching. Or they may acknowledge an interest, but feel that acting on their interest is a worthless task. Finally, children adopted internationally are more likely to have been orphaned or abandoned than children placed for domestic adoption in the U.S. Thus, international adoptees may already know, or believe, that their birth parents are deceased or impossible to locate. Although that would not necessarily prevent them from being interested in finding extended family, it does present an initial hurdle to searching that may be difficult to overcome.

Finally, there is new evidence that suggests that some adoptive parents are very willing to help their adopted children search for birth relatives (Kohler, Wrobel, Grotevant, & McRoy, 2000; Pinderhughes, Matthews, Deoudes, & Pertman, 2013). Some parents may wait until their adopted children request a search, and others may engage in searching out their child's birth families before any request from the adoptee, so that information might be preserved for future disclosure (Pinderhughes, Matthews, Deoudes, & Pertman, 2013). Some parents might be encouraged to track down information about their child's birth families early on due to risks of losing records and access to information over time. Pinderhughes, Matthews, Deoudes & Pertman

(2013) found that some parents searched to ensure their adoptions had been ethically and responsibly conducted with respect to the birth families. Within the adoptive microsystem, the parents' willingness to engage or assist in searching may have an impact on the adoptees' interest in connecting with birth family members. Ultimately, because international adoptions are changing with more open international adoptions and the adoption of older children, the family ecology with respect to parents' willingness to search either with or independently of their adopted children needs to be better understood.

Limitations

Although this study has the potential to make a positive contribution to the literature on adolescent adoptee searching, there are a number of limitations. The largest limitation for the purposes of this study is the small sample size. With regard to variables and measures, because this study involved working with an extant data set, there was no possibility of including any specifically designed items or measures to assess searching interest and behavior. Additionally, there was no assessment of the parent-teen relationship included in this study.

With regard to the sampling and recruitment of the study, the cross-sectional nature is also a limitation. And because participants have been recruited through a local metro area adoption clinic, results may not be generalizable to other populations of international adoptees.

The original plan of analysis involved the exploration of the relations between predictor variables and searching outcome in a four-way grouping. In previous research, it has been shown that grouping adoptees by who has, and who has not, searched, collapses over the adoptee's interest in search – an important variable (Tieman, van der Ende, & Verhulst, 2008). As mentioned previously, due to a small sample size and smaller cell sizes, it was not possible to include searching outcome as a four-way variable. After dropping the adoptees who had either open

adoptions or had memory of their birth families due to a later age at adoption, cell sizes were still too small to include both a group of interested nonsearchers and a group of interested searchers. Thus, the two-way grouping of interested versus uninterested was used. This may obscure some of the variations within the group of adoptees who were interested in search, as those who had taken steps to search may be different than those who had not taken those steps.

An original concern in the development of the data analytic plan concerned the inclusion of children with special needs. However, because both parents and adoptees were asked to complete questionnaires, it was evident that children with special needs severe enough to impact functioning did not fill out adoptee questionnaires (in approximately 9 cases). So those adoptees were naturally excluded from the analysis because data for those adoptees did not exist. Thus, this may lead to a limit in the study's generalizability, as international adoptees often do have special needs (Pinderhughes, Matthews, Deoudes & Pertman, 2013).

Conclusion

The current study explored a relatively unknown phenomenon – searching for birth parents – with regard to international adoptees. Although the small sample size may mean that results are not generalizable to the larger population of international adoptees, results of the current study further support extant research findings with domestically adopted people and searching behavior. This represents the second study conducted on interest in searching among international adoptees and the second study conducted on interest in searching among adopted adolescents and young adults. Further, this study supports the model that suggests that searching is a normative process of development for some adoptees, and is not related to poor family functioning or individual psychopathology (e.g. Wrobel, Grotevant, & McRoy, 2004; Müller & Perry, 2001). Although these analyses were unable to explore the relation between searching and certain dyad-

ic and family levels of the family ecology, these results indicate that family adaptability and parents' satisfaction with the adoptive placement do not have a statistically significant relation to interest in searching or lack thereof.

Future studies should be dedicated to examining both interest in searching and searching behavior among internationally adopted adolescents. These studies should carefully consider sample size, as a four way grouping is the most theoretically sound way to address interest in searching and was not possible here (see Tieman, van der Ende, & Verhulst, 2004). Although adopted adolescents may not have engaged yet in steps towards finding their birth families, future studies might explore the psychological groundwork that is involved in the development of interest in searching, particularly with more recent evidence that suggests family involvement in the process (Pinderhughes, Matthews, Deoudes & Pertman, 2013).

Appendices

Appendix A: Additional Statistical Analyses and Information

This appendix includes information on additional statistical procedures run with the sample. The first section presents ANOVA results and the second section presents stepwise linear regression analyses.

ANOVAs

Because of the small sample size, individual ANOVAs were run to examine individual study variables to see if any individual variable was significant. Results for each ANOVA examining the relationship to adolescent searching are presented in Table A1. No individual variable significantly differentiated interest in searching groups.

Table A1: Individual ANOVA Results with Searching and Other Predictor Variables

ANOVA Run (Searching x_____)	F	p Value
Gender	0.068	0.795
Current Age	0.812	0.582
Age at Adoption	0.846	0.675
Country of Origin	1.647	0.123
FACES Adaptability	0.961	0.535
FACES Cohesion	0.892	0.614
Adoption Satisfaction	0.931	0.568
Marital Satisfaction	1.688	0.114
Life Stress	0.086	0.986
Social Success	0.789	0.675
Academic Success	1.402	0.188

Regression Analyses

In a stepwise logistic regression, there was no discernible linear relationship between searching and any of the ten predictors, either including missing data through multiple imputation, or excluding cases with missing data listwise. When multiple imputation methods were used, three of the 20 imputed models were successfully run (#15, #17, and #20), with only the FACES Adaptability variable being entered. These results are presented in Table A2, below. The unstandardized coefficient (B) in each model was -0.021, with standard errors of the three models ranging from 0.485 to 0.506. The significance values ranged from 0.038 to 0.046 in the three

models. With only three models successfully run, it was concluded that the three variables were not significantly related to adoptee searching.

Table A2: Stepwise Linear Regression, FACES and Adoptee Search Interest, with Imputed Data

	Unstandardized coefficients (B)	Standard error	Significance value
Multiple Imputation 15	-0.021	0.010	0.046
Multiple Imputation 17	-0.021	0.010	0.038
Multiple Imputation 20	-0.021	0.010	0.046

As an alternative to the imputed binomial regression examining adaptability, adoption satisfaction and social success reported in the results section, I ran a binomial logistic regression without the cases with missing data (52 complete cases entered in the analysis). These regression statistics are shown in Table A3, below. There was a trend level significance (0.132) in family adaptability, thus an interaction variable (adaptability x adoption satisfaction) was run. Results of the regression analysis with the interaction variable are shown in Table A4, below.

Table A3: Binomial Logistic Regression Predicting Adoptee Interest in Searching, Excluding Missing Cases

	Unstandardized coefficients (B)	Standard error	Significance value
FACES Adaptability	-0.080	0.053	0.132
Adoption Satisfaction	0.018	0.101	0.856
Social Success	0.070	0.102	0.492

Table A4: Binomial Regression Testing Interaction of FACES and ASQ, Excluding Missing Cases

	Unstandardized coefficients (B)	Standard error	Significance value
FACES Adaptability	-0.094	0.057	0.100
Adoption Satisfaction	0.025	0.100	0.802
Adaptability x Adoption Satisfaction	0.001	0.002	0.558

Appendix B: Measures

ID _____
Date ____/____/_____
Visit # _____
Interviewer _____

FACES II: Family Version

David H. Olson, Joyce Portner & Richard Bell

Please read the following statement. Then rate how frequently the behavior described happens in your family.

1 Almost Never	2 Once in Awhile	3 Sometimes	4 Frequently	5 Almost Always

Describe Your Family:

1. Family members are supportive of each other during difficult times. ____
2. In our family, it is easy for everyone to express his/her opinion. ____
3. It is easier to discuss problems with people outside the family than with other family members. ____
4. Each family member has input regarding major family decisions. ____
5. Our family gathers together in the same room. ____
6. Children have a say in their discipline. ____
7. Our family does things together. ____
8. Family members discuss problems and feel good about the solutions. ____
9. In our family, everyone goes his/her own way. ____
10. We shift household responsibilities from person to person. ____
11. Family members know each other's close friends. ____
12. It is hard to know what the rules are in our family. ____
13. Family members consult other family members on personal decisions. ____
14. Family members say what they want. ____
15. We have difficulty thinking of things to do as a family. ____
16. In solving problems, the children's suggestions are followed. ____
17. Family members feel very close to each other. ____
18. Discipline is fair in our family. ____
19. Family members feel closer to people outside the family than to other family members. ____
20. Our family tries new ways of dealing with problems. ____
21. Family members go along with what the family decides to do. ____
22. In our family, everyone shares responsibilities. ____
23. Family members like to spend their free time with each other. ____
24. It is difficult to get a rule changed in our family. ____
25. Family members avoid each other at home. ____
26. When problems arise, we compromise. ____
27. We approve of each other's friends. ____
28. Family members are afraid to say what is on their minds. ____
29. Family members pair up rather than do things as a total family. ____
30. Family members share interests and hobbies with each other. ____

#3EPH/smc/FacesII-FV.93

Adoption Satisfaction Questionnaire

ID# _____ Date: _____

We are interested in learning about how satisfied you are with your adoptive placement. Please indicate how much you agree or disagree with each statement. There are no wrong or right answers.

		Strongly Agree	Mildly Agree	Mildly Disagree	Strongly Disagree
1.	The future of our adoptive placement looks promising to me.	❍	❍	❍	❍
2.	I often feel overwhelmed trying to make this adoptive placement work.	❍	❍	❍	❍
3.	My adoptive child gives me more joy and pleasure than pain and disappointment.	❍	❍	❍	❍
4.	My relationship with my spouse is worse than before this adoptive placement.	❍	❍	❍	❍
5.	I am glad I adopted my child, ____.	❍	❍	❍	❍
6.	This adoptive placement has worked against my own growth as an individual.	❍	❍	❍	❍
7.	My spouse is happy in his/her role as an adoptive parent.	❍	❍	❍	❍
8.	If I could start over, I would adopt again.	❍	❍	❍	❍
9.	I have made a success of this adoptive placement so far.	❍	❍	❍	❍
10.	My adoptive child has not shown as much progress by now as I thought s/he would.	❍	❍	❍	❍
11.	This adoptive placement has proven to be more stressful for our family than we thought it would be.	❍	❍	❍	❍
12.	I feel competent and fully able to handle this adoptive placement.	❍	❍	❍	❍

Adoption Satisfaction Questionnaire

		Strongly Agree	Mildly Agree	Mildly Disagree	Strongly Disagree
13.	I would not advise my friends to adopt a child like the ones I adopted.	❍	❍	❍	❍
14.	This adoptive placement generally has been a positive experience for our family.	❍	❍	❍	❍
15.	I think this adoptive placement gets more difficult as time goes on.	❍	❍	❍	❍
16.	I feel competent to obtain any services needed for my child.	❍	❍	❍	❍

DAS by Graham B. Spanier, Ph.D.

Name:_____ Sex: M F Marital Status:_____ Age:_____

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list. Circle the star under one answer for each item.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1. Handling family finances	*	*	*	*	*	*
2. Matters of recreation	*	*	*	*	*	*
3. Religious matters	*	*	*	*	*	*
4. Demonstrations of affection	*	*	*	*	*	*
5. Friends	*	*	*	*	*	*
6. Sex relations	*	*	*	*	*	*
7. Conventionality (correct or proper behavior)	*	*	*	*	*	*
8. Philosophy of life	*	*	*	*	*	*
9. Ways of dealing with parents or in-laws	*	*	*	*	*	*
10. Aims, goals, and things believed important	*	*	*	*	*	*
11. Amount of time spent together	*	*	*	*	*	*
12. Making major decisions	*	*	*	*	*	*
13. Household tasks	*	*	*	*	*	*
14. Leisure time interests and activities	*	*	*	*	*	*
15. Career decisions	*	*	*	*	*	*

	All The Time	Most Of The Time	More Often Than Not	Occasionally	Rarely	Never
16. How often do you discuss or have you considered divorce, separation, or termination of your relationship?	*	*	*	*	*	*
17. How often do you or your mate leave the house after a fight?	*	*	*	*	*	*
18. In general, how often do you think that things between you and your partner are going well?	*	*	*	*	*	*
19. Do you confide in your mate?	*	*	*	*	*	*
20. Do you ever regret that you married (or lived together)?	*	*	*	*	*	*
21. How often do you and your partner quarrel?	*	*	*	*	*	*
22. How often do you and your mate get on each others' nerves?	*	*	*	*	*	*

	Every Day	Almost Every Day	Occasionally	Rarely	Never
23. Do you kiss your mate?	*	*	*	*	*

	All Of Them	Most Of Them	Some Of Them	Very Few Of Them	None Of Them
24. Do you and your mate engage in outside interests together?	*	*	*	*	*

How often do the following occur between you and your mate?	Never	Less Than Once A Month	Once Or Twice A Month	Once Or Twice A Week	Once A Day	More Often
25. Have a stimulating exchange of ideas	*	*	*	*	*	*
26. Laugh together	*	*	*	*	*	*
27. Calmly discuss something	*	*	*	*	*	*
28. Work together on a project	*	*	*	*	*	*

These are some things about which couples sometimes agree or disagree. Indicate if either item caused differences of opinions or were problems in the past few weeks.

	Yes	No
29. Being too tired for sex	*	*
30. Not showing love	*	*

31. The stars on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Circle the star above the phrase which best describes the degree of happiness, all things considered, of your relationship.

*	*	*	*	*	*	*
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

32. Which of the following statements best describes how you feel about the future of your relationship? Circle the letter for one statement.

A. I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
B. I want very much for my relationship to succeed, and will do all I can to see that it does.
C. I want very much for my relationship to succeed, and will do my fair share to see that it does.
D. It would be nice if my relationship succeeded, but I can't do much more than I am doing now to keep the relationship going.
E. It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
F. My relationship can never succeed, and there is no more that I can do to keep the relationship going.

Adolescent Functioning

The following items are taken from the questionnaire given to parents, reporting on adolescent functioning.

Question/Item	Answer Format
15-19. Is teen trusted to stay home alone? Subquestions: Never, For a few hours during the day, For a few hours at night, Overnight, For multiple nights in a row	Y/N
66. Does teen have general self-care/independent living skills? (i.e. Driving, cooking, money use, ability to use public transportation)	Y/N
67. What are your expectations for teen's independence as an adult?	No supervision, Some supervision, Constant supervision
21. Does teen have close friends?	Y/N
22. Do you approve of teen's peer group?	Y/N
24-29. Teen's awards/honors/leadership roles (such as class officer, eagle scout, sports awards, community service, academic awards) Subcategories: Sports award, Community service, Class officer, Eagle scout, Academic award, Other	Y/N
34. During the last 12 months your teen was in school, how would you describe his/her grades?	Mostly A's, Mostly B's, Mostly C's, Mostly D's, Mostly F's, Unsure, None of these
35. Has teen ever repeated a grade?	Y/N
36. Does teen currently have an IEP?	Y/N
44. Number of suspensions from school ever	0-4 or more
45. Number of expulsions from school ever	0-4 or more
48. Hours worked per week during school year	0; 1-10; 11-20; 21-30; More than 30
49. Hours worked per week during summer	0; 1-10; 11-20; 21-30; More than 30
57-61. Has the family experienced any life stressors? Subquestions: Divorce, Serious illness in family, Death in family, Moving homes, Other	Y/N

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Tables

Table 1

Total Sample (n=62) Descriptive Statistics

		Frequency (n)	Percent (%)	M	SD
Gender	Female	37	59.7%		
	Male	25	40.3%		
Current Age (years)				16.5	1.66
Age at Adoption (months)				54.6	41.3
Country of Origin	Russia	19	31%		
	Romania	13	21%		
	China	6	9.7%		
	Other	6	9.7%		
	Lithuania	3	4.8%		
	Ecuador	3	4.8%		
	Colombia	3	4.8%		
	Paraguay	3	4.8%		
	India	2	3.2%		
	Chile	1	1.6%		
	Mexico	1	1.6%		
	Ethiopia	1	1.6%		

Table 2

Frequency, Mean, Range and Standard Deviation in Study Predictor Variables

	Frequency (n)	M	SD	Range
FACES II – Adaptability	55	47.52	6.19	34.0 - 59.0
FACES II – Cohesion	55	61.67	7.72	49.0 - 77.0
Adoption Satisfaction	57	12.23	3.68	3.7 - 16.0
Dyadic Adjustment Scale	48	48.06	9.74	20.0 - 60.0
Life Stress Scores	57	1.35	1.13	0 - 4
Academic Success Score	55	8.75	6.04	-2 - 21
Social Success Score	55	11.44	3.20	5 - 19

Table 3

Searching Outcome by Gender

	Frequency (n)			Percent (%)		
	Total	Female	Male	Total	Female	Male
Uninterested Nonsearchers	29	17	12	46.8%	27.4%	19.4%
Interested Nonsearchers	22	10	12	35.5%	16.1%	19.4%
Interested Searchers	7	6	1	11.3%	9.7%	1.6%
Reunited Searchers	4	4	0	6.5%	6.5%	0%
	62 Total	37	25	100%	60%	40%

Table 4

Bivariate Pearson Correlations and p Values among Study Variables [r/(p)]

	Family Cohesion	Family Adaptability	Adoption Satisfaction	Life Stress	Academic Success	Social Success	*Gender*	*Current Age*	*Age at Adoption*	*Country of Origin*
SEARCHING	-0.20	-0.223	-0.028	-0.006	0.043	0.055	0.035	-0.041	-0.080	0.180
	(0.143)	(0.102)˚	(0.834)	(0.968)	(0.754)	(0.690)	(0.795)	(0.757)	(0.556)	(0.180)
Family Cohesion	1	0.717	0.396	-0.070	-0.175	0.056	-0.130	-0.024	0.207	-0.064
		(0.000)***	(0.003)**	(0.611)	(0.210)	(0.692)	(0.342)	(0.863)	(0.134)	(0.646)
Family Adaptability		1	0.470	-0.009	-0.033	0.144	-0.062	-0.148	0.244	-0.117
			(0.000)***	(0.949)	(0.814)	(0.304)	(0.652)	(0.281)	(0.075)	(0.401)
Adoption Satisfaction			1	0.217	0.278	0.447	0.181	0.111	0.065	0.110
				(0.109)	(0.042)*	(0.001)***	(0.179)	(0.411)	(0.634)	(0.421)
Life Stress				1	-0.013	0.271	0.071	0.102	-0.002	0.293
					(0.927)	(0.045)*	(0.602)	(0.450)	(0.989)	(0.029)*
Academic Success					1	0.314	0.025	0.222	-0.135	0.137
						(0.019)*	(0.855)	(0.103)˚	(0.327)	(0.318)
Social Success						1	0.076	0.201	-0.007	0.168
							(0.583)	(0.142)	(0.958)	(0.221)
Gender							1	0.247	0.147	-0.035
								(0.062)	(0.275)	(0.794)
Current Age								1	0.220	0.015
									(0.100)	(0.912)
Age at Adop-tion									1	-0.198
										(0.140)
Country of Origin										1

Note. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ˚ $p \approx 0.10$ (trend level significance)

Table 5

Binomial Logistic Regression of Three Predictor Variables and Adoptee Searching

	Unstandardized coefficients (B) (pooled)	SE (pooled)	p value (pooled)
FACES Adaptability	-0.094	0.053	0.073
Adoption Satisfaction	0.049	0.093	0.598
Social Success	0.038	0.098	0.702

Table 6

Binomial Logistic Regression of Two Predictor Variables, Interaction and Adoptee Searching

	Unstandardized coefficients (B) (pooled)	SE (pooled)	p value (pooled)
FACES Adaptability	-0.162	0.053	0.402
Adoption Satisfaction	-0.170	0.093	0.786
Adaptability x Adoption Satisfaction	0.005	0.098	0.711