

WRITING THE UNKNOWN: AN EXPRESSIVE WRITING INTERVENTION FOR
ADOPTED KOREAN AMERICAN ADULTS

A DISSERTATION

SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL OF THE
UNIVERSITY OF MINNESOTA

by

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A thesis submitted in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

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August, 2013

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Acknowledgements

I gratefully acknowledge the chorus of individuals who have cheered me on throughout this process. First, I would like to acknowledge the community of transracial adopted adults in the Twin Cities and around the United States, without whom this study would not have been possible. Your stories of resilience continue to inspire me. Next, I am beyond grateful for my advisor, Dr. Richard Lee. He has served as my advisor, teacher, mentor, and friend throughout the past six years. Thank you for the countless hours that you have invested in me as a researcher and teacher. Also, thank you to you and Heewon Lee, for your gracious hospitality. I hope to continue the Familee tradition of academic discipline, critical thinking, and unabashed karaoke singing. To my committee members, Drs. Moin Syed, Patricia Frazier, and Megan Gunnar, thank you for your valuable and honest feedback. I would also like to thank two researchers, Drs. David Brodzinsky and Hal Grotevant. To Dr. Brodzinsky, thank you for giving a complimentary copy of your book “Being Adopted” to a college freshman sitting in your office at Rutgers University, even though she just told you that she was joining another lab because she “could not imagine researching adoption.” To Dr. Hal Grotevant, thank you for being one of the first researchers to explicitly state that adoptees had the right to wonder about birth family.

A special thank you to my undergraduate research assistant, Jason Sumontha, who tirelessly worked on this project from the very beginning. Thank you for your dedication, even after graduation. Also, I would like to acknowledge the following individuals who offered feedback and advice: Alison Hu, JaeRan Kim, Kayla Anderson, Joyce Lee, Dr. Kyoung-Rae Jung, Dr. Mark Haviland, and Dr. Greg Perlman.

This study would not have been possible without the generous funding from the Asian American Psychological Association, College of Liberal Arts Diversity of Views and Experiences Fellowship, and College of Liberal Arts Travel/Research Award.

On a personal note, I am grateful to my friends and family who have supported me throughout my many years of education, especially T.J. Berardo, Steph Pituc, Edward Lee, Sandy Newton, Caroline Kim, Sina Choi, Neah Lee, and Sora Suh. Lastly, I would not have made it through graduate school without a truly amazing cohort- Steph Pituc, Reiko Hirai, Samuel Hintz, and Sandra Shallcross. Thank you for 25 birthday celebrations, 5 Thanksgivings, and countless hours of time spent living life together.

Dedication

This dissertation is dedicated to my family.

Also, this dissertation is dedicated to all those adopted kids in all those studies, who grew up.

Abstract

The majority of transracial, transnational adopted adults think about their birth family and culture at varying levels throughout their lives. Although a normative part of development, thoughts about birth family and culture may be distressing for some individuals. This study examined the effects of an expressive writing study targeted at birth family and culture, as compared to writing about a work/school stressor or technology, for a sample of 84 Korean American adopted adults. This study also examined birth family thoughts and expressive suppression as possible moderator and mediator variables, respectively. In addition, correlates of birth family thoughts were explored. Although participants found writing about birth family and culture as positive and meaningful compared to the other two writing conditions, contrary to hypothesis, it did not improve psychological and physical health at one-month follow-up. Birth family thoughts also did not moderate the effects of expressive writing as hypothesized, although it was correlated with rumination, negative psychological, and health outcomes. Overall, the expressive writing intervention was perceived positively, but it did not improve outcomes. However, birth family thoughts, searching behavior, and adoption preoccupation should be explored in more detail in future analyses.

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Writing the Unknown: An Expressive Writing Intervention for Adopted Korean American Adults

CHAPTER 1: INTRODUCTION

Since 1953, there have been over 110,000 adoptions from South Korea to the United States. These transnational, transracial adoptees (TTA) from South Korea are the first, large-scale cohort of international adoptions in the United States, peaking in 1985 with 8,837 adoptions (U.S. State Department, 2013). Notably, many of these adopted individuals are now adults. Although there have been numerous studies examining adopted children (Palacios & Brodzinsky, 2010), there is little research on the lives of TTA adults. There is also limited empirical research examining thoughts about birth family and culture for adopted individuals. This study examines how TTA adults understand thoughts and emotions about birth family and culture and the extent to which an expressive writing intervention on birth family and culture may improve psychological and physical health. This study also examined birth family thoughts and expressive suppression as possible moderator and mediator variables, respectively.

Birth Family Thoughts

Though it is debated whether adoption, and more specifically the loss of birth family and birth culture, is a traumatic or stressful event, a qualitative study found that 70% of the 53 interviewed adopted adults, both domestic and international adoptees, expressed a moderate to significant amount of uncertainty and loss regarding their birth families (Powell & Afifi, 2005). Also, TTA are not only adopted into a new family, but are adopted into a family of dissimilar race and ethnicity, and adopted into a new country.

Consequently, thoughts about birth family are often conflated with a feeling of loss surrounding birth culture, including a loss of racial, ethnic and genealogical connections (Kim, 2010). In addition to empirical studies, numerous memoirs, documentaries, and essays written by TTA articulate the desire for a resolution to feelings of disconnection and displacement associated with thoughts about birth family, country of birth, and birth culture (Trenka, Oparah, & Shin, 2006). This body of literature collectively suggests thoughts about birth family and culture are normative but also possibly distressing for TTA.

There is limited research on birth family thoughts among adopted individuals, but previous research suggests that a high amount of these thoughts are associated with negative emotions and depressive symptoms. In a study with same-race and transracial domestically adopted adolescents, participants who were coded as having *extremely high* (1 SD above the mean) thoughts about birthparents and adoption had higher levels of alienation and lower levels of trust towards their adoptive parents (Wrobel, Grotevant, & McRoy, 2004). Smith and Brodzinsky (2002) found that, for same-race and transracially adopted children, higher levels of negative affect about the loss of birthparents were associated with higher levels of depression and lower feelings of self-worth. Although it is normative for adopted individuals to think about birth parents, “high levels” of birth family thoughts may reflect a ruminative response style to stressful or difficult events (Wrobel, Grotevant, & McRoy, 2004).

Expressive Writing Interventions

There are many ways in which people resolve a loss or gain greater understanding regarding the past. Talk therapy is based on the premise that by telling stories people gain

a deeper understanding of self, and through the disclosure of thoughts and emotions, hopefully gain clarity and insight. The desire to write about feelings and experiences similarly draws on an innate need to share life through the telling of stories. Whether it is retelling of the day's events to a partner over dinner or writing in an online journal to an anonymous audience, people often tell stories to organize life events in meaningful ways.

Pennebaker and Beall (1986) hypothesized that writing out (as opposed to talking about) emotions and thoughts regarding a stressful or traumatic event would produce similar psychological and health benefits for participants as talk therapies. Previous studies have found that writing interventions are effective in decreasing the amount of psychological stress and improving physical health outcomes after a trauma (Pennebaker & Chung, 2011), during life transitions (Cameron & Nicholls, 1998) and when dealing with identity issues (Pachankis & Goldfried, 2010). Indeed, a meta-analysis of 146 expressing writing studies found an overall small effect size for expressive writing interventions (Cohen's $d = .15$; Frattaroli, 2006). Moreover, the efficacy of expressive writing been tested in various populations, including community samples, college students, and medical settings. Given these findings across diverse populations, exploring future expressive writing studies, even with a small effect size, may be beneficial as an easy and cost-effective intervention.

Previous research has identified rumination (Sloan, Marx, Epstein, & Dobbs, 2008) and expressive suppression (Gortner, Rude, & Pennebaker, 2006) as particularly important factors that influence the effects of expressive writing. Individuals who experience psychological distress typically struggle with both rumination (specifically brooding) and emotional regulation (specifically expressive suppression). Ruminative

brooding, or the tendency for an individual to dwell on ones' problems and negative consequences, has been related to negative psychological outcomes, including depressive symptoms and suicidal ideation (Miranda & Nolen-Hoeksema, 2007). Expressive suppression, or the tendency to inhibit external cues to one's internal state (e.g., control facial expression of sadness), similarly has been associated with higher stress-related symptoms and depressive symptoms (Gross & John, 2003; Moore, Zoellner, & Mollenholt, 2008). Therefore, expressive writing researchers suggest that both brooding and expressive suppression may moderate (i.e., influence), and possibly mediate (i.e., explain), the relationship between expressive writing and psychological outcomes.

Although moderation and mediation studies of expressive writing are limited, there is some support for rumination and suppression as relevant individual difference variables. In one study (Sloan et al., 2008), participants in the experimental writing condition who had greater amounts of brooding had less depressive symptoms at follow-up compared to participants in the experimental writing condition with lower brooding scores. In another study that examined both expressive suppression and rumination (Gortner et al., 2006), expressive suppression moderated the effect of the experimental writing, and rumination mediated this effect. Other scholars suggest emotional regulation, such as expressive suppression, likely operates as a mediator in expressive writing interventions (Lepore, Greenberg, Bruno, & Smyth, 2002). The writing exercises may help participants express previously suppressed thoughts and feelings when writing about past traumas or stressors. Unfortunately, there have not been any direct tests of expressive suppression as a mediator.

For TTA, a high amount of birth family thoughts (e.g., "I think about my birth

mother everyday") may reflect a specific type of rumination, such as an excessive preoccupation with birth family. Previous studies have not examined the possible connection between birth family thoughts and rumination, though research has indicated that (a) adoptees think about birth family (Powell & Afifi, 2005; Smith and Brodzinsky, 2002) and (b) adoptees with a high amount of birth family thoughts were more likely to have negative psychological outcomes (Colaner, 2011; Wrobel, Grotevant, & McRoy, 2004). Specifically examining birth family thoughts as a type of ruminative response style, as well as the differences between adoptees with high versus low amount of birth family thoughts, may help understand the impact of birth family thoughts in psychological outcomes.

Study Purpose

This study examined the effects of an expressive writing study targeted at birth family and culture, as compared to writing about either a work/school stressor or technology, for adult adopted individuals. The study also explored correlates of birth family thoughts, specifically whether birth family thoughts was related to a ruminative response style, and whether having more birth family thoughts moderated the effects of a writing intervention targeted at birth family and culture. Additionally, expressive suppression was tested as a possible mechanism for the moderation effect of expressive writing by birth family thoughts.

Specifically, it was hypothesized participants who have higher or lower amounts of birth family thoughts would be impacted differently by a writing intervention that targeted thoughts and emotions about birth family and culture, compared to writing about other life experiences, on measures of positive and negative affect, psychological distress,

physical health symptoms and risky behaviors. Participants with higher birth family thoughts were predicted to benefit more from the writing intervention since it was specifically tailored to these issues. Participants with lower birth family thoughts were predicted to be less affected by the writing intervention, as they were not expected to have experienced significant distress associated with such thoughts.

Additionally, this study examined expressive suppression as a potential mediator of this moderation effect on the writing intervention. That is, it may not be the higher amount of thoughts that correlated with negative psychological outcomes, but the presence of a higher amount of thoughts while not being able to express emotions regarding these thoughts. Consequently, for participants with higher birth family thoughts, it was predicted that writing about birth family thoughts and culture would allow them to express previously suppressed emotions (i.e., thought a lot about birth family but did not express emotions).

In sum, this study was an expressive writing intervention that aimed to test whether writing about birth family and birth culture, compared to writing about a work/school stressor or technology, was associated with positive physical and mental health outcomes among adult Korean American adoptees. The study also explored correlates of birth family thoughts, specifically whether birth family thoughts was related to a ruminative response style, and whether having more birth family thoughts moderated the effects of a writing intervention targeted at birth family and culture. Finally, if this moderation is significant, the study examined whether expressive suppression mediated this moderation.

CHAPTER 2: LITERATURE REVIEW

This literature review begins with a section that summarizes the literature on transracial, transnational adoption, specifically adoptive identity, and narratives about adoption. It follows with a review of some of the basic theoretical foundations and assumptions underlying expressive writing interventions. Finally, the last section integrates the two strands of literature by proposing a writing intervention with Korean American adoptees.

Transracial, Transnational Adoption

This section provides a review of adoptive identity literature generally, and then specifically for transracial, transnational adoptees (TTAs). The review provides the framework for the decision to utilize an expressive writing intervention focusing on birth family and birth culture with adopted adults. Explicitly, this section endorses an understanding of adoptive identity as a developmental and normative process in which an adopted person constructs a self-narrative surrounding his/her adoption (Brodzinsky, Schechter & Henig, 1992; Grotevant & Von Korff, 2011). This process of identity may involve times of active avoidance and repression, and times of understanding and acceptance (Kim, 2010; Meier, 1999). While it is beyond the scope of this review to provide a more exhaustive summary of adoption research, this section will outline the theory and research examining birth family and culture within the context of adoptive identity. Next, an articulation and relevant research on birth family thoughts and the concept of “adoption preoccupation” will be presented. The final section articulates the process of search and resolution for TTAs.

Adoptive Identity

“...a need for a biological connection. I felt a vacuum there because I was unrelated to people. I didn’t have any ties or connections to anyone in this world other than myself...I wanted an anchor. To connect. Make me real.” - anonymous, (March, 1995)

Erikson (1963) conceptualized the role of identity development during adolescence and young adulthood as a time of exploration of multiple selves and the integration of different parts of self. The ideal development of identity is dependent on an individual’s ability to integrate these parts of self in a way that promotes self-sameness and continuity. This integration is influenced by and influences the immediate community of the individual, and this dialectical relationship between the ‘self’ and the context around the self continues through life (Erikson, 1963). Using this theory of identity development as a foundation for understanding the journey of identity for an adopted individual, this section will review the literature on the relationship between adoption and identity, particularly the way in which thoughts and emotions about birth family and culture influence adoptive identity for TTAs.

The majority of the literature on adoptive identity has been shaped by the research of Harold Grotevant (1997a; 1997b; Dunbar & Grotevant, 2004; Grotevant, Dunbar, Kohler, & Esau, 2000; Grotevant & Von Korff, 2011). Drawing on narrative psychology and neo-Ericksonian theory, adoptive identity is viewed as a developmental, iterative, and integrative process that addresses: (a) “Who am I as an adopted person?” and (b) “What does being adopted mean to me, and how does this fit into my understanding of my self, relationships, family, and culture?” (Grotevant & Von Korff, 2011). By integrating the work of identity researchers that emphasize exploration and commitment (Marcia, 1980) and narrative psychologists’ focus on meaning making, coherence, and the ability for

identity to connect the past, present and future (McAdams, 2001), research in this field has emphasized the importance of adopted individuals telling their own stories as a means of understanding the complexity of adoptive identity.

A narrative of adoption: Birth family and culture. Central to the conceptualization of adoptive identity is the emphasis on an adopted individual's understanding of their adoption as a coherent story (Grotevant, 1997a; Grotevant et al., 2000). There are a number of narratives about adoption, though they generally involve a combination of narratives that emphasize "chosen," "found," and "destiny," and narratives that emphasize "loss," "struggle," and "search." From a narrative psychology perspective, these narratives provide a sense of understanding of self, including one's history and origins (McAdams, 2001). Theoretically, this process of personal "storymaking" helps an individual integrate the past with the present experience.

For TTAs, the narrative that emphasizes one's birth family and birth culture may be tied to a sense of loss or absence. For example, in qualitative interviews, transracial adoptees articulated their struggle with "not fitting in" in their present surroundings, but also feeling very distant from their birth country and culture (Meier, 1999). At the same time, for other adoptees, their adoption story or status is not a salient part of their identity. Regardless of the way in which one chooses to construct their identity or craft their self-narrative, loss (of birth family, language, and culture) and gain (of adoptive family, new language, and new culture) are parts of the adoption experience (Dorow, 2006; Lee & Miller, 2009).

There is considerable variability among adoption researchers as to whether the loss of birth family and culture affects the adoptee's conceptualization of their own

identity (Zamostny, Wiley, O'Brien, Lee, & Baden, 2003). Some researchers believe adoption loss is “socially constructed” and can be solved by changing mutable constructs involving stigma (Leon, 2002). Others contend that adoption loss, though influenced by social constructs, is a significant loss that transgresses the very notion of identity (Kim, 2010). This variability among adoption researchers most likely reflects the variability among adopted individuals. Some adopted individuals hold little salience to the meaning of adoption loss on their adoptive identity. For others, understanding what it means to be adopted, including the loss of birth family and culture, is an important lifelong journey (Grotevant et al., 2000).

The concept of ambiguous loss, a situation in which there is an uncertain or unclear loss of a person or relationship, has been applied to describe the loss of birth family and culture in adoption (Boss, 1999; Grotevant et al., 2000; Fravel, McRoy, & Grotevant, 2000). In a qualitative study of 53 domestic and international adult adoptees, Powell and Afifi (2005) found that participants reacted to and made sense of ambiguous loss in many different ways. More than two-thirds (or 70%) of the participants expressed a moderate to significant amount of ambiguous loss and uncertainty, while one-third (or 30%) of the participants reported that they did not experience ambiguous loss. Among the participants that did not experience ambiguous loss, all of them stated that they “felt special” because they were adopted. Other participants mentioned that their life was better because they were adopted and that they were “fortunate” to have more opportunities because of the adoption. Many of these adopted individuals that did not experience a sense of ambiguous loss were able to construct an “adoption narrative,”

(Grotevant et al., 2000) even while asserting that some of the information in this narrative may not be true (Powell & Afifi, 2005).

For individuals adopted across races and countries, an articulation of their adoption narrative involves an understanding of their culture, particularly their racial and ethnic identity. This is particularly salient in young adulthood. For TTAs, leaving their adoptive family and encountering new experiences increases the likelihood that people will view the TTA as a non-adopted racial and ethnic minority (Lee, 2003). Their racial and ethnic identity is complicated by the fact that they are identified as racial and ethnic minorities by society, but may be treated by their family (and may even view themselves) as if they are White Americans (Lee, 2003). For example, TTAs who grow up in conditions of assimilation reject their own ethnicity and race and instead may identify as White (Benson, Sharma, & Roehlkepartain, 1994; Freundlich & Lieberthal, 2000; Juffer, Geert-Jan Sams, & van IJzendoorn, 2004). At the same time, TTAs may experience incidences of racism and discrimination even if they self-identify as White. This paradox (Lee, 2003) presents an interesting challenge that is negotiated and understood as a part of the TTA adoptive identity, including the status as an adopted individual and as a racial and ethnic minority (e.g. what it means to be a Korean American adoptee).

In “Adopted Territory,” anthropologist Eleana Kim (2010) documented the feelings of cultural displacement for Korean adoptees as they struggled to negotiate a space where they felt a sense of belonging. The adopted individuals discussed the difficulty of not fitting in with their White American family and friends, not belonging to the Korean American community on account of the lack of knowledge (both explicit and implicit) of Korean American-ness, and not feeling at home when they returned to South

Korea (Kim, 2010). This articulation of disconnection is also evident in Shiao and Tuan's (2008) interviews with 58 adult Korean adoptees as they discussed feelings of difference as related to non-adopted Asian American. Though many adoptees report a sense of belonging within their adoptive family, these discussions of liminal spaces or "in-between-ness" highlight a struggle of belonging for some TTAs. This struggle may lead to "over-thinking" or becoming preoccupied with one's adoption.

Birth family thoughts and adoption preoccupation. For some TTAs, ambiguous loss or uncertainty around identity leads to increased thoughts about adoption. Thinking about one's adoption, as an adopted person, is viewed as a natural and normative process (Brodzinsky, et al., 1992). In one study of 289 domestic and international transracial adopted adolescents, 41% of the participants indicated that they thought about adoption from at least 2-3 times a month to everyday, and almost one-third of participants stated that adoption was a "big part" of how they view themselves (Benson et al., 1994). While thinking about adoption is a normative process, there is limited research about the frequency, intensity, and emotional valence connected with these thoughts. For example, are these thoughts correlated with psychological outcomes? How "big [of a] part" should adoption be in one's identity? When, if ever, does thinking about adoption become rumination about adoption?

Recently, researchers of adoptive identity have attempted to answer these questions. Kohler, Grotevant, and McRoy (2002) examined the "intensity of thinking about adoption" and adoptive family relationships of 135 domestically and internationally adopted adolescents. Participants completed the "preoccupation with adoption" (originally titled "wondering about birthparents") subscale of the Adoption Dynamics

Questionnaire (ADQ; Benson et al., 1994). Items on this preoccupation subscale included 17-items about wondering about adoption and birth family (e.g., "How often do you think about your adoption?). Results indicate that participants that were categorized as "extremely high levels of preoccupation" (one standard deviation about the mean) reported greater levels of alienation with their adoptive fathers. This same group of adolescents in the extremely high levels of preoccupation also had significantly lower level of trust of their adoptive parents compared to adolescents with extremely low levels of preoccupation (Kohler, et al., 2002).

In another study with 82 preadolescents, researchers utilized the Birth Parent Loss Appraisal Scale to examine positive/negative affect about birthparents and preoccupation with birth parents (Smith & Brodzinsky, 2002). The five items in the preoccupation subscale included wondering what birthparents looked like and thinking about birthparents. Framing this study within the stress and coping model, high levels of preoccupation was associated with greater utilization of problem solving coping. Interestingly, the children who had high levels of preoccupation with birthparents had greater levels of parent-rated externalizing behavior. Children who employed more behavioral avoidant coping styles to cope with birthparent-related stress also had greater levels of externalizing behavior. Also, there was a non-significant relationship between negative affect about birth parents and problem behavior, indicating that there may be something unique about having a high level of thoughts about birth parents (regardless of the emotional valence) which, combined with avoidant coping, is related to problem behaviors (Smith & Brodzinsky, 2002).

Preoccupation with adoption has been further examined in research on identity patterns. Researchers coded narratives of adopted adolescents and identified four patterns of adoptive identity: unexplored, limited, unsettled, and integrated (Dunbar & Grotevant, 2004). The unexplored adoptive identity category consisted of narratives that had little or no exploration, low salience, and little affect around adoption. In the limited adoptive identity category, adolescents were actively exploring ideas in the narratives. For adolescents in the unsettled category, adoption narratives had a high degree of exploration, coherence, and salience, but had a strong negative affect. Whereas the integrated adoptive identity was identified as narratives that also had a high degree of exploration, coherence, and salience, they also had a strong positive affect. High scores on the ADQ subscale of “preoccupation with adoption” were associated with an “unsettled” identity type, and adolescents with unsettled adoptive identities had a significantly higher amount of adoption preoccupation than individuals with integrated types (Dunbar & Grotevant , 2004).

Though the previous studies have focused on defining “adoption preoccupation” around the intensity and frequency of birth family thoughts, Colaner (2011) created the Preoccupation with Adoptions Scale (PAS) as a measure of a “lack of integration of the adoption to other aspects of the self.” This six-item measure includes items such as, “My adoption is the most important thing about me” and “I feel like nearly every aspect of who I am is the way that it is because of my adoption.” There was a significant negative correlation between preoccupation and self-esteem, and higher scores on PAS were related to lower positive affect and higher negative experience related to their adoption (Colaner, 2011). Utilizing Dunbar and Grotevant’s (2004) patterns of adoptive identity,

PAS was also positively correlated with “unsettled” identity types, as the PAS mean score was significantly higher for “unsettled” identity types compared to “integrated” identity types.

In summary, researchers have defined birth family thoughts and adoption preoccupation differently, with some defining “adoption preoccupation” as a high amount of birth family thoughts, and others conceptualizing adoption preoccupation as a separate (though related) construct. For the purposes of this study, birth family thoughts and adoption preoccupation are conceptualized as two separate variables, with birth family thoughts referring to thoughts about birth family (and culture) and adoption preoccupation defined as a “lack of integration with other aspects of self” (Colaner, 2011).

As previous research has examined whether birth family thoughts is related to identity, coping strategies, and family relationships, this study explores whether these thoughts are related to one’s use of a ruminative coping style. Building on expressive writing and adoption literature, rumination, particularly brooding, may hinder an individual from integrating and resolving thoughts and feelings about adoption.

Search and Resolution

“The search therefore constitutes the adoptee’s attempt to repair a sense of loss, relieve the sense of disadvantage, consolidate identity issues including body image and sexual identity, resolve cognitive dissonances, internalize the locus of control, and satisfy the most fundamental need to experience human connectedness.” (Schechter & Bertocci, 1990)

As birth-searching behavior can be an internal process or a more active search process, the exact number of adopted individuals who search is unknown. In a study conducted by the American Adoption of Congress with adopted adolescents, 94% of

adolescents wanted to know what their birth parents looked like, 72% wanted to know why they were adopted and 65% had a desire to meet their birth parents (Babb, 1996). This number was confirmed in a national study on adoption with approximately 65% of 289 adopted adolescents indicating that they wanted to meet their birthparents (Benson et al., 1994).

There are different types of searching behavior, ranging from wondering about the birth mother's favorite food to contacting adoption organizations. Symbolic or internal searching could take the form of a fantasy or an unsent letter to a birth mother, whereas activated searching generally occurs when an adopted individual attempts to contact their birth family or find out more information about their relinquishment (Schechter & Bertocci, 1990). For adoptees that initiate an activated search, some choose to seek only demographic and medical information, and others desire to reunite with a birth parent. For TTAs, learning about one's birth culture and language, and even traveling and living in their birth country, can also be viewed as a type of searching behavior. Though birth searching behavior is sometimes pathologized by researchers, and at times thinking and fantasizing about one's birth family becomes a type of maladaptive rumination, it is more consistent with identity research to frame birth family thoughts and searching behavior as a normative process in the development of identity (Brodzinsky, et al., 1992; Wroebel, Grotevant, & McRoy, 2004).

When does the search begin? There is some evidence that a symbolic search or “inner search” generally begins in middle childhood, and a more activated or “outer search” occurs in adolescence and emerging adulthood (Irhammar & Bengston, 2004). At the same time, other findings argue that activated searching generally does not occur

until adulthood and often after the adopted individual establishes his/her own family apart from their adoptive family of origin (Schechter & Bertocci, 1990). Factors that correlate with birth searching include a strong social support outside the adoptive family, contemplation or actual transition to parenthood for the adoptee, and the moving away from internalized representations of adoptive parents (Schechter & Bertocci, 1990).

Who initiates activated searching? Muller and Perry (2001) found that searchers tended to be women, ages 25-35 years old, married and placed with their adoptive families at a very young age. Studies indicate that the majority of searchers indicated that they had positive relationships with their adoptive parents, and searching generally occurred in an environment of positive family functioning (Howe & Feast, 2000; Wroebel et al., 2004). There is little evidence to indicate that searching is a result of adolescent maladjustment, though searching behavior is correlated with higher preoccupation with adoption (Wroebel et al., 2004). Also, compared to non-searchers, searchers expressed less feelings of happiness about being adopted and were less likely to feel as if they belonged in their adoptive families (Howe & Feast, 2000). For TTAs specifically, there is some evidence that a higher rate of searchers, compared to non-searchers also felt uncomfortable about their physical appearance (Feigelman & Silverman, 1983).

Although the goal of many birth family searching behaviors is a desire to reduce the uncertainty and ambiguity surrounding a sense of loss, birth family searching behavior and reunions do not always decrease the uncertainty, and at times, these actions may increase the amount of distress for adopted individuals. After birth family reunions, many adopted individuals report a decrease of uncertainty regarding their own identity,

but also a new type of uncertainty about their relationship with their birth mother and their relationship with their adoptive mother (Powell & Afifi, 2005). This emergence of a different type of uncertainty mirrors self-reports from birth mothers who are reunited with their children (Kelly, 2009). At the same time, there are many adopted individuals and birth mothers that report satisfactory relationships after the reunion, including a sense of peace after the reunion (Kelly, 2009; Powell & Afifi, 2005).

Some adopted individuals who chose not to search for their birth family report that a fear of a “second rejection” by their birth mother, or the fear of hurting their adoptive parents, caused them continue the ambiguity (Powell & Afifi, 2005). For most of these individuals, their adoptive parents did not explicitly ask the adopted individuals not to search or discuss being hurt by the search, but the adopted individuals reported that they assumed their adoptive parents may feel threatened or hurt by the search process. This is consistent with previous research in which adopted individuals state that they are afraid that their adoptive parents may interpret the search for birth parents as a type of rejection (Grotevant, et al., 2000).

Adopted individuals may find a sense of resolution without an activated birth search or birth family reunion. There are many factors that contribute to this sense of resolution related to one’s adoption, and this sense of resolution may fluctuate over time. Adopted individuals cite moving away to college, instances of discrimination, the death of an adoptive parent, the birth of a child, and a trip to their birth country as events that prompted searching and exploration of adoption related thoughts and feelings (Docan-Morgan, 2010; Meier, 1999). Similarly, resolution or peace about one’s adoption may be related to finding fulfillment in their relationship with adoptive parents, understanding of

family outside of genetic ties, lack of interest in their adoption, and finding satisfaction in other aspects of their identity (Powell & Afifi, 2005).

A recent study involving adult Korean American adoptees examined the relationship between experiential acceptance, ethnic identity, and psychological well-being (Sarubbi, Block-Lerner, Moon, & Williams, 2012). Building on previous literature regarding (a) experiential avoidance and (b) communication about adoption in TTA families, researchers found acceptance of adoption-related thoughts correlated with increased well-being and increased sense of ethnic identity. Specifically, results suggest that as adopted individuals “confront, embrace, and accept” thoughts and feelings about adoption, they may have more positive relationships with others, greater sense of purpose, and greater level of self-acceptance (Sarubbi, Block-Lerner, Moon, & Williams, 2012). Researchers recommend that therapists may seek to expose adopted individuals and parents to adoption and non-adoption related “emotionally salient stimuli,” particularly if it has previously been avoided.

In summary, thoughts and emotions about birth family and culture are central to an adoptive identity for TTAs. Working under the assumption that thinking about birth family involves a sense of loss, it is difficult for some TTAs to find resolution to these thoughts and feelings. This may lead some adoptees to “over-think” or engage in adoption preoccupation, which is associated with negative psychological outcomes. Both the “inner search” and activated search for birth family may represent an attempt to resolve this sense of loss or longing. If this search is unsatisfying in some way, acceptance (not avoidance) of adoption related thoughts may help individuals find a sense

of resolution. This study explores whether an expressive writing intervention targeted at birth family and culture will encourage this process of meaning making and resolution.

Writing Interventions

“Simply writing or performing a story about oneself can prove to be an experience of healing and growth.” Dan McAdams

Within the past 20 years, the number of experimental writing disclosure studies have increased from the first study in 1986 to well over 200 studies in 2011. A number of these studies, including a series of meta-analyses (e.g., Frattaroli, 2003; Frisina, Borod and Lepore (2004), have examined the efficacy of writing interventions in the disclosure of a stressful, traumatic or significant life event (Kim, 2004; Pennebaker & Beall, 1986), and whether this experimental disclosure correlates with more positive physical and psychological health outcomes. The most common outcomes include measures of physical and psychological health, but other studies have examined attitude change, motivation, academic performance, and general life satisfaction (Pennebaker & Chung, 2011). Though the majority of studies examining writing interventions are conducted with college students, these interventions have been replicated in a number of different groups, including Latino Americans, African Americans and Korean American samples, and in various countries around the world (Kim, 2008; Yogo & Fujihara, 2008).

For the most part, the expressive writing research has yielded positive results regarding the effectiveness of these interventions. In the most recent meta-analysis, Frattaroli (2006) confirmed that experimental disclosures resulted in beneficial effects for participants, though the overall effect size was small (Cohen's $d = .15$). Previous meta-analyses by Smyth (1998) obtained a medium overall effect size (Cohen's $d = .47$) and

Frisina, Borod and Lepore (2004) obtained a small overall effect size (Cohen's $d = .21$). Another meta-analysis (Harris, 2006) clarified that expressive writing studies were most effective ($Hedges g = .02$) for the reduction of health care utilization in healthy populations.

The most common outcomes measured at follow-up of writing interventions included: reported physical health (e.g. illness behaviors, general physical outcomes), psychological health (e.g., subjective level of stress, general distress), physiological functioning (e.g. immune functioning, stress-related measures), subjective impact (i.e. positive attitude about intervention), and general functioning (e.g. work related outcomes, social relationships or school outcomes). The effect sizes for a variety of outcome measures are all small. The unweighted mean effect size for physical health is .07, for psychological health is .06, for physiological functioning is .06, for subjective impact is .16, and for general functioning is .05 (Frattaroli, 2006).

There are a number of factors that vary from one writing study to the next, including inclusion criteria, topic, length of writing, and instructions. Although most studies use a variation of the original instructions (i.e., write about traumatic event for three times), positive psychological outcomes have been seen in studies that ask participants to construct a positive ending to a negative life event (King & Miner, 2000) and even when participants write for as little as two minutes for two days (Burton & King, 2008). Depending on the sample and theory behind the writing study, it is possible for participants to experience a positive change in psychological functioning under varying conditions. In light of these mixed results, Smyth and Pennebaker (2008)

acknowledged that most likely “the secret of the sauce is likely the interaction of multiple factors across multiples levels of a complex system” (p. 3).

Moderators of Writing Interventions

Sloan and Marx (2004) and Frattaroli (2006) identified a number of moderators that may be relevant to writing interventions, including individual differences in the participants, variations of method (i.e. disclosure instructions, number and spacing of writing sessions and the timing of follow-up), setting and treatment variables. This section outlines possible moderators and highlights rumination, specifically brooding, as a potential moderator in expressive writing interventions.

Individual Differences. Previous studies have identified a number of individual differences that may serve as moderators in writing interventions. Frattaroli (2006) used a between-studies approach by assigning a value for each variable and then correlating that moderator variable with effect sizes. She did not find any participant variables (e.g., gender, age, education) that significantly moderated outcomes. Across 146 studies, the average participant was White, approximately 29 years old, female and had some college education. Frattaroli also used a within-study approach to examine participant variables in cases in which the majority of studies did not report information on the particular variable, but at least two studies examined it as a moderator. In this approach, the effect size for the moderator was extracted and then averaged. Higher stress participants were found to have greater benefits in overall effect size and health effect size, and that optimism/pessimism was a moderator for psychological health and physical health effects, with pessimists benefiting more from the writing intervention. Age, gender,

emotional inhibition and alexithymia were not significant moderators in this meta-analysis.

Rumination. One potential moderator that has received considerable attention within the past few years is rumination. Rumination is the tendency to focus one's attention on the symptoms, causes, and consequences of distress (Nolen-Hoeksema, 1991). Within psychological literature, rumination is associated with a number of negative psychological effects, including the onset of depression, increased risk behavior, increased negative thinking, and the erosion of social support (Nolen-Hoeksema, 1991; Nolen-Hoeksema, Wisco & Lyubomirsky, 2008). The Ruminative Response Scale (RRS-22; Nolen-Hoeksema, 1991), the standard measure of ruminative response styles, has been re-analyzed to remove items that are confounded with depression content. Rumination was re-conceptualized as a two-factor model with reflective pondering and brooding (Treynor, Gonzalez, & Nolen-Hoeksema, 2003). Brooding has been described as a passive comparison of the current situation with some unachieved standard, and reflective pondering as a more purposeful introspective process in order to solve a problem. Studies using the re-analyzed structure have identified brooding, and not reflective pondering, as being associated with longitudinal depressive symptoms (Schoofs, Hermans, & Raes, 2010; Treynor, et al., 2003). Brooding, and not reflective pondering, has been shown to be a significant moderator of the relationship between stress and depressive symptoms (Cox, Funasaki, Smith, & Mezulis, 2012).

Rumination has emerged in the literature as both a moderator and mediator of expressive writing (Gortner et al., 2006; Sloan et al., 2008). In a study of individuals who employ a maladaptive rumination style, a brooding ruminative style significantly

moderated the effects of the writing intervention (Sloan et al., 2008). For individuals assigned to the experimental writing condition, participants that reported greater brooding symptoms reported fewer depression symptoms at follow-up than those participants who reported lower brooding symptoms. This finding regarding a brooding ruminative style is in contrast to individuals who have a reflective pondering ruminative style, which did not moderate the effects of the writing intervention. Interestingly, rumination has also been found to mediate the effects of expressive writing interventions for participants who have a high amount of expressive suppression (Gortner et al., 2006). These results indicate that the reduction of brooding may explain the effects for writing interventions for participants with high expressive suppression.

A recent writing study that examined rumination in recently separated spouses yielded surprising results (Sbarra, Boals, Mason, Larson, & Mehl, 2013). Participants were randomly assigned to three conditions: an experimental condition that focused on separation/divorce, a condition that focuses on the participant's deepest thoughts and emotions, and a control writing condition. Researchers found that participants in the expressive writing conditions who had high levels of rumination (mainly brooding) and engaged in a “search for meaning” had significantly worse outcomes compared to participants in the control writing condition. This study raises concerns about using expressive writing with individuals who have recently separated from their partner, particularly if the individual is highly engaged in searching for meaning.

In summary, the research on the moderating influence of individual differences in expressive writing studies is mixed, and there are most likely a number of factors that influence these results.

Method and Treatment Variables. In the majority of writing interventions, participants assigned to the experimental condition are asked to write “their deepest thoughts and emotions” about a trauma or stressors for approximately three 15-20 minute sessions, and then complete follow-up surveys. The length of writing sessions, amount of sessions, and timing of follow-up vary among studies. For example, although the average time to measure follow-up is three months, the timing of follow-up varies from as little as one day after the final writing disclosure to up until 15 months. Frattaroli’s (2006) meta-analysis found that the timing of follow-up measures significantly moderated the effects of the writing intervention in terms of overall effect size and psychological effect size. Studies that measured follow-up less than one month after writing had larger effect sizes than studies that measured follow-up at least one month after intervention.

There have been mixed results regarding treatment variables. This may, in part, be due to meta-analyses that attributed the effectiveness of the study to treatment variables instead of an interaction of different independent variables. Initially it was hypothesized that longer intervals between writing sessions had larger effect sizes than studies with shorter intervals (Smyth, 1998). Similarly, Frattaroli (2006) concluded that studies with at least three writing sessions, and studies with writing sessions of at least 15 minutes, had larger overall effect sizes. There have been a number of more recent studies that contradict these findings. For example, significant positive effects have been found when participants write only one time for an hour, and when participants write for as little as two minutes for two days (Burton & King, 2008).

Other method and treatment variables were examined in this meta-analysis (Frattaroli, 2006). The pre-disclosure of a potentially upsetting experience was not a

significant moderator, and the number of participants (average number = 78) was only marginally related to the psychological effect sizes, with studies with more participants having smaller effects. Also, the payment of participants did not significantly moderate the effect for overall, physical health, or psychological effect sizes, but it did moderate the effect of subjective impact, with paid participants having a higher sense of subjective impact. Finally, larger effect sizes were found in studies that requested participants did not turn in their writing sessions (i.e., no one will read this writing).

Setting. Setting variables include recruitment restrictions, setting of experiment, and setting of recruitment (e.g., college or community). Frattaroli (2006), found that the physical health inclusion criteria (a physical health problem required to participate in the study) did not significantly moderate the overall effect size, psychological effect size, or subjective impact, but did significantly moderate the effect for health effect sizes. Similarly, the trauma/stressor criteria (a previous trauma or significant stressor required to participate in the study) did not significantly moderate the overall effect size, psychological or physical health effect size. The trauma/stressor condition did significantly moderate the level of subjective impact in that studies that included only participants with a significant trauma/stressor reported marginally higher subjective impact effect sizes. The psychological health inclusion criteria (a psychological health problem required to participate in the study) did not significantly moderate across any of the effect size categories. With regard to disclosing in a laboratory versus at home, there were no significant moderating effects for overall effect size, physical health effect size, or subjective impact, but participants who disclosed at home did have significantly higher effects for psychological health effect sizes. Also, studies that did not rely solely on

college students had a marginally higher psychological health effect size than studies that used only college students.

Mechanisms of Writing Interventions

The difficulty of understanding the underlying mechanisms at work in writing interventions is compounded by the diversity of samples, method and outcomes involved in the different studies. Meta-analyses have shown the effectiveness of writing interventions for a general population, but the questions of “who, when and how” continue to affect the significance of the particular outcome variables. As more studies examine the moderators that significantly impact the physical and psychological outcomes, researchers will better understand why, and under what conditions, certain writing interventions are more effective for a particular sample of the population. This section will provide an overview of experimental writing disclosure research, specifically examining underlying mechanisms. I will focus on the studies that are most relevant to the present study with TTAs, particularly the support for rumination as a moderator and suppression as a mediator for expressive writing.

Emotional Regulation: Expressive Suppression. Inhibition theory, which hypothesizes that the disclosure of inhibited feelings leads to the reduction of stress and healthier functioning, was initially hypothesized to be the main underlying mechanism of expressive writing. Though this theory has little empirical support, it has remained a proposed theoretical mechanism for explaining the effects of expressive writing (Pennebaker & Chung, 2011; Frattaroli, 2006). Similar to inhibition theory, researchers have proposed that the broader construct of emotional regulation may be an underlying mechanism of expressive writing (Lepore, et al., 2002). Emotional regulation deals with

the way in which individuals control the quality, frequency, or intensity of their emotional experience. It is viewed on a continuum of underregulation, optimal regulation, and overregulation. One type of overregulation, expressive suppression, occurs when individuals attempt to inhibit or control external cues to an internal state by inhibiting emotions, constricting affect, or avoiding emotional experiences (Gross & John, 2003).

Although there is significant research in health psychology literature regarding the negative health consequences associated with expressive suppression, there is limited research in expressive writing studies. In health psychology, expressive suppression is associated with increased blood pressure, inhibited relationship formation, and reduced rapport in communication (Butler, Egloff, Wilhelm, Smith, Erickson, & Gross, 2003). It is also associated with increased sympathetic activation of the cardiovascular system and decreased positive emotion (Gross & Levenson, 1997). In expressive writing literature, there are a few studies that suggest further exploration of reduction in expressive suppression as an underlying mechanism. A recent study utilized an intervention that included the original expressive writing and added an emotional regulation psychoeducation component (Horn, Possel, & Hautzinger, 2011). This additional component helped facilitate emotional regulation, and participants in this expressive writing and psychoeducation group experienced a decrease in negative affect and absenteeism.

Exposure therapy. Another proposed mechanism is the idea of “exposure” or habituation. In exposure therapy, an individual is gradually habituated to aversive thoughts and emotions associated with past traumas or fears. Through this repeated

exposure, individuals begin to change their understanding and reaction when confronted with the trauma (Foa & Kozak, 1986). The theory behind exposure as a mechanism hypothesizes that the writing serves as a context in which an individual is exposed to previously avoided and aversive stimuli. Each time an individual writes and habituates him/herself to these thoughts and feelings regarding the trauma, there is a corrective process in which the fear and activation associated with the stimuli is reduced.

Support for exposure or habituation as the mechanism underlying the effectiveness of writing interventions has been mixed in the literature. Repeated writing of the same trauma has proven more beneficial than writing about different traumas, which supports the theory that gradual exposure through writing may reflect an exposure therapy condition (Sloan, Marx & Epstein, 2005). Further, participants often report that after the writing condition, they are more likely to orally tell someone in their life about the written disclosure, increasing the number of times exposed to the thoughts and emotions associated with the trauma (Pennebaker, Barger & Tiebout, 1989). At the same time, some studies have found that participants actually increase their avoidance symptoms after the writing (Greenberg, Wortman, & Stone, 1996; Smyth, True, & Suoto, 2001), despite benefits in other areas (e.g., decreased health visits).

Cognitive Appraisal. The next mechanism examined in this section is the cognitive appraisal theory. The theory behind cognitive appraisal (also called cognitive adaptation) is that processing occurs when an individual is able to change the existing schema around the trauma (Sloan & Marx, 2004).

One way in which this has been examined is by analyzing the amount of insight and causal words used in the interventions. Insight (e.g. “realize,” “understand”) and

causal (e.g., “because,” “thus”) words are associated with positive health benefits (Pennebaker, Mayne, & Francis, 1997). In a study with HIV positive participants, participants who increased their use of insight and causal words had better immune function and reported more positive changes at follow-up (Rivkin, Gustafson, Weingarten, & Chin, 2006). In an effort to test whether this effect could be manipulated, researchers prompted participants to use words that indicated insight and causation, but those participants did not significantly improve as compared to the intervention without the prompt (Pennebaker & Chung, 2011). With the use of a text-analysis computer program, researchers have also found that individuals who use a high number of positive emotion words and a moderate number of negative emotion words benefit the most from writing interventions (Pennbaker & Seagal, 1999). It seems the ability to recognize, label, and cognitively appraise an experience seems to have a benefit above the emotional expression associated with that appraisal.

Narrative Formation. Closely linked with cognitive appraisal is the ability to change the narrative of a situation, and also the narrative of self. In narrative psychology, this construction of a coherent and personal narrative helps individuals understand themselves and their history. The ability to integrate traumatic and stressful life events into a personal narrative helps an individual process and understand the self in an organized and meaningful way.

A number of researchers have examined narrative formation in writing intervention studies. For example, life narrative coherence, defined as a narrative that contains an orientation, structure, affect and integration, is associated with higher well-being (Baerger & McAdams, 1999). Psychological health benefits are also associated

with writing about an emotional experience in an organized way as opposed to a chaotic style of writing (Smyth, et al., 2001). A study by King (2001) found that participants who wrote about their best possible selves experienced less negative affect, more positive affect, and were sick less often at follow-up than the control group who wrote about a non-emotional control topic. Although these studies suggest the importance of an integrated and coherent narrative, another study tested whether the explicit encouragement of using a narrative formation would demonstrate a benefit for participants (Danoff-Burg, Mosher, & Seawell, 2009). The addition of the narrative formation instruction did not significantly increase positive effects relative to the standard expressive writing prompt, indicating that the use of spontaneous narrative may be related to increased health benefits for participants.

There are a number of hypothesized mechanisms to expressive writing interventions, but all are related to the understanding and regulation of thoughts and emotions. The ability to express (not suppress) and label emotions in a coherent and insightful way helps an individual find meaning, even in stressful and traumatic events. In the present study, expressive suppression (a subscale of emotional regulation) is viewed as a potential mediator. Although a previous study has found that expressive suppression moderated the effects of expressive writing (Gortner et al., 2006), the current study conceptualizes the change in expressive suppression, through the writing intervention, as having a potential mediating effect. Specifically, expressive suppression is hypothesized to explain why certain participants, particularly those high on birth family thoughts, experience more positive benefits from the writing sessions.

In conclusion, the methodology and design of previous writing studies has produced mixed results, with researchers struggling to identify which parts of the method are related to significant benefits for participants. In response to the question: “*What should people write about to enjoy the health benefits of writing?*” King (2001) stated that this is based on the mechanisms the researcher believes underlie the health benefits of writing for that sample. Building on research for TTA regarding birth family thoughts and expressive suppression research in both writing studies and health psychology, this writing study specifically tailors an expressive writing condition for TTA while also examining a work/school stressor condition and technology control condition. Based on the results of previous meta-analyses, which concluded that studies with at least three writing sessions of at least 15 minutes had larger overall effect sizes, this study design is utilizing a variation of the original Pennebaker and Beall (1986) writing prompt, asking participants to write for 15 minutes/day of writing over three consecutive days.

CHAPTER 3: STUDY

Building on the literature from expressive writing studies and TTA research, this study aimed to explore the effects of an expressive writing intervention with a sample of Korean American adopted adults. Through an expressive writing exercise about birth family and birth culture, participants were allowed to (a) explore adoption related thoughts and feelings (b) construct a narrative about their adoption (c) utilize the writing to experientially express these thoughts and feelings. By assessing affect, psychological distress, and physical health symptoms, we anticipated that participants in the *Birth Family & Culture* condition, compared to participants in the work/school stressor and

technology conditions, would have improved functioning one month after completion of the writing exercise.

There were three primary research questions in this study.

1: Between-Group Test of Difference: Did writing about birth family and culture significantly decrease the amount of negative affect, psychological distress, physical health symptoms, and risky behaviors and/or increase the amount of positive affect? Specifically, did the Birth Family & Culture writing condition significantly differ from a Stressor condition or the Technology condition in terms of outcomes?

Integrating research in writing interventions and adoption studies, TTAs are a particularly relevant population to examine expressive writing. Providing time and space for a participant to express thoughts and emotions about a (possibly) stressful topic, while allowing participants to create a meaningful narrative about their lives, it was hypothesized that TTAs who expressively write about birth family and culture will experience improvements in psychological and physical outcomes.

The majority of expressive writing studies compare the experimental condition to a control condition. As writing about birth family and culture is particularly relevant for this sample, it was hypothesized that the *Birth Family & Culture* condition would experience the greatest change in psychological and physical health outcomes, followed by the *Stressor* condition, and finally the *Technology* condition.

2a: Were thoughts about birth family related to a ruminative coping style?

A ruminative coping style, particularly brooding on negative thoughts and feelings, is associated with negative psychological outcomes. This coping style may also influence how a TTA individual responds to thoughts about birth family, particularly

because these thoughts are generally associated with a sense of loss. This hypothesis predicted that birth family thoughts would be related to rumination, particularly brooding.

2b: Were thoughts about birth family related to perceived psychological distress, positive and negative affect, physical health symptoms, and risky behaviors?

Previous research has found that having a higher amount of birth family thoughts is related to more negative psychological outcomes and negative adoptive family relationships. It was hypothesized that a higher level of birth family thoughts would also be related to more psychological distress, negative affect, physical health symptoms, and risky behaviors.

3a: Within-Group Test of Difference: Did thoughts about birth family moderate the effects of the expressive writing intervention? Specifically, did participants higher on birth family thoughts report less psychological distress than participants lower on birth family thoughts in the Birth Family & Culture condition?

There is evidence that writing about stressful topics may be particularly beneficial for individuals who have a high amount of rumination. Also, in a previous meta-analysis, participants with higher stress were found to have greater benefits in overall effect size and health effect size (Frattaroli, 2006). For TTAs, having a higher amount of thoughts about birth family may correlate with both a ruminative style of coping and higher psychological distress. It was hypothesized that the effect of the expressive writing condition would be particularly beneficial for participants with a higher amount of birth family thoughts.

3b: Test of Mediated Moderation: If birth family thoughts moderated the relationship between the Birth Family & Culture condition and psychological distress, did expressive suppression mediate this moderation?

Expressive suppression involves the control or constriction of emotional expression and is associated with decreased positive emotion, increased blood pressure, and inhibited relationship formation (Butler, et al., 2003; Gross & Levenson, 1997). If birth family thoughts moderated the relationship between the *Birth Family & Culture* condition and psychological distress, it was hypothesized that expressive suppression would mediate the moderation of this relationship.

Method

Recruitment and Sample

Eligibility requirements for this study included Korean American adopted adults between the ages of 21-50 years old. There were 132 participants that attempted to complete the initial survey. Based on the inclusion criteria stated above, three were excluded from further analysis due to age and nationality. A total of 129 participants were included in Survey 1. After three writing sessions, there were 91 eligible participants who completed Survey 2. In the final analyses, there were 84 eligible participants who completed Survey 1, three days of writing, Survey 2, and Survey 3.

Figure 1 provides more detailed information about the sample included in analyses. Participants were recruited online through Korean adoptee listservs, flyers, social media (i.e., Facebook, blogs, YouTube), and Korean adoptee organizations throughout the United States and South Korea. The primary researcher on this study also created a limited access (in which a link is needed) YouTube video that described the purpose of

this study and how to participate. This video was posted from June until November 2012 and was viewed 381 times.

Of the 84 participants included in the final sample, 65 (77.4%) identified as female, 19 (22.6%) identified as male. The mean age of the sample was 30.2 years (SD= 5.71). The mean age at adoption was 13.5 months (SD= 20.6), with 69 (82%) of the sample being adopted before 12 months old. Within the sample, 83 participants (98.8%) had White adoptive fathers and 1 (1.2%) had an Asian American father. Regarding adoptive mothers, 81 (96.4%) had White adoptive mothers and 3 participants (3.6%) had Latino/Hispanic mothers. In general, participants contact their adoptive parents on a regular basis, with 75% of the sample maintaining *daily* to *weekly* contact. Over half (59.6%) of the sample reported that they were *satisfied* to *very satisfied* with the relationship with their adoptive parents.

At the time of the study, the majority of the sample was living in the United States (77 participants; 91.6%), with 5 participants (6%) living in South Korea and 2 participants (2.4%) living abroad in other countries. Of the participants living in the United States, the top states were MN (27 participants; 32.1%), NY (11 participants; 13.1%), CA (8 participants; 9.5%), NE (6 participants; 7.1%), and MA (4 participants; 4.8%). Among the participants, 29 were married (34.5%), 14 (16.7%) were partnered but not married, and 41 participants (48.8%) were single. Of the participants that were in a romantic relationship, more than half (54%) had partners who identified as White. Eighteen (22%) of participants reported having children.

In their self-rating of Korean language ability, 56 (67%) stated that they either cannot speak Korean at all or only know a few phrases, and 17 (21%) stated that they

were at a beginner's level. As part of the Ethnic Identity Scale (EIS), participants wrote in their self-identified ethnic identity. Ethnic identity responses are provided in Table 1. In Survey 3, 55 (65%) participants stated that they "agree" to "strongly agree" that they had peace about being an adopted Korean American before this study. Also in Survey 3, 76 (90%) stated that they "agree" to "strongly agree" that they had thought about their experience as an adopted Korean American before the study.

Table 1

Ethnic Identity from EIS

Self-Identified Ethnic Identity	N (%)
Korean American	29 (34.5)
Korean/South Korean	27 (32.2%)
Asian American	8 (9.5%)
Korean American Adoptee	5 (6%)
Korean American _____ (Sicilian/Norwegian/WASP/German/Russian)	5 (6%)
American	3 (3%)
Americanized Asian	1 (1%)
Dutch Korean Adoptee	1 (1%)
Norwegian	1 (1%)
Other: Wrote that this question cannot be answered	1 (1%)

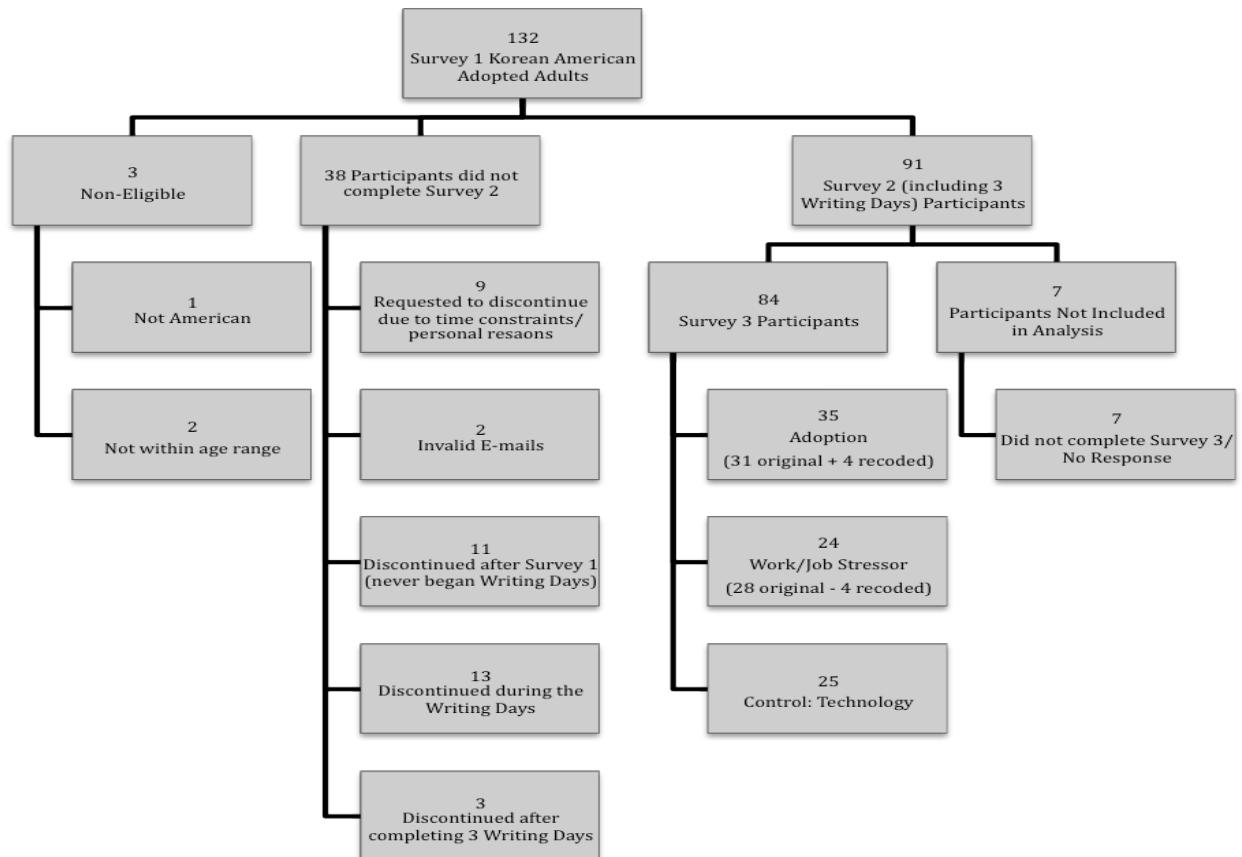
Regarding searching behavior, 43 participants (51.2%) had searched for their birth family and 41 (48.8%) had never formally searched.¹ Of these participants who had searched, 20 (46.5%) had met a member of their birth family. Among these 20

¹ There is limited research on the number of adult international adoptees that search for birth family. One large (N = 1,417) study conducted in The Netherlands found that 32% of participants (ages 24-30) have searched for birth family (Tieman, van der Ende, & Verhulst, 2008).

participants, 2 (10%) maintain *weekly* to *daily* contact, 9 (45%) maintain *monthly* contact, and 9 (45%) maintain contact on a *yearly* or *less than once per year* basis. Regarding relationship with birth family, 8 (40%) stated that they are *dissatisfied* to *strongly dissatisfied* with their relationship with their birth family and 4 (20%) stated that they *satisfied* to *strongly satisfied* with their relationship (3 participants were neutral and 4 participants did not answer this question). Of the participants who have never searched, 20 (50%) stated that they will *likely* to *very likely* search for birth family someday and 19 (48%) of participants stated that they will *never* to *unlikely* search for birth family (1 participant did not answer the question).

The writing condition *Birth Family & Culture* consisted of 31 participants, the writing condition *Stressor* consisted of 28 participants, and the control condition *Technology* consisted of 25 participants. A coding team, consisting of the primary researcher and her research assistant, read through and coded the writings of the 84 participants. This coding team was not masked to condition as this coding was done as a manipulation check in order to determine if the participants were writing about the assigned topics. All 25 participants in the *Technology* condition wrote about technology. Six participants assigned to the *Stressor* condition wrote about adoption related topics. Of these participants, two discontinued the study after completing the writing. The remaining four were recoded in the *Birth Family & Culture* condition (for a more detailed description of the recoding process, see: Manipulation Check). The *Birth Family & Culture* condition was recoded to consist of 35 participants, and the *Stressor* condition was recoded to consist of 24 participants. The conditions were similar in terms of gender, $\chi^2(2) = .24, p = .89$ and mean age, $F(2, 81) = .605, p = .55$.

Figure 1. Diagram of participants included in analyses



Measures and Materials

All measures were administered online (see Appendix A - L).

Demographic Questionnaire. Participants completed a demographic questionnaire to obtain biographical data, including age, gender, relationship and family information. Family questions assessed current family, adoptive family, and information

about birth family (when known). These questions inquired about current level of contact with adoptive parents and satisfaction with their relationship with their adoptive parents (and birth family when applicable). There were also general questions about adoption (e.g., age at adoption, adoption agency), level of Korean language ability, and birth family searching information. Regarding birth family searching, participants were asked about searching behavior, ways in which the search was conducted, likelihood of future searching, and whether the participant was reunited with birth family.

Adoption Specific Questionnaires. Three separate measures were used to assess the participant's adoption experience, including the Birth Family Thoughts Scale (Lee, Hu, & Kim, 2013; BFTS), Adoptive Identity Scale (AIS; Reichwald, 2012), and the Preoccupation with Adoption Scale (PAS; originally included as a subscale in Colaner's Adoptive Identity Scale, 2011). For the sake of clarity, AIS will refer to Reichwald's Adoptive Identity Scale, and PAS will refer to Colaner's subscale. Birth family thoughts was assessed with a 8-item scale that included items such as, wondering whether birthparents think about the adoptee, imagining what the birthparents looks like, and imagining what it would have been liked to be raised in South Korea. Participants rated items on five point Likert scale from *strongly disagree* (1) to *strongly agree* (5). All eight items loaded on a single factor and Cronbach's α for this sample is .85 in Survey 1 and .93 in Survey 2.

Adoptive identity was assessed with the Adoptive Identity Scale. The AIS is a 14-item identity scale created specifically for adopted individuals. Ten items were adapted from the original Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992), and an additional four items were added to address adoptee specific aspects of identity.

These items include: “I don’t like that I’m adopted”; “Being adopted is an important reflection of who I am”; “Other adoptees embarrass me”; “I identify as an adoptee.” The AIS addresses adoptive identity dimensions of clarity and pride. Items include questions about having a “clear sense of what being adopted” means, and feeling “good about being an adoptee.” An earlier version of the AIS was presented during the focus group conducted for this study and two items (“I am happy I’m adopted” and “Other adoptees embarrass me”) were revised to “I am comfortable being adopted” and “I feel comfortable around other adoptees” based on participants’ feedback. In this study, participants rated the degree to which they agreed with the statement on a four point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (4). Cronbach’s α for this sample is .81 in Survey 1 and .83 in Survey 3.

The Preoccupation with Adoption Scale is a five-item scale that focuses on an overemphasis on adoption in one’s overall sense of self and a lack of integration with other parts of one’s identity. Items included the belief that adoption is the most important aspect of the individual, others cannot understand the individual apart from the adoption status, and that adoption affects all aspects of the individual’s identity. Previous research with the PAS found that it correlated with less positive affect and lower self-esteem (Colaner, 2011). In this assessment, participants rated the degree to which they agreed with the statement on a seven point Likert scale ranging from *not at all true of me* (1) to *absolutely true of me* (7). Cronbach’s α for this sample is .82 in Survey 1 and .88 in Survey 3.

Ethnic identity. Ethnic identity was assessed to gain further understanding of the sample and provide concurrent validity with BFTS. Ethnic identity measured with the

Ethnic Identity Scale (EIS; Umana-Taylor, Yazedijian, & Bamaca-Gomez, 2004). The EIS is an 18-item self-report measure that is comprised of three subscales: exploration, affirmation, and resolution. After explaining the meaning of ethnicity and presenting examples, participants were able to self-identify (write in) their own ethnicity. Items were measured with a four point Likert scale that ranged from *does not describe me at all* (1) to *describes me very well* (4). The exploration subscale focuses on the way in which individuals have explored their ethnic identity through participation in activities (e.g., reading books, attending activities). The affirmation subscale focuses on the extent individuals feel positive with their ethnic identity membership, and the resolution subscale focuses on the degree of clarity and meaningfulness of their ethnicity. The distinct subscales allow researchers to examine the associations between each aspect of ethnic identity separately. Cronbach's α for the subscales exploration, affirmation, and resolution was .93, .82, and .89 respectively.

Emotional Regulation. Emotional regulation was measured with the 10-item Emotional Regulation Questionnaire (ERQ; Gross & John, 2003). The ERQ is designed to measure two ways in which individuals regulate their emotions: cognitive reappraisal (five items) and expressive suppression (five items). Individuals who utilize a high amount of cognitive reappraisal tend to experience and express more positive emotion and less negative emotion, whereas individuals who utilize expressive suppression experience and express less positive emotion, and experience more negative emotion. Participants responded to items on a seven point Likert scale ranging *strongly disagree* (1) to *strongly agree* (7). Items included: "When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about" and "I keep my emotions

to myself.” For this sample, cognitive reappraisal and expressive suppression Cronbach’s α was .83 and .83 respectively in Survey 1, .85 and .81 in Survey 2, and .86 and .83 in Survey 3.

Previous research has found that expressive suppression is related to magnified blood pressure and inhibited relationship formation (Butler et al., 2003). Expressive suppression has been associated with worse interpersonal functioning and negative well-being (Gross & John, 2003).

Rumination. Rumination was measured with the reanalyzed two factor, 10-item Ruminative Responses Scale, which is a subscale of the Response Style Questionnaire (Nolen-Hoeksema, 1991). The RRS assesses individuals’ response styles when feeling depressed or sad. Though there are other measures of rumination that do not examine response styles to sadness, this study was interested in participant’s response styles to distressing stimuli. In a previous study, scores on the RRS had high internal consistency (Nolen-Hoeksema, 1991). Using Treynor, et al.’s (2003) recommended subscales of the RRS, this measure assessed two aspects of rumination, specifically brooding and reflective pondering. Five items measured brooding (e.g., “I think ‘What am I doing to deserve this?’”) and five items assessed reflective pondering (e.g., “I go away by myself and think about why I feel this way”). Previous research has indicated that brooding, but not reflection, predicted depressive symptoms (Schoofs, Hermans, & Raes, 2010). For this sample, Cronbach’s α was .83 for brooding and .74 for reflective pondering in Survey 1 and .88 for brooding and .76 for reflective pondering in Survey 3.

Affect. Affect was assessed with the *Positive and Negative Affect Schedule* (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS consists of 10 positive

(*interested, excited, strong, enthusiastic, alert, proud, inspired, determined, attentive, active*) and 10 negative (*distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, afraid*) types of affectivity. The PANAS has demonstrated adequate reliability and concurrent validity with other reputed mood scales (Watson, et al., 1988). Participants indicated on a 5-point scale (1 = Very slightly, 5 = Extremely) the degree to which they generally felt each mood state within the past week. For this sample, Cronbach's α was .92 for positive items and .90 for negative items in Survey 1, .93 for positive items and .87 for negative items in Survey 2, and .92 for positive items and .91 for negative items in Survey 3. Similar to previous studies (e.g., Lee, Dean, & Jung, 2008), an affective balance score was also calculated by subtracting the negative subscale from the positive subscale.

Psychological Distress. Psychological distress was measured by the Brief-Symptom Inventory-18 (BSI-18; Derogatis, 2001). The BSI-18 is a brief self-report questionnaire that measures distress based on three psychological dimensions: somatization (e.g., feeling weak in parts of body), depression (e.g., feelings of loneliness), and anxiety (e.g., feelings of restlessness). It was designed to be used with both clinical and community populations. This assessment specifically asked participants to rate how bothered they have been over the past seven days on a 5-point Likert scale ranging from *no distress* (0) to *extreme distress* (4). For this study, the sum of the items (Global Severity Index; GSI) was used to provide overall symptom scores.

Derogatis (2001) found a test-retest reliability of .90 for the scores on the original measure and demonstrated validity with similar dimensions of the Minnesota Multiphasic Personality Inventory. The subscales of the BSI-18 have been found to be highly

correlated with the original 53-item measure and evidence for validity of the factor structure of the scores on the BSI-18 have been found in diverse populations (Derogatis, 2001). Cronbach's α for this sample is .93 in Survey 1, Survey 2, and Survey 3.

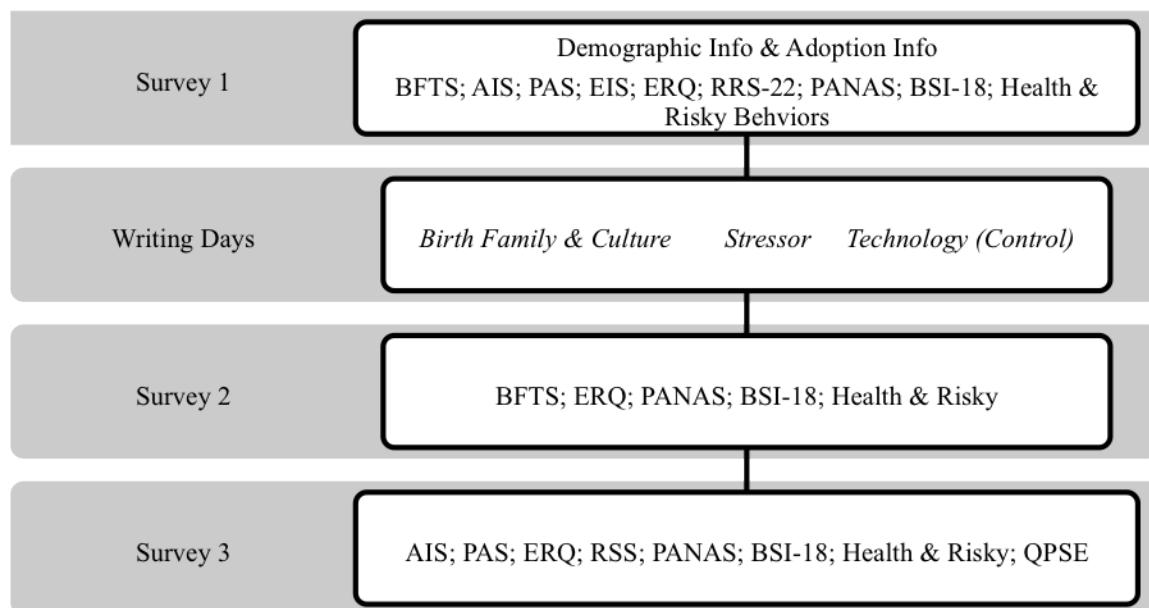
Health and Risky Behavior. In addition to the BSI-I8, participants were asked four separate health related items. Participants indicated, within the past month (range: 0-31), the amount of visits to a doctor/health center, days sick, days of restricted activity due to physical illness, and nights experiencing insomnia. They were also asked three questions about risky behaviors, including the number of days within the past month that they engaged in cigarette use, alcohol use, and drug use. These items, regarding health and risky behavior, were analyzed separately for each item. Analyses focusing on health and risky behaviors used responses from Survey 1 and Survey 3. Survey 2 utilized a different time period and asked participants to respond to questions "within the past week." These data were not utilized for in this study due to this discrepancy in time period.

Participants' Subjective Experience. A number of expressive writing studies assessed the participant's experience of the writing sessions with the Questionnaire on Participant's Subjective Experiences (QPSE; Pennebaker, Colder, & Sharp, 1990). The QPSE asked participants to rate their experience on a 7-point Likert scale ranging from *not at all* (0) to *a great deal* (7). Items included whether participants have thought about the writing, the level of impact the writing had on the participant, and whether the writing sessions were valuable or meaningful.

Procedures

Figure 2 outlines the overall study procedures. Participants were directed to a YouTube video that described the components of the study and were able to access the online study via a link on the webpage. Interested participants were directed to an electronic consent form. The consent form informed participants about the background of the study, procedures, benefits (including the random prizes), and potential risks. Following the online consent process, participants were asked whether they met eligibility requirements for this study; non-eligible participants were redirected to the final page thanking them for their willingness to participate.

Figure 2. Procedures



Time One Procedures: Survey 1. Eligible participants completed an initial demographic and intake form that included basic demographic information (including e-mail), general information about adoption (including items about contact with adoptive and birth parents), and birth search information. In this initial survey, Survey 1,

participants also completed the PANAS, BSI-18, BFTS, PAS, AIS, ERQ, RRS, EIS, Health questions and Risky Behavior questions. The day after completion of Survey 1, participants were assigned a randomized four-digit ID number that they used throughout the study (including during the writing sessions). Participants were then randomly assigned to one of the three groups: *Birth Family & Culture*, *Stressor*, or *Technology* (control) group. Although the topics differed, in all three conditions participants were asked to write continuously for 15 minutes, not to worry about spelling/grammar, and not to speak to other participants about the writing topic. Participants received a website link via their e-mail that directed them to their writing topic. This page included instructions about completing the writing exercise and a timer so the participant could time the 15 minutes of writing. Upon submission of the writing entry, the primary researcher was notified electronically. Each day and topic were unique website links and the primary researcher and her research assistant tracked each participant online so the participant would receive the appropriate writing exercise. After three days of inactivity, a reminder was sent to the participant's e-mail encouraging the participant to continue the study.

Writing Conditions: Birth Family & Culture. The *Birth Family & Culture* condition was a variation on the original Pennebaker and Beall (1986) writing prompt. Participants were asked to write about birth family and birth culture, specifically to write about their very deepest thoughts and feelings about birth family and birth culture as an adopted Korean American. Similar to previous writing studies, the participants were instructed not to worry about spelling, sentence structure, and grammar. They were instructed to continue writing for the full 15 minutes. Day 1 and 2 of writing were very similar prompts, and on Day 3, the participants are asked to reflect on their previous

responses and to write about how this writing may have changed their ideas about how they view their life. Participants were sent the next writing prompt at the completion of the current writing exercise.

Writing Condition: Stressor. The stressor group was similar to the adoption-focused group, except this group was asked to write about a stressor at either work or school. If participants were unemployed, they were instructed to write about the stress of not having a job. All other instructions were similar to the *Birth Family & Culture* writing group.

Writing Condition: Technology (control). The control group was asked to write about the impact technology has had on society. This topic was chosen because it was an intellectual and impersonal topic that would most likely cause only a minimal emotional response. Participants were instructed to “not write about personal topics,” including examples from family and friends. The first day participants were asked to write about the way technology has significantly impacted the world; the second day they were asked to write about the best advances in technology over the past 100 years; the final day they were asked to write about how technology might affect society in the next 100 years.

Time 2 Procedures: Survey 2. Within 24 hours after participants submitted the final writing exercise, they were sent a website link for the first follow-up survey, Survey 2. Survey 2 did not include any demographic information as participants were identified through their four-digit ID number. Survey 2 included one item that asked participants to describe the topic they wrote about as a manipulation check. This survey also included

PANAS, BSI-18, BFTS, and ERQ. At the end of Survey 2, participants were notified that they would be contacted one month later for the final survey.

Time 3 Procedures: Survey 3. One month after the last writing exercise, participants were e-mailed a website link for the final survey, Survey 3. Survey 3 was similar to Survey 1 and included PANAS, BSI-18, PAS, AIS, ERQ, RRS, Health and Risky Behavior questions. It also included a brief section regarding the participant's experience of the study, including the QPSE, questions about the study (e.g., how did you hear about this study?), and a space for final comments.

Analyses

Focus Group and Pilot Testing. Prior to recruitment of the sample, the primary researcher conducted a focus group with eight Korean American adult adoptees (February 2012). This focus group lasted 1.5 hours and was held in a public library in Minneapolis. This group was approved by the IRB and participants were informed and filled out consent forms. The primary researcher led the group and her research assistant took notes on the conversation. Participants were invited by the primary researcher in order to get a diverse group of adult Korean adopted individuals. The primary researcher had varying levels of familiarity with the individuals, with three participants having little contact with the researcher beyond introductions. Nine individuals were invited and one of these participants cancelled due to illness. Of the eight participants, there were three females, four males and one transgender individual. Four of these participants searched and found birthparents (two participants were reunited with biological fathers only, one was reunited with a biological mother only, and one with both biological parents), one participant searched and could not find birth family, and three participants never searched

for birth family. The goals of the focus group were to a) conduct the writing sessions with participants b) discuss their reaction to the Adoptive Identity Scale and the Birth Family Thoughts Scale, and c) discuss the concept of loss for adoptees.

The focus group discussed a number of topics, with the most prevalent topics surrounding trust within the community, the perpetual “infantilization of adoptees” as “forever children” in research, and the needs of adult adoptees. The participants expressed frustration at the number of studies conducted on adoptees (specifically mentioning the University of MN) and feelings of “being used” for research purposes. One participant asked: “How is this study going to help our community?” Due to this focus group, the primary researcher created a YouTube video to establish a connection with potential participants and provide more background about the identity of the researcher and the goals of the study. Items of the BFTS and the wording of items in the AIS were also adapted based on feedback from this focus group. Below is an excerpt from the focus group writing prompt that helped clarify the understanding of birth family thoughts:

“I think about my mom everyday. She’s always lingering in the background. She’s over present. I’m not sure if this is a healthy thing, but her story, how it reflects in relation to other single mothers, drives all that I do on a professional level. At the same time, the thought of her can be crippling.” --- 37-year-old adoptee

The primary researcher also conducted an online pilot study with six participants (April, 2012; three female, three male). Two of the participants were also part of the focus group. The goal of this pilot study was to test the logistical procedures of the study and acquire feedback regarding the online surveys. As revisions were made to the online survey after the pilot study, these participants were excluded from the final analyses.

Independent and Dependent Variables

Independent variables included in analyses are Writing Condition (Adoption, Stressor, Control), BFTS, and RRS. BFTS was examined a potential moderator and ERQ was examined a potential mediator. Dependent variables included PANAS (controlling for Time 1 scores), Positive Affect, Negative Affect, BSI-18 (controlling for Time 1 scores), four Health questions, and three Risky Behavior questions.

Missing Data

There were 45 participants excluded from the analyses as they did not complete the full study. In comparing the 45 participants excluded from analysis with the 84 participants who completed the full study, the groups had significant differences in the amount of positive affect and negative affect. Specifically, included participants demonstrated significantly lower positive affect mean scores relative to excluded participants, $t(114.14) = -1.09, p = .044$ (included participants: $M = 2.60, SD = .50, N = 84$; excluded participants: $M = 2.69, SD = 0.38, N=45$). Included participants also demonstrated significantly higher negative affect mean scores relative to excluded participants, $t(111.75) = -.98, p = .050$ (included participants: $M = 2.71, SD = .50, N = 84$; excluded participants: $M = 2.79, SD = 0.37, N=45$). Cohen's effect size value for positive affect mean scores ($d = .20$) and negative affect mean scores ($d = .07$) suggested low practical significance.

Missing data (with a cutoff of no more than 10% missing) was imputed on standardized scales through the expectation-maximization (EM) algorithm. EM is an iterative maximum-likelihood procedure in which a function for the expectation of the log-likelihood is evaluated using expectation and maximization steps. All missing data

was imputed. Imputation of missing items and scale scores did not exceed 5% of the cases, except in the case of BSI-18 in Survey 1, which had 10% (N = 9) of cases missing. These 9 participants had no more than one question missing from the BSI-18.

Manipulation Check

A coding team, consisting of the primary researcher and research assistant, assessed whether participants followed instructions for their assigned condition. The coding team, who were not masked to condition, rated each writing exercise based on themes and emotionality. The level of emotionality was rated on a 3-point scale, with 1= not emotional, 2= somewhat emotional, and 3= very emotional. The most emotional condition was the *Birth Family & Culture* condition ($M = 2.23$), followed by the *Stressor* condition ($M = 1.98$), and lastly the *Technology* condition ($M = 1.00$). These differences were significant, $F(2,81) = 46.18, p < .00$. As a check for the quantitative analyses, the coding team focused on whether or not participants wrote about their assigned topic. Though there were differing themes in the *Birth Family & Culture* condition, participants in this condition wrote about something related to the birth family, culture, or adoption. In the *Stressor* condition, 18 participants mentioned something related to adoption within the writing. Among these 18 participants, six participants were coded as having written about birth family, culture or adoption rather than their assigned writing topic. These participants did not just mention adoption related issues, but wrote about how adoption has impacted their life. For example, one participant in the *Stressor* condition wrote:

“Lately I've been thinking about my social anxiety. Specifically, I often have trouble interacting with groups, especially of people I don't really know. I think some of it comes from my adoption, in that I've always been worried about fitting in with a group, since I've been seen as an "other" from as long as I can remember.”

Another participant, after discussing career issues wrote:

"I learned to seek opportunity, not be afraid of failure, and to never give up. I attribute many of these things to being adopted. First, I do feel a certain amount of "owing" my birth parents - not sure I'm describing that feeling correctly because it's not really that I feel I owe them. I have a strong desire though to live a good life, a productive life. I choose to believe they sacrificed a lot to give me up for adoption to have better opportunities perhaps so I feel compelled to be productive."

Of the six participants in the *Stressor* condition that wrote about adoption issues, two dropped from the study after the writing, and the four remaining were recoded. Every participant in the *Technology* condition wrote about technology, though there were varying writing styles and depth to the writings. Future analyses will explore the writing samples in more detail.

The writing sessions were also assessed for word count using Microsoft Word word count function. There were two cases removed as they were identified as outliers (word count more than double the average). After removing these two cases, the mean number of words for the *Technology* condition was 935, for the *Stressor* condition the mean was 1671, and the mean word count for the *Birth Family & Culture* was 1390 words. These differences were significant, $F(2,81) = 12.43, p < .00$.

CHAPTER 4: RESULTS

Descriptive Statistics

The data were screened visually using scatterplots for outliers. One outlier was identified. This was an individual who indicated she had a previous injury and her data were removed from analyses that used the variable "activity restricted due to illness." This participant's data on other health related questions were consistent with the sample

and therefore not removed. Also, for questions regarding cigarette smoking and illegal drugs, there were only 21 participants who stated that they smoked cigarettes and 11 participants who stated that they used illegal drugs.

A series of one-way ANOVAs were performed to test for group differences by writing condition on birth family thoughts, rumination, emotion regulation, positive and negative affectivity, psychological distress and physical health symptoms at Survey 1 (before the intervention). A one-way ANOVA was also performed to test group differences by writing condition on total number of days to complete the entire study. There were significant differences identified for psychological distress, $F(2,81) = 3.02, p = .05$, and the rumination subscale brooding, $F(2,80) = 3.04, p = .05$, at Survey 1. Specifically, the *Birth Family & Culture* condition had a higher amount of psychological distress ($M = 1.71; SD = .65$) than the *Stressor* condition ($M = 1.37; SD = .32$; Cohen's $d = .76$) and *Technology* condition ($M = 1.61; SD = .52$; Cohen's $d = .17$). The *Stressor* condition also had a higher amount of psychological distress than the *Technology* condition (Cohen's $d = .56$). On the brooding subscale of the RRS, the *Technology* condition ($M = 2.61; SD = .71$) had a higher amount of brooding than the *Birth Family & Culture* ($M = 2.46; SD = .87$; Cohen's $d = .19$) and *Stressor* ($M = 2.08; SD = .72$; Cohen's $d = .75$). The *Birth Family & Culture* condition had a higher amount of brooding than the *Stressor* condition (Cohen's $d = .48$) condition. The remaining variables were not significantly different by writing condition.

Intercorrelations for measures (scales) at Survey 1 are presented in Table 3. Birth family thoughts was significantly related to both rumination subscales: brooding (.30), and reflective pondering (.34). Birth family thoughts was also significantly correlated

with ethnic identity exploration (.31). In addition to birth family thoughts, ruminative brooding was significantly related to ruminative reflective pondering (.78) and psychological distress (.54). Brooding was also related to adoption preoccupation (.39) and emotion regulation expressive suppression (.24). Also, brooding was negatively related to the following measures: adoptive identity (-.21), emotion regulation reappraisal (-.26), and ethnic identity affirmation (-.29). In addition to the relationship to ruminative brooding, expressive suppression was related to the other rumination subscale, reflective pondering (.21). Expressive suppression was also moderately negatively related to adoptive identity (-.31), emotion regulation reappraisal (-.25), ethnic identity exploration (-.24), and ethnic identity resolution (-.34).

Table 2

Intercorrelations for Measures (scales) at Survey 1

		1	2	3	4	5	6	7	8	9	10	11	12	13
1. Birth Family Thoughts	Pears on <i>r</i>	1	.20	-.11	-.04	.06	.30**	.34**	.31**	.15	.12	.14	.10	.12
2. Adoption Preoccupation	Pears on <i>r</i>		1	.17	-.04	-.07	.39**	.39**	.16	.16	-.07	.31**	.17	.20
3. Adoptive Identity	Pears on <i>r</i>			1	.40**	-.32**	-.22*	-.26*	.37**	.60**	.52**	-.21	.16	.13
4. Emotional Regulation: Reappraisal	Pears on <i>r</i>				1	-.25*	-.26*	-.26*	.25*	.34**	.37**	-.30**	.29**	.24*
5. Emotional Regulation: Expressive Suppression	Pears on <i>r</i>					1	.24*	.22*	-.24*	-.34**	-.16	.02	-.03	-.02
6. Ruminination: Brooding	Pears on <i>r</i>						1	.78**	-.06	-.19	-.29**	.54**	.09	.15
7. Ruminination: Reflective pondering	Pears on <i>r</i>							1	-.10	-.13	-.37**	.43**	.06	.12
8. Ethnic Identity: Exploration	Pears on <i>r</i>								1	.63**	.37**	-.06	.25*	.22*

9. Ethnic Identity: Resolution	Pears on <i>r</i>	1	.43**	-.17	.15	.12
10. Ethnic Identity: Affirmation	Pears on <i>r</i>	1	-.34**	-.01	-.04	
11. Psychologic al Distress	Pears on <i>r</i>	1	.35**	.44**		
12. Positive Affect	Pears on <i>r</i>	1		.99**		
13. Negative Affect	Pears on <i>r</i>	1				

Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. N = 84.

Participants also completed the QPSE to assess their experiences of the writing sessions. As the variables may be related to each other, a MANOVA was conducted to assess whether participants differed in their responses to the QPSE (at Survey 3) based on their writing condition. The independent variable was the recoded conditions and the dependent variables included seven questions about the writing experience, such as how much participants had thought about the writing, talked about the writing, the extent to which participants experienced a positive long-lasting effect of writing, the extent to which participants experienced negative long-lasting effects of writing, how happy participants have felt since the writing sessions, how sad or depressed participants had felt since the writing sessions, and how valuable or meaningful participants perceived the writing experiment. Means and standard deviations for all seven Likert scale items in the QPSE are reported in Table 2.

The results indicated a significant main effect by condition, Hotelling's Trace = .385, $F(14, 148) = 2.036, p = .019$. Univariate analyses revealed significant main effects for thinking about the writing experience, $F(2, 81) = 5.532, p = .006$, positive long-lasting effects, $F(2, 81) = 6.144, p = .014$, and the degree of value or meaning of the experiment, $F(2, 81) = 7.949, p = .001$. There were significant between group differences found, with the *Birth Family & Culture* group demonstrating the largest effect, the *Stressor* condition the next largest, and the *Technology* condition demonstrating the smallest effect. There were also significant between group pairwise comparisons between *Birth Family & Culture* and *Technology* for thinking about the writing experience ($p = .00$), positive long-lasting effects ($p = .00$), and the degree of value or meaning of the experiment ($p = .00$).

Table 3

MANOVA Results by Condition for QPSE

Variable	Birth Family & Culture ^a (N = 35)	Stressor ^b (N = 24)	Technology ^c (N = 25)	Sig. Between Group p- value	Cohen's d
	M (SD)	M (SD)	M (SD)		
Thought about writing	3.54 (1.72)	3.08 (1.71)	2.16 (1.24)	.01**	a, b: .27 a, c: .91 b, c: .63
Talked about writing	2.06 (1.55)	2.29 (1.46)	1.64 (.91)	.24	
Positive Impact	3.80 (1.71)	3.13 (1.54)	2.36 (1.38)	.00**	a, b: .41 a, c: .93 b, c: .54
Negative Impact	1.60 (1.24)	1.50 (.89)	1.32 (.69)	.57	
Felt Happy (since study)	4.83 (1.34)	5.00 (1.22)	4.88 (1.57)	.72	
Felt Depressed (since study)	2.94 (1.47)	2.46 (1.25)	3.32 (1.82)	.15	
Valuable or Meaningful	4.66 (1.71)	3.58 (1.74)	2.88 (1.76)	.00***	a, b: .64 a, c: 1.05 b, c: .41

Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Hypotheses

Hypothesis 1 predicted that participants in the *Birth Family & Culture* condition would exhibit less psychological distress, negative affect, physical health symptoms, and risky behaviors, and more positive affect at the one-month follow-up as compared to participants in the *Stressor* and *Technology* conditions (Survey 3). As the intervention was tailored specifically for adult adopted individuals, it was hypothesized that the *Birth Family & Culture* condition would exhibit the most change over time, followed by the *Stressor* condition and then the *Technology* condition.

Repeated measures ANOVAs (RM ANOVA) with Survey 1, Survey 2, and Survey 3 were conducted to examine changes in psychological distress, affective balance, positive affect, and negative affect by condition and time. RM ANOVA results are presented in Table 4a. There were significant main effects by time on the following dependent variables: affective balance, $F(2, 80) = 50.85, p < .001$, positive affect, $F(2, 78) = 41.24, p < .001$, and negative affect, $F(2, 80) = 1.45, p < .001$. From Survey 1 to Survey 3, participants experienced more positive affect and less negative affect. There was no significant main effect by time on psychological distress. There also were no significant main effects by condition or time X condition interaction effects on psychological distress, affective balance, positive affect, or negative affect, with $p > .05$.

For the physical health symptoms and risky behaviors questions, RM ANOVAs were conducted to examine change by condition and time (Survey 1 and Survey 3). Survey 2 data were not used as the scale for Survey 2 was “within the past week,” while the scale for Survey 1 and Survey 3 was “within the past month.” Table 4a and 4b report the means and standard deviations by time and condition for the dependent variables. Results indicated that visits to the health center declined over time, $F(1, 81) = 9.85, p < .00$, but there was not a significant main effect by condition or time X condition interaction effect. There was a significant time X condition interaction effect for cigarette smoking, $F(2, 81) = 4.41, p < .05$. From Survey 1 to Survey 3, participants in only the *Stressor* condition ($N = 6$) significantly decreased the amount of cigarettes smoked within the past month of the survey. Specifically, participants in the *Stressor* condition smoked on average four less cigarettes in past month from Survey 1 ($M = 12.50; SD = 4.63$) to Survey 3 ($M = 8.50; SD = 4.59$). Cohen’s effect size ($d = .94$)

suggested a large practical significance. However, the small overall number of smokers in the sample (*Birth Family & Culture*: 7, *Stressor*: 6, *Technology*: 8) limit the generalizability of this finding.

Based on RM ANOVA pairwise comparisons, there were significant differences in Survey 3 between the different conditions. In examination of the between group pairwise comparisons, there was a significant difference on psychological distress in Survey 3 between *Birth Family & Culture* (1.65) and *Stressor* (1.29) conditions (Mean Diff= .347; $p = .038$). Using within group pairwise comparisons, there was also a significant decrease in the visits to the health center/physician for *Stressor* condition ($p = .027$) from Survey 1 (.33) to Survey 3 (.00) and *Technology* condition ($p = .057$) from Survey 1 (.32) to Survey 3 (.04).

Table 4a

Means and Standard Deviations for Dependent Variables at Survey 1, Survey 2, and Survey 3

Variable	<i>Birth Family & Culture</i>				<i>Stressor</i>				<i>Technology</i>	
	(N=35)		(N= 24)		(N=25)					
Time	Survey 1	Survey 2	Survey 3	Survey 1	Survey 2	Survey 3	Survey 1	Survey 2	Survey 3	
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	
Affective Balance	.10 (.07)	1.04 (1.09)	1.28 (1.12)	.12 (.06)	1.32 (.87)	1.61 (.92)	.09 (.08)	.97 (1.25)	1.10 (1.40)	
Positive Affect	2.77 (.51)	3.23 (.68)	3.44 (.70)	2.65 (.38)	3.40 (.62)	3.40 (.81)	2.68 (.59)	3.14 (.89)	3.28 (.89)	
Negative Affect	2.68 (.52)	2.19 (.58)	2.15 (.76)	2.53 (.37)	2.03 (.57)	1.77 (.50)	2.59 (.56)	2.16 (.68)	2.18 (.92)	
BSI-18	1.71 (.65)	1.63 (.54)	1.65 (.65)	1.37 (.32)	1.43 (.46)	1.29 (.29)	1.61 (.52)	1.62 (.65)	1.54 (.54)	

Note. Effect Sizes (Cohen's d)

Affective Balance: S1-S2: 1.34; S2-S3: .19; S1-S3: 1.51

Positive Affect: S1-S2: .84; S2-S3: .17; S1-S3: 1.00

Negative Affect: S1-S2: .85; S2-S3: .13; S1-S3: .88

Table 4b

Means and Standard Deviations for Dependent Variables at Survey 1 and Survey 3

Variable	<i>Birth Family & Culture</i>		<i>Stressor</i>		<i>Technology</i>	
	(N=35)		(N= 24)		(N=25)	
Survey 1 and Survey 3	Survey 1 <i>M</i> (<i>SD</i>)	Survey 3 <i>M</i> (<i>SD</i>)	Survey 1 <i>M</i> (<i>SD</i>)	Survey 3 <i>M</i> (<i>SD</i>)	Survey 1 <i>M</i> (<i>SD</i>)	Survey 3 <i>M</i> (<i>SD</i>)
Visits Health Center/ Physician	.43 (.95)	.29 (.79)	.33 (.57)	.00 (.00)	.32 (.63)	.04 (.20)
Days Sick	1.29 (1.70)	1.06 (1.73)	.63 (1.24)	.75 (1.68)	1.64 (3.45)	.96 (2.15)
Activity Restricted	.91 (1.62)	.76 (1.47)	.25 (.53)	.58 (1.61)	.50 (1.21)	.46 (.88)
Insomnia	3.41 (5.10)	3.46 (6.28)	1.71 (5.13)	.96 (3.47)	3.14 (5.53)	3.06 (4.56)
Alcohol	5.81 (6.92)	6.29 (7.29)	7.00 (8.14)	5.39 (5.62)	5.92 (6.84)	6.48 (7.90)
Drugs	1.21 (5.04)	.56 (1.80)	.38 (.92)	.17 (.57)	.08 (.28)	.04 (.20)
Cigarettes	3.14 (8.56)	3.23 (8.74)	3.13 (7.39)	2.17 (5.67)	2.28 (6.22)	2.40 (6.53)

Note. N = 84

Hypothesis 2a predicted that birth family thoughts would be positively correlated with a ruminative coping style. Correlations using the total sample across all conditions are presented in Table 5. Consistent with hypothesis 2a, birth family thoughts in Survey 1 were moderately correlated with brooding ($r = .26$), and reflective pondering ($r = .34$) in Survey 1 and brooding ($r = .30$) and reflective pondering ($r = .34$) in Survey 3. Birth family thoughts in Survey 2 were correlated with reflective pondering ($r = .22$) in Survey

1 and reflective pondering ($r = .24$) in Survey 3. Additionally, the correlation between birth family thoughts in Surveys 1 and 2 was $.67$, suggesting good stability over time for the measure.

Table 5

Correlations between Birth Family Thoughts and Rumination

		Brooding S1	Reflective pondering S1	Brooding S3	Reflective pondering S3
Birth Family Thoughts S1	Pearson r	.26*	.34**	.30**	.34**
Birth Family Thoughts S2	Pearson r	.16	.22*	.20	.24*

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. N=84

Hypothesis 2b predicted that birth family thoughts would be correlated with greater perceived psychological distress, less positive/more negative affect, and a greater amount of health problems and risky behaviors. Correlations are presented in Table 6. Consistent with hypothesis 2b, Survey 1 birth family thoughts was positively correlated with insomnia in Survey 1 ($r = .33$), negative emotions at Survey 2 ($r = .22$), insomnia at Survey 2 ($r = .29$), and insomnia in Survey 3 ($r = .34$). There was a negative correlation between birth family thoughts in Survey 1 and drug use in Survey 3 ($r = -.26$). Survey 2 birth family thoughts was also positively correlated with Survey 2 negative affect ($r = .29$), Survey 2 psychological distress ($r = .27$), Survey 2 insomnia ($r = .31$) and Survey 3 insomnia ($r = .21$). As these correlations are across time points (Survey 1, Survey 2, and Survey 3), these findings may reflect longitudinal effects of birth family thoughts on psychological and physical health.

Table 6

Correlations between Birth Family Thoughts and Dependent Variables

		Affective Balance S1	Positive Affect S1	Negative Affect S1	BSI-18 S1	Visits Health Center S1	Days Sick S1	Activity Restricted S1	Insomnia S1	Alcohol S1	Drugs S1	Cigarettes S1
Birth Family Thoughts S1	Pearson r	-.13	.12	.13	.10	.18	.11	.07	.33**	.07	-.04	-.08
Birth Family Thoughts S2	Pearson r	-.10	.26*	.26*	.23*	.22	.08	-.02	.26*	.05	-.08	-.00
		Affective Balance S2	Positive Affect S2	Negative Affect S2	BSI-18 S2	Visits Health Center S2	Days Sick S2	Activity Restricted S2	Insomnia S2	Alcohol S2	Drugs S2	Cigarettes S2
Birth Family Thoughts S1	Pearson r	-.06	.11	.22*	.15	.05	.09	.08	.29**	-.04	.06	-.06
Birth Family Thoughts S2	Pearson r	-.07	.15	.29*	.27*	.18	-.04	.01	.31**	-.01	.12	.01
		Affective Balance S3	Positive Affect S3	Negative Affect S3	BSI-18 S3	Visits Health Center S3	Days Sick S3	Activity Restricted S3	Insomnia S3	Alcohol S3	Drugs S3	Cigarettes S3
Birth Family Thoughts S1	Pearson r	-.09	.04	.18	.08	.11	.08	.13	.34**	.08	-.26*	-.10

Birth Family Thoughts S2	Pearson r	-.06	.12	.20	.18	.07	.08	-.01	.21**	.05	-.08	-.02
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Note. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. N = 84

Hypothesis 3a predicted that birth family thoughts would moderate the relationship between the *Birth Family & Culture* condition and psychological outcomes. Specifically, participants in the *Birth Family & Culture* condition with greater birth family thoughts at Survey 1 would report less psychological distress at Survey 3 than participants in the *Birth Family & Culture* condition with lower birth family thoughts at Survey 1. Using Aiken and West's (1991) statistical procedure for testing moderation, multiple step hierarchical regression analyses were conducted. First, the writing conditions were dummy coded to produce dummy coded variables in which (a) *Birth Family & Culture* condition = 1 and all else = 0 and (b) *Stressor* condition = 1 and all else = 0. Secondly, the raw scale score for the moderator variable (birth family thoughts) was centered to reduce collinearity between the main effect and the interaction terms. The hierarchical regression was conducted in three steps: 1. the dependent variable at Survey 1 was entered as a control variable, 2. the centered independent variable and dummy coded variable were entered in the second step, 3 the interaction terms were entered in the third step. Contrary to the hypothesis, birth family thoughts did not moderate the relationship between the writing intervention and psychological distress, overall $R^2 = .61$, $\Delta R^2 = .00$, $p = .52$.

Hypothesis 3b also predicted that the moderator (birth family thoughts) would be mediated by expressive suppression, so that participants with a high amount of birth family thoughts and high amount of expressive suppression would exhibit a greater change in psychological distress. Due to the fact that there was not a significant moderation in hypothesis 3a and expressive suppression did not significantly predict psychological distress, these analyses were not conducted.

Post-Hoc Analyses

There were a number of exploratory post-hoc analyses conducted that examined (1) RM ANOVA of birth family thoughts by time and condition (2) adoption preoccupation as a moderator, (3) RM ANOVA of the change in adoption preoccupation by time and condition, and (4) RM ANOVA of the change in adoption preoccupation in each condition by birth family searching behavior.

Post-Hoc Hypothesis 1: RM ANOVAs for Birth Family Thoughts

Repeated Measures ANOVAs were conducted to examine change in birth family thoughts by condition and time. There were significant main effects by time on birth family thoughts [$F(1,80) = 55.52, p = .00$]. Birth family thoughts significantly decreased across all conditions from Survey 1 [*Birth Family & Culture* ($M=3.99; SD=.68$), *Stressor* ($M=3.57; SD=.85$), *Technology* ($M=3.83; SD=.61$)] to Survey 2 [*Birth Family & Culture* ($M=3.49; SD=.97$), *Stressor* ($M=3.00; SD=1.17$), *Technology* ($M=2.95; SD=1.11$)]. There were no significant main effects by condition or time X condition interaction effects.

Post-Hoc Hypothesis 2: Adoption Preoccupation and Moderation

Building on Colaner's (2011) research on the concept of adoption preoccupation, in which there is an overemphasis on adoption in the overall sense of self, I tested if adoption preoccupation would moderate the effects of the expressive writing condition on psychological outcomes. First, adoption preoccupation in Survey 1 and Survey 3 were highly correlated ($r = .80$). Second, adoption preoccupation was significantly correlated with brooding ($r = .39$) and reflective pondering ($r = .39$) in Survey 1. These correlations were slightly higher than the correlations between birth family thoughts and rumination

subscales. Third, similar to the findings of Colaner (2011), adoption preoccupation was moderately correlated with psychological distress at all three time points: Survey 1 ($r = .31$), Survey 2 ($r = .29$), and Survey 3 ($r = .22$). Adoption preoccupation was also moderately correlated with number of days ill ($r = .29$) in Survey 1, negative affect ($r = .29$) in Survey 2, visits to the health center/physician ($r = .25$) in Survey 3. Similar to birth family thoughts, adoption preoccupation was related to insomnia in Survey 1 ($r = .22$), in Survey 2 ($r = .22$), and Survey 3 ($r = .32$). These correlations suggest adoption preoccupation may reflect a form of rumination and thus possibly moderate the effects of the expressive writing intervention.

As adoption preoccupation was related to rumination and negative affect, it was hypothesized that adoption preoccupation would moderate the relationship between the *Birth Family & Culture* condition and psychological distress. Again using Aiken and West's (1991) procedure for testing moderation, separate hierarchical multiple regression analyses were performed. Initially, the independent variable (condition) was dummy coded, and the raw scale score for the moderator variable (adoption preoccupation) was centered to reduce collinearity between the main effect and the interaction terms. The hierarchical regression was conducted in three steps. First, the dependent variable (BSI-18) in Survey 1 was entered as a control variable. Next, the centered independent variable and dummy coded variable were entered in the second step. Finally the interaction terms were entered in the third step. There was a marginally significant R^2 in the final step that supports a small interaction effect, $\beta = .03$, $R^2 = .62$, $\Delta R^2 = .01$, $p = .10$. Simple slope analyses using simultaneous multiple regression were carried out to determine whether the regression slopes differed significantly from zero (Aiken & West,

1991). The slope significantly differed from zero when the conditional value was high ($R^2 = .12$), $F(3, 80) = 3.51, p = .02$ (adoption preoccupation $B = .18, sr^2 = .12, p = .05$); and when the conditional value was low (adoption preoccupation $B = .09, sr^2 = .12, p = .05$). For participants in the *Birth Family & Culture* condition, having a high level of adoption preoccupation slightly increased psychological distress.

Post-Hoc Hypothesis 3: RM ANOVAs for Adoption Preoccupation

Repeated measures ANOVAs with Survey 1 and Survey 3 were conducted to examine change by time and condition on adoption preoccupation. There were significant main effects by time, $F (1, 81) = 3.98, p = .05$. From Survey 1, (*Birth Family & Culture* [$M=3.56$; $SD=1.19$]; *Stressor* [$M=3.22$; $SD=1.29$]; *Technology* [$M=3.48$; $SD=1.54$]) to Survey 3 (*Birth Family & Culture* [$M=3.70$; $SD=1.46$]; *Stressor* [$M=3.54$; $SD=1.22$]; *Technology* [$M=3.61$; $SD=1.58$]), participants experienced a greater amount of adoption preoccupation over time. There were no significant main effects by condition or interaction time X condition effects.

Post-Hoc Hypothesis 4: RM ANOVAs for Adoption Preoccupation by Condition, Time, and Searching Behavior

Activated searching for birth family may be understood as a type of resolution seeking. In this sample, 43 participants (51.2%) had searched for their birth family and 41 (48.8%) had never formally searched. It was hypothesized that writing about birth family and culture would affect adoptees who had conducted a formal birth family search differently than adoptees who had never conducted a search. A RM ANOVA was conducted with time, condition, and birth family search (Yes/No) as the independent variables and adoption preoccupation as the dependent variable. Table 7 has means and

standard deviations for adoption preoccupation. Within the *Birth Family & Culture* condition, there was a significant interaction effect by time X condition X birth family search, $F(1, 33) = 9.57, p = .00$. For participants in the *Birth Family & Culture* condition who previously conducted a birth family search, the level of adoption preoccupation increased from Survey 1 to Survey 3. Yet for participants in the *Birth Family & Culture* condition who had never searched for birth family, the level of adoption preoccupation decreased. Figure 4 presents the means of adoption preoccupation in the *Birth Family & Culture* condition by time and birth family search behavior. For the *Stressor* condition, time X birth family search also approached statistical significance, $F(1, 22) = 3.34, p = .08$; see Figure 5. For participants in the *Stressor* condition who had never searched for birth family, there was an increase in adoption preoccupation over time.

Table 7

Means and Standard Deviations by Condition by Birth Family Search

Condition		Birth Family Search?	N	M (SD)
<i>Birth Family & Culture</i> (N=35)	PAS S1	YES	20	3.89 (.97)
		NO	15	3.45 (1.55)
	PAS S3	YES	20	4.40 (1.08)
		NO	15	3.09 (1.56)
<i>Stressor</i> (N=24)	PAS S1	YES	9	3.24 (.86)
		NO	15	2.79 (1.20)
	PAS S3	YES	9	3.36 (1.10)
		NO	15	3.29 (1.19)
<i>Technology</i> (N=25)	PAS S1	YES	14	3.34 (1.61)
		NO	11	3.65 (1.49)

PAS S3	YES	14	3.39 (1.59)
	NO	11	3.89 (1.60)

Figure 4. Graph of Adoption Preoccupation Means in *Birth Family & Culture* condition by Birth Family Search

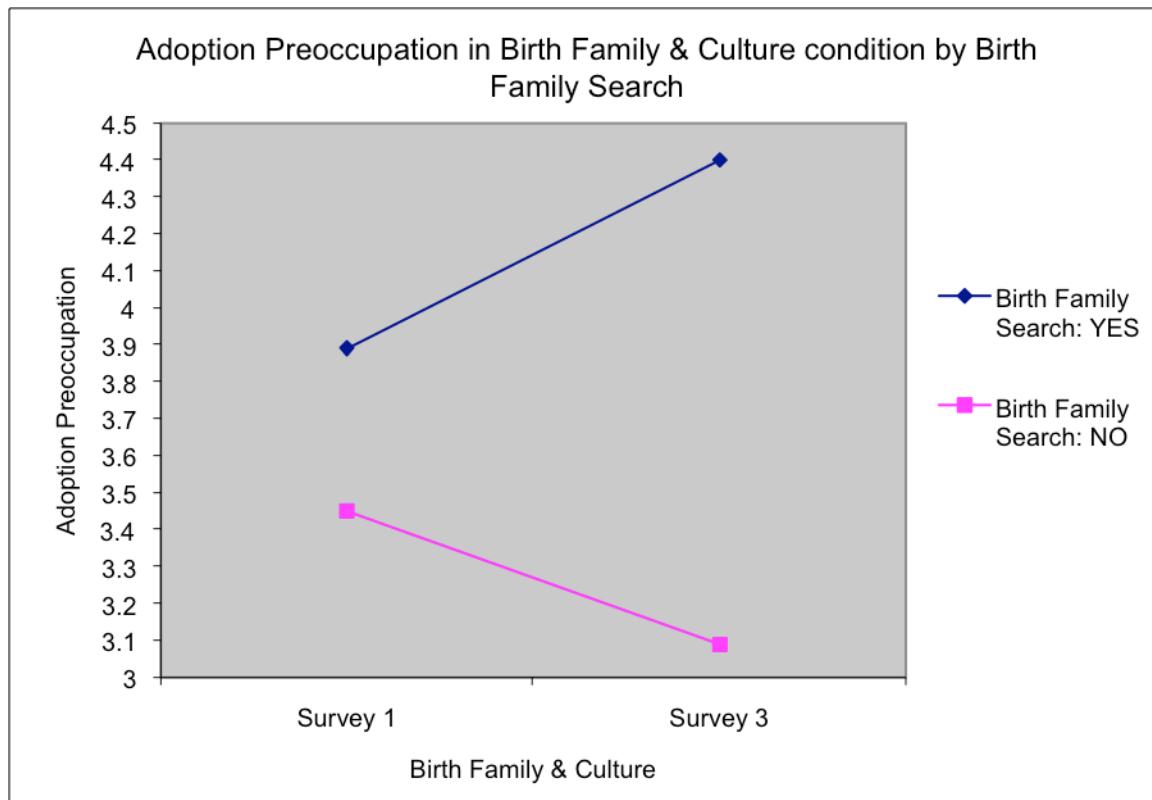
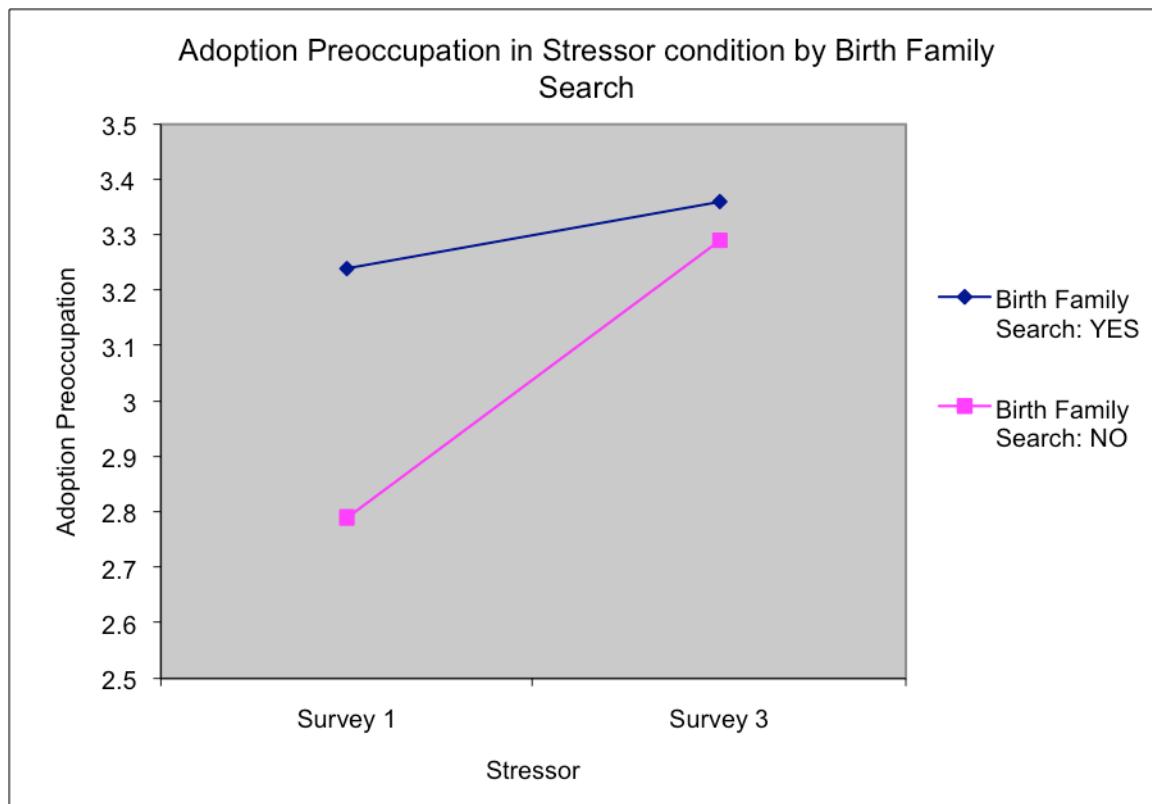


Figure 5. Graph of Adoption Preoccupation Means in *Stressor* condition by Birth Family Search



CHAPTER 5: DISCUSSION

The goal of this dissertation was to acquire greater understanding of a unique transracial, transnational life experiences of Korean American adult adopted individuals. Specifically, I examined the psychological and physical effects of an expressive writing intervention targeted at birth family and culture. I also examined correlates of birth family thoughts, including whether higher amounts of birth family thoughts moderate the effects of the expressive writing intervention. Finally, I examined expressive suppression as a mediator of the moderation between the expressive writing

intervention and birth family thoughts.

Contrary to hypothesis 1, the *Birth Family & Culture* writing condition did not demonstrate a greater change in psychological and physical health outcomes as compared to the *Stressor* and *Technology* writing conditions. However, there were significant differences over time by writing condition on Pennebaker's questionnaire of the writing experience. Participants in the *Birth Family & Culture* writing condition rated the writing sessions as significantly more valuable/meaningful and as having a more positive long-lasting impact. Also, participants in the *Stressor* writing condition significantly decreased the amount of cigarettes smoked. Consistent with hypothesis 2, birth family thoughts was related to ruminative response styles and more negative psychological and physical health outcomes. Contrary to hypothesis 3, birth family thoughts did not moderate the relationship between expressive writing and psychological distress. Because no moderation was detected, I did not test expressive suppression as a mediator of the relationship between expressive writing and birth family thoughts.

Expressive Writing

“How can we talk about what is missing when it is missing? How does a hole describe itself? If not by what is around it. I am the hole in the graveyard. I am the hole in the wall. I am the hole in the tree. I am the hole in John². ” – John, 27 year-old male participant

Contrary to hypothesis 1, there was not a main effect by writing condition. Writing about birth family and culture did not have a significant effect on outcomes. There are number of reasons why this may have occurred, including a small sample size, methodological and recruitment issues, and variation within the writing conditions. This

² All names of participants changed to protect confidentiality.

section will explain these possible explanations in further detail.

There was a significant main effect by time on some of the outcome variables. From Survey 1 to Survey 3, participants across all three writing conditions experienced significantly more positive affect, less negative affect, less visits to the health center or physician, and a decrease in cigarette use. There were not significant main effects over time on the remaining dependent variables (i.e., psychological distress, days sick, activity restricted, insomnia, alcohol and drug use). As there was no waitlist control, it is difficult to interpret whether these results are due to the experiment or simply a natural change over time.

There also were no significant time X condition interaction effects except on cigarette smoking for participants in the *Stressor* condition. Writing about work/school stressors decreased the amount of smoking for participants ($N = 6$) from Survey 1 to Survey 3. The overall number of participants who reported smoking was small (*Birth Family & Culture* = 7; *Stressor* = 6; *Technology* = 8). Nevertheless, this finding is worth follow-up investigation with a larger sample size.

An initial explanation for the non-significant time X condition interaction effects may be due to the small sample size ($N = 84$; group- $N = 31, 24, 25$), and subsequently low power. According to recent meta-analyses, the effect sizes for a variety of outcome measures are all small. An a-priori power analysis was conducted to determine the necessary sample size to detect significant effects with a Cronbach's α of .05 and recommended power of .80 (Ellis, 2010). With the most recent estimate of effect size (Cohen's $d = .15$), the estimated sample size needed to detect significant results was $N = 1, 102$; group- $N = 37$). Clearly, this study's sample size is significantly lower than the

recommended sample size and a higher sample size may have been able to detect differences between groups. This discrepancy is indicative of the difficulty of recruitment and retention of participants from underrepresented or hard-to-reach populations throughout psychological research (e.g., Abo-Zena, 2010).

Methodological issues may also have affected the results of this study, particularly the length of time between writing sessions and follow-up. As mentioned in the literature review, three months is the average amount of time for follow-up, although follow-up varies from immediately after the final writing session up to six months after the sessions (Frattaroli, 2006). Sloan and Marx (2004) noted that the majority of writing studies do not include multiple follow-ups and those studies that do include multiple follow-ups utilize a composite follow-up score, thus making it difficult to determine if the beneficial effects of the writing is related to the time of follow-up. Due to time constraints, this study assessed outcomes immediately after writing and one-month after writing. This may not have been enough time to detect changes between groups, particularly long term changes between conditions. As the *Birth Family & Culture* condition rated the writing sessions as having a significantly more long-lasting positive impact, a follow-up period longer than one-month after writing sessions would have been beneficial to detect these “long-lasting” changes. Future studies should follow-up with participants at multiple time points to better understand the trajectory of outcome differences by conditions.

Another possible explanation is that this sample of participants may have already thought about and processed issues related to birth family and culture. The majority of participants were recruited online via e-mails of the YouTube link (33%), Facebook posts

(26%) and blogs (11%). The fact that these individuals had access to hearing about this study, and took time to complete a somewhat lengthy study on adult adoptees, exhibits an interest or openness to exploring adoption-related issues. In Survey 3, 90% of participants stated that they *agree* to *strongly agree* that they thought about their experience as an adopted Korean American before participating in this study. One participant stated that the writing sessions were more “an exercise in explanation” instead of “an exercise in understanding” because he has already written about and processed this topic. Four other participants mentioned talking about these issues with a professional therapist or psychologist, and two participants mentioned that the writing sessions reminded them of their regular journal entries.

Another possible explanation for the non-significant findings for participants in the *Birth Family & Culture* condition may be due to the variation in the content of the writing sessions. A preliminary analysis of the writing indicated that there were some participants who wrote as “an exercise in explanation,” and other participants who reported gaining new insight and clarity. The variation in writing indicated that participants processed the intervention in different ways. Although there was a manipulation check to examine whether participants wrote about the assigned topic, future analyses should examine more nuanced and specific themes in the writing, as well as code writing sessions for emotional valence and insight/causation words.

In order to understand the findings of the expressive writing analyses, preliminary qualitative analysis revealed that some participants indicated gaining insight through the writing. For example, one participant stated that writing “helped me put into words what I feel and have made what I want more concrete.” Another participant stated: “I cannot

suppress some of the thoughts I have regarding my birth family” and realized that “it’s possible my anger toward my adoptive family is just a projection of my anger toward my birth family.” In the positive psychology literature, this realization and insight has been found to produce more positive health benefits (Fredrickson, 2001). Insight and causation words have also been found to be related to better immune functioning and more positive changes in expressive writing interventions (Rivkin, et al., 2006). Melissa, a 38-year-old female adoptee seemed to gain insight as she was writing:

[My sister's] narrative always starts with "Mom and Dad got me a living doll for an early Christmas present." My Arrival Day was [date removed]. I was that "living doll."³

All I know is that I've now said this and I'm understanding why I have a mental block. Interesting, huh? I don't know anything else to write. I think I've gotten a clear picture in my head. I just don't know how to tell her about this. I don't think she'd understand. I'm not a doll. I'm not here to be bossed around. I can and do live my own life. I don't know what else to say. I am a person, not a doll. My life is not meant to be lived to please another person.

The process of writing, and specifically articulating her sister's narrative in relation to her own life, helped Melissa come to a point where she was “understanding why” during the writing session. She struggles with how to tell her sister, but she seems firm in the fact that she can “live [her] own life.” This imagining the future (i.e., “I’ve gotten a clear picture in my head”) may be related to expressive writing studies that have found positive psychological benefits from imagining the best future possible selves (King, 2001).

Importantly, there were significant time X condition interaction effects on the QPSE. Participants in the *Birth Family & Culture* condition reported that they thought more about the writing sessions than participants who wrote about either stressors or technology. The participants who wrote about birth family and culture also reported that

³ Data removed; description of process of understanding.

the study had more positive long lasting effects for them. Further, compared to the other conditions, participants in the *Birth Family & Culture* condition rated that the study was particularly valuable and meaningful to them (4.66 out of 5). The participants in the *Stressor* condition also reported that they thought more about the study, rated the study as having a more positive impact, and rated the study as more valuable and meaningful than participants in the *Technology* condition. As writing about birth family & culture was associated with more positive experiences regarding the writing study, these results demonstrate the value and relevance of tailoring writing interventions for particular populations. Despite other non-significant findings regarding psychological and physical health outcomes, tailoring writing studies to issues specific to international adopted individuals is still noteworthy and should be explored further.

This finding regarding the value/meaning and the positive long-lasting impact of the writing sessions highlights the choice of dependent variables in this study. As noted in previous studies and reviews (e.g., Sloan & Marx, 2004), a number of participants from healthy populations do not visit a physician or health center and this raises concern regarding the sensitivity of the outcome variables. Participants in this study were generally physically healthy and did not demonstrate a clinical level of psychological distress, thus it was difficult to examine a change over time when participants are clinically healthy in Survey 1. The outcome measures were chosen as they were the most common dependent variables utilized in writing studies (Frattaroli, 2006; Frisina et al., 2004). Given the unique nature of TTA, future studies with this population should utilize more applicable outcome variables, particularly measuring identity, “meaning” making, search and resolution, and adoption preoccupation.

Birth Family Thoughts

Results demonstrated that birth family thoughts is correlated with rumination, and that these thoughts are related to both the brooding and the reflective pondering subscale. Consistent with hypothesis 2a, birth family thoughts in Survey 1 were correlated with brooding and reflective pondering, although the relationship was stronger with reflective pondering than brooding. Also, birth family thoughts in Survey 2 were correlated with reflective pondering, but not brooding. As stated in the literature review, previous research has not examined the relationship between birth family thoughts and a ruminative response style. While the nature of birth family thoughts is still unclear, this finding adds two important points to the literature: (1) Thinking about birth family may, in part, be attributed to a ruminative response style, and (2) Birth family thoughts is equally, if not more, related to reflective pondering as they are related to brooding.

Examining the correlates of birth family thoughts with outcome measures, results indicate that birth family thoughts is positively associated with insomnia, negative affect, and psychological distress. Birth family thoughts at Survey 2 was also correlated with positive affect in Survey 1, though this finding may reflect the high correlation between positive and negative affect in Survey 1. This association between birth family thoughts and positive affect was not significant at Survey 2 or Survey 3. Whereas, birth family thoughts at Survey 2 was significantly associated with psychological distress and negative affect at Survey 1 and Survey 2, and insomnia at Survey 1, Survey 2, and Survey 3. The results in this study regarding birth family thoughts confirms previous findings that birth family thoughts is related to negative psychological outcomes (Smith & Brodzinsky, 2002; Wroebel, et al., 2004). The significant relationship between birth

family thoughts and insomnia is a new finding, though there are a number of studies linking insomnia to repetitive thought processes, specifically worry and rumination (Carney, Edinger, Meyer, Lindman, & Istre, 2006; Harvey, 2002).

The take-home message of these results is not that thinking about birth family is a bad or negative thing. As stated previously, these thoughts are a normative part of adoptive identity development. At the same time, the content and frequency of these thoughts, particularly if the individual tends to have a brooding response style, may become problematic. Jane, a 29-year-old female participant in the *Birth Family & Culture* condition, wrote about her present longings for something that was not possible:

I want to truly be a part of my birth family. I want to be embraced as one of their own. I want my birth mother to BE my mother. I want to magically be able to speak Korean fluently. I want to BE Korean, to understand the culture and norms.

This honest articulation of desires may be helpful for her to finally realize and label, and yet if it ends here, in a continual hoping for something that is markedly different than her reality, these thoughts and feelings could become more ruminative.

Moderation

Birth family thoughts did not moderate the relationship between expressive writing and psychological distress. As noted previously, this non-significant finding may be due to the low statistical power to detect significant changes. Another reason for this non-significant finding may be, contrary to expectation, birth family thoughts was only moderately related to the ruminative response style brooding. Future analyses may examine other moderators, including rumination and adoptive identity. Further analyses may also examine factors related to the participants writing exercises, including the valence, level of emotionality, and level of insight, as possible moderators.

As birth family thoughts did not significantly moderate the relationship between expressive writing and psychological distress, I was not able to test whether expressive suppression mediated the moderation of this relationship. Future studies may examine expressive suppression as a mediator of the relationship between expressive writing and psychological distress, and may also examine expressive suppression as a mediated moderation if other significant moderators are identified.

Posthoc Analyses

In posthoc analyses, there were significant differences between *Birth Family & Culture* and *Stressor* conditions on psychological distress in Survey 3, though this difference may have reflected the significant psychological distress difference between conditions in Survey 1. There was also a small decrease in health center/physician visits for the *Stressor* and *Technology* conditions from Survey 1 to Survey 3. As the majority of participants did not have many visits to the health center/physician in Survey 1, it is difficult to interpret this small decrease.

Posthoc analyses found that birth family thoughts significantly decreased over time from Survey 1 to Survey 2 for all three conditions. This decrease was particularly surprising as the participants in the *Birth Family & Culture* condition wrote about birth family and still demonstrated a decrease in thoughts. As this study did not have a waitlist control, it is not possible to determine whether this decrease in birth family thoughts was due to participation in the study (including the effect of choosing to be part of an adoption study for TTAs). One possible explanation is that after consciously answering questions about birth family and adoption, participants were able to generally think less about birth family.

Further examination of adoption preoccupation was conducted as well.

Adoption preoccupation significantly increased from Survey 1 to Survey 3. This is particularly interesting as birth family thoughts decreased over time. Similar to previous research, adoption preoccupation was also moderately correlated with psychological distress, negative affect, number of days sick, visits to the health center/physician, and insomnia. Comparing correlates of adoption preoccupation to birth family thoughts, they are both moderately correlated with rumination subscales, brooding and reflective pondering, but preoccupation had slightly higher correlations with rumination subscales, particularly brooding. Although birth family thoughts was related to rumination subscales and ethnic identity exploration, adoption preoccupation was related to rumination subscales and psychological distress. It is also interesting that birth family thoughts and adoption preoccupation were not correlated with each other in Survey 1. As previous research (Kohler, et al., 2002) has measured adoption preoccupation with a cutoff score of high birth family thoughts, it is significant that these results suggest that birth family thoughts and adoption preoccupation are related but distinct constructs. It is possible for an individual to decrease the amount of birth family thoughts while simultaneously increasing the amount of adoption preoccupation. This result suggests that thinking about birth family, even a moderate to high degree of thoughts, does not necessarily mean that an individual is “preoccupied.”

As adoption preoccupation was moderately correlated with brooding ($r = .39$) in Survey 1, and this correlation was slightly higher than the correlation between the birth family thoughts and brooding ($r = .26$), a moderation analysis was conducted examining whether adoption preoccupation moderates the relationship between expressive writing

and psychological distress revealed a small interaction effect. Participants in the *Birth Family & Culture* condition who had higher adoption preoccupation also had higher levels of distress. This small interaction should be explored in future analyses.

The final analyses involved an examination of time X condition X search behavior interaction effects. The research on searchers matches the demographics of participants in this study: women, 25-35 years, placed with their adoptive family at a young age, with positive relationships with their adoptive family (Howe & Feast, 2000; Muller & Perry, 2001; Wroebel, et al., 2004). In this sample, 51 (61%) participants conducted formal searches of birth family. Among those 43 “searchers,” 23 (53%) did not reunite with birth family. Given that previous research has found that searchers are less happy about being adopted and less likely to feel like they belong in their adoptive families (Howe & Feast, 2000), adoption preoccupation was examined over time by condition by search behavior.

The results revealed a significant interaction effect on adoption preoccupation by time X condition X search behavior, specifically for participants in the *Birth Family & Culture* condition. There was also a time X condition X search behavior interaction effect for participants in the *Stressor* condition that was approaching significance. Results found that searchers in the *Birth Family & Culture* condition had a higher amount of adoption preoccupation over time, while non-searchers had a lower amount of adoption preoccupation from Survey 1 to Survey 3. Yet for the *Stressor* condition, it was the non-searchers who had higher adoption preoccupation over time. Results suggest that searchers who write about birth family and culture become more preoccupied with adoption, but non-searchers who are not allowed to write about adoption (even after

signing up for an adoption writing study) may become more preoccupied with adoption over time.

One interpretation for this difference is that searchers are, either presently or at some point, trying to find resolution or information about their adoption, specifically by conducting a formal search for birth family. Half of the searchers in this study were not able to reunite with family members, meaning that there was a lack of physical resolution. For the other half who did reunite with family members, 40% of them stated that they were *dissatisfied* to *strongly dissatisfied* with their relationship with their birth family. For searchers, as compared to non-searchers, writing about birth family and culture may continue to stir up thoughts and feelings about something that is still unresolved, and may increase their amount of adoption preoccupation. However, for non-searchers, writing about birth family and culture may help reaffirm other parts of their story and identity and decrease adoption preoccupation. Also, for non-searchers who are not allowed to write about adoption related issues (yet still write about stressors), they may become more preoccupied with their adoption due to this restraint.

These results should also be interpreted alongside a recent study that demonstrated possible iatrogenic effects of expressive writing interventions for individuals who have recently separated from a spouse, have high levels of rumination (mostly brooding), and also engaged in a “search for meaning” (Sbarra, Boals, Mason, Larson, & Mehl, 2013). Participants in this post-separation study who were assigned to an expressive writing condition (specifically about the separation) had more psychological distress over time than the participants in the control condition. One implication was that highly ruminative individuals who “search for meaning” in an

expressive writing condition may have worse outcomes because many people do not find meaning. This relates to the current study as participants who have conducted a formal search for birth family and culture may be still searching for either a physical person or a sense of resolution. For searchers in the *Birth Family & Culture* condition, writing about their birth family (something actively searched for) may have increased adoption preoccupation by reminding them of their ongoing search for something that is not found (e.g., meeting birth family, positive and meaningful relationships with birth family, adoption resolution). Though it should be noted that, contrary to the post-separation study, participants in the current study generally exhibited more positive outcomes over time (i.e., less negative affect, and more positive affect).

The variation, between participants actively searching for meaning and participants who have arrived at some sort of resolution, is reflected in the writing sessions. For example, Michelle, a 34-year-old female participant, explicitly wrote about healing and her “personal Korean adoption journey” that she has shared with a community of individuals, while at the same time acknowledging negative feelings about adoption.

Adoption and separation from birth culture is not, nor should it be a normal practice, it is a traumatic event, that scars for life. Healing, though can happen, but again, like the efforts we make to assimilate, we must make efforts to heal. This is not normal, this is not how most people live. Meeting my birth family was important to me since a young age. I felt that they were the answers to my questions, their existence explained mine. How could my family in the states possibly know anything about where I "came from?" Although, looking back and through conversations with my family members, they did and do care about me deeply. They love me, they took me in as one of their own, and for that I'm blessed. Meeting hundreds, if not thousands of Korean adoptees over my lifetime, I'm honored and privileged to bear witness to many of their journeys and stories, deepest fears and sadness experienced through discovering their "roots," but also wonderful dialogues about hopes and aspirations, and what being adopted

or Korean means to them. Part of my personal Korean adoption journey, putting the pieces together of my life, my being, has been to be a part of this community.

Michelle spoke about the search and resolution process as something that happened in the past. Though she states that the separation is “traumatic,” she currently feels “honored and privileged” to be part of the Korean adoptee community and “blessed” to have supportive family members. The writing for Michelle was coherent and organized, and she was able to look back at a process. Yet for other participants, this journey seemed more present and ongoing. Courtney, a 27-year-old female participant, used this writing exercise to write a letter to her birthmother.

Dear Umma⁴, Hello. My name is Courtney Smith⁵. Or Kim Jee Un. Or Cho Jee Un. Many names, many stories. The name given to me by my adoptive parents, or the name I thought was mine until recently when a piece of paper told me that my birth father’s last name was Kim, or the name I would now claim that uses your name. . .⁶ . . .

I secretly dream of meeting you one day- that I will see my face in yours; that I’ll meet my sisters; that we will be able to laugh and eat and share with each other BUT As I fantasize, I also understand the reality of our relationship vs. the daydream relationship that exists in my head are two very different things. Umma- this letter is to attempt to make a connection with you- if I actually get help translating it and you are reading it that will be a huge step, I’ve started many letters like this to you, but every time I attempt to put these intense emotions into written word I became emotionally exhausted.

In this emotional letter she not only articulated “secretly” fantasizing about meeting her birthmother, but also acknowledged that this is not the relationship she has with her birthmother. Courtney described the emotional exhaustion of articulating her emotions in the present tense (e.g., “As I fantasize,” “I secretly dream”). For Courtney, the searching is active and present in her life.

⁴ Korean for “Mother”

⁵ All names, both American and Korean, have been changed to protect the confidentiality of the participant.

⁶ Personal information removed.

Consistent with previous research, the reunion with birth family did not necessarily resolve feelings of uncertainty for some participants (Powell & Afifi, 2005). Feelings of emotional exhaustion are echoed in the writings of another participant, 29-year-old Jennifer. Though Jennifer has reunited with her birthmother, she articulated present feelings of sadness at seeing Korean language (hangul) tattoos on other Korean adoptees.

if i see another adoptee with their korean name tattooed on them in hangul i swear to god i'mma cry real fucking tears. because nothing says i'm lost like a permanent name tag on your body. it's sad - not a judgment on adoptees - i mean like it's sad that that is the thing we have to honor, cherish and remember. that's the part of our culture most real to us, these three syllables. the thing we know we can own. our name. are we afraid we will forget it?

For Jennifer, this presence of these Korean tattoos represented a sadness and struggle for identity and belonging. Her writing demonstrates the layers of searching that continue even after reuniting with birth family.

Limitations and future directions

There were a number of limitations in this study, and further analyses should be conducted to address these limitations. One limitation was the lack of in-depth qualitative analyses to examine the content of the writing sessions in more detail. Future analyses should examine differences between participants who are “actively searching” (as evidenced in their writing) and participants who indicate a sense of resolution. Valence, coherence, and organization should also be examined as these have been identified as potential moderators of expressive writing interventions (Baerger & McAdams, 1999; Smyth, et al., 2001).

There were also limitations involved in the diversity of the sample, particularly

regarding the age and gender of participants, age of adoption, and recruitment process.

As stated previously, this sample was majority female participants who had thought about adoption-related issues. There was a wide range of ages (21-50) of participants and a wide range of age of adoption ($M = 13.5$ months; $SD = 20.6$ months) for participants. These developmental factors may have impacted the results of this study. Further, the recruitment process tended to bias the recruitment of adoptees that were already involved in adoptee communities. There were attempts to advertise in adoption agencies in order to reach a different subgroup of participants, but of the two adoption agencies that were contacted, one did not respond and the other one chose not to participate in the advertisement of this study. There was also a paper flyer that was advertised around Minneapolis and St. Paul, MN, though no participant claimed to have learned about the study from a paper flyer. This sample was also majority female (77%). This may have impacted the effects of the results as a previous meta-analysis concluded that expressive writing effects were greater in males than in females (Smyth, 1998).

As stated in the introduction, previous expressive writing studies typically ask participants to write about a traumatic or stress event. Though adoption is an “event” in an individual’s life, it may be conceptualized less as a discrete event, and more as an aspect of one’s life and identity. Thoughts and emotions about adoption, birth family, and culture, are understood throughout a TTA’s lifetime. This difference, between writing about a discrete event versus writing about an aspect of identity, may complicate the way in which the expressive writing is experienced and may have impacted the results of this study.

Building on the theory of Acceptance and Commitment Therapy (ACT), a recent

study with Korean American adopted individuals suggested that adoptees who were able to “confront, embrace, and accept” thoughts and feelings about adoption may have more positive relationships with others, greater sense of purpose, and greater level of self-acceptance (Sarubbi, Block-Lerner, Moon, & Williams, 2012). Combined with the results of this present study, future research should explore different ways TTAs are able to “confront, embrace, and accept” thoughts and feelings about birth family and culture, particularly for individuals who tend to have a ruminative response style. The results of the present study suggest that searchers may be particularly high-risk if they are caught in the “confront” and “embrace” stages and never reach the point of acceptance and resolution. Future studies should explore using ACT techniques with this population.

The examples of writing sessions in this discussion highlight an important distinction between an expressive writing study and individual therapy. An individual therapist is able to help individuals express when they suppress, confront when they avoid, contain when they are over-regulate, and distract when they ruminate. While a writing study prompts a process, there is limited control over what occurs in this process. It is unrealistic for a brief writing study to be able to do what therapy does over a long period of time, but it may be helpful if future studies identify certain struggles midway through the writing process and then re-direct based on their answers. The ability to tailor the writing prompts at intake and midway through the writing process may help direct participants to an intervention that targets their specific difficulties with coping.

In conclusion, this study was a low-cost writing intervention targeted at a community population that is traditionally more difficult to reach. There is limited research on Korean American adopted adults, and no empirically supported treatment for

counseling adopted adults. While most adoptees do not seek treatment, there is a higher proportion of adopted individuals in therapy (17.7%) compared to nonadopted individuals (8.67%; Miller, Fan, Christensen, Grotevant, & van Dulmen, 2000)⁷, and in a survey of 210 psychologists, 90% indicated that they needed more training in treating issues related to adoption (Sass & Henderson, 2000). There is a clear need for more empirically supported intervention studies for this population, and this study was one of the first to examine an intervention specifically tailored to transracial, transnational adult adoptees. It was also one of the first studies to collect data on adult Korean adoptees across the United States, including birth family thoughts, adoption preoccupation, ruminative response styles, emotion regulation, and birth family search behavior. This intervention was relatively simple to administer and participants rated the writing sessions as having both a positive long-lasting impact and value/meaning. This study adds to the literature on birth family thoughts by showing a moderate correlation between these thoughts and a ruminative response style (both brooding and reflective pondering). Further, this study adds to the expressive writing literature by demonstrating that cigarette use may be decreased by expressively writing about work/school stressors. The finding that adoption preoccupation differs by condition by search behavior builds on a recent finding that expressive writing should be assigned with care, and that writing may not be advised for individuals who struggle with continually searching for something that cannot be found. Future studies should examine different interventions for adult adoptees that are searching that explicitly emphasize acceptance and resolution.

⁷ This is a recent national representative survey of adolescents in the US. There are no statistics for adopted adults compared to nonadopted adults, or statistics for transracial adopted adults.

References

- Abo-Zena, M. (2010). Sampling and Retention of Underrepresented Groups. N. J. Salkind (ed.) *Encyclopedia of Research Design*. Thousand Oaks, CA: Sage Publications.
- Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.
- Babb, L.A. (1996). *Statistics on U.S. Adoption*. The Decree, American Adoption Congress.
- Baeger, D.R., & McAdams, D.P. (1999). Life story coherence and its relation to psychological well-being. *Narrative Inquiry*, 9, 69-96.
- Boss, P. (1999). *Ambiguous Loss: Learning to Live with Unresolved Grief*. Cambridge, MA: Harvard University Press.
- Brodzinsky, D.M, Schechter, M.D., & Henig, R.M. (1992). *Being adopted: The lifelong search for self*. New York: Doubleday.
- Benson, P. L., Sharma, A. R., & Roehlkepartain, E. C. (1994). Growing up adopted: A portrait of adolescents and their families. Minneapolis, MN: Search Institute.
- Burton, C. M., & King, L. A. (2008). Effects of (very) brief writing on health: The two-minute miracle. *British Journal of Health Psychology*, 13, 9-14. doi: 10.1348/135910707X250910
- Butler, E. A., Egloff, B., Wilhelm, F. H., Smith, N. C., Erickson, E. A., & Gross, J. J. (2003). The social consequences of expressive suppression. *Emotion*, 3, 48–67. doi: 10.1037/1528-3542.3.1.48

- Carney C, Edinger J, Meyer B, Lindman L, Istre T. (2006). Symptom-focused rumination and sleep disturbance. *Behavioral Sleep Medicine*. 4, 228–241. doi: 10.1207/s15402010bsm0404_3
- Cameron, L D., & Nicholls, G. (1998). Expression of stressful experiences through writing: Effects of a self-regulation manipulation for pessimists and optimists. *Health Psychology*, 17, 84-92. doi: 10.1037/0278-6133.17.1.84
- Colaner, C. W. (2011). *Communicatively Forming Developed Adoptive Identity: Explicating the Association between Parental Communication, Developed Adoptive Identity, and Adoptee Adjustment*. (Doctoratal dissertation). Retrieved from the University of Nebraska.
- Cox, S., Funasaki, K., Smith, L., & Mezulis, A. (2012). A prospective study of brooding and reflection as moderators of the relationship between stress and depressive symptoms in adolescence. *Cognitive Therapy and Research*, 36, 290-299. doi: 10.1007/s10608-011-9373-z
- Danoff-Burg, S., Mosher, C. E., Seawell, A. H., & Agee, J. D. (2010). Does narrative writing instruction enhance the benefits of expressive writing? *Anxiety, Stress, and Coping*, 23, 341-352. doi: 10.1080/10615800903191137
- Derogatis, L. R. (2001). Brief Symptom Inventory-18. *Administration, scoring, and procedures manual*. Minneapolis, MN: NCS Assessments.
- Docan-Morgan, S. (2010). "They don't know what it's like to be in my shoes": Topic avoidance about race in transracially adoptive families. *Journal of Social and Personal Relationships*, 28, 336-355. doi: 10.1177/0265407510382177
- Dorow, S. (2006). *Transnational Adoption: A Cultural Economy of Race, Gender, and*

- Kinship*. New York: New York University Press.
- Dunbar, N.D. & Grotevant, H.D. (2004). Adoption narratives: The construction of adoptive identity during adolescence. In M.W. Pratt & B.H. Fiese (Eds.), *Family stories and the life course: Across time and generations* (pp. 135- 162). Mahwah, NJ: Erlbaum.
- Ellis, P. D. (2010). *The Essential Guide to Effect Sizes: An Introduction to Statistical Power, Meta-Analysis and the Interpretation of Research Results*. United Kingdom: Cambridge University Press.
- Erikson, E.H. (1963). *Childhood and Society*. (2nd ed.). Oxford, England: Norton & Co.
- Feigelman, W., & Silverman, A. R. (1983). *Chosen children: New patterns of adoptive relationships*. New York, NY: Praeger.
- Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, 99, 20–35. doi: 10.1037/0033-2909.99.1.20
- Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin*, 132, 823- 865. doi: 10.1037/0033-2909.132.6.823
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218-226. doi: 10.1037/0003-066X.56.3.218
- Fravel, D.L., McRoy, R.G., & Grotevant, H.D. (2000). Birthmother perceptions of the psychologically present adopted child: Adoption openness and dissonance. *Family Relations*, 49, 4, 425-433.
- Freundlich, M., & Lieberthal, J. K. (2000). *The gathering of the first generation of adult Korean adoptees: Adoptees' perceptions of international adoption*. New York,

- NY: The Evan B. Donaldson Adoption Institute.
- Frisina, P.G., Borod, J.C., & Lepore, S.J. (2004). A meta-analysis of the effects of written emotional disclosure on the health outcomes of clinical populations. *Journal of Nervous and Mental Disease*, 192, 629–634. doi: 10.1097/01.nmd.0000138317.30764.63
- Gortner, E.M., Rude, S.S., & Pennebaker, J.W. (2006). Benefits of expressive writing in lowering rumination and depressive symptoms. *Behavior Therapy*, 37, 292-303. doi: 10.1016/j.beth.2006.01.004
- Greenberg, M.A., Wortman, C.B., & Stone, A.A. (1996). Emotional Expression and Physical Health: Revising Traumatic Memories or Fostering Self-Regulation? *Journal of Personality and Social Psychology*, 71, 588–602. doi: 10.1037/0022-3514.71.3.588
- Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362. doi: 10.1037/0022-3514.85.2.348
- Gross, J.J. & Levenson, R.W. (1997). Hiding feelings: The acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology*, 106, 95-103. doi: 10.1037/0022-3514.85.2.348
- Grotevant, H.D. (1997a). Coming to terms with adoption: The construction of identity from adolescence into adulthood. *Adoption Quarterly*, 1, 3-27. doi: 10.1300/JI45v01n01_02

- Grotevant, H.D. (1997b). Family processes, identity development, and behavioral outcomes for adopted adolescents. *Journal of Adolescent Research*, 12, 139-161. doi: 10.1177/0743554897121008
- Grotevant, H.D., Dunbar, N., Kohler, J.K., & Esau, A.L. (2000). Adoptive identity: How contexts within and beyond the family shape developmental pathways. *Family Relations*, 49, 379 – 387. doi: 10.1111/j.1741-3729.2000.00379.x
- Grotevant, H. D., & Von Korff, L. (2011). Adoptive identity. In S. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of Identity Theory and Research*. (pp. 585 – 601). New York: Springer. doi: 10.1007/978-1-4419-7988-9_24
- Harris, H. S. (2006). Does expressive writing reduce health care utilization? A meta-analysis of randomized trials. *Journal of Consulting and Clinical Psychology*, 74, 243 - 252. doi: 10.1037/0022-006X.74.2.243
- Harvey A. G. (2002). A cognitive model of insomnia. *Behaviour Research and Therapy*, 40, 869–893. doi: 10.1016/S0005-7967(01)00061-4
- Horn, A., Possel, P., Hautzinger, M. (2011). Promoting adaptive emotion regulation and coping in adolescence: a school based programme. *Journal of Health Psychology*, 16, 558-273. doi: 10.1177/1359105310372814
- Howe, D., & Feast, J. (2003). *Adoption, Search and Reunion: The long-term experience of adopted adults*, London: BAAF.
- Irhammar, M. & Bengtsson, H. 2004. Attachment in a group of adult international adoptees. *Adoption Quarterly*, 8, 1–26. doi: 10.1300/JI45v08n02_01
- Juffer, F., Geert-Jan Stams, J. M., & van IJzendoorn, M. H. (2004). Adopted children's problem behavior is significantly related to their ego resiliency, ego control, and

- sociometric status. *Journal of Child Psychology and Psychiatry*, 45, 697-706.
doi: 10.1111/j.1469-7610.2004.00264.x
- Kelly, R (2009). Emerging Voices - Reflections on Adoption from the Birth Mother's Perspective. In G. Wrobel & E. Neil (Eds.), *International advances in adoption research for practice*. (pp. 295 – 316). Chichester, UK: Wiley.
- Kim, E. (2010). *Adopted territory: Transnational Korean adoptees and the politics of belonging*. Durham, NC: Duke University Press. doi:
10.1080/01419870.2012.670712
- Kim, Y. (2008). Effects of expressive writing among bilinguals: Exploring psychological well-being and social behaviour. *British Journal of Health Psychology*, 13, 43-47. doi: 10.1348/135910707X251225
- King, L.A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin*, 27, 798-807. doi: 10.1177/0146167201277003
- King, L. A., & Miner, K. N. (2000). Writing about the perceived benefits of traumatic events: Implications for physical health. *Personality & Social Psychology Bulletin*, 26, 220-230. doi: 10.1177/0146167200264008
- Kohler, J. K., Grotevant, H. D., & McRoy, R. G. (2002). Adopted adolescents' preoccupation with adoption: Impact of adoptive family dynamics. *Journal of Marriage and the Family*, 64, 93 -104.
- Lee, R. M. (2003). The transracial adoption paradox: History, research, and counseling implications of cultural socialization. *The Counseling Psychologist*, 31, 711-744. doi: 10.1177/0011100003258087
- Lee, R. M., Dean, R., Jung, K. (2008). Social Connectedness, Extraversion, and

- Subjective Well-Being: Testing a Mediation Model. *Personality and Individual Differences*, 45, 414 – 419. doi: 10.1016/j.paid.2008.05.017
- Lee, R. M., Hu, A. W., & Kim, O.M. (2013, July). *Measuring birth family thoughts among adopted Korean American adolescents: relation to search, reunion, and psychological adjustment*. Symposium presented at the IVth biennial meeting of the International Conference on Adoption Research (ICAR-4).
- Lee, R. M., & Miller, M. J. (2009). History and psychology of international adoption. In A. Alvarez and N. Tewari (Eds), *Asian American Psychology* (pp. 337 – 363). Mahwah, NJ: Lawrence Erlbaum and Associates.
- Leon, I. G. (2002). Adoption losses: Naturally occurring or socially constructed? *Child Development*, 73(2), 652-663. doi: 10.1111/1467-8624.00429
- Lepore, S. J., Greenberg, M. A., Bruno, M., & Smyth, J. M. (2002). Expressive writing and health: Self-regulation of emotion-related experience, physiology, and behavior. In S. J. Lepore & J. M. Smyth (Eds.), *The writing cure: How expressive writing promotes health and emotional well-being* (pp. 99–117). Washington, DC: American Psychological Association.
- Marcia, J. E. (1980). Identity in adolescence. In *Handbook of adolescent psychology*, J. Adelson (Ed.). New York: Wiley, pp. 159–187.
- McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology*, 5, 100-122. doi: dx.doi.org/10.1037/1089-2680.5.2.100
- Meier, D. I. (1999). Cultural identity and place in adult Korean-American intercountry adoptees. *Adoption Quarterly*, 3, 15-48. doi: 10.1300/J145v03n01_03
- Miller, B.C., Fan, X., Christensen, M., Grotevant, H.D., & van Dulmen, M., (2000).

- Comparisons of adopted and nonadopted adolescents in a large, nationally representative sample. *Child Development*, 71, 1458-1473. doi: 10.1111/1467-8624.00239
- Miranda, R., & Nolen-Hoeksema, S. (2007). Brooding and reflection: Rumination predicts suicidal ideation at 1-year follow up in a community sample. *Behavior Research and Therapy*, 45, 3088–3095. doi: 10.1016/j.brat.2007.07.015
- Moore, S. A., Zoellner, L. A., & Mollenholt, N. (2008). Are expressive suppression and cognitive reappraisal associated with stress-related symptoms? *Behaviour Research and Therapy*, 46, 993–1000. doi: 10.1016/j.brat.2008.05.001
- Muller, U., & Perry, B. (2001). Adopted persons' search for and contact with their birth parents II: Adoptee-birth parent contact. *Adoption Quarterly* 4, 39-62. doi: 10.1300/JI45v04n03_03
- Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology*, 100, 569-582. doi: 10.1037/0021-843X.100.4.569
- Nolen-Hoeksema, S., Wisco, B., & Lyubomirsky, S. (2008). Rethinking Rumination. *Perspectives on Psychological Science*, 3, 400-424. doi: 10.1111/j.1745-6924.2008.00088.x
- Pachankis, J. & Goldfried, M. (2010). Expressive writing for gay-related stress: psychosocial benefits and mechanism underlying improvement. *Journal of Consulting and Clinical Psychology*, 78, 98-110. doi: 10.1037/a0017580
- Palacios, J. & Brodzinsky, D. (2010). Review: Adoption research: Trends, topics, outcomes. *International Journal of Behavioral Development*, 34, 270 – 284. doi:

10.1177/0165025410362837

Pennebaker, J.W., Barger, S.D., & Tiebout, J. (1989). Disclosure of traumas and health among Holocaust survivors. *Psychosomatic Medicine*, 51, 577-589.

Pennebaker, J. W., & Beall, S. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95, 274-281. doi: 10.1037/0021-843X.95.3.274

Pennebaker, J. W., & Chung, C. K. (2011). *Expressive writing and its links to mental and physical health*. In H. S. Friedman (Ed.), Oxford handbook of health psychology (pp. 417-437). New York, NY: Oxford University Press.

Pennebaker, J. W., & Seagal, J. D. (1999). Forming a Story: The Health Benefits of Narrative. *Journal of Clinical Psychology*, 55, 1243 – 1254. doi: 10.1002/(SICI)1097-4679(199910)55:10<1243::AID-JCLP6.3.0CO;2-N

Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*, 58, 528-537. doi: 10.1037/0022-3514.58.3.528

Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). *Linguistic Inquiry and Word Count (LIWC)*: LIWC2001. Mahwah, NJ: Erlbaum Publishers.

Pennebaker, J.W., Mayne, T.J., & Francis, M.E. (1997). Linguistic predictors of adaptive bereavement. *Journal of Personality and Social Psychology*, 72, 863-871. doi: 10.1037/0022-3514.72.4.863

Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. *Journal of Adolescent Research*, 7, 156–176. doi: 10.1177/074355489272003

- Powell, K., & Afifi, T. D. (2005). Uncertainty management and adoptees' ambiguous loss of their birth parents. *Journal of Social and Personal Relationships*, 22, 129-151. doi: 10.1177/0265407505049325
- Reichwald, R. (2012). *Identity Profiles and Psychological Adjustment Among Adopted Korean American Adolescents*. (Doctoral dissertation). Retrieved from the University of Minnesota.
- Rivkin, I. D., Gustafson, J., Weingarden, I., & Chin, D. (2006). The effects of expressive writing on adjustment to HIV. *AIDS and Behaviour*, 10, 13-26. doi: 10.1007/s10461-005-9051-9
- Sarubbi, A., Block-Lerner, J., Williams, D. J., & Moon, S. (2012). Experiential Acceptance and Psychological Well-Being in Korean-Born Adoptees. *The Family Journal: Counseling and Therapy for Couples and Families*, 20, 399 – 410. doi: 10.1177/1066480712451241
- Sass, D.A., & Henderson, D.B. (2000). Adoption issues: Preparation of psychologists and evaluation of the need for continuing education. *Journal of Social Distress and the Homeless*, 9, 349- 359.
- Sbarra, D. A., Boals, A., Mason, A. E., Larson, G., & Mehl, M. R. (2013). Expressive writing can impede emotional recover following marital separation. *Clinical Psychological Science*, 1, 120 – 134.
- Schechter, M. D., & Bertocci, D. (1990). The meaning of the search. In D. M. Brodzinsky & M. D. Schechter (Eds.), *The Psychology of Adoption* (pp. 62-92). New York: Oxford University Press.

- Schoofs H, Hermans D, Raes F. (2010). Brooding and reflection as subtypes of rumination: Evidence from confirmatory factor analysis in nonclinical samples using the Dutch Ruminative Response Scale. *Journal of Psychopathology and Behavioral Assessment*, 32, 609–617. doi: 10.1007/s10862-010-9182-9
- Shiao, J. & Tuan, M. (2008). Shared Fates in Asian Transracial Adoption: Korean Adoptee Experiences of Difference in their Families. In A. Grant-Thomas and G. Orfield (eds.). *Color Lines: Exploring the Frontiers of America's Multiracial Present and Future*. Philadelphia: Temple University Press.
- Sloan, D.M. & Marx, B.P. (2004). Taking pen to hand: Evaluating theories underlying the written disclosure paradigm. *Clinical Psychology: Science & Practice*, 11, 121 - 137. doi: 10.1093/clipsy.bph062
- Sloan, D. M., Marx, B. P., & Epstein, E. M. (2005). Further examination of the exposure model underlying the efficacy of written emotional disclosure. *Journal of Consulting and Clinical Psychology*, 73, 549 - 554. doi: 10.1037/0022-006X.73.3.549
- Sloan, D. M., Marx, B. P., Epstein, E. M., & Dobbs, J. L. (2008). Expressive writing buffers against maladaptive rumination. *Emotion*, 8, 302 - 306. doi: 10.1037/1528-3542.8.2.302
- Smith, D., & Brodzinsky, D. M. (2002). Coping with birthparent loss in adopted children. *Journal of Child Psychology and Psychiatry*, 43, 213 - 223. doi: 10.1111/1468-7610.00014
- Smyth, J.M. (1998). Written emotional expression: Effect sizes, outcome types, and moderating variables. *Journal of Consulting and Clinical Psychology*, 66,

- 174-184. doi: 10.1037/0022.006X.66.1.174
- Smyth, J.M., & Pennebaker, J.W. (2008). Exploring the boundary conditions of expressive writing: Finding the right recipe. *British Journal of Health Psychology*, 13, 1-7. doi: 10.1348/135910707X260117
- Smyth, J.M., True, N., & Souto, J. (2001). Effects of writing about traumatic experiences: The necessity for narrative structuring. *Journal of Social and Clinical Psychology*, 20, 161-172. doi: 10.1521/jscp.20.2.161.22266
- Tieman, W., van der Ende, J., Verhulst, F (2008). Young adult international adoptees' search for birth parents. *Journal of Family Psychology*, 22, 678-687. doi: 10.1037/a0013172
- Trenka, J. J., Oparah, J. C., & Shin, S. Y. (2006). *Outsiders within: Writing on transracial adoption*. Cambridge, MA: South End Press.
- Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S., (2003). Rumination Reconsidered: A Psychometric Analysis. *Cognitive Therapy and Research*, 27, 247-259. doi: 10.1023/A:1023910315561
- Umaña-Taylor, A. J., Yazedjian, A., & Bámaca-Gómez, M. (2004). Developing the ethnic identity scale using Eriksonian and social identity perspectives. *Identity*, 4, 9-38. doi: 10.1207/S1532706XID0401_2
- U.S. Department of State (2013). *Adoptions by country*. Retrieved May 11, 2013, from http://adoption.state.gov/about_us/statistics.php
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063-1070. doi: 10.1037/0022-

3514.54.6.1063

Wrobel, G. M., Grotevant, H. D., & McRoy, R. G. (2004). Adolescent search for birthparents: Who moves forward? *Journal of Adolescent Research*, 19, 132 - 151. doi: 10.1177/0743558403258125

Yogo, M., & Fujihara, S. (2008). Working memory capacity can be improved by expressive writing: A randomized experiment in a Japanese sample. *British Journal of Health Psychology*, 13, 77-80. doi: 10.1348/135910707X252440

Zamostny, K. P., Wiley, M. O., O'Brien, K. M., Lee, R. M., & Baden, A. L. (2003). Breaking the silence: Advancing knowledge about adoption for counseling psychologists. *The Counseling Psychologist*, 31, 647-650. doi: 10.1177/00111000003258082

Appendix A. Instructions for Writing Conditions

WRITING INTERVENTION

Writing Condition: Birth Family & Culture

Over the next three days, you will be asked to write, three times, about one of several topics for 15 minutes each day. We ask that you write continuously over the entire time. In your writing, don't worry about grammar, spelling, or sentence structure. Just write. People may be asked to write about different topics; because of this I ask that you do not talk to other participants in this study about the experiment. Your writing is anonymous and confidential. Do not write your name in your essay.

Day 1:

I would like for you to write about your very deepest thoughts and feelings about your birth family and culture as an adopted Korean American. In your writing, I'd like you to really let go and explore your very deepest emotions and thoughts. You might tie these feelings and thoughts to your childhood, your relationships with others, including parents, significant others, friends, or relatives. You may also link this event to your past, your present, or your future, or to who you have been, who you would like to be, or who you are now. You may write about the same general issues or experiences on all days of writing or on different topics each day. Some adopted individuals have experienced struggles and stressors related to thoughts and feelings about birthparents/family and birth culture, you may write about those as well. All of your writing will be completely confidential. Please write in as much detail as possible. We really want you to let go and not to worry about spelling, sentence structure, or grammar. The only rule is that once you begin writing, continue to do so until the entire 15 minutes is up.

Day 2

Today, please continue writing your very deepest thoughts and feelings about birth family and birth culture as an adopted Korean American. You can explore other aspects of your birth family and culture, and how it may have affected your life. If you run out of things to write, simply repeat what you wrote on Day 1.

For your convenience, the instructions from Day 1 are reproduced below:

I would like for you to write about your very deepest thoughts and feelings about your birth family and birth culture as an adopted Korean American. In your writing, I'd like you to really let go and explore your very deepest emotions and thoughts. You might tie these feelings and thoughts to your childhood, your relationships with others, including parents, significant others, friends, or relatives. You may also link this event to your past, your present, or your future, or to who you have been, who you would like to be, or who you are now. You may write about the same general issues or experiences on all days of writing or on different topics each day. Some adopted individuals have experienced struggles and stressors related to thoughts and feelings about

birthparents/family and birth culture, you may write about those as well. All of your writing will be completely confidential. Please write in as much detail as possible. We really want you to let go and not to worry about spelling, sentence structure, or grammar. The only rule is that once you begin writing, continue to do so until the entire 15 minutes is up.

Day 3

Since this is the last day of the writing exercise, we would like you to reflect on what you have written over the past few sessions concerning thoughts and feelings about birth family and culture. How has what you've written shaped your understanding of your current life and how you want to live your life in the future? Remember to keep writing until you're told to stop.

Writing Condition: Stressor

Over the next three days, you will be asked to write, three times, about one of several topics for 15 minutes each day. We ask that you write continuously over the entire time. In your writing, don't worry about grammar, spelling, or sentence structure. Just write. People may be asked to write about different topics; because of this I ask that you do not talk to other participants in this study about the experiment. Your writing is anonymous and confidential. Do not write your name in your essay.

Day 1:

I would like for you to write about your very deepest thoughts and feelings about a recent stressor in your job or school. If you are not in school or have a job, please write about the stress of not having a job or being in school. In your writing, I'd like you to really let go and explore your very deepest emotions and thoughts. You may link this stressor to your past, your present, or your future, or to who you have been, who you would like to be, or who you are now. You may write about the same general issues or experiences on all days of writing or on different topics each day. All of your writing will be completely confidential. Please write in as much detail as possible. We really want you to let go and not to worry about spelling, sentence structure, or grammar. The only rule is that once you begin writing, continue to do so until the entire 15 minutes is up.

Day 2

Today, please continue writing your very deepest thoughts and feelings about a recent stressor in your job or school. You can right about the same stressor or explore other stressors in your job or occupation, and how it may affect other areas of your life. If you run out of things to write, simply repeat what you wrote on Day 1.

For your convenience, the instructions from Day 1 are reproduced below:

I would like for you to write about your very deepest thoughts and feelings about a recent stressor in your job or school. If you are not in school or have a job, please write about the stress of not having a job or being in school. In your writing, I'd like you to

really let go and explore your very deepest emotions and thoughts. You may link this stressor to your past, your present, or your future, or to who you have been, who you would like to be, or who you are now. You may write about the same general issues or experiences on all days of writing or on different topics each day. All of your writing will be completely confidential. Please write in as much detail as possible. We really want you to let go and not to worry about spelling, sentence structure, or grammar. The only rule is that once you begin writing, continue to do so until the entire 15 minutes is up.

Day 3

Since this is the last day of the writing exercise, we would like you to reflect on what you have written over the past few sessions concerning thoughts and feelings about a recent stressor in your job or school. How has what you've written shaped your understanding of your current life and how you want to live your life in the future? Remember to keep writing until you're told to stop.

Writing Condition: Technology (control)

Over the next three days, you will be asked to write, three times, about one of several topics for 15 minutes each day. We ask that you write continuously over the entire time. In your writing, don't worry about grammar, spelling, or sentence structure. Just write. People may be asked to write about different topics; because of this I ask that you do not talk to other participants in this study about the experiment. Your writing is anonymous and confidential. Do not write your name in your essay.

Day 1

Many scholars have observed that technology has significantly impacted the way in which the world operates. Over the next 3 days, we would like you to write about important topics related technological changes.

Please write about how technology has influenced society today. In your essay, you should try to be as objective as possible. **Do not discuss your personal feelings** and do not refer to any examples from your personal life or the lives of your friends and family members. Remember to keep writing until you're told to stop.

Day 2

Please write about the best advances in technology over the past 100 years. In your essay, you should try to be as objective as possible. Do not discuss your personal feelings and do not refer to any examples from your personal life or the lives of your friends and family members. Remember to keep writing until you're told to stop.

Day 3

How do you think technology affect society in the next 100 years? In your essay, you should try to be as objective as possible. Do not discuss your personal feelings and do not

refer to any examples from your personal life or the lives of your friends and family members.

Appendix B. Demographic, Adoption, and Search Behavior Questionnaire**Demographic, Adoption, and Search Behavior Questionnaire**

1. Are you a Korean American adopted from South Korea?
Yes/No

2. Gender:
Male/Female/Transgender

3. Relationship Status:
Single/ Married/ Partnered (not married)/ Divorced/ Widowed

4. What is the race of your partner?
White/European American// Black/African American// Hispanic/Latino?? Asian/Asian American?? American Indian/Alaskan Native// Native Hawaiian/Pacific Islander// Two or more races// Other

5. Do you have any children?
Yes/No

6. Date of Birth
Month/Day/Year

7. Where are you currently living?
City/State/Country

8. Approximately how long have you lived in the country of current residence?

9. How many months old were you at adoption?

10. How would you rate your Korean language ability?
I do not speak Korean at all// I know a few words and phrases in Korean// I am at a beginning level in Korean// I am at an intermediate level in Korean// I am at an advanced level in Korean (fairly fluent)

11. Adoption agency (if known):

12. What is the race of adoptive mother?

13. What is the race of your adoptive father?

14. Are your adoptive parents still living?
Yes, both parents are still living/ One parent is still living/ No, neither parents are living

15. In the past few years, I have had contact (i.e., visits, phone calls, emails) with my adoptive parents?

Less than once per year/ Yearly/ Monthly/ Weekly/ Daily

16. I am satisfied with the level of contact with my adoptive parents.

Strongly Disagree/Disagree/Netural/Agree/Strongly Agree

17. I am satisfied with my relationship with my adoptive parents.

Strongly Disagree/Disagree/Netural/Agree/Strongly Agree

18. Have you ever conducted a formal search for your birth family?

19. How likely is it that you will attempt to search for birth family someday?

Never rather unlikely unlikely likely rather likely very likely

20. Choose all the ways in which you have searched?

Adoption agency, contacted orphanage, contacted hospital, agency in korea (goal, inkas)
private investigator, telivesion show, newspaper ad, dna registry, only message/posting,
other online resources)

21. When did you begin actively searching for you birth family

22. Have you ever met members of your birth family?

23. When were you reunited with your birth family?

24. Who have you reunited with from your birth family

25. In the past few years, I have had contact (i.e., visits, phone calls, emails) with my birth family?

Less than once per year/ Yearly/ Monthly/ Weekly/ Daily

26. I am satisfied with the level of contact with my birth family.

Strongly Disagree/Disagree/Netural/Agree/Strongly Agree

27. I am satisfied with my relationship with my birth family.

Strongly Disagree/Disagree/Netural/Agree/Strongly Agree

Appendix C. Birth Family Thoughts Scale

Birth Family Thoughts Scale (BFTS; Lee, Hu, & Kim, 2013)

Please rate how much you agree with the following statements about birth family.
Strongly Disagree(1) Disagree(2) Neutral(3) Agree(4) Strongly Agree(5)

1. I think about my birthparents.
2. I wonder why my birthparents were unable to care for me.
3. I wonder whether my birthparents ever think about me.
4. I think about whether or not I look like my birthparents.
5. I wonder if I have other brothers and sisters in Korea.
6. I think about my Korean name.
7. I think about whether I should change my name to my Korean name.
8. I imagine what it would have been like to have grown up in Korea.

Appendix D. Adoptive Identity Scale

Adoptive Identity Scale (AIS; Reichwald, 2012- Revised)⁸

Please rate how much you agree with the following statements.

Strongly Disagree(1) Disagree(2) Agree(3) Strongly Agree(4)

1. I have a clear sense of being adopted and what it means for me.
2. I am comfortable being adopted. *
3. I am not very clear about how being adopted affected my life.
4. I really have not spent much time trying to learn more about the history and culture of adoption.
5. I have a strong sense of belonging with other adoptees.
6. I understand pretty well what being adopted means for me.
7. I know how to relate to other adoptees.
8. I understand pretty well what being adopted means to me, especially in terms of how to relate to other adoptees.
9. I have a lot of pride in adoptees and their accomplishments.
10. I feel good about being an adoptee.
11. I don't like that I'm adopted.
12. Being adopted is an important reflection of who I am.
13. I feel comfortable around other adoptees. *
14. I identify as an adoptee

⁸ * = Revised items

Appendix E. Preoccupation with Adoption Scale

Preoccupation with Adoption Scale (PAS; Colaner, 2011)

Not at all true of me	2	3	4	5	6	Absolutely true of me
----------------------------------	----------	----------	----------	----------	----------	----------------------------------

1. My adoption is the most important thing about me
2. It is difficult to have any part of my life detached from my adopted status
3. My adoption affects the way I see everything in the world
4. I feel like nearly every aspect of who I am is the way that it is because of my adoption
5. People cannot understand anything about me if they do not know I am adoptee

Appendix F. Ethnic Identity Scale

Ethnic Identity Scale (EIS; Umana-Taylor, Yazedijian, & Bamaca-Gomez, 2004)

The U.S. is made up of people of various ethnicities. Ethnicity refers to cultural traditions, beliefs, and behaviors that are passed down through generations. Some examples of the ethnicities that people may identify with are Mexican, Cuban, Nicaraguan, Chinese, Taiwanese, Filipino, Jamaican, African American, Haitian, Italian, Irish, and German. In addition, some people may identify with more than one ethnicity. When you are answering the following questions, we'd like you to think about what YOU consider your ethnicity to be.

Please write what you consider to be your ethnicity here _____ and refer to this ethnicity as you answer the questions below.

	Does not describe me at all	Describes me a little	Describes me well	Describes me very well
1. My feelings about my ethnicity are mostly negative.	1	2	3	4
2. I have not participated in any activities that would teach me about my ethnicity.	1	2	3	4
3. I am clear about what my ethnicity means to me.	1	2	3	4
4. I have experienced things that reflect my ethnicity, such as eating food, listening to music, and watching movies.	1	2	3	4
5. I have attended events that have helped me learn more about my ethnicity	1	2	3	4
6. I have read books/magazines/newspapers or other materials that have taught me about my ethnicity.	1	2	3	4
7. I feel negatively about my ethnicity.	1	2	3	4
8. I have participated in activities that have exposed me to my ethnicity	1	2	3	4
9. I wish I were of a different ethnicity	1	2	3	4
10. I am not happy with my ethnicity.	1	2	3	4
11. I have learned about my ethnicity by doing things such as reading (books, magazines, newspapers), searching the internet, or keeping up with current events.	1	2	3	4

	Does not describe me at all	Describes me a little	Describes me well	Describes me very well
12. I understand how I feel about my ethnicity.	1	2	3	4
13. If I could choose, I would prefer to be of a different ethnicity.	1	2	3	4
14. I know what my ethnicity means to me.	1	2	3	4
15. I have participated in activities that have taught me about my ethnicity.	1	2	3	4
16. I dislike my ethnicity.	1	2	3	4
17. I have a clear sense of what my ethnicity means to me.	1	2	3	4

Appendix G. Emotion Regulation Questionnaire

Emotion Regulation Questionnaire (ERQ; Gross & John, 2003)

1	2	3	4	5	6	7
Strongly Disagree		Neutral			Strongly Agree	

1. ____ When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
4. ____ When I am feeling positive emotions, I am careful not to express them.
5. ____ When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
6. ____ I control my emotions by not expressing them.
7. ____ When I want to feel more positive emotion, I change the way I'm thinking about the situation.
8. ____ I control my emotions by changing the way I think about the situation I'm in.
9. ____ When I am feeling negative emotions, I make sure not to express them.
10. ____ When I want to feel less negative emotion, I change the way I'm thinking about the situation.

Appendix H. Ruminative Response Styles

**Ruminative Response Styles-22
(RSS-22; Nolen-Hoeksema, 1991)**

People think and do many different things when they feel depressed. Please read each of the items below and indicate whether you almost never, sometimes, often, or almost always think or do each one when you feel down, sad, or depressed. Please indicate what you *generally* do, not what you think you should do.

Almost Never(1) Sometimes(2) Often(3) Almost Always(4)

1. Think about how alone you feel
2. Think "I won't be able to do my job if I don't snap out of this"
3. Think about your feelings of fatigue and achiness
4. Think about how hard it is to concentrate
5. Think "What am I doing to deserve this?"
6. Think about how passive and unmotivated you feel.
7. Analyze recent events to try to understand why you are depressed
8. Think about how you don't seem to feel anything anymore
9. Think "Why can't I get going?"
10. Think "Why do I always react this way?"
11. Go away by yourself and think about why you feel this way
12. Write down what you are thinking about and analyze it
13. Think about a recent situation, wishing it had gone better
14. Think "I won't be able to concentrate if I keep feeling this way."
15. Think "Why do I have problems other people don't have?"
16. Think "Why can't I handle things better?"
17. Think about how sad you feel.
18. Think about all your shortcomings, failings, faults, mistakes
19. Think about how you don't feel up to doing anything
20. Analyze your personality to try to understand why you are depressed
21. Go someplace alone to think about your feelings
22. Think about how angry you are with yourself

Appendix I. The Positive and Negative Affect Scale

**The Positive and Negative Affect Scale
(PANAS; Watson et al., 1988)**

Very Slightly/ A Little Moderately Quite a Bit Extremely
Not at All

- | | |
|-----------------------|----------------------|
| _____ 1. Interested | _____ 11. Irritable |
| _____ 2. Distressed | _____ 12. Alert |
| _____ 3. Excited | _____ 13. Ashamed |
| _____ 4. Upset | _____ 14. Inspired |
| _____ 5. Strong | _____ 15. Nervous |
| _____ 6. Guilty | _____ 16. Determined |
| _____ 7. Scared | _____ 17. Attentive |
| _____ 8. Hostile | _____ 18. Jittery |
| _____ 9. Enthusiastic | _____ 19. Active |
| _____ 10. Proud | _____ 20. Afraid |

Appendix J. Brief Symptom Inventory

**Brief Symptom Inventory-18
(BSI-18; Derogatis, 2001)**

Below is a list of problems people sometimes have. Read each one carefully and indicate the number that best describes how much that problem has distressed or bothered you during the past 7 days including today.

Not at all (0) A Little Bit (1) Moderately (2) Quite a Bit (3) Extremely (4)
How much were you distressed by: (rate 0 to 4)

- | | |
|--|-------|
| 1. Faintness or dizziness | _____ |
| 2. Feeling no interest in things | _____ |
| 3. Nervousness or shakiness inside | _____ |
| 4. Pains in heart or chest | _____ |
| 5. Feeling lonely | _____ |
| 6. Feeling tense or keyed up | _____ |
| 7. Nausea or upset stomach | _____ |
| 8. Feeling blue | _____ |
| 9. Suddenly scared for no reason | _____ |
| 10. Trouble getting our breath | _____ |
| 11. Feelings of worthlessness | _____ |
| 12. Spells of terror or panic | _____ |
| 13. Numbness or tingling in parts of your body | _____ |
| 14. Feeling hopeless about the future | _____ |
| 15. Feeling so restless you couldn't sit still | _____ |
| 16. Feeling weak in parts of your body | _____ |
| 17. Thoughts of ending your life | _____ |
| 18. Feeling fearful | _____ |

Appendix K. Health Questions and Risky Behaviors

Health Questions and Risky Behaviors

1. In the past month, how many visits have you made to the health center or physician for illness?
2. In the past month, how many days have you been sick?
3. In the past month, how many days has your activity been restricted?
4. In the past month, how many days could you not sleep due to insomnia?
5. In the past month, how many days did you drink alcohol?
6. In the past month, how many days did you smoke cigarettes?
7. In the past month, how many days did you use drugs other than those required for medical reasons?

Appendix L. Questionnaire on Participants' Subjective Experiences

Questionnaire on Participants' Subjective Experiences (QPSE; Pennebaker, Colder, & Sharp, 1990)

1. Since the writing experiment, how much have you talked to other people about what you wrote?
2. Since participating in the writing experiment, how much have you thought about what you wrote?
3. Looking back on the experiment, to what degree do you feel that the experiment had a positive long-lasting impact?
4. Looking back on the experiment, to what degree do you feel that the experiment had a negative long-lasting impact?
5. Since the experiment, how happy have you felt?
6. Since the experiment, how sad or depressed have you felt?
7. Looking back on the experiment, to what degree has this experiment been valuable or meaningful to you?