Depression, Emotional Arousability, and Perceptions of Parenting in Adult Adoptees and Non-Adoptees

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Abstract
Adult adoptees ($n = 144$) and non-adoptees ($n = 131$) were surveyed in order to investigate (a) the relative contributions of adoptive status and parental variables to measures of adjustment, and (b) possible differences between searching and non-searching adoptees. Parental variables were more important than adoptive status in predicting depression, though adoptive status and perceptions of parenting were both significant predictors of emotional arousability. Searchers reported lower levels of parental care, acceptance, and supervision than non-searchers. However, there was also variability among searchers depending on their motives for searching. Implications for counseling are discussed, particularly in relation to the diversity among adoptees.

Keywords: Adjustment, adoptees, adoption, adoptive parents, depression, emotional arousability, family, parenting, search.
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There has been some debate about whether adoption is a risk factor for psychological adjustment. In a meta-analysis of 66 studies, Wierzbicki (1993) found that adoptees had significantly higher levels of maladjustment than non-adoptees. However, he also noted three caveats. First, this result was largely due to studies that focused on the percentage of adoptees in clinical populations. Second, the mean effect size was significantly greater for externalizing disorders than internalizing disorders. Third, most of the studies included in the meta-analysis involved children or adolescents.

Since Wierzbicki’s meta-analysis, several studies have compared the adjustment of adult adoptees and non-adoptees, with somewhat mixed results. Sullivan, Wells, and Bushnell (1995) found a higher lifetime incidence of major depression in adopted females compared with non-adopted females. After controlling for age and gender, however, there were no differences in depression between adoptees and those raised in biological families.

In a study of Swedish twins who had been raised apart, with one twin being adopted, no significant differences in depression were found between adoptees and non-adoptees (Smyer, Gatz, Simi, & Pedersen, 1998). However, the most common reasons for separation of the twins were economic hardship and parental illness or unavailability. Thus, it is possible that the greater economic and parental stability experienced by the adoptees protected them against depression. Indeed, a number of studies suggest that a well-functioning adoptive family can buffer the adoptee against negative psychosocial outcomes such as poor self-esteem (e.g., Kelly, Towner-Thyrum, Rigby, & Martin, 1998; Passmore, Fogarty, Bourke, & Baker-Evans, 2005). Powell and Afifi (2005) also found that adult adoptees were less likely to express feelings of loss if their adoptive families were open and accepting.

Attachment theory helps to explain the possible buffering effect of a well-functioning family. According to Bowlby (1988), children internalize their experiences with primary caregivers, thus developing working models of attachment. For example, if the primary caregiver is perceived as available and responsive, the child is more likely to develop a secure attachment style. Working models are important throughout the lifespan and can affect adult relationships (Feeney & Noller, 1996). In the context of adoption, the vital role of childhood bonds is suggested by Howe and Feast’s (2001) study of the post-reunion relationships of adoptees who had met their birthmothers. In cases where both the adoptive mother and birthmother were still alive, adoptees were more likely to be in contact with their adoptive mothers than their birthmothers, particularly in terms of face-to-face contact. Research on age at adoption placement also confirms the importance of childhood bonds. For example, Howe (2001) found that the younger adoptees were when placed for adoption, the more likely they were to feel, as adults, that their adoptive mothers loved them and that they ‘belonged’ in the adoptive family.

So far, we have discussed adoptees as if they were a homogenous group. When researchers make distinctions among different types of adoptees, however, some adoptees seem more at risk for poor adjustment. Although Borders, Penny, and Portnoy (2000) found that adoptees had higher depression scores than their non-adopted friends, further analyses indicated that only ‘searchers’ (those who had searched for birth relatives) were more depressed than non-adoptees. Research also indicates that different groups of adoptees differ in their perceptions of their adoptive parents. For example, Aumend and Barrett (1984) found that non-searching adoptees had more positive attitudes towards their adoptive parents than searching adoptees. Sobol and Cardiff (1983) also found that attitudes to adoptive parents were more positive for adoptees who did not intend to search for birth relatives, though searchers divided into two groups depending on whether they evaluated their adoptive parents...
positively or negatively. Hence, just as adoptees are not a homogenous group, there are also differences among searchers, with motivations for searching being important (Müller & Perry, 2001). Some adoptees search to obtain background information or to resolve issues such as loss, while others search in order to establish new relationships (Howe & Feast, 2001). Thus, it is important for researchers to examine the relationship between different search motives and psychosocial adjustment.

The Current Study

In the current study, we surveyed adult adoptees and non-adoptees. All participants were Anglo-Australian and had been raised in intact families until at least the age of 16 years. All adoptees had been adopted by non-relatives within the first two years of life, with most (83.8%) being adopted within six weeks after birth. At the time of these adoptions, Australia had a closed adoption system. In the 1990s, legislative changes enabled adoptees and birthparents to obtain identifying information about one another, provided that the other party had not placed a veto on the information. As such, the findings of this study may not generalize to other types of adoptive or family experiences (e.g., trans-racial, special needs, or open adoption; or single-parent families). Nevertheless, it is important to examine factors that influence the current well-being of adults who were adopted under previous adoption systems. With this in mind, the current study had two main aims.

First, we investigated the relative contributions of adoptive status and parental variables to adjustment. The parental variables included care, acceptance, supervision, and overprotection, and the adjustment variables were depression and emotional arousability. Although previous research has examined depression, we are unaware of any studies that have investigated emotional arousability within an adopted sample. Given that adoption, search, and reunion experiences are often fraught with emotion, it is important to determine whether adoptive status is a risk factor for heightened emotionality. We expected that parental variables would contribute more to the prediction of depression than adoptive status alone (Hypothesis 1a). We also expected that both adoptive status and parental variables would predict emotional arousability (Hypothesis 1b), though prior research has not addressed this question.

Our second aim was to compare searching and non-searching adoptees on the psychosocial and parental variables. We expected that searchers would generally fare worse than non-searchers on these variables (Hypothesis 2). In order to further explore these expected differences, we also investigated adoptees’ motives for searching. Possible gender differences were also explored in relation to these aims.

Method

Participants

Participants were 144 adoptees and a comparison group of 131 non-adoptees. Adoptees ranged in age from 18 to 66 years (M = 37.76 years), and non-adoptees ranged in age from 20 to 70 years (M = 37.67 years). An independent groups t test revealed no significant difference with regard to age. Most participants were female (77.1% and 73.3% for adoptees and non-adoptees respectively), had some education beyond high school (81.2% and 84.7% for adoptees and non-adoptees respectively), and were currently in a relationship (45.1% married and 11.1% de facto for adoptees; 45.8% married and 9.9% de facto for non-adoptees). Chi square analyses indicated no significant differences between groups with regard to gender, relationship status, or educational level. (Other general characteristics of the sample were stated in the literature review.)

Materials

The following questionnaires were presented in one of six different orders.
Demographic questionnaire. All participants completed demographic items including age, gender, relationship status, ethnicity, and educational level. Adoptees completed additional items pertaining to their adoption, search, and reunion experiences.

Depression. The depression subscale of the Depression Anxiety Stress Scales (DASS-D; Lovibond & Lovibond, 1995) is a 14-item scale designed to “measure symptoms typically associated with dysphoric mood (e.g., sadness or worthlessness)” (Antony, Bieling, Cox, Enns, & Swinson, 1998, p. 177). Participants rated the extent to which they had experienced each symptom during the last week on a scale from 1 (did not apply to me at all) to 4 (applied to me very much). The scale has concurrent validity, with correlations of .74 to .77 being found between the DASS-D and the Beck Depression Inventory (Antony et al., 1998; Lovibond & Lovibond, 1995).

Emotional arousability. Braithwaite’s (1987) Scale of Emotional Arousability consists of 15 items that measure general emotionality (e.g., “I frequently get upset”), anger (e.g., “I am known as hot-blooded and quick-tempered”), timidity (“When I get scared, I panic”), and lack of emotional control (e.g., “I have trouble controlling my impulses”). Items are rated on a 5-point scale from 1 (No, this is very unlike me) to 5 (Yes, this is very like me). While Braithwaite obtained adequate alpha coefficients for the total score and the general emotionality subscale, internal consistency was lower for the other subscales. Thus, only total scores were used in the current research.

The Parental Bonding Instrument. The Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) is a retrospective measure in which participants separately rate the extent to which each of their parents exhibited particular attitudes and behaviors during the first 16 years of their lives. The instrument comprises a 12-item care scale (e.g., “Spoke to me with a warm and friendly voice”) and a 13-item overprotection scale that taps controlling behaviors (e.g., “Tried to control everything I did”). Items are rated from 0 (very unlike this parent) to 3 (very like this parent). Parker et al. (1979) reported test-retest correlations of .76 for the care scale and .63 for the overprotection scale over a three-week period, and a 10-year longitudinal study also found adequate test-retest reliability (Wilhelm & Parker, 1990).

Parental Style Index. A modified version of the Parental Style Index (PSI, Lamborn, Mounts, Steinberg, & Dornbusch, 1991) was used to measure parental acceptance/involvement and parental supervision. As this scale was initially developed for high school students, slight modifications were made so that it would be relevant for an adult sample. We also asked participants to rate items separately for each parent on 4-point scales. In the present study, the acceptance/involvement scale comprised 10 items tapping the extent to which respondents thought their parents were caring and involved (e.g., “He/she kept pushing me to do my best in whatever I did”). We also used six of the nine original items from Lamborn et al.’s strictness/supervision scale. As these items measured the extent to which the parent monitored or supervised their child, we relabeled this variable supervision (e.g., “How much did your mother/father really know about where you went at night?”).

Motives for Searching Questionnaire. The Motives for Searching Questionnaire (MSQ) was designed specifically for this study to tap reasons an adoptee might have for searching for one or more birth relatives. As such, it was only completed by adoptees who had searched or were currently searching for birth relatives. The MSQ contained 13 items rated from 1 (not at all important) to 4 (very important). Principal Components Analysis with oblique rotation was used to explore the dimensionality of the scale. A three-factor solution was the most interpretable. Factor 1, Background Information, consisted of four items concerning family history, medical history, and circumstances of the birth and relinquishment ($\alpha = .67$). Factor 2, Reconnect with Birth Relatives, contained four items involving relationships with the birth family (desire to meet siblings, establish a relationship with the birthmother, gain a family, and provide information to birthparents; $\alpha = .78$). Factor 3,
Resolve Personal Issues, included five items that tapped a desire to resolve personal problems, gain peace, find a sense of belonging, and find out who the adoptee resembled in terms of appearance and personality ($\alpha = .82$).

Procedure

As part of a larger study, participants were recruited from various sources, including advertisements in the print and electronic media, university newsletters, flyers left in doctors’ and counselors’ waiting rooms, adoption support groups, psychology classes, and networks available to the researchers. Those who indicated an interest in participating were screened to ensure they met the criteria for inclusion (e.g., born in Australia, lived in an intact family until age of 16). Those who met these criteria were sent a pack of materials that included a cover letter, an informed consent form, the questionnaire, and a reply-paid envelope.

Results

Descriptive Statistics and Preliminary Analyses

SPSS for Windows (Ver. 12.0.1) was used for all analyses. All variables had adequate internal consistency: Depression and emotional arousability obtained alpha coefficients of .94 and .81 respectively, and alpha coefficients for all parental variables exceeded .89.

Predicting Adjustment: The Role of Adoptive Status and Parental Variables

A series of hierarchical regression analyses was conducted to assess the relative contributions of adoptive status and parental variables to adjustment (Aim 1). For the adoptive status variable, adoptees were coded as 1 and non-adoptees as 2. As the mother and father variables were correlated (ranging from .43 for mother and father care to .70 for mother and father supervision), they were entered in separate regression analyses. In view of the wide age range of our participants, we controlled for age in these analyses.

Predicting depression. In the first analysis predicting depression, age was entered at Step 1, adoptive status at Step 2, and the four mother variables (maternal care, overprotection, acceptance/involvement, and supervision) were entered as a block at Step 3. A separate analysis was conducted with the father variables added at the third step. Neither age alone (Step 1) nor age and adoptive status together (Step 2) significantly predicted depression in either analysis. However, the full model was significant in each case. For the analysis involving mother variables, 14.1% of the variance in depression was explained, $R = .38; F(6, 261) = 7.16, p < .001$. The analysis involving father variables explained 8.6% of the variance, $R = .29; F(6, 258) = 4.03, p < .01$. Overprotection made a significant unique contribution to the prediction of depression ($\beta = .20, t = 2.40, p < .05$ for maternal overprotection and $\beta = .15, t = 1.96, p = .051$ for paternal overprotection).

Predicting emotional arousability. Similar analyses were conducted with emotional arousability as the dependent variable. In these analyses, all three steps attained significance. Age was a significant predictor at Step 1, with younger participants reporting higher emotional arousability. The amount of explained variance was approximately 2% (the percentage differed slightly across the two analyses, due to different $n$’s). When adoptive status was added, a further 5% of variance was explained, with adoptees reporting higher emotional arousability. At Step 3, additional variance was explained by the parental variables (a further 6% for the mother variables, and a further 7.4% for the father variables). For the full model including mother variables, $R = .35; F(6, 260) = 6.20, p < .001$; for the full model including father variables, $R = .39; F(6, 258) = 7.63, p < .001$. Age, adoptive status, and parental overprotection all made significant unique contributions to the prediction of emotional arousability, although a relatively small proportion of the variance was explained.

Gender. The regression analyses were repeated with gender and the gender by parenting interaction terms included as predictors. However, gender contributed little to the prediction of either depression or emotional arousability.
Comparing Searchers and Non-Searchers

Our second aim was to compare searching and non-searching adoptees on the various measures. Two multivariate analyses of covariance (MANCOVA), using Hotelling’s Trace statistic, addressed this aim. We defined searchers as adoptees who were currently searching for birth relatives or had done so in the past, regardless of whether they had had a reunion or not. Non-searchers were defined as those who had never actively searched for birth relatives (regardless of whether they had had a reunion). Given the relatively small number of non-searchers, these analyses should be regarded with caution.

First, a 2 x 2 MANCOVA was conducted with search status (searcher, non-searcher) and gender as the independent variables, depression and emotional arousability as the dependent variables, and age as the covariate. No multivariate effects were significant (all \( p \)'s > .05).

A further 2 x 2 MANCOVA assessed differences on the eight parental variables (i.e., the four scores from the PBI and the four scores from the PSI). The search status by gender multivariate interaction was not significant. A significant multivariate main effect for gender emerged, \( F(8, 123) = 2.86, p < .01 \); however, the univariate \( F \) tests did not reveal significant differences between males and females on any of the individual parental variables. Of more importance was the significant multivariate main effect for search status, \( F(8, 123) = 2.36, p < .05 \). Univariate \( F \) tests indicated that searchers and non-searchers differed significantly on all variables except for mother and father overprotection. Specifically, searchers reported lower parental care, acceptance, and supervision than non-searchers, though the effect sizes were relatively small (partial \( \eta^2 \) ranged from .04 to .09).

To further investigate why the searching adoptees fared worse than the non-searching adoptees, we calculated Pearson product-moment correlations between the search motives from the MSQ and the adjustment and parenting variables. (These analyses were restricted to adoptees who had searched or were currently searching for birth relatives.) After controlling for age, the Resolve Personal Issues factor showed significant positive correlations with depression (\( r = .25, p < .05 \)), emotional arousability (\( r = .41, p < .001 \)), and mother overprotection (\( r = .25, p < .05 \)), and significant negative correlations with mother care (\( r = -.32, p < .01 \)), father care (\( r = -.22, p < .05 \)), and mother acceptance (\( r = -.24, p < .05 \)). The only other significant finding was a positive correlation between the Background Information factor and father supervision (\( r = .23, p < .05 \)). Using Cohen’s (1988) guidelines, these correlations reflect small to medium effect sizes.

Discussion

Our first aim was to investigate the relative contributions of adoptive status and parental variables to the prediction of depression and emotional arousability. Once age was controlled, adoptive status did not add significantly to the prediction of depression. In support of Hypothesis 1a, however, the parental variables predicted depression, with parental overprotection making a unique contribution to the prediction. Specifically, those who reported more overprotective parenting had higher depression scores. While we are unaware of any previous studies that have investigated the relative contributions of adoptive status and parenting to the prediction of depression, these results are consistent with findings in the self-esteem area (Passmore et al., 2005). In contrast, and in support of Hypothesis 1b, adoptive status and parental variables both made significant contributions to the prediction of emotional arousability. Among the parental variables, maternal and paternal overprotection made unique contributions to the prediction.

Our second aim was to compare searchers and non-searchers on the adjustment and parental variables. Hypothesis 2 was partially supported. Although searching and non-searching adoptees did not differ in terms of depression and emotional arousability, searching adoptees fared worse than non-searching adoptees on all of the parental variables except...
overprotection. That is, searchers reported less parental care, acceptance/involvement, and supervision. This result is consistent with Aumend and Barrett’s (1984) finding that non-searching adoptees have more positive attitudes towards their adoptive parents.

Our analyses involving adoptees’ motives for searching shed light on possible reasons for the differences between searchers and non-searchers. Adoptees who searched in order to resolve personal issues (to resolve problems or to gain a sense of peace or belonging) were more likely to experience depression and emotional arousability, and to perceive their adoptive parents as less caring and their adoptive mothers as less accepting and more overprotective. In contrast, searching to reconnect with birth relatives was unrelated to the adjustment or parental variables, while searching for background information was related only to father supervision. Thus, there are differences not only within the adoptee group (e.g., searchers vs non-searchers), but also among the searchers. These results are consistent with Sobol and Cardiff’s (1983) findings of relatively equal instances of positive and negative parent-child relationships among searchers.

Limitations and Suggestions for Future Research

The current study had some limitations. First, the cross-sectional design does not allow for clear statements of cause and effect. In future research, it would be useful to track adoptees through their search and reunion experiences in order to identify any positive or negative changes in their adjustment or perceptions of adoptive parents.

Second, the generalizability of the results is unclear. As noted earlier, we restricted our study to Australian adoptees who had been adopted prior to the age of two years and had then lived in intact families. Hence, the findings may not generalize to other types of adoptive experiences (e.g., older age at placement, inter-racial or special-needs adoptions, open adoptions). In view of the smaller number of non-searchers and males in the sample, caution is also needed in interpreting some results.

Third, although the parental variables significantly predicted depression and emotional arousability, a relatively small amount of the variance was explained. Given that the participants were adults ranging in age from 18 to 70 years, other factors (including biological predispositions and recent relationship events) may be more important than parental variables in predicting current psychosocial functioning. In ongoing research, we are exploring the impact of adoption on interpersonal factors (e.g., attachment style, risk in intimacy) and adult relationships, particularly with regard to romantic relationships and friendships. This research will further elucidate factors that may facilitate or hinder positive outcomes for adoptees.

Implications for Counseling

As noted earlier, parental variables were more important than adoptive status in predicting depression, and just as important as adoptive status in predicting emotional arousability. These results mesh with previous findings that a well-functioning adoptive family can buffer adoptees against poor psychosocial outcomes (e.g., Passmore et al., 2005), and confirms the importance of early childhood attachments to later adult functioning. While adoptive status is unchangeable, interventions aimed at strengthening adoptive family relationships could be helpful in preventing or alleviating adjustment problems for adoptees.

Further, this study adds to a growing body of literature identifying differences between searchers and non-searchers (e.g., Borders et al., 2000). However, we also found differences among searchers, indicating that it was only those searching in order to resolve personal issues (e.g., personal problems or a need for belonging) who experienced higher depression and emotional arousability. Adoptive parents can take heart in these findings. If adoptees initiate a search, it does not necessarily mean that they are unhappy with their adoption experience or feel negatively towards their adoptive parents. Some simply search for background information about their biological heritage. Even those who initiate a search in order to reconnect with birth relatives do not seem to do so because of dissatisfaction with
their adoptive families. For some, however, an unhappy adoption experience may be the impetus for their search.

Thus, it is important for counselors to help adoptees process their reasons for searching and their expectations of the search and reunion process. Helping adoptees work through various search and reunion scenarios may protect them against disappointment if they do not find what they are looking for. If counselors are aware of the variability among adoptees, rather than seeing them as a single group with identical problems and challenges, they will be in a better position to assist adopted clients through their diverse adoption, search, and reunion journeys.
References


