

Running head: ADULT ADOPTees AND NON-ADOPTees

Parental Bonding and Identity Style as Correlates of Self-Esteem

Among Adult Adoptees and Non-Adoptees

Nola L. Passmore, Gerard J. Fogarty, Carolyn J. Bourke, and Sandra F. Baker-Evans

University of Southern Queensland

We would like to thank Judith Feeney and the reviewers for their helpful comments on earlier versions of this paper, and Sarah Miller and Ruth Farwell for technical support.

Some of the preliminary findings from this study were presented at the 2nd Joint Conference of ISSPR and INPR, Brisbane, 2000.

Correspondence regarding this article should be addressed to Nola Passmore, Department of Psychology, University of Southern Queensland, Toowoomba, Queensland 4350, Australia. E-mail: nolapass@usq.edu.au

Abstract

Adult adoptees ($n = 100$) and non-adoptees ($n = 100$) were compared with regard to self-esteem, identity processing style, and parental bonding. While some differences were found with regard to self-esteem, maternal care, and maternal overprotection, these differences were qualified by reunion status such that only reunited adoptees differed significantly from non-adoptees. Moreover, hierarchical regression analyses indicated that parental bonding and identity processing style were more important than adoptive status per se in predicting self-esteem. Implications for practitioners who work with adoptees are discussed.

Keywords: adoptees, reunion, bonding, counselling, identity, self-esteem.

Parental Bonding and Identity Style as Correlates of Self-Esteem Among Adult Adoptees and Non-Adoptees

The development of a healthy self-esteem is an important indicator of psychological adjustment, with self-esteem being related to numerous emotional, cognitive, and behavioral variables (Leary & MacDonald, 2003). Compared with those who have low self-esteem, people with high self-esteem tend to be less anxious and depressed (Battle, Jarratt, Smit, & Precht, 1988), less likely to use illicit drugs (Taylor & Del Pilar, 1992), more socially skilled (Buhrmester, Furman, Wittenberg, & Reis, 1988), and more likely to have a secure attachment style (Meyers, 1998). A related concept, namely the establishment of a well-integrated identity, is also indicative of optimal psychological functioning (Waterman, 1992). Indeed for Erikson (1980), self-esteem and identity development were inextricably linked. He argued that “self-esteem, confirmed at the end of each major crisis, grows to be a conviction that one is learning effective steps toward a tangible future, that one is developing a defined personality within a social reality which one understands” (pp. 94-95).

While all individuals have to grapple with issues of self-esteem and identity throughout their lives, adoption has sometimes been conceptualized as a risk factor that undermines healthy development in these areas. For example, adoptees often score lower than non-adoptees on self-esteem (Levy-Shiff, 2001), and numerous authors have argued that the process of identity development is longer and more complex for adoptees (Grotevant, 1997b; Hoopes, 1990). Not only do adoptees have to come to terms with their emerging sense of self in the context of the family and culture into which they have been adopted (Grotevant, 1997a), but those who reunite with one or more birth relatives have the added task of integrating their biological and adoptive identities. Thus, in any study investigating self-esteem and identity development in adoptees, it would seem important to also include family variables and reunion data. We have done so in the current study by including parental bonding and reunion status as two of the variables of interest.

The current study has three main aims. First, we investigated the relationship between adoptive status and three psychosocial variables (i.e., self-esteem, identity processing style, and parental bonding) in a sample of adult adoptees and non-adoptees. In order to investigate the possible effects of reunion status, our second aim was to compare subgroups of adoptees (i.e., reunited and non-reunited) with non-adoptees on the dependent variables. Our third aim was to explore the relative contributions of adoptive status, identity processing style, and parental bonding to self-esteem. Thus, it should be possible to determine whether adoptive status is a risk factor for the development of poor self-esteem.

Before reviewing the literature regarding self-esteem, parental bonding, and identity style, we will briefly address issues pertaining to adoption research and the predominance of deficit approaches based on between-group comparison designs. A review of the main variables, along with specific hypotheses related to our main aims, will then follow.

Adoption Research, Deficit Approaches, and Between-Group Designs

Much of the empirical literature aimed at understanding the implications of childhood adoption for later psychological functioning tends to be based on simple comparisons between adoptees and non-adoptees on various psychosocial indicators. Unfortunately, between-group comparisons can be problematic in that they reflect a deficit approach to the study of adoption. The hallmark of such an approach typically involves the comparison of diverse family types (such as adoptive families or stepfamilies) against the “benchmark” nuclear family (i.e. heterosexual, married nuclear households with biological children) (Scanzoni, Polonko, Teachman, and Thomposn (1989). Researchers areas of family scholarship characterized by diverse family structures have noted the problems inherent in such an approach. In the divorce literature, for example, research comparing intact families with families that have experienced a divorce assume that (a) the two groups differ only in terms of the divorce, with differences within groups being relatively trivial, and (b) that the effects of divorce are relatively stable across time (Stewart, Copeland, Chester, Malley, & Barenbaum,

1997). Indeed, “deficit-based research provides only a piece of the big picture ... and ignores the multiple realities of family life ...” (Arditti, 1999, p. 43). Similar concerns could be applied to much of the adoption literature, in that adoptive status per se is conceptualised as *the* risk factor, without taking into account the array of family and contextual factors that influence positive and negative outcomes for adoptees. While some comparisons of adoptees and non-adoptees are made in the current study, we hope to overcome some of the problems of the deficit approach by also considering within-group differences in the adoptee sample, and investigating the relative contributions of adoptive status and the various psychosocial measures to self-esteem. This process will be explained further in the following sections.

Self-Esteem and Parental Bonding

Given the weaknesses of a deficit approach, it is not surprising that comparisons of adoptees and non-adoptees have often produced mixed results. Specifically, variability in measurement has made interpretation of research findings pertaining to psychological outcomes such as self-esteem difficult. Adoptees typically score lower on global measures of self-esteem (e.g., Levy-Shiff, 2001). When multidimensional measures are used, adoptees score lower on some domains, but not others (e.g., Kelly, Towner-Thyrum, Rigby, & Martin, 1998). As the present study used a global measure, we expected lower self-esteem scores for the adoptees.

Additionally, direct comparisons of adoptees and non-adoptees are complicated by the fact that adoptees are not an homogenous group, with more variability on various psychosocial outcomes often being found among adoptees than non-adoptees (Borders, Penny, & Portnoy, 2000). Reunion status (i.e., whether or not the adoptee has been reunited with one or more birth relatives) is one variable that may affect psychosocial outcomes for adoptees. When single-item measures are used, there is evidence that an adoptee’s self-esteem may improve following a reunion (Campbell, Silverman, & Patti, 1991; Pacheco & Eme, 1993). Aumend and Barrett (1983) also found a trend for post-reunion searchers to

have higher self-esteem than those who were currently searching for birth relatives, although differences between pre- and post-reunion searchers were not significant on most subscales of the Tennessee Self-Concept Scale. In the current study, we expected that reunited adoptees would report higher self-esteem than non-reunited adoptees.

There is also some evidence that a well-functioning adoptive family can act as a buffer against negative psychological outcomes for adopted people. Kelly et al. (1998) found that adoptees whose families encouraged open and direct communication and demonstrated a high level of clarity and structure were less likely to rate themselves negatively in terms of self-control or moral self-approval (i.e., two subscales of the Multi-Dimensional Self-Esteem Inventory). Using hierarchical regression analysis, Levy-Shiff (2001) found that only 4% of the variance in self-concept was explained by adoption status, while family environment variables explained a further 27% of the variance. For both the adopted and non-adopted groups, a more positive self-concept was associated with supportive and cohesive family relations in which the family permitted personal growth. Because the studies by Kelly et al. (1998) and Levy-Shiff (2001) looked at the family as a whole (i.e., family environment), the actual contribution of the adoptive parents to their child's well-being is not clear. Parker, Tupling, and Brown (1979) proposed that parent-child bonds are affected by characteristics of the child, the parents, and the reciprocal relationship between the child and the parents. They developed the Parental Bonding Instrument (PBI) to tap the contribution of the parents to this bond, particularly with regard to caring and nurturing behaviors and overprotective or controlling behaviors.

To our knowledge, no published study has compared adoptees and non-adoptees on the dimensions of the PBI. However, Sharma, McGue, and Benson (1996) compared adolescent adoptees and non-adoptees on two measures theoretically similar to the care dimension of the PBI. They found that adoptees scored lower than non-adoptees on parental nurturance and parental involvement, though the effect sizes were small. Thus, we expected

our non-adoptee sample to score higher than the adoptees on the parental care measure of the PBI.

Since self-esteem is an important outcome variable for psychosocial adjustment in both adopted and non-adopted populations, we were also interested in the extent to which family variables (i.e., adoptive status and parental bonding) could predict self-esteem. In a study of non-adopted Australian school children, Herz and Gullone (1999) found that self-esteem was positively correlated with mother and father care and negatively correlated with mother and father overprotection for those with Anglo and those with Vietnamese cultural backgrounds. Research among adoptees has also shown a link between family or parenting variables and self-esteem. For example, Yoon (2001) developed a path model for predicting psychological adjustment of Korean-born adolescents who had been adopted by parents in the United States. Yoon found that positive parent-child relationships, including parental warmth and positive parent-child communication, predicted psychological adjustment (i.e., personal self-esteem, positive well-being, and less distress). We had earlier noted findings by Kelly et al. (1998) and Levy-Shiff (2001) indicating that family environment is a predictor of self-esteem. In view of findings with both adopted and non-adopted samples, we expected that positive parenting (i.e., higher parental care and lower parental overprotection) would significantly predict self-esteem. On the basis of Levy-Shiff's (2001) findings, however, we also expected the parental variables to explain a greater proportion of the variance in self-esteem than adoptive status alone.

Identity Processing Style

While all individuals have to deal with identity issues at some stage in their lives, it was noted earlier that the process of identity development may be longer and more complex for adoptees (Grotevant, 1997b; Hoopes, 1990). Although much has been written about identity in regard to adoption, little is still known about the actual process that adoptees go through in establishing a coherent identity.

Following on from Erikson's work, Marcia (1967) developed an identity-status paradigm that considered dimensions of crisis (i.e., times when "the individual seems to be actively involved in choosing among alternative occupations and beliefs") and commitment (i.e., the degree of personal investment the individual expresses in an occupation or belief") (p. 119). "Crisis" was later termed "self-exploration" (Berzonsky & Adams, 1999). By considering whether individuals were currently involved in an identity crisis/self-exploration or not, and whether they were high or low in commitment, they could be classified into one of four identity statuses: "(1) Achievement (commitment present following a period of self-exploration), (2) Moratorium (commitment absent, self-exploration ongoing), (3) Foreclosure (commitment present with little or no personal self-exploration having occurred), and (4) Diffusion (commitment and self-exploration currently absent)" (Berzonsky & Adams, 1999, p. 558).

Although Marcia (1967) acknowledged that the achievement of ego identity is not a once-and-for-all phenomenon, his model implies that identity is an outcome variable (Berzonsky, 1989). Other theorists have argued that identity might be better conceptualized as a process that is ongoing and dynamic rather than an outcome or fixed end point (e.g., Grotevant, 1997b). Such a conceptualization would seem to be particularly relevant for adoptees, as they experience an ongoing process of integrating their adoptive and biological identities. Search and reunion experiences may further complicate and prolong such efforts.

While not specifically related to adoption, Berzonsky (1989) developed a process-oriented conceptualization of identity based on Marcia's model, the assumption being that individuals classified into the four status types identified by Marcia may have different identity processing styles in terms of the way in which they prefer to deal with identity issues. Those who use an *Information Orientation* "actively seek out, process, and evaluate relevant information before making decisions" (Berzonsky, 1989, p. 269) and are willing to modify their self-views when faced with discrepant feedback (Nurmi, Berzonsky, Tammi, & Kinney,

1997). Individuals who prefer a *Normative Orientation* tend to be more concerned with conforming to the standards or norms held by referent groups or significant others such as parents (Berzonsky & Sullivan, 1992). A *Diffuse Orientation* is characterised by procrastination and an inability to face up to problems and decisions (Berzonsky, 1989). Because commitment was confounded with processing orientation in Marcia's original identity status classifications, Berzonsky (1992a) included a separate measure of commitment in his Identity Style Inventory. As commitment is more of an outcome or end point than a process, it was not as relevant for the current study. Consequently, we will focus on the three identity processing styles in the remainder of this paper.

Intuitively, it might seem that an information processing style would be more adaptive than a normative style. However, whether a normative style is adaptive or not may depend on the context. Berzonsky (1989) noted the possibility that those who initially use an informational style may adopt a more normative style once decisions have been made. Foreclosure to normative choices may also be a viable option in stable, tradition-oriented settings (Berzonsky & Adams, 1999). A diffusive orientation, however, is almost always associated with more maladaptive ways of thinking and behaving (e.g., Berzonsky & Ferrari, 1996). To our knowledge, no published study has investigated adoptees' use of these identity processing styles, and our aim here was to simply explore whether adoptees and non-adoptees, or indeed different groups of adoptees, differed in their identity processing styles. Since adoptees who have experienced a reunion are more likely to have actively searched for birth relatives than those who have not had reunions, it may be that the reunited adoptees will be more likely to endorse an information processing style than the non-reunited adoptees. In view of the lack of previous research in this area, however, this prediction remains tentative. Since self-esteem and identity are inextricably linked (cf. Erikson, 1980), we were also interested in the extent to which identity processing styles might predict self-esteem. Nurmi, Berzonsky, Tammi, and Kinney (1997) found that the informational and normative styles both

made unique contributions to the prediction of self-esteem among samples of American and Finnish college students. We expected similar results for our sample.

Summary and Hypotheses

Although a number of researchers have investigated links between self-esteem and family variables in adopted and non-adopted populations, we are unaware of any published studies that have specifically considered these variables in relation to identity processing styles within an adopted population. Such research is important in view of previous suggestions that the process of identity development is longer and more complex for adoptees. Thus, the current study addresses three main aims.

First, we investigated the relationship between adoptive status and the psychosocial variables of self-esteem, parental bonding, and identity processing styles. It was predicted that adoptees would report lower self-esteem and parental care than the non-adoptees. Due to a lack of previous research, firm predictions could not be made regarding the relationship between adoptive status and the overprotection or identity style measures.

Second, we investigated the possible effects of reunion status by comparing reunited adoptees, non-reunited adoptees, and non-adoptees on the psychosocial variables. We expected that the reunited adoptees would report higher self-esteem than the non-reunited adoptees. It was also tentatively hypothesized that reunited adoptees may be more likely to report a preference for an information processing style.

Finally, we explored the relative contributions of adoptive status, parental bonding, and identity processing style to self-esteem. It was expected that positive parenting (i.e., higher parental care and lower parental overprotection) would predict self-esteem. In view of Levy-Shiff's (2001) findings, however, it was predicted that the parental variables would explain a greater proportion of the variance in self-esteem than adoptive status alone. In view of Nurmi et al.'s (1997) findings, it was also expected that the informational and normative styles would both make unique contributions to the prediction of self-esteem.

Method

Participants

Adult adoptees and non-adoptees were recruited from various sources including stories in the print and electronic media, an internet forum, an adoption conference, a newsletter for an adoption support group, an introductory psychology class, and networks available to the researchers. Most of the adoptee sample was collected first. We then continued to recruit non-adoptees until the two samples had approximately equal numbers of participants. This was done in stages, with checks being made on the demographic characteristics of the two groups throughout the recruitment process to ensure comparability. For example, if the adoptee sample included some female administrative workers in their 20s, we tried to recruit similar participants for the non-adoptee sample. Data from a few participants were discarded because they either did not meet the selection criteria (e.g., under 18) or had too much missing data, thus leaving a final sample of 100 adoptees and 100 non-adoptees.

All participants were Australian residents, with the vast majority being Anglo-Australians. There were 66 female and 34 male adoptees, ranging in age from 18 to 70 with a mean age of 38.10 years. The non-adopted participants comprised 68 females and 32 males, ranging in age from 18 to 74 with a mean age of 37.89 years. In the adopted group, 50% of the participants were married and 26% had never married; while the non-adopted group included 59% married and 24% never married. While most participants were employed (65% for adoptees and 69% for non-adoptees), the sample also included homemakers, students, unemployed, and retired people. Employed participants were assigned a rating based on Daniel's (1983) prestige scale. On this scale, occupations are assigned a value from 1 to 7, with lower scores indicating higher prestige. Prestige scores in the current sample ranged from 2.1 to 6.0, with means of 4.31 and 4.30 for adoptees and non-adoptees respectively. All adoptees had been adopted before the age of six years, with 83% being adopted within the

first six months and 95% being adopted within the first two years. All non-adoptees had lived with both biological parents until at least the age of 16.

Participation was voluntary. The few psychology students who took part in the study were given 1% credit towards their introductory psychology course. All other participants were given the option of entering a draw for cash prizes.

Measures

Participants completed a demographic questionnaire, the Rosenberg Self-Esteem Scale (Rosenberg, 1989), a slightly modified version of the Identity Style Inventory (ISI3; Berzonsky, 1992b), and the Parental Bonding Instrument (PBI; Parker et al., 1979). Some open-ended comments were also gathered; however these were not analyzed further for the current study.

Self-esteem. The Rosenberg Self-Esteem Scale (RSES) consists of 10 items, with half being reverse-scored. Each item is rated on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). The scale is unidimensional and internally consistent (Robins, Hendin, & Trzesniewski, 2001), with relatively high test-retest reliability and good evidence of convergent and discriminant validity (see Blascovich & Tomaka, 1991).

Identity style. A slightly modified version of the third Identity Style Inventory (ISI3; Berzonsky, 1992b) was used in the current study. The ISI3 consists of 40 items that are rated on a 5-point scale from 1 (*not at all like me*) to 5 (*very much like me*). The Commitment and Diffuse Orientation subscales both contain 10 items, the Information Orientation subscale contains 11 items, and the Normative Orientation subscale contains 9 items. As noted earlier, the three identity processing styles were of prime interest in the current study. Therefore, the commitment scale was not considered further. Berzonsky (1997) has reported alpha coefficients ranging from .64 to .76 for the three identity processing styles, with test-retest reliabilities over a two-week period ranging from .83 to .87.

Parental bonding. The Parental Bonding Instrument (Parker et al., 1979) consists of 25 items that describe various parental attitudes and behaviors. There are two subscales: a 12-item care dimension and a 13-item overprotection dimension that is indicative of controlling behavior. Each item is rated on a 4-point scale from 0 (*very unlike*) to 3 (*very like*), with 12 items being reverse-scored. Participants rate each item twice: once according to how they perceived their mother during their first 16 years and again for how they perceived their father. Adoptees rated their adoptive parents and non-adoptees rated their biological parents. The PBI has good test-retest reliability (Wilhelm & Parker, 1990) and is internally consistent (Herz & Gullone, 1999).

Procedure

A questionnaire pack including an introductory letter, an informed consent form, the questionnaires, and a freepost envelope, were distributed to all participants. A debriefing page that listed telephone numbers for further information and/or counseling services was also included. Participants completed the consent form and questionnaires at their convenience and returned them in the freepost envelope. Consent forms were then separated from the questionnaires so that participants' responses remained anonymous and confidential.

Results

Data Screening and Preliminary Analyses

Data screening revealed some missing data for eight of the participants. With one exception, these missing data involved occasional items from the PBI and means were substituted at the individual item level in these cases. Using Mahalanobis distance with $p < .001$, no multivariate outliers were identified. We included gender as one of the independent variables in some of our initial analyses of variance. There were no significant gender x family type interactions (all p 's $> .05$). The only significant gender main effect occurred for father overprotection, indicating that females were more likely than males to report that their fathers were overprotective, $F(1, 196) = 6.01, p < .05$. As males and females did not differ

significantly on the other seven variables, we pooled the data across gender for the remaining analyses. SPSS for Windows (Ver. 12.0.1) was used for these analyses.

Comparisons of Adoptees and Non-Adoptees

Our first aim involved investigating the relationship between adoptive status and the other psychosocial variables (i.e., self-esteem, parental bonding, and identity processing style). Pearson product-moment correlation coefficients were computed among the variables, with a dichotomous variable called adoptive status being created to distinguish between the adoptees (1) and non-adoptees (2). The correlation matrix, descriptive statistics, and alpha coefficients for the various measures are shown in Table 1. Internal consistency (Cronbach's alpha) reliabilities were excellent for self-esteem (.89) and the four parental variables (.87 to .94). While alpha coefficients for the three identity style variables were somewhat lower (.67 to .77), they are comparable to those previously reported for the ISI3 (Berzonsky, 1997). In interpreting these analyses, it should be remembered that parental care and overprotection refer to the family in which the participant was raised (i.e., adoptive parents for the adoptees and biological parents for the non-adoptees).

Insert Table 1 about here

Adoptive status was positively correlated with self-esteem ($r = .21, p < .01$), indicating that adoptees scored lower on this measure. Adoptive status was also positively correlated with mother care ($r = .19, p < .01$) and negatively correlated with mother overprotection ($r = -.18, p < .01$), indicating that the non-adoptees tended to report higher levels of mother care and lower levels of mother overprotection. Using the formulae described in Cohen (1988) for translating effect sizes from a correlational metric to Cohen's d , the latter being more frequently applied to analysis of intergroup differences, these correlations reflect small to medium range effect sizes.

Although the correlational analyses indicated that adoptees reported higher mother overprotection and lower self-esteem and mother care than the non-adoptees, we noted earlier

the limitations of simply comparing adoptees and non-adoptees. In view of findings that adoptees are not an homogenous group (Borders et al., 2000), our second aim was to compare non-adoptees with two subgroups of adoptees (i.e., those who had been reunited with birth relatives and those who had not). While 50 participants had met their birthmothers, only 19 had met their birthfathers. Because all of those who had met their birthfathers had also met their birthmothers, reunited individuals were defined as those who had met their birthmothers. A oneway multivariate analysis of variance (MANOVA) was conducted, with the independent variable being family type (i.e., non-adoptee, reunited adoptee, non-reunited adoptee) and the dependent variables being self-esteem and the parental bonding and identity style variables. Two adoptees who had had some contact with their birthmothers through letters or phone calls, but had not had face-to-face reunions, were excluded from these analyses.

Hotelling's Trace for the overall F test was significant, $F(16, 374) = 1.78, p < .05$.

Results for the subsequent univariate analyses are shown in Table 2.

Insert Table 2 about here

As shown in Table 2, significant differences at or above the .01 level were found among groups on the variables of self-esteem, maternal care, and maternal overprotection. Effect sizes were calculated from the MANOVA results using partial Eta-squared (Cohen, 1988) and then translated into Cohen's d . All three effect sizes were in the medium range. Posthoc Tukey tests indicated that reunited adoptees had lower self-esteem than either of the other two groups. Non-reunited adoptees did not differ significantly from non-adoptees in terms of self-esteem. Moreover, reunited adoptees reported significantly less maternal care and more maternal overprotection than non-adoptees. Non-reunited adoptees did not differ significantly from either of the other two groups on these variables. Although the univariate main effect for the normative processing style was significant at the .05 level, a posthoc Tukey test

indicated that the three groups did not differ significantly on that variable. Indeed, the three groups did not differ significantly from one another on any of the identity processing styles.

Hierarchical Regression Analyses: The Relative Contributions of Adoptive Status, Parental Bonding, and Identity Style to Self-Esteem

Our third aim was to explore the relative contributions of adoptive status, parental bonding, and identity style to self-esteem. Hierarchical multiple regression analyses were employed so that we could ascertain whether adoptive status per se was a risk factor that could hinder the development of healthy self-esteem. Adoptive status was added at the first step, followed by the four parental bonding variables at the second step, and the three identity processing variables at the third step. As shown in Table 3, each set of variables made a unique contribution to the prediction of self-esteem. Adoptive status explained 4.6% of the variance in self-esteem when entered at Step 1. The parental bonding variables explained a further 10.1% of the variance when added at Step 2, and the identity style variables explained a further 9.4% when added at Step 3. In the full model, adoptive status ($\beta = .15, t = 2.29, p < .05$), normative identity style ($\beta = .25, t = 3.55, p < .001$), and diffuse identity style ($\beta = -.26, t = -3.83, p < .001$) were significant predictors of self-esteem. Specifically, non-adoptees and those with a normative identity processing style were more likely to report higher self-esteem, while those with a diffuse identity processing style were more likely to report a lower self-esteem. According to Cohen (1988), the R^2 of .24 for the full model would equate to a medium effect size.

Discussion

The first aim of the study was to investigate the relationship between adoptive status and the psychosocial variables of self-esteem, parental bonding, and identity processing style. A second aim was to examine the possible effects of reunion by comparing reunited adoptees, non-reunited adoptees, and non-adoptees on the psychosocial variables. As predicted, adoptees reported lower self-esteem and lower maternal care than non-adoptees, though there

were no differences with regard to paternal care. Adoptees also reported higher levels of maternal overprotection. However, these findings were qualified by reunion status. Contrary to predictions, reunited adoptees reported lower self-esteem than both the non-reunited adoptees and the non-adoptees. Reunited adoptees also reported lower maternal care and higher maternal overprotection than the non-adoptees, though the non-reunited adoptees did not differ significantly from either group. There are at least two possible explanations for these findings. First, reunions adversely affect adoptees' self-esteem and also cause them to re-evaluate their relationship with their adoptive mothers in a less favorable light. However, this explanation is not consistent with adoptees' reports that reunions generally enhance their self-esteem (Campbell et al., 1991; Pacheco & Eme, 1993). A more likely explanation is that those adoptees with lower self-esteem who perceived their adoptive mothers as less caring and more overprotective were more motivated to search for, and subsequently find, their birthmothers. This explanation fits better with previous research on search status. For example, Borders et al. (2000) found that searchers had lower self-esteem than either their non-adopted friends or a group of non-searchers. Among non-searching adoptees, Sobol and Cardiff (1983) also found that those who planned to search for birthparents in the future gave their adoptive parents less favorable ratings than those who definitely did not intend to search. Among searchers, however, there seemed to be relatively equal instances of positive and negative adoptive family relationships. Future research would benefit from longitudinal studies in which adoptees are tracked through their search and reunion experiences. Then it would be possible to determine the direction of any changes in the adoptees' self-esteem or evaluation of their adoptive parents following their reunions.

Also contrary to predictions, the reunited adoptees did not report a greater use of an information processing style than the non-reunited adoptees. Indeed, adoptive status was not significantly correlated with any of the identity styles; nor did reunited adoptees, non-reunited adoptees, and non-adoptees differ significantly on any of the identity style measures. As

reunited adoptees had completed their own search, or been found by birth relatives, it is possible that an information processing style was no longer as relevant for them. Indeed, Berzonsky (1989) argued that those who initially use an informational style may utilize a more normative style once decisions have been made. Future research could investigate this possibility further by focusing on identity processing styles within groups of adoptees who are currently searching for birth relatives and those who are not. Again, longitudinal research would be useful in tracking possible changes in identity style throughout the search and reunion process.

The third aim was to determine the extent to which adoptive status, parental bonding, and identity processing style could be used to predict self-esteem. It was hypothesized that positive parenting (i.e., higher care and lower overprotection) and the informational and normative identity styles would significantly predict self-esteem. This hypothesis was partially supported. Although the set of parental variables taken together made a unique contribution to the prediction of self-esteem, none of the individual parental variables made unique contributions. The set of identity style variables taken together also made a unique contribution to the prediction of self-esteem, with higher scores on the normative style and lower scores on the diffuse style significantly predicting self-esteem. In contrast to findings by Nurmi et al. (1997), the information style did not make a unique contribution to the prediction of self-esteem. In keeping with the findings of Levy-Shiff (2001), it was also hypothesized that the parental bonding variables would explain more of the variance in self-esteem than adoptive status alone. This hypothesis was supported. While adoptive status did make a unique contribution to the prediction of self-esteem, both the parental bonding variables and the identity processing styles explained more of the variance in self-esteem. Indeed, the normative and diffuse identity processing styles were the strongest predictors. The implications of this are discussed in a later section.

Limitations

As volunteers were used in the current study, it is not clear how representative the participants were of adoptees and non-adoptees in the general population. This is a difficult limitation to overcome, as the confidentiality of adoption records in Australia precludes random sampling. However, the present study had advantages over some previous studies in that various avenues were used for recruitment of participants rather than just relying on single adoption agencies or support groups, and that adoptees and non-adoptees were comparable on various demographic variables.

The applicability of the Identity Style Inventory to our sample needs further investigation. Berzonsky (1989) used college students in the original scale development, and subsequent research with different versions of this scale has relied mostly on adolescent or college samples (e.g., Berzonsky, 1992a; Nurmi et al., 1997). We modified some items so that they could apply to an older sample (e.g., by using “college/work” in place of “college”). However, given that our sample also included homemakers, unemployed, and retired people, some of the items may not have been as relevant. Future studies could include identity domains that are more relevant for a broader community sample. Grotevant (1992, p. 81) has also noted that researchers have “not systematically addressed adoptees’ identity *as an adopted individual*”, but rather have used measures that assess global identity or different aspects of identity. Since both adopted and non-adopted individuals were compared in the current study, we used an identity measure that would be relevant to both groups. However, in future research it would be beneficial to develop standardized questionnaires that adequately tap specific aspects of adoptive identity.

Implications for Practitioners and Adoptive Families

Although we found some differences among adoptees and non-adoptees with regard to self-esteem, maternal care, and maternal overprotection, these differences were qualified by reunion status in that it was only the reunited adoptees who differed from the non-adoptees. This underscores the importance of appropriate counseling and support for adoptees

throughout the search and reunion process. We suggested earlier that those adoptees who were already struggling with self-esteem issues or felt their adoptive mothers were less caring or more overprotective may have been more likely to search for, and subsequently meet, their birthmothers. While this is not always the case (cf Müller & Perry, 2001), it may be prudent for counselors to help their adopted clients work through possible reunion scenarios and explore their reasons for searching. Such counseling could help buffer those who may already be feeling vulnerable with regard to self-esteem and family issues from further disappointment.

Findings from our regression analyses also suggest that the quality of parent-child relationships is more important than adoptive status per se in predicting self-esteem. These findings seem to mesh well with other evidence that a well-functioning adoptive family may help buffer adoptees against poor self-esteem (Kelly et al., 1998; Levy-Shiff, 2001). While adoptive status cannot be changed, family dynamics can be targeted in interventions aimed at preventing or at least alleviating negative psychosocial outcomes for adoptees. In particular, interventions that strengthen adoptive family relations would seem helpful for all concerned. Pre- and post-adoption counseling may be useful for those adoptive parents who feel they need assistance in developing the skills necessary to effectively parent an adopted child. Adoptees who have experienced difficulties in their adoptive family relationships could also benefit from counseling that helps them to deal with any family issues that may be hindering them from moving on with their lives in the future.

The identity style variables were also more important than adoptive status in predicting self-esteem, with higher normative scores and lower diffuse scores being associated with higher self-esteem. Although such adaptive decision-making processes would be important for anyone grappling with identity issues, they may be especially relevant for adoptees faced with the identity challenges inherent in integrating their adoptive and biological worlds. Indeed, it would be helpful for adoption counselors to better understand

how identity processing styles may affect an adoptee's approach to search and reunion issues. A diffuse style may be counterproductive for an adoptee faced with such decisions. Indeed, if adoptees do not actively decide whether or not to search for birth relatives, the decision may be taken out of their hands by a searching birthparent. Since the diffuse style is typically associated with more maladaptive ways of thinking and behaving (Berzonsky & Ferrari, 1996), the counselor could help diffuse individuals work through possible reasons for their preference for this style and teach skills for more adaptive decision-making. In doing this, however, the client's wishes must of course be respected. Developing a more adaptive identity processing style does not mean that the adopted person will necessarily search for, or seek a reunion with, birth relatives. However, he or she will be in a better position to make an active choice about whether or not to search.

Our comparisons of adopted and non-adopted adults also showed more similarities than differences. The two groups did not differ significantly on any of the identity style variables or paternal care or overprotection. It is important for counselors and other service providers to remember that adoptees are not an homogenous group. Each adoptee will have a different experience of growing up in an adoptive family and will have different reasons for either searching or not searching. There will also be much variability in reunion outcomes. Counselors must be attuned to the unique narratives of each adoptee and be cautious about over-pathologizing (seeing adoption as the cause of every problem) or under-pathologizing (not recognizing a possible link between adoptive status and a client's problems when such a link does exist) (Passmore, 2004). As more longitudinal and qualitative studies are conducted in this area, it is hoped that service providers will gain information that will better equip them to assist all members of the adoption triangle.

References

- Arditti, J. A. (1999). Parental divorce and young adults' intimate relationships: Toward a new paradigm. *Marriage and Family Review, 29*, 35-55.
- Aumend, S. A., & Barrett, M. C. (1983). Searching and non-searching adoptees. *Adoption and Fostering, 7* (2), 37-42.
- Battle, J., Jarratt, L., Smit, S., & Precht, D. (1988). Relations among self-esteem, depression and anxiety of children. *Psychological Reports, 62*, 999-1005.
- Berzonsky, M. D. (1989). Identity style: Conceptualization and measurement. *Journal of Adolescent Research, 4*, 268-282.
- Berzonsky, M. D. (1992a). Identity style and coping strategies. *Journal of Personality, 60*, 771-788.
- Berzonsky, M. D. (1992b). *Identity Style Inventory (ISI3) (revised version)*. Unpublished questionnaire, State University of New York at Cortland.
- Berzonsky, M. D. (1997). [Reliability data for the Identity Style Inventory, Third revision: ISI3]. Unpublished data.
- Berzonsky, M. D., & Adams, G. R. (1999). Reevaluating the identity status paradigm: Still useful after 35 years. *Developmental Review, 19*, 557-590.
- Berzonsky, M. D., & Ferrari, J. R. (1996). Identity orientation and decisional strategies. *Personality and Individual Differences, 20*, 597-606.
- Berzonsky, M. D., & Sullivan, C. (1992). Social-cognitive aspects of identity style: Need for cognition, experiential openness, and introspection. *Journal of Adolescent Research, 7*, 140-155.
- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes: Vol 1. Measures of social psychological attitudes* (pp. 115-160). San Diego, CA: Academic Press.

- Borders, L. D., Penny, J. M., & Portnoy, F. (2000). Adult adoptees and their friends: Current functioning and psychosocial well-being. *Family Relations*, 49, 407-418.
- Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence. *Journal of Personality and Social Psychology*, 55, 991-1008.
- Campbell, L. H., Silverman, P. R., & Patti, P. B. (1991). Reunions between adoptees and birth parents: The adoptees' experience. *Social Work*, 36, 329-335.
- Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Daniel, A. (1983). *Power, privilege and prestige: Occupations in Australia*. Melbourne: Longman Cheshire.
- Erikson, E. H. (1980). *Identity and the life cycle*. New York: W. W. Norton.
- Grotevant, H. D. (1992). Assigned and chosen identity components: A process perspective on their integration. In G. R. Adams, R. Montemayor, & T. Gulotta (Eds.), *Advances in Adolescent Development* (Vol. 4; pp. 73-90). Newbury Park, CA: Sage.
- Grotevant, H. D. (1997a). Coming to terms with adoption: The construction of identity from adolescence into adulthood. *Adoption Quarterly*, 1, 3-27.
- Grotevant, H. D. (1997b). Family processes, identity development, and behavioral outcomes for adopted adolescents. *Journal of Adolescent Research*, 12, 139-161.
- Herz, L., & Gullone, E. (1999). The relationship between self-esteem and parenting style: A cross-cultural comparison of Australian and Vietnamese Australian adolescents. *Journal of Cross-Cultural Psychology*, 30, 742-761.
- Hoopes, J. L. (1990). Adoption and identity formation. In D. M. Brodzinsky & M. D. Schechter (Eds.), *The psychology of adoption* (pp. 144-166). New York: Oxford University Press.

- Kelly, M. M., Towner-Thyrum, E., Rigby, A., Martin, B. (1998). Adjustment and identity formation in adopted and nonadopted young adults: Contributions of family environment. *American Journal of Orthopsychiatry*, 68, 497-500.
- Leary, M. R., & MacDonald, G. (2003). Individual differences in self-esteem: A review and theoretical integration. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 401-418). New York: Guilford Press.
- Levy-Shiff, R. (2001). Psychological adjustment of adoptees in adulthood: Family environment and adoption-related outcomes. *International Journal of Behavioral Development*, 25, 97-104.
- Marcia, J. E. (1967). Ego identity status: Relationship to change in self-esteem, "general maladjustment," and authoritarianism. *Journal of Personality*, 35, 119-133.
- Meyers, S. A. (1998). Personality correlates of adult attachment style. *The Journal of Social Psychology*, 138, 407-409.
- Müller, U., & Perry, B. (2001). Adopted persons' search for and contact with their birth parents I: Who searches and why? *Adoption Quarterly*, 4 (3), 5-37.
- Nurmi, J-E., Berzonsky, M. D., Tammi, K., & Kinney, A. (1997). Identity processing orientation, cognitive and behavioural strategies and well-being. *International Journal of Behavioral Development*, 21, 555-570.
- Pacheco, F., & Eme, R. (1993). An outcome study of the reunion between adoptees and biological parents. *Child Welfare*, 72, 53-64.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1-10.
- Passmore, N. L. (2004). Adoption and the Father heart of God: Helping adoptees deal with issues of identity and loss. *Journal of Psychology and Christianity*, 23, 165-175.

- Robins, R. W., Hendin, H. M., & Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin*, *27*, 151-161.
- Rosenberg, M. (1989). *Society and the adolescent self-image* (rev. ed.). Middletown, CT: Wesleyan University Press.
- Sharma, A. R., McGue, M. K., & Benson, P. L. (1996). The emotional and behavioral adjustment of United States adopted adolescents: Part I. An overview. *Children and Youth Services Review*, *18*, 83-100.
- Scanzoni, J., Polonko, K., Teachman, J., & Thompson, L. (1989). *The sexual bond: Rethinking families and close relationships*. Newbury Park, CA: Sage.
- Sobol, M. P., & Cardiff, J. (1983). A sociopsychological investigation of adult adoptees' search for birth parents. *Family Relations*, *32*, 477-483.
- Stewart, A. J., Copeland, A. P., Chester, N. L., Malley, J. E., & Barenbaum, N. B. (1997). *Separating together: How divorce transforms families*. New York: Guilford Press.
- Taylor, D. N., & Del Pilar, J. (1992). Self-esteem, anxiety, and drug use. *Psychological Reports*, *71*, 896-898.
- Waterman, A. S. (1992). Identity as an aspect of optimal psychological functioning. In G. R. Adams, T. P. Gullotta, & R. Montemayor (Eds.), *Adolescent identity formation* (pp. 50-72). Newbury Park, CA: Sage.
- Wilhelm, K., & Parker, G. (1990). Reliability of the Parental Bonding Instrument and Intimate Bond Measure scales. *Australian and New Zealand Journal of Psychiatry*, *24*, 199-202.
- Yoon, D. P. (2001). Causal modeling predicting psychological adjustment of Korean-born adolescent adoptees. *Journal of Human Behavior in the Social Environment*, *3* (3/4), 65-82.

Table 1

Intercorrelations Among Family Type, Self-Esteem, Parental Bonding Variables, and Identity Style Variables (N = 200)

Variables	1	2	3	4	5	6	7	8	9
1. Family type	–								
2. Self-esteem	.21**	–							
3. Mother care	.19**	.30***	–						
4. Mother overprotection	-.18**	-.25***	-.58***	–					
5. Father care	.08	.28***	.71***	-.45***	–				
6. Father overprotection	-.11	-.28***	-.44***	.79***	-.51***	–			
7. Information orientation	.08	.05	.05	.02	-.04	.10	–		
8. Normative orientation	.09	.30***	.30***	-.22***	.33***	-.23***	.14	–	
9. Diffuse orientation	-.07	-.25***	-.10	.05	-.06	.09	-.24***	.09	–

Table 1

Continued

<i>M</i>	----	32.79	24.87	15.74	23.12	14.21	37.30	29.46	25.11
<i>SD</i>	----	5.31	9.58	8.91	9.59	7.85	6.09	6.00	7.05
Range	----	18-40	3-36	1-39	1-36	0-37	17-52	15-45	12-43
α	----	.89	.94	.90	.93	.87	.67	.68	.77

Note. For family type, 1 = adoptees and 2 = non-adoptees. Potential score ranges for the psychosocial variables are as follows: Self-esteem (10-40), mother care and father care (0-36), mother overprotection and father overprotection (0-39), information orientation (11-55), normative orientation (9-45), and diffuse orientation (10-50).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Univariate F Tests for Reunited Adoptees (Met), Non-Reunited Adoptees (Not met), and Non-Adoptees

Variable		Adoptees		Non-	<i>F</i> (2, 195)
		Met <i>n</i> = 50	Not met <i>n</i> = 48	Adoptees <i>n</i> = 100	
Self-Esteem	<i>M</i>	30.50 ^a	32.96 ^b	33.92 ^b	7.46***
	<i>SD</i>	6.32	5.06	4.44	
Mother Care	<i>M</i>	21.30 ^a	25.10 ^{ab}	26.65 ^b	5.59**
	<i>SD</i>	10.49	9.95	8.20	
Mother Protect	<i>M</i>	18.73 ^a	15.74 ^{ab}	14.14 ^b	4.70**
	<i>SD</i>	9.73	8.92	7.93	
Father Care	<i>M</i>	21.37	23.17	23.89	1.15
	<i>SD</i>	10.10	11.29	8.35	
Father Protect	<i>M</i>	16.24	13.80	13.34	2.41
	<i>SD</i>	7.92	7.59	7.78	
Information	<i>M</i>	36.66	37.09	37.81	0.64
	<i>SD</i>	6.55	5.78	6.04	
Normative	<i>M</i>	27.54	30.10	29.98	3.30*
	<i>SD</i>	5.22	5.05	6.59	
Diffuse	<i>M</i>	26.12	24.69	24.65	0.81
	<i>SD</i>	7.57	7.73	6.33	

Note. Potential scores ranges are as follows: Self-esteem (10-40), care (0-36), overprotection (0-39), information (11-55), normative (9-45), diffuse (10-50).

^aMeans with differing superscripts are significantly different from one another.

p* < .05. *p* < .01. ****p* < .001.

Table 3

Summary of Hierarchical Regression Analysis for Variables Predicting Self-Esteem (N = 200)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Adoptive status	2.27	0.74	.21**	1.78	0.72	.17*	1.57	0.69	.15*
Mother care				0.10	0.06	.18	0.07	0.06	.12
Mother overprotection				0.05	0.07	.09	0.03	0.07	.05
Father care				0.04	0.06	.07	0.02	0.05	.03
Father overprotection				-0.14	0.08	-.21	-0.10	0.08	-.15
Information orientation							-0.05	0.06	-.05
Normative orientation							0.22	0.06	.25***
Diffuse orientation							-0.19	0.05	-.26***
R^2		.05			.15			.24	
<i>F</i> for change in R^2		9.54**			5.74***			7.93***	

Note: For adoptive status, 1 = adopted and 2 = non-adopted.

* $p < .05$. ** $p < .01$. *** $p < .001$.