

Adult Adoptees and Their Friends: Current Functioning and Psychosocial Well-Being

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Abstract:

Adoptees (n = 100) and a matched group of their friends completed measures of psychosocial well-being thought particularly salient for adult adoptees. Results indicated more similarities (life satisfaction, life regrets, purpose in life, intimacy, substance abuse) than differences (connectedness, depression, self-esteem) between the two groups. Adoptees expressed stronger regrets about 75 general than adopted-related issues. Follow-up analyses suggested greater variability within the adoptee than the friend group on several variables; search status helped explain this greater variability. Key Words: adoption, adult adoptees, adult well-being.

Article:

Today, adoption is almost universally considered a lifelong process. Adoption professionals (e.g., Brodzinsky, Schechter, & Hening, 1992; Rosenberg, 1992) have ascertained, at each developmental milestone from birth to death, adoptees face unique challenges, as their adopted status influences both the way they approach and the way they resolve each normal developmental task. For example, resolution of the adolescent ego identity task requires incorporation of the birthfamily. Furthermore, "being adopted" generates different responses to major life events or transitions, such as the birth of one's first child. It is often assumed that these additional challenges put adoptees at much greater risk for poor resolution of these tasks and life transitions. As a result, adopted persons, including adult adoptees, are expected to suffer a variety of psychological and interpersonal problems at a much higher rate than nonadopted persons (Hochman, Huston, & Prowler, 1994; LaBella, 1994; Lifton, 1994).

Indeed, the clinical adoption literature has tended to support the stereotype of unhappy, poorly adjusted, malfunctioning adoptees (Sharma, McGue, & Benson, 1998). However, much of the empirical literature has been fraught with methodological problems (Benson, Sharman, & Roehlkepartain, 1994; Borders, Black, & Pasley, 1998; Marquis & Detweiler, 1985; Miall, 1996; Sharma et al., 1998), and has been focused almost exclusively on the experiences of the adopted infant, child, or adolescent. Although adoption is now viewed as a lifelong process, relatively few researchers have investigated what being adopted means for the adult adoptee. Thus, to extend our understanding of adoption, we designed a study to investigate the psychosocial functioning of adult adoptees beyond the early adult years in comparison with a group of their friends.

Only a handful of studies of adult adoptees have been conducted, and almost all of these have been focused on the search process: motivations for searching, characteristics of searchers versus nonsearchers, and search outcomes. Results of these studies have been fairly positive, contradicting some commonly held fears and concerns about the searcher and the impact of the search. In general, results suggest that searchers are very diverse in terms of age, socioeconomic status, educational level, knowledge of their birthfamily, and satisfaction with their own adoption (March, 1995). Adult adoptees' motivations for searching are also quite varied (Kowal & Schilling, 1985; Pacheco & Eme, 1993; Sachdev, 1992; Simpson, Timm, & McCubbin, 1981), ranging from milestone events (e.g., pregnancy, death of adoptive parent) to the need for medical information to more

existential issues such as a void in life or desire for more cohesive identity. Most adult adoptees report overall satisfaction with the search outcome, regardless of the degree of ongoing contact with the birthparent (Pacheco & Eme, 1993; Sachdev, 1992). In addition, many adult adoptees report that the search process enhanced the relationship with their adoptive parents and/or their own well-being (Depp, 1982; March, 1995; Pacheco & Eme, 1993; Sachdev, 1992).

Beyond searching, only a handful of studies of adult adoptees have been reported, making it difficult to draw any definitive conclusions (Brodzinsky, 1993; Wierzbicki, 1993). Earlier reviewers (Schaffer & Kral, 1988; Triseliotis, 1991), however, found evidence suggesting that most adult adoptees were stable, well-adjusted, and satisfied with their adoptions. In addition, longitudinal data suggested that problems in childhood and adolescence did not persist into adulthood. Two recent studies support these early conclusions.

Feigelman (1997) used archival data from the National Longitudinal Study of Youth to compare adults raised in intact adoptive families, those raised by both biological parents, and those who grew up in stepfamilies or single parent families. Those in adoptive families, stepfamilies, and single parent families displayed evidence of greater problem behaviors (e.g., delinquency, drug use) during adolescence than did their counterparts raised by biological parents. By early adulthood, however, the adoptees were quite similar to adults from biological families and scored much better than adults from stepfamilies and single parent families on measures of recent drug use, educational attainment, employment, earnings and assets, and depression. The adoptees were more likely to live together with their partners before marriage, and the female adoptees tended (not statistically significant) to report being less happy in their marriage. The authors concluded, "Given the extremely wide range of comparisons that were made, one cannot but be impressed by the remarkable level of convergence between the adoptees and their counterparts raised by both bio-parents" (p. 221).

Smyer, Gatz, Simi, and Pedersen (1998) also drew from an existing data set, the Swedish Adoption/Twin Study of Aging, to compare adults raised by adoptive and biological parents. In this case, the groups were composed of 60 pairs of twins, separated and reared apart. One twin was raised by a biological parent or parents while the other was raised by adoptive parents. The researchers found only four significant differences between the two groups on a series of 18 outcome measures of social status, personality, and health and well-being. The adopted twins had achieved a significantly higher level of education, and were less likely to drink excessively (both groups reported very low incidences). The adoptees reported a significantly higher level of psychological distress on two measures, neuroticism and alienation, but again both groups were functioning well within normal limits. The researchers also reported that childhood socioeconomic status was an important mediating variable in terms of outcomes in adulthood.

Despite this rather positive profile of adopted adults, there is still a compelling need to document additional descriptive data about adult adoptees (Finley, 1999). The number of published studies is sparse and many of these are based on very small, non-random samples (e.g., Depp, 1982; Stiffler, 1993), and often do not use standardized measures (e.g., Humphrey & Humphrey, 1989; Kowal & Schilling, 1985). In addition, adult samples in most of the published studies include only young adults in their twenties or thirties (e.g., Pacheco & Eme, 1993; Sachdev, 1992), or include a very diverse group of adults with a wide age range (e.g., Gladstone & Westhues, 1992; Kowal & Schilling, 1985). Although Feigelman (1997) and Smyer et al. (1998) are exceptions to many of these criticisms (e.g., both drew their samples from a large national database and used standardized measures), the twin sample in the Smyer study is not very representative of the population of adult adoptees, and the Feigelman research included only young adults. No published studies to date have focused on adults beyond the early adult years.

It seems likely that middle adult years could be important ones for study. These years often involve an existential period of reflection on and reassessment of one's life goals and accomplishments, a time of reordering priorities and goals in line with one's life purpose and meaning (Erikson, 1950; Levinson, Darrow, Klein, Levinson, & McKee, 1978; Neugarten, 1968). Adults in their middle years often become more concerned with issues of generativity, in terms of their family life (e.g., children, grandchildren), their community, or even

society at large. Particular emphasis is given to relationships, including partners, family, parents, and peers. For the adopted adult then, these years might provide the impetus to consider at some depth what it means or has meant to be adopted, to confront painful feelings and relationship issues, and, potentially, to take actions based on this reflection. Conversely, this might be a time for transcending adoption-related issues per se, for refocusing one's energies on other more external issues. As implied by Finley (1999), adopted adults might exhibit more or less pathology in terms of their relationships, behavior patterns, and mental health.

Accordingly, we conducted a survey of contemporary adopted adults in their middle adult years (ages 35-55), using a combination of standardized measures and researcher-designed survey items. We focused on variables of particular relevance to adults in this age range (midlife identity concerns, life satisfaction, purpose in life, life regrets) and variables suggested in previous literature to be potential areas of difficulty for adult adoptees: depression, substance abuse, marriage and other intimate relationships, feelings of abandonment, self-esteem, and identity (Schechter, cited in Hochman et al., 1994). A comparison group was created by asking the adopted adults to recruit a friend similar to themselves along specified criteria. For the adoptees, we also gathered adoption-specific information, including questions about searching.

Method

Participants and Procedures

Adoptee participants were recruited primarily from Children's Home Society of North Carolina, an adoption and foster care agency that provides support services for adoptive families, adoptees, birthparents, foster children, and foster families. First, the agency sent a letter to 157 adoptees believed to be within our identified age range (35-55). Each of these persons had contacted the agency within the past 5 years primarily for background information; other requests were for (in order) medical information, search information, and counseling. The letter described the study and asked permission to give the adoptee's name and address to the researchers. Of the 61 adoptees who responded positively to the agency letter, 44 were in our age range and were mailed surveys. Second, a brief notice about the study inviting participation was published in the agency's monthly newsletter. A total of 93 surveys were mailed to adoptees who responded positively to this newsletter notice. In addition, 19 surveys were mailed to adoptees known by the researchers personally or through professional associations (e.g., members of a support group). These three recruitment procedures yielded a total of 156 potential adoptee participants.

A survey packet mailed to each of the 156 identified adoptees contained a cover letter explaining the purpose of the study and providing general instructions. To create a control group, each adoptee was asked to recruit a nonadopted friend who was similar to him/her in gender, age (within 5 years of adoptee's age and between 35 and 55 years), marital status, race/ethnicity, and career. Each packet contained a 34-page survey and stamped, return envelope for the adoptee as well as a separate envelope to be delivered to the friend. The friend's packet contained a cover letter, 30-page survey, and stamped, return envelope. In addition, both the adoptee and the friend packets contained a card participants could fill out and return with the survey; these cards were used in drawings for \$50 (one for the adoptee group and one for the friend group). One month after the initial mailing, follow-up letters were sent to all adoptees who had not responded.

Given the length of the survey and the request to locate a friend, we considered our return rate to be quite high. Of the 156 survey packets mailed out, 102 adoptee surveys (65%) and 76 friend surveys (49%) were returned. Thirteen adoptees indicated they could not identify a friend similar to themselves based on the criteria stated in our letter. Two adoptees were excluded from the study: one was not adopted as an infant and the other was adopted by a biological family member. Six friends were excluded: one was the friend associated with an excluded adoptee, one did not have a matching adoptee survey, and the other four were under age 35.

We must note limitations of our sample. First, our sample consisted of adoptees recruited primarily from a single adoption agency, either through their newsletter or adoptee contacts with the agency. This agency was the primary avenue for adoption in the state of North Carolina during the time period, which would yield adults currently at 35-55. However, it represents only one geographical region of the U.S. The response rate (65%) of

the adoptees who returned surveys was high. However, the pool of potential participants consisted of those adoptees who had already expressed interest in the study. Only 39% of the adoptees who were sent initial letters from the agency agreed to consider participation in the study. We have no way of knowing how many adoptees read the newsletter information about the study and chose not to participate. Finally, not all adoptees who chose to participate were able to obtain a friend to participate. Therefore, we do not have a friend match for each adoptee. On the other hand, while our adoptee and friend samples do not match in size, the two groups are practically identical on all demographic variables (see Results). Finally, since only 11 respondents came from support group contacts and those who had contacted the agency for counseling assistance also were minimally represented, we determined that these sample characteristics were not sufficient in number to affect the data.

Measures

Due to the relative lack of data available concerning the experiences of adult adoptees, we constructed a comprehensive survey designed to address general issues of adults as well as issues specific to being adopted. Wherever possible, we used standardized measures of outcome variables (e.g., depression, attachment). For other topics, such as adoption regrets and search information, we constructed a combination of multiple choice and open-ended questions designed to allow the participants to share other information and perspectives they believed relevant. Surveys for the non-adopted control participants were identical to those for the adoptees, but without the adoption-specific questions.

Demographic Survey Items

We gathered descriptive information about each participant (e.g., gender, race, education, occupation, marital status, children) and his/her family of origin, defined for both groups as "the family you grew up in" (e.g., parents' age when born/ adopted and whether they were still alive, siblings, etc.). Adoptees also answered questions about their adoption (e.g., adoption agency and state, age when learned of adoption, talking about adoption with family members, how adoptive parents felt about adoption, how being adopted had affected their lives, and search status). Both groups also could respond to a final, open-ended question requesting any other comments they thought might be helpful to the researchers.

We chose standardized measures of variables in five general domains: (a) current view of life, (b) intimacy, (c) connectedness, (d) emotional/psychological well-being, and (e) risk-taking behavior. Each domain and its specific measures are presented below.

Current View of Life

Five instruments measured various aspects of participants' current views about their life.

Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), a measure of global life satisfaction, consists of five statements concerning the quality of life (e.g., "In most ways my life is close to my ideal."). Respondents use a 7-point scale (strongly disagree to strongly agree) to indicate their level of agreement with each item. Ratings are summed to yield an overall life satisfaction score, ranging from 5 to 35; higher scores indicate higher satisfaction. Diener et al. (1985) reported a coefficient alpha of .87 and a two-month test-retest correlation of .82, as well as moderately strong correlations with well-being measures. Cronbach's alpha for our sample was .92.

Semantic Differential Scale. The Semantic Differential Scale (SDS; Campbell, Converse, & Rodgers, 1976), also designed to measure global life satisfaction, contains eight pairs of words or phrases (e.g., boring--interesting, empty--full) placed at the extremes of a 7-point rating scale. For each pair, respondents circle the location between the extremes that best describes their present life. An overall life satisfaction score ranging from 8 to 56 is possible, with higher scores indicating higher satisfaction. Reliability was established with Cronbach's alpha and Heise and Borhnstedt's omega (both .89) and a stability correlation over eight months of .43. Validity was suggested by the high intercorrelations of the items and a correlation of .55 with a single life satisfaction item. Cronbach's alpha for our sample was .93.

Purpose in Life. The Purpose in Life Test (PIL, Crumbaugh & Maholick, 1981) is based on Frankl's (1955,1963) existential-based theory of logotherapy. This measure of life purpose or meaning is composed of 20 items rated on a scale of 1 to 7; each item is individually anchored (e.g., In life I have ... no goals or aims at all vs. very clear goals and aims). Two additional sections, composed of incomplete sentences and an open-ended paragraph, were not used in this study. Total scores, which can range from 20 to 140, indicate the degree of one's definite purpose and meaning in life, with higher scores indicating stronger purpose. Reliability estimates include Spearman-Brown correlations of .90 and .92. A variety of validity studies support the PIL, including correlations with therapists' ratings of clients, predicted scores for non-patient groups, and other similar measures (e.g., anomie). Cronbach's alpha for our sample was .93. Along with the PIL, we added an item asking respondents to list in priority order the three things which gave them the most meaning in their lives.

Life Regrets. Lewis and Borders (1995) created a list of life regrets based on previous studies of women at midlife (Baruch, Barnett, & Rivers, 1983; Metha, Kinnier, & McWhirter, 1989). Items include statements about education, career, finances, health, family, spirituality, and self. Respondents rate each regret (I would have been more assertive; I would have taken more time to learn about me) on a 6-point Likert-type scale from strongly disagree to strongly agree. Participants in this study rated the 16 regrets drawn from Lewis and Borders. Two additional spaces were provided so that respondents could add and rate additional regrets. All regrets, the original 16 plus any added regrets, were averaged together. Higher mean scores indicated higher regret. Cronbach's alpha for the original 16 items for our sample was .87.

Mid-Life Identity Concerns. The Mid-Life Identity Concerns Scale was created by Silverberg and Steinberg (1987,1990) to assess the degree to which a person is re-evaluating his/her life situation, life choices, and self (I find myself wondering what it is I really want in life; I'm not sure if I've really used my abilities in the best way). Using a 4-point Likert-type scale, respondents indicate their level of agreement (agree strongly to disagree strongly) or the frequency of thoughts about a particular item (never to very often). Total scores may range from 0 to 30, with higher scores indicating less concern. Silverberg and Steinberg (1987) reported internal consistency coefficients of .79 for mothers and .80 for fathers. Cronbach's alpha for our sample was .83.

Intimacy

We included two instruments measuring various perspectives on participants' level of intimacy in relationships. **Sensitivity to Rejection.** The Sensitivity to Rejection Scale (MSR; Mehrabian, 1970, 1994a, 1994b) measures a respondent's avoidance of certain behaviors in social situations that might lead to rejection (e.g., I would be very hurt if a close friend should contradict me in public; I seldom contradict people for fear of hurting them). Respondents indicate their level of agreement to the 24 items using a scale from -4 (very strong disagreement) to +4 (very strong agreement). Total scores can range from -96 to +96, with higher scores indicating higher sensitivity. Mehrabian (1994a, 1994b) reported an internal consistency coefficient of .83 and a 4-week test-retest coefficient of .92, and summarized a variety of supportive validity studies, including comparisons with measures of dominance/submission, assertiveness, leadership, competition, self-disclosure, and other personality scales. Cronbach's alpha for our sample was .84.

Kansas Marital Satisfaction Scale. The Kansas Marital Satisfaction Scale (Schumm, Scanlon, Crow, Green, & Buckler, 1983) was designed to provide a brief but reliable measure of global satisfaction with one's marriage and spouse. The three-item scale (e.g., How satisfied are you with your marriage?) uses a 7-point Likert-type scale ranging from extremely dissatisfied to extremely satisfied. The total score can range from 3 to 21, with higher scores indicating higher satisfaction. Schumm et al. (1983) reported Cronbach's alphas of .89 for husbands and .93 for wives, and cited previous estimates of internal consistency ranging from .84 to .98. They also found the scale was no more correlated with social desirability measures than other, more lengthy scales. Cronbach's alpha for our sample was .98.

Connectedness

We used two instruments to measure participants' ability to connect with significant others in their lives.

Adult Attachment Scale. We used the four-category typology of adult attachment styles measure created by Bartholomew and Horowitz (1991). This typology involves internal working models of self and others, each of which may be positive or negative, thus yielding four attachment styles: (a) secure (comfortable with intimacy and autonomy), (b) preoccupied (preoccupied with relationships), (c) fearful-avoidant (fearful of intimacy and socially avoidant), and (d) dismissing (dismissing of intimacy and counter-dependent). Respondents read brief descriptions of each of the four attachment styles and choose the one style they believe is most self-descriptive. Bartholomew and Horowitz (1991) reported a variety of supportive validity studies, including type differentiations for measures of self-concept, sociability, and interpersonal problems, that were consistent across self-report, peer report, and objective ratings of semi-structured interviews.

Family/Friend APGAR. The Family/Friend APGAR (Good, Smilkstein, Good, Shaffer, & Arons, 1979; Smilkstein, Ashworth, & Montano, 1982) measures social support from two sources, family and friends, along five areas of functioning (adaptation, partnership, growth, affection, and resolve). Respondents were instructed to answer the family items in terms of the "family in which you grew up," including immediate and extended family. The measure consists of 10 items (e.g., I am satisfied that I can turn to my family for help when something is troubling me; I am satisfied with the way my friends and I share time together). Respondents use a 5-point scale to indicate how often they are satisfied (always to never). Total scores range from 0 to 40, with higher scores indicating higher support. Smilkstein et al. (1982) reported a Cronbach's alpha of .86, a test-retest coefficient of .83, and item-total correlations ranging from .62 to .74. The scale has shown predictive validity in studies of symptomatic versus nonsymptomatic medical patients (Hilliard, Gjerde, & Parker, 1986) and mothers needing referral for help with their infants (Brodish, McBride, & Bays, 1987). Cronbach's alpha for our sample was .91.

Emotional/Psychological Well-Being

Two instruments were identified to measure variables of mental health/well-being. In addition, we constructed several survey questions to further assess this domain.

CES Depression Scale. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) is a measure of depressive symptomatology in the general population. Respondents indicate on a 0-3 scale how often during the past week they have experienced the feelings, behaviors, or events described in the 20 items (e.g., I could not 'get going'; I felt fearful; I enjoyed life). Total scores can range from 0 to 60, with higher scores indicating higher depression. A score of 16 or above indicates clinical depression. Radloff (1977) reported a series of supportive reliability and validity data, including high internal consistency coefficients (.85, .90), moderate test-retest correlations (.50s), and expected correlations with other self-report measures, clinical ratings of depression, life events, and post-treatment scores. Results were consistent across a variety of sample subgroups. Cronbach's alpha for our sample was .93.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (Rosenberg, 1979) is a general measure of self-esteem. Using a 4-point scale (strongly disagree to strongly agree), respondents indicate their level of agreement with 10 statements (e.g., On the whole, I am satisfied with myself, At times I think I am no good at all). Total scores can range from 10 to 40, with higher scores indicating higher self-esteem. Rosenberg summarized a number of supportive psychometric studies, reporting test-retest reliability coefficients of .85 and .88, expected relationships with measures of depression, anxiety, and peer-group reputation, as well as other measures of self-esteem. Cronbach's alpha for our sample was .90.

Counseling survey items. Respondents were asked whether they had ever received any type of counseling. If yes, they were instructed to list each time they had sought counseling, and to include their age and the reason for seeking counseling at each time. Further, they were asked if they belonged to any support groups.

Risk-Taking Behavior

We used one instrument to measure risk-taking behavior as related to controlled substances.

Risk Prediction Scales. The Risk Prediction Scales, originally developed by the Indiana Division of Addiction Services (Morton, 1978), and now published as part two of the Substance Abuse Subtle Screening Inventory (SASSI; Miller, 1988), were designed to assess level of substance abuse risk. There are 12 items on the Face Valid Alcohol (FVA) subscale and 14 items on the Face Valid Other Drug (FVOD) subscale. Respondents indicate how often (never to repeatedly) they have engaged in the 26 behaviors during the past year (e.g., Had drinks with lunch; Taken drugs to help you feel better about a problem). Total scores for each subscale are used to determine level of risk, with higher scores indicating higher risk. A cutoff score of 12 on either scale indicates chemical dependency. Morton (1978) reported validation studies comparing scores with counselors' ratings, Cronbach's alpha coefficients of .92 (FVA) and .94 (FVOD), and item-total correlations of .40 to .78 for the FVA and .51 to .82 for the FVOD. Cronbach's alpha for this sample was .77 for the FVA and .83 for the FVOD.

We added one question asking respondents to indicate whether they would have answered the risk-taking items differently at another point in their lives. We requested an explanation of a yes response.

Adoption-Specific Questions

At the end of the adoptee form of the survey, we included a section requesting information about the participant's adoption and search efforts. There were a number of multiple choice items, several of which were followed by an open-ended request for an explanation. For example, respondents were asked to select one of five statements in response to the question, "To what extent do you think being adopted has affected who you are?" and then asked to explain their choice.

For all open-ended questions (e.g., sources of meaning, reason for seeking counseling, adoption-specific questions), we developed coding schemes for each and trained counseling graduate students to code the responses. All responses were coded by two raters. When these raters disagreed, a third rater coded the response. Data on rater agreement is available from the first author.

Results

Participant Characteristics

Demographics for the adoptee group and the friend group were quite similar in terms of age, gender, race/ethnicity, marital status, and family information (see Table 1; n's and percentages in table and throughout the results section vary by number of participants who responded to each question). All respondents were White and the majority in both groups (about 80%) were females, with the average ages being 43 and 44 for the adoptees and friends, respectively. Most respondents were married: 41% of each group were in their first marriage, with 29% of adoptees and 21% of friends in subsequent marriages. The majority of respondents in both groups (about 80%) had children, with each group averaging 1.7 children. Six adoptees and five friends reported having adopted children.

Both groups were well educated, averaging three years of college. Half of the friends and almost 60% of adoptees were college graduates. About 70% of both groups were employed in semi-professional to professional positions. Only 16% of adoptees and 11% of friends were homemakers or students. Hollingshead's Four Factor Index of Socioeconomic Status (1975) was calculated using occupation and education. The two groups were almost identical: the mean SES Index was 46.4 for adoptees and 46.8 for friends. Most respondents fell in the middle-high to high SES status range: 71% of adoptees and 67% of friends. Only 12% of adoptees and 16% of friends were in low or middle-low levels.

In terms of family of origin characteristics, virtually all of the friends (92%) had siblings when they were growing up. Almost three-fourths of the adoptees had siblings. Friends, on average, had twice as many siblings as adoptees (2.5 versus 1.3, respectively). Although 97% of the friends with siblings had biological siblings, no adoptees reported having biological siblings.

As one might expect from the adoption literature, adoptees' mothers were older when they adopted ($M = 33.6$ years) than were friends' mothers when they gave birth ($M = 26.5$ years). Adoptees' fathers also were older ($M = 35.9$ years compared to 29.8 years for friends). Adoptees' parents were more likely to be deceased at the time of the survey (54% of adoptees' fathers and 29% of adoptees' mothers compared to 43% of friends' fathers and 17% of friends' mothers). For both groups, mothers were more likely than fathers to be alive.

All of the adoptees in our sample were adopted as infants. Most (84%) were adopted in North Carolina and the majority (75%) were placed through Children's Home Society.

Comparisons of Adoptees and Friends

Comparisons of the two groups (adoptees and friends) were done within each of the five domain areas. Within each area, multivariate tests were performed to control for familywise error. These multivariate analyses were the equivalent of Hotelling's t and the follow-up analyses were the equivalent of t -tests; we reported the F conversions for both multivariate and follow-up univariate analyses. In some cases, multivariate tests were not appropriate; therefore, we used a Bonferroni approach to maintain a .05 level of familywise error. In these cases, the individual Alpha that was used to determine statistical significance is given.

Current view of life. We conducted a multivariate t -test to look for differences between adoptees and friends across the five measures of current view of life. There was no significant multivariate difference between the two groups, $F(5,158) = 1.14$, $p = .3430$. Group means and standard deviations for each measure are given in Table 2.

Both groups reported moderately strong scores on each of the satisfaction with life scales (SWLS and SDS). In addition, the two groups scored within the "indecisive" range in terms of their purpose in life (PIL). Respondents in both groups were fairly neutral with regard to their life regrets (i.e., both group means were between slightly disagree and slightly agree). Finally, the two groups had midrange scores on midlife identity concerns.

Respondents were asked to list the three things (in priority order) that gave the most meaning to their lives. A variety of responses were listed, including people (e.g., children, family, significant other, spouse), career, God and spirituality, physical health, personal/mental well-being, service acts, responsibility for others, education, nature, and the arts. Both adoptees and friends listed children (about 30%) and family (about 20%) most often as their greatest (first priority) source of meaning.

We examined group differences in terms of specific categories related to family: children, spouse or significant other, and parents. Three separate chi-square analyses were performed, controlling for familywise error by setting Alpha at .017 for each individual test. Across all three sources of meaning in life, adoptees were no more likely than their friends to list children, $\chi^2(1, N = 163) = .90$, $p = .344$; 34% of friends and 42% of adoptees listed children among their three sources of meaning in life. There was a significant relationship with regard to spouse/significant other, $\chi^2(1, N = 163) = 5.68$, $p = .017$. Twice as many adoptees as friends (31% compared to 15%) listed spouse or significant other among their three sources of meaning. Adoptees also were significantly more likely than friends to list parents in their three sources of life meaning, $\chi^2(1, N = 163) = 7.52$, $p = .006$: 17% of adoptees compared to only 3% of friends.

Intimacy. Because a third of the sample was unmarried, the n for marital satisfaction was much lower than the n for sensitivity to rejection. For this reason, individual t -tests were conducted on the two measures of intimacy; Alpha for each test was set at .025 to control for familywise error.

There was no significant difference between the adoptees' and friends' scores on sensitivity to rejection [$t(165) = -0.51$, $p = .6080$] nor on marital satisfaction [$t(107) = -0.18$, $p = .8559$]. Sensitivity to rejection scores for both groups were in the average range, and respondents in both groups reported moderate satisfaction with their marriage and spouse. Group means and standard deviations for each measure can be found in Table 2.

Connectedness. Given that the two measures of connectedness had different measurement types (i.e., categorical and continuous), separate analyses were conducted. To control for familywise error, the individual Alpha was set at .025.

We conducted a chi-square analysis to test for a relationship between group (adoptee or friend) and attachment style (secure, dismissing/avoidant, fearful/avoidant, and preoccupied). A significant relationship was found, $\chi^2(3, N = 168) = 19.59, p = .001$. More friends (74%) than adoptees (42%) were classified as secure. More adoptees than friends were classified as preoccupied (15% vs. 4%) and as fearful/avoidant (36% compared to 13%). About equal percentages of both groups categorized themselves as dismissing/avoidant: 7% of adoptees and 9% of friends.

To explore whether the statistical relationship found here could be related to search status, we conducted an additional chi-square analysis between adult attachment and a new grouping: searchers (searched for but not necessarily found birthparents), non-searchers, and friends. This analysis did not demonstrate differences between searching and non-searching adoptees; only the original adoptee-friend differences were found. We used a t-test to examine differences between adoptees and friends on their total social support scores (Family/Friend APGAR). Friends had significantly higher perceived support than adoptees (friends' $M = 30.99$ compared to 27.16 for adoptees), $t(164.5) = 3.50, p = .0006$. Follow-up t-tests by subscale revealed a significant difference between the groups' friend support scores [$t(166.4) = 2.2778, p = .0240$] as well as their family support scores [$t(162.6) = 3.6236, p = .0004$]. As can be seen in Table 2, the friends group had higher scores on both friend support and family support.

As with adult attachment, we examined whether search status could be related to the significant differences found for social support scores. We found a significant effect for the search status grouping on the total social support score [$F(2, 163) = 16.34, p = .0001$]. Group means and standard deviations are given in Table 3. Friends and non-searchers had significantly higher perceived social support ($M = 30.99$ and 30.47 , respectively) than searchers ($M = 23.98$). Non-searchers support scores were not significantly different from friends. Additional follow-up ANOVAs examined the family support and friend support scales separately. Family support scores were significantly different for the three groups, $F(2, 164) = 20.15, p = .0001$. Again, friends and non-searchers had significantly higher scores ($M = 14.64$ and 14.55 , respectively) than searchers ($M = 9.49$). Friend support scores were also significantly different among the three groups, $F(2, 167) = 4.35, p = .0144$. Friends' scores ($M = 16.40$) were significantly higher than searchers ($M = 14.47$) but not different from non-searchers ($M = 15.91$). Emotional/psychological well-being. We conducted a multivariate t-test to check for differences between adoptees and friends across the two measures of mental health. There was a significant difference between groups, $F(2, 166) = 2.98, p = .0533$. Follow-up univariate tests revealed a significant difference for both depression [$F(1, 167) = 5.74, p = .0177$] and self-esteem [$F(1, 167) = 3.85, p = .0513$]. Adoptees had significantly higher depression scores and significantly lower self-esteem scores than did their friends. Group means and standard deviations for each measure are reported in Table 2.

According to Radloff (1977), means on the CES-D for normal samples range around 8 or 9. Our friends' group had a mean in this range: 9.80. Although the adoptees' mean was significantly higher at 13.67, it was still below the clinical cutoff of 16. The adoptees had significantly lower self-esteem scores; however, the scores for both groups were fairly high: $M = 33.14$ for friends and $M = 31.48$ for adoptees on a scale with a potential range of 10 to 40.

In a follow-up exploration of the depression scores, we compared the number of adoptees and friends who scored above the cutoff score (16) for clinical depression. A chi-square analysis revealed a significant relationship between depression category and group [$\chi^2(1, N = 170) = 4.90, p = .027$], with more adoptees (34%) than friends (19%) scoring above the clinical cutoff. Radloff (1977) reported 15-20% of a normal sample will fall above the clinical cutoff. Our friends' group matched this figure but the adoptees had a much higher percentage above the cutoff.

Chi-square analyses also were used to examine two survey questions related to emotional/psychological well-being: sought counseling and belonged to support group (or set at .025 to control for familywise error). There was a significant relationship between group membership and whether the respondent had ever sought psychological counseling, $\chi^2(1, N = 169) = 9.53, p = .002$. More adoptees (66%) had sought counseling than their friends (42%), but there were few differences between the two groups in terms of their reasons for seeking counseling. Friends were more likely to have received counseling for relationship issues than adoptees (69% vs. 45%, respectively). The two groups did not differ with regard to the number of times the counseling issues concerned parents. In addition, most (86%) of the adoptees who had sought counseling at some point in their lives had not done so specifically about an adoption issue. Finally, adoptees were no more likely to have belonged to a support group than were their friends, $\chi^2(1, N = 169) = 1.74, p = .188$. About 17% of friends and 26% of adoptees belonged to a support group; about half of these adoptees belonged to an adoption-related support group.

As with the domain of connectedness, we explored whether search status could be related to the significant differences found between adoptees and friends on the various measures of emotional/psychological well-being. Significant group differences were found for both self-esteem [$F(2, 163) = 4.93, p = .0083$], and depression [$F(2, 163) = 4.96, p = .0081$]. Group means and standard deviations for each measure are given in Table 3. Friends and non-searchers had significantly higher self-esteem scores than searchers (friends' $M = 33.22$; non-searchers' $M = 32.88$; and searchers' $M = 30.24$) and were not significantly different from each other. Friends were significantly less depressed ($M = 9.89$) than searchers ($M = 15.86$) but not significantly different from non-searchers ($M = 11.72$).

We conducted a chi-square analysis to examine the relationship between search status and depression category (above/below clinical cutoff). A significant relationship was found, $\chi^2(2, N = 170) = 6.68, p = .035$. Friends were least likely to be clinically depressed (20%) compared to non-searchers (28%), and searchers (41%), who were twice as likely to be depressed as friends.

A chi-square analysis also was used to explore the relationship between search status and psychological counseling. There was a significant relationship $\chi^2(2, N = 169) = 12.17, p = .002$. Searchers were most likely to have sought counseling (74%), followed by non-searchers (57%), and then friends (42%).

Risk-taking behavior. Differences between adoptees' and friends' total scores on the two risk prediction subscales were assessed with a multivariate t-test. No significant multivariate difference was found, $F(2, 166) = .74, p = .4787$. Both adoptees and friends scored well below the cutoff score on the risk prediction subscales, indicating minimal risk of chemical dependency. There were only four respondents in the total sample who scored above the cutoff for chemical dependency; two for alcohol and two for other drugs. All four were adoptees. Group means and standard deviations for the two subscales (alcohol and drug) are reported in Table 2. For the survey item regarding whether respondents might have answered the items differently at another point in their lives, there was no evidence of a relationship between the response (yes/no) and group membership, $\chi^2(1, N = 168) = 2.11, p = .146$. Most adoptees (70%) and friends (80%) said they would not have answered differently at another time.

Homogeneity of Variance

While examining the means, standard deviations, and boxplots of the continuous scales for the two groups, we noticed that, for 10 of the 12 scales, the adoptees had greater variability. To further explore this issue of difference in variability, we conducted Bartlett's test of the homogeneity of the within-group covariance matrices. This multivariate test was performed on 11 of the scales; we omitted the Kansas Marital Satisfaction Scale from this analysis because of the smaller sample completing this instrument. The Bartlett's test revealed a significant difference in the within-group covariance matrices ($\chi^2 = 112.10, df = 66, p = .0003$). We further explored homogeneity for each scale with univariate tests of homogeneity of variance. For 6 of the 12 scales there was a significant difference in variability. For all of the scales on which significant differences in means were identified, we also found significant differences in variability.

Adoption-Specific Survey Items

Many of the adoptees (41%) indicated that they had "always known" they were adopted. Eighty-two percent knew at least by age 5 and all but three knew by age 10; those three learned of their adoption during their adolescent years (12-16).

Many of the adoptees (42%) said that, while growing up, they could talk with any family member at any time about adoption. Another 25% said they could talk with most or selected family members; 18% could occasionally talk with a family member; and 16% reported they could not talk with any family members about adoption.

The adoptees also characterized how they believed their parents felt about adoption. Most (57%) indicated their parents "felt great about it" and another 25% believed their adoptive parents "accepted it as just the way our family was formed." Fifteen percent believed their adoptive parents had "mixed feelings-they stated they were happy about it but I often sensed some regret." Only 4% believed their parents viewed adoption "with regret." Adoptees were asked to indicate the extent to which "being adopted has affected who you are." The majority believed being adopted had affected all aspects of their lives (38%) or affected their lives quite a bit (32%). Eighteen percent selected some or a little, while 11% selected not at all.

Adoptees were asked to explain their choices in response to this question. Their explanations were coded for valence. Thirty-five percent indicated that being adopted had had a negative influence on their lives while 27% indicated a positive influence. Twenty-five percent of the adoptees wrote responses that were unclear as to the valence of the effect of being adopted and 14% reported a mixed influence (e.g., they mentioned both positive and negative influences on their lives).

Search information. We asked a series of questions about searching for biological parents. About half indicated they had searched. Of the 53 who had searched, 35 (64%) indicated they had found at least one biological parent and had had a reunion with a birthparent. Those who had searched were asked to rate their feelings about the outcome of their search. The overwhelming majority (86%) were glad or extremely glad they had searched. Although 10% were neutral about the outcome of their search, only 2 adoptees stated they deeply regretted or were sorry they searched.

We examined responses to the question about the extent to which adoption had affected them in relation to search status. We found a significant relationship between search status and the valence of the effect of adoption, $\chi^2(3, N = 83) = 20.15, p = .001$. Over 40% of the non-searchers felt adoption had a positive effect, with only 11% indicating a negative effect. For the searchers, only 13% suggested a positive effect, while over 50% felt it had a negative effect.

Discussion

This research was designed to investigate whether adult adoptees exhibit greater psychosocial dysfunction than nonadopted adults. Our results suggest that, while adult adoptees have had unique life experiences, in many ways they are navigating their adult years no differently than their non-adopted peers. First, in terms of our domain of current view of life, both the adoptees and their friends reported moderate satisfaction with life and had few life regrets. Both groups were somewhat indecisive about their life purpose and meaning, and both reported mid-range midlife identity concerns. Results from the domains of intimacy and risk-taking behavior further supported the similarity between adult adoptees and their peers. Marital satisfaction scores for both adoptees and their friends were in the moderate range but somewhat lower than those reported for other slightly older samples (Finkel & Hansen, 1992; Herman, 1991; Schumm et al., 1997). However, these satisfaction scores could be affected by family stage, because evaluations of marital satisfaction tend to be lowest during the years of child-rearing, teenaged children, and launching (Finkel & Hansen, 1992; Rollins & Cannon, 1974). Neither group demonstrated any sensitivity to rejection, and risk for substance abuse was extremely low for both adoptees and their friends.

In general, then, adoptees and their friends were experiencing their adult years quite similarly. The similarities between adoptees and their friends found in our study mirror the similarities between adult adoptees and their controls in previous research (Feigelman, 1997; Smyer et al., 1998).

However, we found some differences for adoptees and their friends. Of the 170 participants in the study, only four scored above the cutoff for chemical dependence; all four were adoptees. In addition, adoptees were more likely than their friends to view their parents as a source of meaning in life. Moreover, significant differences were found between adoptees and friends in the domains of connectedness and emotional/psychological well-being. Adoptees were less likely to classify themselves as secure in terms of adult attachment.

Adoptees reported that they had less social support from family and friends; friends expressed a high level of support whereas adoptees support levels were moderate. Both groups reported higher friend than family support; however, adoptees reported lower family support as well as friend support than did their peers. It is interesting that although more adoptees than friends viewed their parents as providing a source of meaning in life, adoptees viewed them as less supportive than friends did. Given that the friend sample was more likely to have siblings and averaged almost twice as many siblings as the adoptees, the friends had a broader family base from which to obtain support. This difference may account for the disparity in support scores, and it may be an explanation of the seeming discrepancy between parents being a source of meaning but not of support. That is, the higher family support scores reported by friends may be due to a sibling effect in which both groups may obtain similar levels of support from parents but friends receive a greater boost of support from the larger sibling group than do adoptees.

An additional identified difference was that adoptees reported lower self-esteem. It must be noted that while a statistically significant difference was found, the observed difference was small: there was only 1.5 difference between the two groups. The mean scores for both groups were high and similar to other groups of adults their age (e.g., Culp & Beach, 1998; Silverberg & Steinberg, 1987). The observed statistical difference but minimal actual difference was probably due to excessive power related to the large sample sizes for the two groups. Adoptees in our sample expressed more depression than their friends. Mean scores for both groups were in the normal range, although the adoptees' mean score was significantly higher. More importantly, our sample of friends matched the normative expectation (15-20%) in terms of clinical cutoff for depression while the adoptees exceeded the norm. Nineteen percent of the friends fell above the clinical cutoff, but 30% of the adoptees fell above the cutoff. This higher percentage cannot be explained by the high proportion of women in the sample because the matched friend sample, also primarily women, was at the normative level. This outcome is in contrast to the results of Smyer et al. (1998) and Feigelman (1997); in both of these studies, no significant differences were found between adoptees and their comparison group on depression.

Finally, adoptees in our sample were more likely to have sought psychological counseling at some point in their lives than their friends. Much like their friends, this counseling was for a wide variety of reasons, few of which were adoption-specific. Despite the higher incidence of clinical depression scores among adoptees, they were no more likely to have sought counseling for depression than their friends. Interestingly, friends were more likely to have sought counseling for relationship issues than adoptees, again suggesting that adoptees do not experience greater intimacy issues.

Results regarding searching in our sample were similar to those in other studies. Like other samples of adult adoptees, about half of our sample had initiated a search for a variety of reasons. A large majority were glad they had searched, even when the search was unsuccessful or when they were disappointed in the birthparent(s). For example, one adoptee explained,

Searched and found birthfather who treated me awful ... Said many hurtful things to me which left me frustrated. Can't say I'm sorry that I did it cause at least I know who he is; just sorry about outcome.
(Respondent)

Only 12 of the 100 adoptees stated they did not want to search and they did not want to be found. Adoptees who had searched tended to view adoption as having a negative effect on their life. Non-searchers tended to see adoption as having a positive effect.

To understand if the connectedness and emotional/psychological well-being differences we observed with the adoptees could be related to searching, we re-examined these differences by dividing the adoptees into searchers and non-searchers and then compared them to friends. For the most part, we found that non-searchers were extremely similar to friends. Friends and non-searchers were similar to each other in terms of social support, self-esteem, and depression. Indeed, it was the searchers who were dissimilar to the friends on these variables. The adoptees who had chosen to search felt less supported by family and friends. Searchers exhibited lower self-esteem and higher depression. Aumend and Barrett (1984) also reported that searchers had lower self-esteem than non-searchers. These results raise several questions for researchers: Does the journey to find one's biological self lead to poorer psychosocial health? Does a poorer sense of well-being drive the desire to search? Are certain personalities more driven to search and also more prone to poorer emotional/psychological well-being?

There was one exception to the general findings related to search status--adult attachment. There was more similarity among the adoptees, both searchers and non-searchers, on attachment classification. Both adoptee groups were different from their friends, with fewer adoptees classifying themselves as securely attached and more adoptees describing themselves as preoccupied or fearful/avoidant. This result suggested that more of the adoptees felt discomfort about being close to others (although they did not avoid close emotional relationships at any higher rate, as only about 8% in each group classified themselves as dismissing/avoidant). Clearly then, for attachment, being adopted, not search status, affected the classification.

A crucial issue in evaluating these results is that of homogeneity of variance. In almost all of the measures used, and indeed for all of the measures where significant differences were found between adoptees and friends, adoptees had greater within-group variability in scores than did friends. This suggests that mean scores are not as representative of all adoptees as mean scores are representative for friends. That is, there is less similarity among adoptees than there is among friends, and caution should be used when interpreting adoptee means because they are less representative of the group.

Our results indicated that one factor contributing to greater variability among adult adoptees is search status. In fact, most of the differences found between adoptees and controls in this research could be attributed to search status. Lower self-esteem, lower family/friend support, and higher depression scores were all associated with searchers. Researchers studying adult adoptees should take this factor into consideration and, as Aumend and Barrett (1984) recommended, not generalize results about searching adoptees to non-searching adoptees and vice versa. Furthermore, it would seem appropriate for authors to report the percentage of their adult samples who are searchers so that results can be viewed within that context. The one variable which remained purely an adoption issue was connectedness as measured by the Adult Attachment Scale. This issue warrants further investigation to explore the factors contributing to the lack of secure attachment in many adoptees.

Our results are limited by some of the same issues confronted by most adoption researchers. Our sample was drawn almost entirely from one adoption agency, and from one geographical area. By design, we limited our sample to those who had been adopted before the age of two, to control for the complicated issues found in many adoptions of older children. Most of our respondents were White women, similar to other samples; most were married and well-educated, and they were volunteer respondents. Because they all belonged to one cohort, born and adopted between 1940 and 1960, our results would not necessarily generalize to other samples of adults adopted at other periods of time, particularly if there were differences in adoption policy and practice at the time of adoption.

Furthermore, in an effort to use a comparison group as closely matched to the adoptees as possible, we asked adoptees to identify a friend matched on five demographic variables. This process produced a very closely matched control group. Our intent was to obtain a control group with matched demographic characteristics. However, by selecting friends, the adoptees may have been identifying persons not only matched to them by demographics but also by temperament and other psychosocial characteristics, thereby reducing the likelihood of finding differences between the groups. Some of the non-differences between the adoptees and their friends could have been due to this effect.

Nevertheless, our results offer an in-depth snapshot of an instructive group that has been studied infrequently. The fact that many of our findings mirror other recent research; that we found wide variability of responses among adoptees; and that search status appeared to account for many of the identified differences between adoptees and their friends, all lend some face validity to our results.

Our results also have implications for practitioners, including those who work with adoptees as well as their adoptive parents. Practitioners, for example, should carefully avoid stereotyping and/or overgeneralizing about adult adoptees, both in terms of their salient issues and their level of functioning. Adult adoptees and their nonadopted peers may be more similar than dissimilar in many areas of their lives. There is some indication, however, that practitioners should be especially attuned to adult adoptees' search status.

When working with adoptive parents, practitioners can emphasize the importance of demonstrating an openness to listen and discuss adoption-related topics with their children, and their willingness to share birthfamily information. Adoptive parents may need help developing the requisite skills for these tasks. In addition, practitioners may provide reassurance to adoptive parents that a search is not necessarily a threat to the parent-child relationship; in fact, it may strengthen it.

Beyond the numbers and scores on instruments, our surveys contained stories. We received touching stories about reunions, meetings between adoptive parents and birthparents, and moving tributes to one or both sets of parents. Adoptees also wrote angry essays about closed records and their effect on adoptees who, even as adults, were being denied basic information about themselves. And there were a few tragic stories, including one male adoptee's descriptions of growing up in a physically and sexually abusive home. We (and our coders) were often moved deeply by these stories, sometimes to tears. We also were often surprised, particularly by the length of and the emotion (both positive and negative) in many adoptees' responses. Adult adoptees have meaningful stories to tell, and these stories could greatly inform clinicians, educators, and policymakers, as well as adoptive and birth parents. Based on the high response rates in our study and others (e.g., Pacheco & Eme, 1993; Schoborg-Winterberg & Shannon, 1988; Sobol & Cardiff, 1983), adult adoptees are willing, if not eager, to share their stories. Hopefully, researchers will offer additional avenues for these voices to be heard.

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Table 1 Demographic Characteristics of Adoptees and Friends
Legend for Chart:

A - Characteristic
 B - Adopters n
 C - Adopters %
 D - Friends n
 E - Friends %

A B C D E

Gender:

Male	22	22%	13	19%
Female	78	78%	57	81%

Marital Status:

Single/never married	14	14%	6	9%
Married/first marriage	41	41%	29	41%
Married/previously married	29	29%	15	21%
Separated/divorced	14	14%	20	29%
Widowed	2	2%	0	0%

Have Children:

Yes	76	78%	55	81%
No	21	22%	13	19%

Educational Level:

High schools or less	8	8%	11	16%
Some college	35	35%	24	34%
College graduate	42	42%	24	34%
Graduate school	15	15%	11	16%

SES Categories:

Low	5	5%	7	10%
Middle low	7	7%	4	6%
Middle	17	17%	12	17%
Middle high	44	44%	30	43%
High	27	27%	17	24%

Have siblings growing up?

Yes	73	73%	60	92%
No	27	27%	5	8%

Legend for Chart:

A - Characteristic
 B - Adoptees n
 C - Adoptees M
 D - Adoptees SD

E - Friends n
 F - Friends M
 G - Friends SD

A	B	C	D		
	E	F	G		
Current age	100	42.7	5.6		
	70	44.2	5.6		
Educational level (years)	100	15.3	2.2		
	70	15.2	2.2		
Hollingshead's four factor SES index	97	46.4	117		
	65	46.8	12.1		
Number times married	84	1.5	.8		
	62	1.4	.6		
Number of children	97	1.7	1.3		
	68	1.7	1.2		
Mother's age when born/adopted	97	33.6	5.0		
	68	26.5	6.5		
Father's age when born/adopted	96	35.9	5.0		
	64	30.6	8.7		
Number of siblings	73	1.3	7		
	60	2.5	1.8		
Number of biological siblings	73	0.0	.0		
	60	2.2	1.6		

Table 2 Group Means and Standard Deviations for All Scales

Legend for Chart:

A - Scale
 B - Adoptees n
 C - Adoptees M
 D - Adoptees SD
 E - Friends n
 F - Friends M
 G - Friends SD

A	B	C	D		
	E	F	G		
Current view of life:					
Satisfaction with life	98	24.17	8.00		
	66	23.86	7.17		

Semantic differential	98	44.53	9.39
66	45.95	7.12	
Purpose in life	98	108.00	17.99
66	110.21	15.66	
Life regrets	98	3.93	0.80
66	3.78	0.79	
Mid-life identity concerns	98	15.41	6.65
66	16.81	5.95	

Intimacy:

Sensitivity to rejection	97	7.43	24.68
70	5.53	22.09	
Marital satisfaction	67	16.10	4.77
42	15.93	5.12	

Connectedness:

Family/friend APGAR	98	27.16	8.48
69	30.99	5.63	
Family APGAR	98	11.92	5.98
69	14.64	3.70	
Friend APGAR	100	15.15	4.04
70	16.40	3.11	

Emotional/Physchological well-being:

CES depression	99	13.67	11.70
70	9.80	8.03	
Self-esteem	99	31.48	5.96
70	33.14	4.54	

Risk-taking behavior:

Alcohol	99	1.86	3.07
70	2.03	2.43	
Other drug	100	1.32	3.33
70	0.83	1.83	

Table 3 Group Means and Standard Deviations of Selected Scales by Search Status

Legend for Chart:

- A - Scale
- B - Searchers n

C - Searchers M
 D - Searchers SD
 E - Non-Searchers n
 F - Non-Searchers M
 G - Non-Searchers SD
 H - Friends n
 I - Friends M
 J - Friends SD

A	B	C	D
	E	F	G
	H	I	J

Connectedness:

Family/friend APGAR		50	23.98	8.63
	47	30.47	7.04	
	69	30.99	5.63	
Family APGAR		51	9.49	6.21
	47	14.55	4.44	
	69	14.64	3.70	
Friend APGAR		53	14.47	4.28
	47	15.91	3.64	
	69	16.40	3.11	

Emotional/Psychological well-being:

CES depression		50	15.86	13.17
	47	11.72	9.72	
	69	9.89	8.06	
Self-esteem		50	30.24	6.61
	47	32.88	5.01	
	69	33.22	4.53	

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