Long-term Outcomes in Adoption

David M. Brodzinsky

Abstract

Considerable debate has arisen in the professional literature regarding the possibility of increased psychological risk in adopted children compared with nonadopted children. A selective review of the literature indicates that, although most adoptees are well within the normal range of functioning, as a group they are more vulnerable to various emotional, behavioral, and academic problems than their nonadopted peers living in intact homes with their biological parents. Methodological problems associated with adoption research are discussed, and a new conceptual model of adoption adjustment is offered.

David M. Brodzinsky, Ph.D., is associate professor in the Department of Psychology, Rutgers University, New Brunswick, NJ.

Historically, adoption has been viewed as a highly successful societal solution for the problems confronting children whose biological parents could not or would not provide for them. In fact, the literature is overwhelmingly supportive of the benefits of adoption for these children, particularly when one considers the alternative caregiving options available for them. For example, research indicates that on a variety of outcome measures adopted children fare much better than those youngsters who are reared in institutional environments or in foster care.[1-4] Furthermore, adoptees do significantly better than those children who are reared by biological parents who are ambivalent about caring for them or, in fact, do not want them.[1]

Because of the long tradition of viewing adoption as a solution, not only for children needing permanent homes, but also for women experiencing an unexpected and unplanned pregnancy and for infertile couples who want to be parents, professionals and lay people often have had difficulty accepting the possibility that the solution, itself, could at times be a problem. Over the past three decades, however, a sizable body of empirical, clinical and theoretical writings has emerged focusing on the complexities of family life and on the possible psychological risk associated with adoption. Much of this work can be traced to the early efforts of David Kirk [5] and Marshall Schechter,[6,7] who were among the first professionals to call attention to the adjustment difficulties of adopted children and their parents.

This article addresses the psychological impact of adoption on children. A selective review of the empirical and theoretical literature is undertaken with the goal of highlighting what is known about the way in which adoption influences the emotional, social, behavioral, and academic functioning of children. The focus of this article will be primarily on infant-placed adoptees, as well as on

intraracial (i.e., within-race) placements. Psychological outcome in special needs adoptions and transracial placements are addressed in separate articles in this journal issue by James A. Rosenthal and Arnold R. Silverman, respectively.

Assessing Psychological Risk in Adoption

Three research strategies have been used to address the question of psychological risk associated with adoption: (1) epidemiological studies of the incidence and prevalence of adoptees in various patient or special education populations, (2) clinical studies examining the nature of presenting symptomatology in adopted and nonadopted individuals, and (3) studies examining the behavioral and personality characteristics and adjustment patterns of adoptees and nonadoptees in community-based samples.

Epidemiological Studies

Before it can be determined whether adopted children are overrepresentated in mental health clinics and other types of psychiatric settings, one must first have a baseline for the percentage of adoptees in the general population. A large-scale national health survey found that approximately 2% of the population of children under 18 years of age are nonrelated adoptees, that is, children who are being raised by nonbiological relatives.[8] In contrast, nonrelated adoptees constitute approximately 5% of the children referred to outpatient mental health clinics[9] and, on the average, between 10% and 15% of the children in residential care facilities and inpatient psychiatric settings.[10-12]

Adopted teenagers . . . were more likely to be referred for mental health services, even when displaying relatively minor problems.

Although such statistics suggest that adoptees manifest a disproportionate rate of psychological problems when compared with their nonadopted counterparts, caution must be maintained in interpreting the data. It is possible that this finding may reflect, in part, differential patterns of referral and differential use of mental health facilities by adoptive parents, as opposed to increased rates of disturbance.[13] In fact, a recent study by Warren[14] supports this position. When data from a 1981 national health survey of 3,698 adolescents were reanalyzed, Warren found that although adopted teenagers 12 to 17 years of age were more likely to manifest behavior problems than nonadopted youth, they also were more likely to be referred for mental health services, even when displaying relatively minor problems. Thus, as Warren notes, "The results do not support the belief that adoptees appear more often in psychiatric setting *purely* [emphasis added] because they are more troubled" (p. 516).

Three possible explanations for the lower threshold for psychiatric referral for adoptees were offered by Warren. First, both parents and others outside the family may be more prone to view adoptees as being at risk for problems and, thus, more likely to refer them for treatment even when problems are still relatively minor. In such cases, adoption is likely to be used as a convenient explanation for understanding the development and manifestation of problem behavior. In essence, the underlying belief is that the child's problems exist because of the adoption. Second, quicker referral for mental health services could occur because the child's problems are viewed as a more serious threat to the integrity and identity of the family. In other words, the more tenuous family relationships and the social stigma associated with adoption could make parents more reactive to children's problems, leading to quicker psychiatric or psychological referral. Finally, the greater use of mental health services by adoptive parents could, in part, reflect the fact that they have grown accustomed to utilizing social service resources during the process of adopting their child. If so, this attitude might lead adoptive parents to seek out mental health services more quickly than nonadoptive parents.

In addition to examining the incidence and prevalence of adoptees in mental health settings, researchers also have examined the extent to which adoptees are found in special education populations. Recently, Brodzinsky and Steiger[15] reported on a statewide survey of public and private special education programs in New Jersey. They found that adoptees ac-

counted for approximately 6.7% of the children classified for educational purposes as neurologically impaired, 5.4% of the children classified as perceptually impaired, and 7.2% of the children classified as emotionally disturbed.

Comparing Adopted and Nonadopted Individuals in Clinical Settings

Researchers have been particularly interested in determining whether there are unique patterns of presenting symptoms among adopted children seen in clinical settings. A review of the literature provides some support for this speculation. In most studies, adopted children have been shown to manifest a higher than expected rate of acting out, or "externalizing" behaviors, including aggression, oppositional and defiant behaviors, hyperactivity, stealing, lying, running away, and other antisocial behavior.[7,16-21] However, other researchers have not found significant differences in these conduct disorders when adopted and nonadopted children are compared in clinical settings.[11,12,22]

In addition to these disruptive behaviors, adoptees in clinical settings also have been found to manifest a higher rate of personality disorders (for example, antisocial personality, borderline personality) than nonadoptees,[7,12,23,24] as well as a higher rate of substance abuse,[23,25] eating disorders,[25] learning disabilities[26,27] and attention deficit hyperactivity disorder.[22,28,29] On the other hand, there is a tendency for adoptees to manifest either the same level or a lower level of schizophrenia and other psychotic disorders,[7,17,21,30] as well as "internalizing" symptoms such as anxiety[12,18] and depression.[12]

Finally, research also has indicated that adoptees are distinguished from nonadoptees in clinical settings in terms of several admission, discharge, and treatment characteristics. For example, two studies found that adoptees were younger at first admission to a psychiatric facility and were more likely to have had a previous psychiatric hospitalization.[21,22] Hospitalized adoptees also were likely to stay longer in the treatment facility,[22] to form significantly closer ties to peers while rejecting close ties to hospital staff,[17] and to be more likely to run away from the inpatient treatment setting.[17,31]

Comparing Adopted and Nonadopted Individuals in Nonclinical Settings

The majority of studies documenting increased risk of psychological and academic problems among adopted children have utilized clinical groups of subjects. Because the subjects in these studies are likely to be unrepresentative of adoptees as a whole, other investigators have studied behavioral and personality characteristics, and adjustment patterns, in community-based groups. In contrast to the clinical literature, the picture that emerges from the latter studies is more complex.

Beginning at school age, adoptees manifest different patterns of adjustment than nonadoptees.

Studies focusing on infants, toddlers, and preschoolers generally have not found differences between adopted and nonadopted children in temperament,[32] mental and motor functioning,[33] communication development,[34] and mother-infant attachment.[35] Some studies focusing on older children and teenagers also have failed to find evidence of increased psychological problems or different patterns of behavioral and personality characteristics among adoptees compared to nonadoptees.[36-38] One methodologically flawed study actually found more positive adjustment among adolescent adoptees than among nonadoptees.[39,40]

In contrast to the studies above, a growing body of nonclinical research supports the view that beginning at school age, adoptees manifest different patterns of adjustment than nonadoptees. In one study, teachers rated adopted children in kindergarten through eighth grade as having a higher incidence than nonadopted children of conduct disorders, personality problems, and socialized delinquency, but they did not have a higher incidence of signs of immaturity or psychosis.[41] Poorer school adjustment in fourth through eighth grade was also reported for adopted children than for nonadopted children, but this finding held only for adoptees living in all-adoptive families.[42]

Adopted children living in mixed families (that is, families which included both adopted and biological children) showed no difference in adjustment when compared with nonadopted children.

A series of studies by Brodzinsky and his colleagues also found that 6- to 12-year-old adopted children manifested more adjustment problems than their nonadopted peers.[43-45] For example, adoptees were rated by parents as showing less social competence and more behavior problems than nonadopted children. Adopted boys were rated by parents as lower in school success and as showing more uncommunicative behavior, hyperactivity, aggression, and delinquency. Adopted girls were rated as doing less well in social interaction and school success and having a greater amount of depression, social withdrawal, hyperactivity, delinquency, aggression, and cruelty. In addition, teachers rated the adopted children as scoring lower than nonadopted children in originality, independent learning, school involvement, productive involvement with peers, and school achievement. They also noted in adoptees a higher incidence of intellectual dependency, failure anxiety, unreflectiveness, irrelevant classroom talk, social overinvolvement, negative feelings, and classroom inattention. In addition, these adoptees were more likely than nonadoptees to be rated by parents as exceeding the normal range in one or more behavioral areas (36% in adoptees versus 14% in nonadoptees). For example, adopted boys were more likely to be rated within a maladaptive range for uncommunicative behavior (20% versus 4.6%) and hyperactivity (8.2% versus 0%); adopted girls exceeded nonadopted girls in symptomatology related to depression (13.9% versus 3%), hyperactivity (13.9% versus 0%), and aggression (10.8% versus 0%).

Not until children are around 5 to 7 years of age do significant differences between these groups begin to emerge. At this age most children begin to understand the meaning and implications of being adopted.

Findings from a national health household survey of parents are especially relevant to the question of psychological risk associated with adoption.[8] At 12 to 17 years of age, children adopted in infancy were 2.5 times more likely than nonadopted youngsters to have ever received professional help from a psychiatrist or psychologist and over 3 times more likely to have received or needed such help in the past year. Adoptees were also rated by parents as being higher on a behavior problem index and lower on academic class standing. No group differences were found for any physical health indices.

Several longitudinal investigations also have addressed the issue of psychological risk in adoption. In Sweden, Bohman and his colleagues studied adjustment patterns in groups of adopted children (group 1); children living in long-term foster care (group 2); and children living with their biological mothers who originally had registered them for adoption but subsequently changed their minds (group 3).[1,2] These groups were contrasted with classmates in the community living with their biological parents. Children were followed from gestation through young adulthood, with various outcome measures collected at 11, 15, 18 (boys only), and 23 years. At 11 years, adopted boys had a higher rate of "nervous" and problem behavior, as rated by teachers, than their nonadopted classmates. With the exception of lower mathematics scores, adopted girls generally did not differ from their nonadopted classmates. Similar findings of somewhat greater magnitude were noted in comparisons between groups 2 and 3, and their control classmates.

Four years later, when the children were 15 years old, additional outcome measures were collected, based primarily on school records and teacher ratings. Although adopted children (group 1) still showed a tendency to have lower adjustment scores and lower mean grades than their classmates, the differences were no longer significant for either boys or girls. In contrast, both the foster children (group 2) and those youngsters living with their mothers (group 2) showed greater maladjustment than their classmates. At 18 years of age, IQ test data collected from military enlistment records indicated that there were no differences between adopted boys and their controls for any of the test measures. In contrast, boys raised in foster homes or with their biological mothers who initially considered

adoption scored significantly lower than control groups on most IQ subtests.

At approximately 23 years of age, a search was made of public records for evidence of alcohol-related problems and evidence of criminal activity. No differences were found for adoptees or those individuals reared by their biological mothers compared with control groups. On the other hand, young adult men, but not women, reared in long-term foster care were significantly more likely to have public records of alcohol-related problems and criminal activity than were members of the control groups.

Longitudinal data from the Delaware Family Study also provide valuable information about the psychological risk associated with adoption.[46] At 5 years of age, adopted children were rated by researchers, but not by parents, as more fearful, less confident, and less task motivated than were nonadopted children. During the elementary school years, this pattern was even more apparent, in terms of both children's self-reports and teachers' ratings. However, parental reports did not distinguish between adopted and nonadopted children in terms of these personality characteristics and adjustment patterns. Similarly, in a follow-up study with a subsample of adolescents 15 to 18 years of age, Stein and Hoopes reported no differences between adopted and nonadopted groups on three separate measures of identity development and self-image.[38]

Finally, the Colorado Adoption Project, although primarily concerned with behavioral genetics issues, is providing data on the relative adjustment of adopted and nonadopted children. Although no differences were found in various indices of development and adjustment between these groups of children during infancy and toddlerhood,[33,34] data gathered when the children were between 4 and 7 years indicate that adopted boys were more likely to be classified by the researchers as being at risk for conduct disorder than were their nonadopted peers.[47]

Variables Influencing Patterns of Adoption Adjustment

Taken as a whole, the research literature generally supports the view that adoptees are at increased risk for various behavioral, psychological, and academic problems compared with nonadopted individuals. However, the majority of adoptees are well within the normal range of adjustment. Furthermore, adoptees show substantial variability in patterns of adjustment, much of which is tied to such factors as age, gender, family structure and dynamics, and preplacement history.

Age Differences in Adoption Adjustment

As noted, research typically has failed to find differences between adopted and nonadopted children in infancy, toddlerhood, and the preschool years. Not until children are around 5 to 7 years of age do significant differences between these groups begin to emerge.[10,48,49] At this age most children begin to understand the meaning and implications of being adopted.[50,51] As children's knowledge of adoption deepens, so do their feelings of anxiety and confusion about their family status.

Boys, adopted or nonadopted, tend to be more vulnerable than girls to a number of psychological problems, especially disruptive disorders and academic problems.

Although the clinical literature suggests that adjustment difficulties for adoptees continue and perhaps even increase during adolescence,[52,53] research data are sparse and contradictory on this issue. Some researchers have reported more adverse adjustment among adopted teenagers than among nonadopted youth,[8,54,55] but others have failed to find such differences.[2,38] Furthermore, data on the relative adjustment of adopted versus nonadopted adults are still too meager to warrant any conclusion.

Gender Differences in Adoption Adjustment

Boys, adopted or nonadopted, tend to be more vulnerable than girls to a number of psychological problems, especially disruptive disorders and academic problems.[56] In addition, there are some data suggesting that the relative adjustment difficulties of adoptees compared with nonadoptees are greater for boys than for girls.[2,41,43,57] Other studies, however, report comparable psychological risk for

adopted boys and girls.[15,44,45] At this point, it is not possible to draw a firm conclusion regarding gender differences in adoption adjustment.

Family Structure and Family Dynamics

Numerous family-related variables have been examined in relation to adjustment difficulties in adopted children. The role of family structure, in particular, has been the focus of several investigations, but no consistent pattern has been found. Some studies have reported that the presence of a biological child in the family, whether the child's birth predates or postdates the adoption, has little impact on the adopted child's adjustment.[50,58,59] Other studies, however, have suggested that adopted children are more vulnerable psychologically when there is a biological child in the family,[46] especially when the natural child's birth follows the adoption.[60] In contrast, at least one study found that adoptees in families with both adopted and nonadopted children are better adjusted than children in all-adoptive families.[42]

Research on the ordinal position of the adopted child also has produced mixed results. Some studies have found more first-placed rather than later-placed children referred for mental health services; other studies have failed to confirm the increased vulnerability of first-placed and only adopted children.[50,60] In summarizing the results of research in this general area, one group of investigators concluded that "the order of adoption and the presence of biological children in the adoptive family, while complicating family dynamics, generally poses no serious impediments to successful adoption adjustment."[58]

Family communication patterns related to adoption also have been linked to children's adjustment. Kirk suggests that a more open, "acknowledgment-of-difference" style of communication about adoption among family members ultimately facilitates healthier adjustment in adoptees than a closed, "rejection-of-difference" approach.[5] One study noted that adoptive families with an open communication style had adolescents with fewer identity problems than did families with a more closed communication style.[38] In contrast, **Kaye** reports that families characterized by high levels of distinguishing between adoptive and biological relationships had teenagers with lower self-esteem and more family problems.[59] This finding is consistent with the idea that extreme styles at either end of the communication continuum—denial-of-differences at one end and insistence-on-differences at the other end—are less likely to promote positive adjustment to adoption.[10]

Finally, other researchers have examined the role of parenting style, parental emotional adjustment, and parental attributions and expectations in relation to children's adoption adjustment. In reviewing the literature, Kadushin[61] reports that acceptance of and satisfaction with adoptive parenthood, coupled with a warm and accepting attitude toward the child, is generally predictive of more positive adoption adjustment compared with parental rejection of the child and parental dissatisfaction with adoptive parenthood. Other studies have noted that problems in adopted children are more likely to be manifested when there are emotional problems in one or both of the adoptive parents and/or when there is a history of death or divorce within the adoptive family.[62-64]

Preplacement History and Adoption Adjustment

Preplacement history involves both the prenatal and postnatal experiences of the child prior to entering the adoptive family. Adverse prenatal experiences such as heightened maternal stress, poor maternal nutrition, and inadequate medical care, as well as fetal exposure to alcohol, drugs, and other teratogenic agents, are linked to increased developmental problems in childhood.[65] Given the fact that many of these complications are more often found among young, unwed mothers, including those who place children for adoption, it is reasonable to expect that adoptees may be particularly at risk for experiencing these difficulties.[1,66-68]

Of all the postnatal risk factors, perhaps none has been investigated as frequently as age at placement. Numerous authors have argued that the older the child at the time of placement, the greater the chance of postplacement adjustment difficulties.[1,13] It has been noted, however, that age at placement is only a marker for passage of time, that the critical factors underlying increased psychological risk are those specific experiences the child encounters prior to adoption placement.[69] Children who experience multiple changes in caretaking environments, as well as neglect and abuse, before being placed for adoption are significantly more likely to experience adjustment difficulties, including adoption disruption.[68-71]

Methodological Considerations in Adoption Research

Although adoptees appear to be more psychologically vulnerable than their nonadopted peers, it is difficult to draw firm conclusions about the issues of psychological risk and the correlates of risk associated with adoption. At the root of the problem is a host of methodological difficulties.

First, much of our knowledge about children's adjustment to adoption rests on clinical case studies and investigations of adjustment patterns and presenting symptomatology of children in clinical settings. The data are not generalizable to the broader population of adoptees. On the other hand, most nonclinical studies of adoption adjustment rely on relatively small groups of volunteers and "convenience" samples, and there has been little effort by investigators to determine whether the subjects included in their studies are truly representative of the larger population of adoptees so that their results are generalizable.

Another serious problem is the frequent failure to employ control or contrast groups. Furthermore, there is a question of which contrast group is the most appropriate to use. For example, should the researcher use contrast groups of children from a rearing environment comparable to that of the adoptive family or comparable to that of the biological family? Research that employs the former type of contrast group frequently finds adoptees to be at risk for various adjustment problems compared with their nonadopted peers.[44,45] On the other hand, research that employs contrast groups which are comparable to the adopted children's biological background often finds that adoptees fare better than nonadoptees.[1,2] Such data are frequently used to explain how adoption protects children from the ad-

verse effects of growing up in depriving and damaging environments.

Researchers also commonly fail to distinguish between early-placed and late-placed adoptees, and between subjects with minimal preplacement disruptive experiences and those who have had neglectful, abusive, and traumatic histories. This common failure makes it difficult to compare results across studies. So too does the failure to use comparable, standardized, reliable, and well validated measurement instruments.

Researchers commonly fail to distinguish between early-placed and late-placed adoptees, and between subjects with minimal preplacement disruptive experiences and those who have had neglectful, abusive, and traumatic histories.

By far, the majority of studies in this area have utilized a cross-sectional design. This approach limits our ability to draw conclusions about developmental changes in adjustment and makes it difficult to examine relationships between early risk factors and later adjustment outcomes. Longitudinal designs overcome many of the problems inherent in cross-sectional studies; however, this approach has its own limitations. Over the course of many years of being interviewed, observed, and tested, subjects in longitudinal investigations become "test-wise." In such instances, subjects will perform better on later tests, not simply because of the effects of development, but also because of the effects of repeated practice. Perhaps more important, though, is the effect of "selective dropout" in longitudinal research. Subjects who continue to participate in longitudinal research until the completion of the project are more motivated and generally better adjusted than a random sampling of individuals. This characteristic limits the degree to which the results of longitudinal studies can be generalized.

Theoretical Perspectives on Adoption Adjustment

A number of theoretical perspectives have been offered to explain the developmental patterns and adjustment difficulties of adoptees and their families. Some have been based upon biological models of adjustment;[62,72] others have emphasized psychoanalytic theory,[6,52,73-76] attachment theory,[77,78] social role theory,[5] and family systems theory.[79] Yet there have been few attempts to collect systematically data to test these explanations. Some believe that the complexity of adoption adjustment can be captured only through well articulated and integrated, multidimensional models.[68] The author has recently developed a theoretical model which is believed to have substantial integrative and explanatory power.[48] This model is described below.

Stress and Coping Model of Adoption Adjustment

Based on previous research and theory, the stress and coping model of adoption adjustment integrates many of the assumptions of earlier models of adoption adjustment while fostering a broader, multidimensional view of this process.[10,50,51,80]

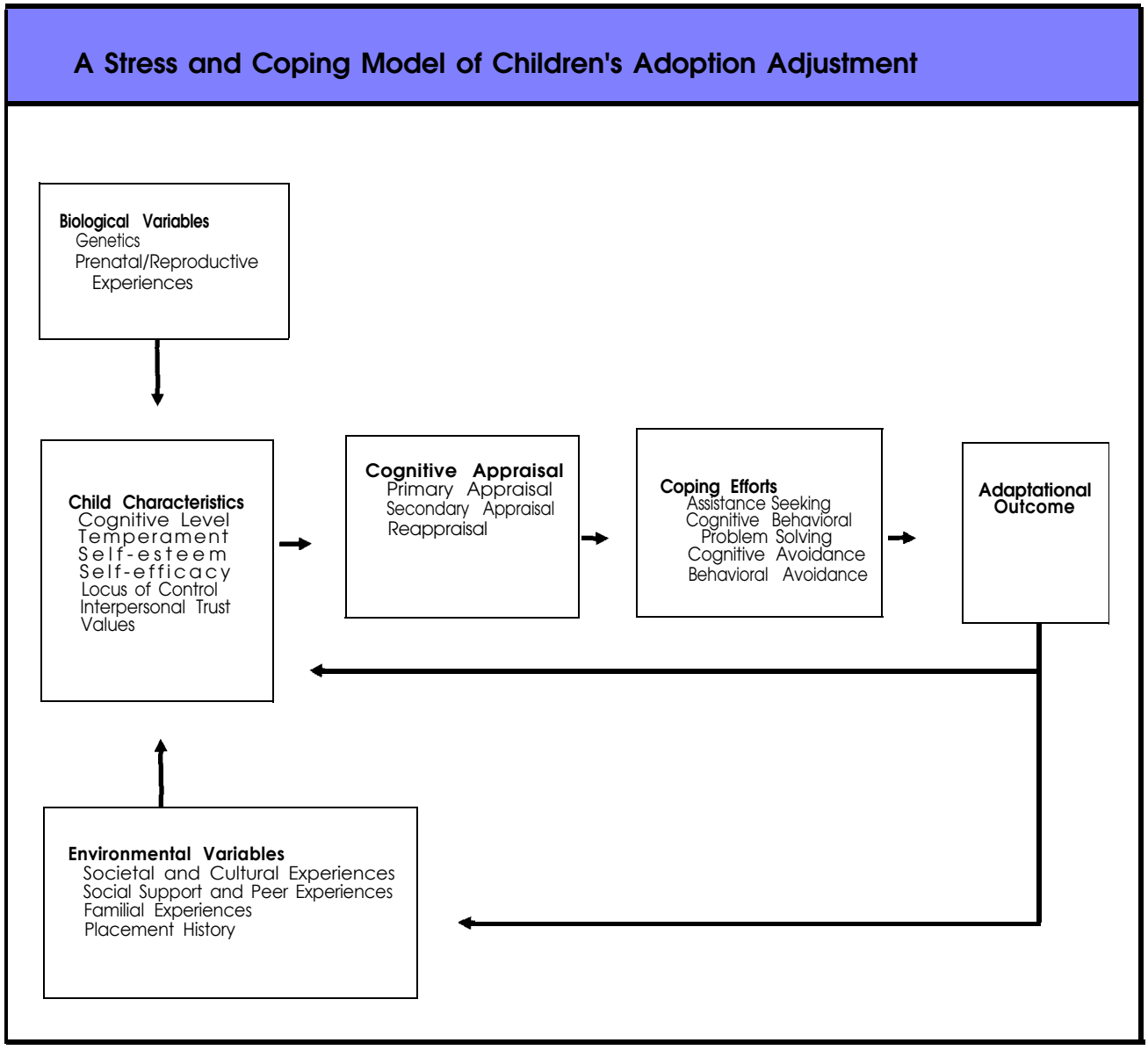
The primary assumption of this model (see figure 1) is that children's adjustment to adoption is determined largely by how they view or appraise their adoption experience and the type of coping mechanisms they use to deal with adoption-related stress. It is assumed that, when children view adoption as stigmatizing, threatening, or as involving loss, a pattern of negative emotions associated with stress—for example, confusion, anxiety, sadness, embarrassment, anger—is likely to be experienced. When children experience these emotions, they consider various coping options and eventually chose one or more to reduce their distress. Thus, children who feel upset by their adoption may choose to talk with a friend or parent, or they may think about their adoption in a new way so that it does not sadden or anger them. Other children may attempt to put all thoughts about adoption out of their mind or to avoid anything that reminds them of their adoption. Although no one pattern of coping is necessarily associated with healthier adjustment, research generally suggests that overreliance on avoidance strategies is often tied to increased adjustment problems, both generally[80] and specifically with regard to adoption.[81]

Adoption is assumed to involve loss and stigma and, hence, to be potentially stressful for children, even for those youngsters placed as infants.[10,48,49,73,74,76,81] However, the degree to which children experience adoption-related stress and the

success they have in coping with it are highly variable. Some children show very few indications of stress-related symptoms; others experience fully developed clinical symptoms. The link between stress and adjustment outcome is mediated by the range and effectiveness of coping behaviors and coping resources available to the youngster.

The way children view or appraise the experience of adoption is tied to many child-related characteristics, some of the more important being the youngster's level of cognitive development, temperament, self-esteem, sense of personal control, and interpersonal trust. Thus, it is not until children begin to understand the meaning and implications of adoption—around 5 to 7 years of age—that one expects to see increased sensitivity to adoption-related stigma and loss, as well as a shift toward more ambivalent feelings about being adopted. In addition, children who have a more difficult temperament (for example, exhibit increased irritability, are less easily comforted, and have an increased activity level), as well as those youngsters with a more damaged self-image, who feel less in control of their lives, and/or who have difficulty trusting others, are expected to have more negative views about being adopted and to feel

Figure 1



Source: Adapted from Brodzinsky, D.M., A Stress and Coping Model of Adoption Adjustment. In *The Psychology of Adoption.* D.M. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.

heightened distress over this aspect of their lives.

The level of cognitive functioning and personality characteristics are not the only factors affecting how children appraise their adoption. The current model also recognizes the role of genetic, prenatal, and birth factors in children's adoption adjustment. These biological factors are believed to influence the children's well-being through their impact on cognitive, social, and emotional development. Support for the role of heredity in adoption adjustment can be found in research showing a greater similarity between adopted children and their biological relatives than between adopted children and their adoptive relatives in such areas as intelligence, personality, and even interests.[54,82,83] Further, adopted children may be more likely than nonadopted children to come from mothers who have psychological problems that may, in part, be genetically determined. Adopted children are also more likely than nonadopted children to have had adverse prenatal and birth experiences, which are known to influence the course of postnatal development.[1,66-68]

Researchers must listen closely to adoptees to hear their hopes and desires, their gratitude and their resentments, their joys and their sorrows.

Finally, the model represented in figure 1 also recognizes the importance of societal, interpersonal, and familial factors in children's adoption adjustment, as well as the importance of the child's preplacement history (that is, age at time of placement, number of foster placements, and the like). The way children view their adoption experience and cope with it may be tied to the feedback they receive about their adoptive status from the society in which they live, the peers with whom they have contact, and most important, the specific family in which they are reared. For example, parents who can create a rearing environment in which the inherent differences of adoptive family life are dealt with openly, honestly, and nondefensively are better able to facilitate positive social and emotional adjustment in their children than are parents who deny or reject these differences.[5] In addition, many studies suggest that children placed after infancy, who experience multiple changes in caregivers and/or who are abused or neglected prior to adoption placement, are at increased risk for postplacement adjustment problems.[68-71]

Work has just begun to validate this model.[50,51,81,84] This research has found that most children view adoption more positively than negatively, although they still occasionally experience stress associated with being adopted. Furthermore, those who experience the greatest stress are more likely to employ cognitive and behavioral avoidance strategies in attempting to cope with their negative feelings. Research is now under way to examine the connection between specific aspects of adoption-related stress (for example, thoughts and feelings about the loss of birth family) and the coping patterns and adjustment outcomes associated with how children view their adoption experiences. The research suggests that this model offers mental health professionals a perspective that not only integrates previous research findings, but also allows for the development of theory-based, testable hypotheses regarding children's adjustment to adoption.

Conclusion

There has been much controversy and debate concerning the relative adjustment of adopted children. Proponents of adoption emphasize the benefits of adoptive family life in contrast to the options available to many of these children, that is, institutional rearing, foster care, or life with ambivalent and perhaps uncaring, neglectful, and abusive biological parents. Although not denying these benefits, other professionals point out the problems associated with adoption itself. Both sides make relevant and important points.

The absence of the adoptee's voice in this debate is surprising. Researchers must listen closely to adoptees to hear their hopes and desires, their gratitude and their resentments, their joys and their sorrows. Only by moving away from preconceived notions about adoption and entering the inner world of the adoptees can researchers ever hope to understand their experience and be helpful to them when needed.

1. Bohman, M. *Adopted children and their families: A follow-up study of adopted children, their background environment, and adjustment.* Stockholm: Proprius, 1970.
2. Bohman, M., and Sigvardsson, S. Outcome in adoption: Lessons from longitudinal studies. In *The psychology of adoption.* D. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.
3. Hodges, J., and Tizard, B. IQ and behavioral adjustment of ex-institutional adolescents. *Journal of Child Psychology and Psychiatry* (1989) 30:53-75.
4. Triseliotis, J., and Hill, M. Contrasting adoption, foster care, and residential rearing. In *The psychology of adoption.* D. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.
5. Kirk, H.D. *Shared fate.* New York: Free Press, 1964.
6. Schechter, M.D. Observations on adopted children. *Archives of General Psychiatry* (1960) 3:21-32.
7. Schechter, M.D., Carlson, P., Simmons, J., and Work, H. Emotional problems in the adoptee. *Archives in General Psychiatry* (1964) 10:37-46.
8. Zill, N. Behavior and learning problems among adopted children: Findings from a U.S. national survey of child health. Paper presented at the meeting of the Society for Research in Child Development, Toronto, April 1985.
9. Mech, E.V. Adoption: A policy perspective. In *Review of child development research* (vol. 3). B. Caldwell and H. Ricciuti, eds. Chicago: University of Chicago Press, 1973.
10. Brodzinsky, D.M. Adjustment to adoption: A psychosocial perspective. *Clinical Psychology Review* (1987) 7:25-47.
11. Piersma, H.L. Adopted children and inpatient psychiatric treatment: A retrospective study. *The Psychiatric Hospital* (1987) 18:153-58.
12. Rogeness, G.A., Hoppe, S.K., Macedo, C.A., et al. Psychopathology in hospitalized adopted children. *Journal of the American Academy of Child and Adolescent Psychiatry* (1988) 27:628-31.
13. Hersov, L. The seventh Jack Tizard memorial lecture: Aspects of adoption. *Journal of Child Psychology and Psychiatry* (1990) 31:493-510.
14. Warren, S.B. Lower threshold for referral for psychiatric treatment for adopted adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry* (1992) 31:512-17.
15. Brodzinsky, D.M., and Steiger, C. Prevalence of adoptees among special education populations. *Journal of Learning Disabilities* (1991) 24:484-89.
16. Austad, C.C., and Simmons, T.L. Symptoms of adopted children presenting to a large mental health clinic. *Child Psychiatry and Human Development* (1978) 9:20-27.
17. Fullerton, C.S., Goodrich, W., and Berman, L.B. Adoption predicts psychiatric treatment resistances in hospitalized adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry* (1986) 25:542-51.
18. Kotsopoulos, S., Cote, A., Joseph, L., et al. Psychiatric disorders in adopted children. *American Journal of Orthopsychiatry* (1988) 58:608-12.
19. Lifshitz, M., Baum, R., Balgur, I., and Cohen, C. The impact of the social milieu upon the nature of adoptees' emotional difficulties. *Journal of Marriage and the Family* (1975) 37:221-28.
20. Menlove, F.L. Aggressive symptoms in emotionally disturbed adopted children. *Child Development* 36:519-32.
21. Weiss, A. Symptomatology of adopted and nonadopted adolescents in a psychiatric hospital. *Adolescence* (1985) 19:77-88.
22. Dickson, L.R., Heffron, W.M., and Parker, C. Children from disrupted and adoptive homes on an inpatient unit. *American Journal of 0rthopsychiatry* (1990) 60:594-602.
23. Bohman, M., and von Knorring, A.L. Psychiatric illness among adults adopted as infants. *Acta Paediatrica Scandinavica* (1979) 60:106-12.
24. Simon, N.M., and Senturia, A.G. Adoption and psychiatric illness. *American Journal of Psychiatry* (1966) 122:858-67.
25. Holden, N.L. Adoption and eating disorders: A high-risk group? *British Journal of Psychiatry* (1991) 158:829-33.
26. Silver, L.B. Frequency of adoption in children with neurological learning disability syndrome. *Journal of Learning Disabilities* (1970) 3:10-14.

27. Silver, L.B. Frequency of adoption of children and adolescents with learning disabilities. *Journal of Learning Disabilities* (1989) 22:325-28.

28. Dalby, J.T., Fox, S., and Haslam, R.H. Adoption and foster care rates in pediatric disorders. *Developmental and Behavioral Pediatrics* (1982) 3:61-64.

29. Deutsch, C.K., Swanson, J.M., Bruell, J.H., et al. Overrepresentation of adoptees in children with the attention deficit disorder. *Behavior Genetics* (1982) 12:231-37.

30. Brinich, PM., and Brinich, E.B. Adoption and adaptation. *Journal of Nervous and Mental Disease* (1982) 170:489-93.

31. Sabalis, R., and Burch, E.A. Comparisons of psychiatric problems of adopted and nonadopted patients. *Southern Medical Journal* (1980) 73:867-69.

32. Carey, W.B., Lipton, W.L., and Myers, R.A. Temperament in adopted and foster babies. *Child Welfare* (1974) 53:352-59.

33. Plomin, R., and DeFries, J.C. *Origins of individual differences in infancy: The Colorado Adoption Project.* New York: Academic Press, 1985.

34. Thompson, L.A., and Plomin, R. The sequenced inventory of communication development: An adoption study of two- and three-year-olds. *International Journal of Behavioral Development* (1988) 11:219-31.

35. Singer, L.M., Brodzinsky, D.M., Ramsey, D., et al. Mother-infant attachment in adoptive families. *Child Development* (1985) 56:1543-51.

36. Mikawa, J.K., and Boston, J.A. Psychological characteristics of adopted children. *Psychiatric Quarterly Supplement* (1968) 42:274-81.

37. Norvell, M., and Guy, R.F. A comparison of self-concept in adopted and nonadopted adolescents. *Adolescence* (1977) 12:441-48.

38. Stein, L.M., and Hoopes, J.L. *Identity formation in the adopted adolescent.* New York: Child Welfare League of America, 1985.

39. Marquis, K.S., and Detweiler, R.A. Does adoption mean different? An attributional analysis. *Journal of Personality and Social Psychology* (1985) 48:1054-66.

40. Brodzinsky, D.M. Looking at adoption through rose-colored glasses: A critique of Marquis and Detweiler's "Does adoption mean different? An attributional analysis." *Journal of Personality and Social Psychology* (1987) 52:394-98.

41. Lindholm, B.W., and Touliatos, J. Psychological adjustment of adopted and nonadopted children. *Psychological Reports* (1980) 46:307-10.

42. Ternay, M.R., Wilborn, B., and Day, H.D. Perceived child-parent relationships and child adjustment in families with both adopted and natural children. *Journal of Genetic Psychology* (1985) 146:261-72.

43. Brodzinsky, D.M., Hitt, J.C., and Smith, D. Impact of parental separation and divorce on adopted and nonadopted children. *American Journal of Orthopsychiatry.* In press.

44. Brodzinsky, D.M., Radice, C., Huffman, L., and Merkler, K. Prevalence of clinically significant symptomatology in a nonclinical sample of adopted and nonadopted children. *Journal of Clinical Child Psychology* (1987) 16:350-56.

45. Brodzinsky, D.M., Schechter, D.E., Braff, A.M., and Singer, L.M. Psychological and academic adjustment in adopted children. *Journal of Consulting and Clinical Psychology* (1984) 52:582-90.

46. Hoopes, J.L. *Prediction in child development: A longitudinal study of adoptive and nonadoptive families.* Washington, DC: Child Welfare League of America, 1982.

47. Coon, H., Carey, G., Corley, R., and Fulker, D. Identifying children in the Colorado Adoption Project at risk for conduct disorder. *Journal of the American Academy of Child and Adolescent Psychiatry* (1992) 31:503-11.

48. Brodzinsky, D.M. A stress and coping model of adoption adjustment. In *The psychology of adoption.* D.M. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.

49. Brodzinsky, D.M., Schechter, M.D., and Henig, R.M. *Being adopted: The lifelong search for self.* New York: Doubleday, 1992.

50. Brodzinsky, D.M., Schechter, D.E., and Brodzinsky, A.B. Children's knowledge of adoption: Developmental changes and implications for adjustment. In *Thinking about the family: Views of parents and children.* R. Ashmore and D. Brodzinsky, eds. Hillsdale, NJ: Erlbaum Associates, 1986.

51. Brodzinsky, D.M., Singer, L.M., and Braff, A.M. Children's understanding of adoption. *Child Development* (1984) 55:869-78.
52. Sorosky, A., Baran, A., and Pannor, R. Identity conflicts in adoptees. *American Journal of Orthopsychiatry* (1975) 45:18-27.
53. Sorosky, A., Baran, A., and Pannor, R. *The adoption triangle.* New York: Doubleday, 1978, rev. 1984.
54. Loehlin, J.C., Willerman, L., and Horn, J.M. Personality resemblances in adoptive families when the children are late-adolescent or adult. *Journal of Personality and Social Psychology* (1985) 48:376-92.
55. Verhulst, F.C., Althaus, M., and Versluis-den Bieman, H. Problem behavior in international adoptees: I. An epidemiological study. *Journal of the American Academy of Child and Adolescent Psychiatry* (1990) 29:94-103.
56. Eme, R.F. Sex differences in childhood psychopathology: A review. *Psychological Bulletin* (1979) 86:584-95.
57. Seglow, J., Pringle, M.K., and Wedge, P. *Growing up adopted.* Windsor, England: National Foundation for Educational Research in England and Wales, 1972.
58. Brodzinsky, D.M., and Brodzinsky, A.B. The impact of family structure on the adjustment of adopted children. *Child Welfare* (1992) 71:69-75.
59. Kaye, K. Acknowledgment or rejection of differences? In *The psychology of adoption.* New York: Oxford University Press, 1990.
60. Kraus, J. Family structure as a factor in the adjustment of adopted children. *British Journal of Social Work* (1978) 8:327-37.
61. Kadushin, A. *Child welfare services* (3rd ed.). New York: Macmillan, 1980.
62. Cadoret, R.J. Biologic perspectives on adoptee adjustment. In *The psychology of adoption.* D. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.
63. Cadoret, R.J., O'Gorman, T.W., Heywood, E., et al. Genetic and environmental factors in major depression. *Journal of Affective Disorders* (1985) 9:155-64.
64. Rosenthal, J.A., Schmidt, D., and Conner, J. Predictors of special needs adoption disruption: An exploratory study. *Children and Youth Services* (1988) 10:101-17.
65. Kopp, C.B. Risk factors in development. In *Handbook of child psychology.* Vol. 2: *Infancy and developmental psychology* (4th ed.). P. Mussen, ed. New York: Wiley, 1983.
66. Everett, R., and Schechter, M. A comparative study of prenatal anxiety in the unwed mother. *Child Psychiatry and Human Development* (1971) 2:84-91.
67. Losbough, B. Relationship of E.E.G., neurological and psychological findings in adopted children. *Journal of E.E.G. Technology* (1965) 5:1-4.
68. McRoy, R.G., Grotevant, H.D., and Zurcher, L.A. *The development of emotional disturbance in adopted adolescents.* New York: Praeger, 1988.
69. Verhulst, F.C., Althaus, M., and Versluis-den Bieman, H. Damaging backgrounds: Later adjustment of international adoptees. *Journal of the American Academy of Child and Adolescent Psychiatry* (1992) 31:518-24.
70. Festinger, T. *Necessary risk: A study of adoptions and disrupted adoptive placements.* Washington, DC: Child Welfare League of America, 1986.
71. Barth, R.P., and Berry, M. *Adoption and disruption.* New York: Aldine de Gruyter, 1988.
72. Horn, J.M., Green, M., Carney, R., and Erickson, M. Bias against genetic hypotheses in adoption studies. *Archives of General Psychiatry* (1975) 32:1365-67.
73. Brinich, P.M. Adoption from the inside out: A psychoanalytic perspective. In *The psychology of adoption.* D. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.
74. Nickman, S.L. Losses in adoption: The need for dialogue. *Psychoanalytic Study of the Child* (1985) 40:365-98.
75. Schechter, M.D. About adoptive parents. In *Parenthood: Its psychology and psychopathology.* E.J. Anthony and T. Beneck, eds. Boston: Little, Brown, 1970.
76. Schechter, M.D., and Bertocci, D. The meaning of the search. In *The psychology of adoption.* D. Brodzinsky and M. Schechter, eds. New York: Oxford University Press, 1990.
77. Yarrow, L.J., and Goodwin, M.S. The immediate impact of separation: Reactions of infants to a change in mother figure. In *The competent infant.* L.J. Stone, H.T. Smith, and L.T. Murphy, eds. New York: Basic Books, 1973.

78. Yarrow, L.J., Goodwin, M.S., Manheimer, H., and Milowe, I.D. Infancy experiences and cognitive and personality development at 10 years. In *The competent infant.* L.J. Stone, H.T. Smith, and L.T. Murphy, eds. New York: Basic Books, 1973.

79. Reitz, M., and Watson, K.W. *Adoption and the family system.* New York: Guilford Press, 1992.

80. Lazarus, R.S., and Folkman, S. *Stress, appraisal, and coping.* New York: Springer, 1984.

81. Smith, D., and Brodzinsky, D. Stress and coping in adopted children: A developmental study. *Journal of Clinical Child Psychology.* In press.

82. Grotevant, H.D., Scarr, S., and Weinberg, R.A. Patterns of interest similarity in adoptive and biological families. *Journal of Personality and Social Psychology* (1977) 35:667-76.

83. Horn, J.M. The Texas Adoption Project: Adopted children and their intellectual resemblance to biological and adoptive parents. *Child Development* (1983) 54:268-75.

84. Singer, L.M., Brodzinsky, D.M., and Braff, A.M. Children's beliefs about adoption: A developmental study. *Journal of Applied Developmental Psychology* (1982) 3:285-94.