

Adoption and adjustment in adolescence

David Fergusson and L John Horwood examine findings from a longitudinal study of the outcomes of adoption in a birth cohort of 1,262 New Zealand children studied from birth to the age of 16 years. This study suggested that children who entered adoptive families were advantaged throughout childhood in a number of areas including childhood experiences, standards of health care, family material conditions, family stability and mother/child interaction. However, the environmental advantages experienced by children who entered adoptive families were not directly reflected in the pattern of adolescent adjustment of this group. In particular, children placed in adoptive families had rates of externalising behaviours (including conduct disorders, juvenile offending and substance use behaviours) that were significantly higher than children reared in two-parent birth families but somewhat lower than those of children who entered single-parent families at birth.

David Fergusson is Associate Professor, Christchurch Health & Development Study, Christchurch School of Medicine, New Zealand

John Horwood is a Research Fellow in the same Department of Psychological Medicine, Christchurch, New Zealand

Key words: adoption, single-parent family, longitudinal study, adolescent outcomes

Over the last three decades, there have been changes in the perceptions of adoption and its long-term consequences for the social and psychological adjustment of adoptees. In the 1970s, adoption was seen as a form of substitute parental care for children whose parents were unwilling or unable to care for them (Tizard, 1977; Hersov, 1990). For the most part, adoption was used to address the problem of caring for children whose mothers gave birth out of wedlock and who were deemed for various social and economic reasons to be unlikely to be able to care for their child. At this time single mothers were often counselled that placing their child for adoption was in the best interests of the child.

In recent years the traditional views and assumptions underlying adoption have been questioned and suggestions have been made about the revision of adoption practices to encourage greater contact between adoptees and their birth

parent(s) (Haines and Timms, 1985; Howe *et al*, 1992; Reitz and Watson, 1992; Shawyer, 1979). In part these concerns have been motivated by evidence that adoptees may be at greater long-term risk of adjustment problems. This evidence has come from a series of studies which have suggested that adoptees are over represented in clinic populations, having higher rates of antisocial behaviours, aggressive behaviours and learning difficulties (Jerome, 1986; Kim *et al*, 1988; Kotsoupoulos *et al*, 1988; Rogeness *et al*, 1988; Warren, 1992). In a review of this evidence Hersov (1990) notes: 'The general conclusion that emerges from these and other clinical studies is that adoptees are at greater risk.' (p 499). Such findings could suggest that adoption has adverse consequences for children and results in increases in later adjustment difficulties.

While studies of clinic populations have reported an over representation of adoptees, studies of general population samples have generally failed to show that they are at greater risk of adjustment difficulties (Crellin *et al*, 1971; Scarr and Weinberg, 1976; Streather, 1980; Lambert and Scarr, 1981; Plomin and DeFries, 1985). The discrepancy between the findings of clinic-based samples and population-based samples may suggest that the findings from clinic-based studies are misleading and arise from a selection bias in which adoptees with adjustment difficulties are more likely to come into contact with services. This conclusion is supported by a recent study reported by Warren (1992) which found that the symptom threshold at which adoptees were referred to clinic treatment for adolescent problems was lower than the symptom threshold at which non-adoptees were referred for treatment. These results could suggest that while adoptees are at no greater risk of adjustment difficulties than non-adoptees

they appear to be so because the former tend to be referred to services more readily.

One of the best means of examining the long-term consequences of adoption is through the use of a longitudinal research design in which a birth cohort of the general population, including adoptees, is followed throughout childhood to examine differences in the childhood circumstances and childhood outcomes of adopted and non-adopted children. This paper provides a summary and overview of a recent longitudinal study of the outcomes of adoption in a birth cohort of over 1,000 New Zealand children studied from birth to the age of 16. A more detailed technical account of the research may be found in Fergusson, Lynskey and Horwood (1995). The aims of this study were to examine the extent to which children entering adoptive families, single-parent families and two-parent birth families differed with respect to: a) the home environment and child rearing practices to which they were exposed; and b) patterns of social adjustment in adolescence. The purpose of this analysis was to determine the extent to which adoptive children were at an advantage or disadvantage when compared with children who entered single-parent families at birth and children who entered two-parent families.

Background

The research was conducted during the course of the Christchurch Health and Development Study (CHDS). The CHDS is a longitudinal study of a birth cohort of children born in the Christchurch (NZ) urban region during a four-month period in mid-1977. These children represented all children born in all hospitals and maternity units in the region over the study period. Sample members have been studied at annual intervals to the age of 16 using data provided by parental interviews, teacher reports, child interviews and assessments, and from official records. In general terms, the study has attempted to provide a running record of the life history, social circumstances, health and well-being of this cohort over the 16-year period.

Of the 1,262 children studied in the CHDS, 42 (3.3 per cent) entered adoptive families, 98 (7.7 per cent) entered single-parent families and 1,122 (88.9 per cent) entered a two-parent birth family. All children entering adoptive families were born to single mothers; comparisons of the birth mothers of children who entered single-parent families with those who entered adoptive families showed that the two groups were similar in terms of educational background, socio-economic status, ethnicity, church attendance, parity and antenatal history. The only factor that distinguished the adoptees from those remaining in single-parent families was maternal age, with the mean age of birth mothers of adoptees (18.6 years) being lower than the mean age of single mothers (21.1 years). The social profile of both the mothers of adoptees and the group of single mothers was that of relatively disadvantaged young women.

The similarities of the social backgrounds of the birth mothers of adoptees and single mothers clearly suggests that had the adoptees remained with their birth mothers they would have been expected to experience the childhood circumstances and outcomes that were similar to those of the children reared by single mothers. Thus, by comparing the childhood history and outcomes of adoptees with those children entering single-parent families it becomes possible to assess the extent to which adoption was likely to have been advantageous or disadvantageous for children placed for adoption.

Comparing childhood circumstances

A strength of the study was that information was collected at regular intervals on a large number of measures descriptive of child-rearing practices and family functioning. Comparisons of the childhood circumstances faced by children in the three groups (single-parent, adopted, two-parent) showed the presence of pervasive and persistent differences in the home environments to which children were exposed.

Children of single-parent families

As a general rule, children who entered

single-parent families at birth emerged as being at greatest disadvantage in all of the comparisons made. These comparisons (for details see Fergusson *et al*, 1995; Tables 4 and 5, pp 604–05) showed that children entering single-parent families at birth:

- Had less exposure to pre-school education and stimulating experiences during their pre-school years;
- Received poorer and less consistent health care than children in adoptive or two-parent families;
- Experienced greater family instability, including more frequent changes of residence and parent figures;
- Had higher exposure to family conflicts and stressful circumstances;
- Experienced less positive patterns of mother/child interaction during their pre-school years.

Adoptees

In contrast children who entered adoptive families at birth emerged as being an advantaged group in all comparisons. As a group, these children had:

- Greater exposure to pre-school education and stimulating experiences;
- High rates of health care utilisation;
- Less exposure to family instability and change;
- Less exposure to family conflict and stressful experiences;
- Higher exposure to positive mother–child interaction patterns.

Children of two-parent families

Children who entered two-parent birth families had profiles of social and family circumstances that were intermediate between the profiles for adopted children and children who entered single-parent families.

In general, this set of comparisons clearly suggested that adoption was a process that conferred some advantage on adoptees by exposing these children to a more socially advantaged and privileged child-rearing environment than they

would have expected to receive had they remained with their birth mothers.

Social adjustment of adoptees in adolescence

In the next stage of the analysis, the social adjustment of adoptees in adolescence (14–16 years) was examined. In these comparisons, measures of two general dimensions of adjustment were considered:

1. *Internalising problems* These comprised a series of measures that spanned depression, anxiety disorders, low self-esteem and suicidal thoughts or suicide attempts.

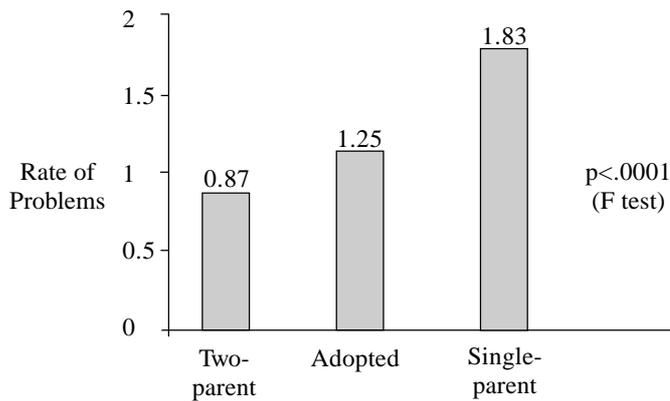
2. *Externalising problems* These comprised a series of measures of conduct disorder, attention deficit disorder, juvenile offending, police contact for juvenile offending, alcohol abuse, cigarette smoking and cannabis use.

Comparisons of the three groups suggested that the child's placement at birth was unrelated to risks of later depression, anxiety disorder or suicidal behaviours. However, children who entered single-parent families had a greater risk of lower self-esteem. While 22 per cent of children who entered single-parent families at birth had low self-esteem, fewer than 13 per cent of children in adoptive or two-parent families received that classification.

In addition, there were consistent and pervasive relationships between measures of externalising behaviours and the child's placement at birth. As a general rule, children entering single-parent families were at the greatest risk of later conduct problems, attention deficit disorders, juvenile offending and substance use. However, despite their relatively advantaged childhood, children placed in adoptive families had higher rates of these problems than children who entered two-parent birth families. These trends are illustrated in Figure 1 overleaf, which shows the mean number of externalising problems for children in the three groups. It is clear from these comparisons that adopted children had

rates of adjustment problems that were somewhat lower than those of children in single-parent families, but that both groups had more problems than children who entered two-parent birth families.

Figure 1
Mean number of behaviour problems (14–16 years) for adopted children; children entering single-parent families at birth; children entering two-parent families at birth



The profile of adopted children which arises from this analysis is thus somewhat paradoxical. On the one hand, adoptees were reared in generally privileged family and childhood environments but on the other hand, they had relatively high rates of adolescent adjustment problems (even though they had a somewhat lower rate of problems than children in single-parent families). These results suggest that the adoptees studied tended to have rates of adjustment problems that were lower than the rate of problems that they would have been expected to show had they remained with their birth parent, but higher than the rate of problems that would have been expected given the relatively privileged backgrounds of their adoptive families. Subsequent analysis supported this conclusion. Using the data collected in the study it was possible to estimate the rate of problems that adoptees would have been expected to display had they: a) remained with their birth parent; or b) displayed the same rate of problem behaviours as birth children born into families with the same social characteristics as adoptive families. These results suggested that the rate of

externalising behaviours observed for adoptees (1.25) fell between the rate expected had they remained with birth families (1.50), and the rate expected had they been children reared in two-parent families with the social characteristics of the adoptive family (0.95). In general these results suggested that adopted children tended to fare better than might have been expected given the social characteristics of their birth family, but not as well as would have been expected given the social characteristics of their adoptive families.

Conclusions and implications

The findings of this 16-year longitudinal provide a number of insights into the complex issue of whether children who are adopted are advantaged or disadvantaged by this experience.

First, it is clear from the analysis of childhood circumstances that, as a general rule, adoption was a process which led to children born to relatively disadvantaged birth parents entering relatively privileged family environments. In contrast to children who entered single-parent families, adopted children experienced a number of social advantages. These included: a greater range of childhood educational opportunities and experiences; better access to health care; greater family and residential stability; more positive mother/child interactions; and higher material living standards. These advantages were pervasive and extended over the life history of children placed in adoptive families. These results support the view that adoption is a process that frequently involves upward social mobility as a result of children of relatively disadvantaged birth parents entering relatively advantaged adoptive families (Crellin *et al*, 1977; Fergusson *et al*, 1981; St Claire and Osborne, 1987).

While the study suggests that adoption led to upward social mobility for adoptees, these advantages were not directly reflected in patterns of social adjustment in adolescence. Although adoptees had lower rates of problems in adolescence than children who entered single-parent families at birth, they

showed higher rates of antisocial and substance use behaviours than children who entered two-parent birth families. In this respect, the social and behavioural profiles of adopted children were paradoxical. On the one hand, these children entered relatively privileged home environments, but on the other hand, they had rates of problem behaviours that were atypically high for children reared in such environments.

There are at least two possible reasons for the elevated rates of adjustment problems in adoptees (given the social background of adoptive families). First, it could be suggested that the increased rates of difficulties in adoptees could reflect problems and difficulties arising from the adoption process that made adoptees more vulnerable to adjustment problems. Some of the features of the adoption process which might lead to this increased vulnerability to problem behaviour include poor parent-child bonding, and both parental and child uncertainties and concerns about the child's biological origins (Bohman, 1970; Shawyer, 1979; Humphrey and Humphrey, 1986). It could be argued that these factors may conspire to place adopted children at greater risk of later adjustment difficulties. One problem with this explanation, however, is that it fails to explain why adopted children show increased rates of externalising (conduct problems, delinquency, substance use) behaviours, but do not show increased rates of internalising behaviours (depression, anxiety, low self-esteem and suicidal tendencies). It would have been expected that if poor parental bonding and uncertainties about origins led to greater vulnerability to problems these factors would have influenced rates of both internalising and externalising problems.

An alternative explanation is that the higher rates of externalising behaviours among adopted children reflect genetic and congenital factors that may have placed adopted children at greater risk of externalising behaviours, independently of their family placement (Mednick *et al.*, 1983; Bohman and Sigvardsson, 1985). There is some evidence from this study

that supports this conclusion.

Specifically, comparisons of the rates of disorder in adoptees with the expected rates that would have been observed given the social characteristics of their adoptive parents and their birth parents showed that adoptees had rates of behaviour problems that were not characteristic of either group. Adopted children had lower rates of problems than would be expected given their relatively disadvantaged biological parentage, but rates of disorder higher than expected given their relatively advantaged adoptive parentage. These results may suggest that adopted children were a biologically at risk group for externalising behaviours in adolescence, with these risks being mitigated but not eliminated by their relatively advantaged upbringing.

The above results provide the basis for an assessment of the extent to which, for this cohort at least, adoption was a process that led to advantage or disadvantage among adoptees. In general the results suggest two conclusions:

1. Adoption was a generally socially advantageous process in which children from relatively disadvantaged biological backgrounds entered relatively socially advantaged homes and families. In comparison to their peers who remained in single-parent families, adoptees were an advantaged group in many areas of childhood and family functioning including: childhood experiences and educational opportunities; standards of health care; family stability; early mother-child interaction patterns; and family material well-being.
2. However, the environmental advantages to which adoptees were exposed were not directly translated into similar differences in adolescent adjustment. When compared to children in two-parent birth families, adoptees had higher rates of adolescent externalising disorders and rates of disorder that were significantly higher than would have been expected of non-adopted children reared in similar social conditions. However, in comparison to children placed in single-parent families at birth, adoptees had lower rates of disorder. These results tend

to suggest that adoption was a process that advantaged adoptees by reducing the risks of disorder that this group might have expected to have experienced had they remained with their original birth family.

It is important that these conclusions are placed in context. While it is the case that systematic differences were found between the childhoods and adolescent adjustment of children entering single-parent families, adoptive families and birth families, these differences were often not large and the child's placement at birth was only a relatively weak predictor of subsequent life history and adolescent adjustment. This suggests that it would be quite misleading and incorrect to conclude that adoption is a process that invariably advantages children or that all children in single-parent families are disadvantaged. Rather, the results show modest tendencies for childhood family environments and adolescent outcomes to be associated with the child's birth placement.

These considerations suggest that while it would be unwise to return to a situation in which all single mothers are advised that it would be in their child's best interests if the child was placed for adoption, there is still a place for adoption as a child welfare provision which protects the interests of children. In particular, the present results suggest that in situations in which there are identifiable and serious concerns about the ability of birth parents to provide adequate care for their children, adoption is likely to be in the child's best interests. The results of the present study suggest that in such cases children placed for adoption are likely to enter generally good and caring family environments, and that such placements may mitigate, although perhaps not eliminate, the elevated risks of social and psychiatric problems in adolescence associated with children from high-risk birth family backgrounds.

In this study differences in intellectual ability and school achievement between children in different family situations were not examined. However, preliminary

results (Fergusson *et al*, 1990) suggest that the results for intellectual performance are generally similar to those found for externalising behaviours, with adopted children having higher ability and achievement scores than would be expected given their birth parentage but lower scores than would be expected on the basis of the social background and characteristics of their adoptive parents.

Finally, it is important to bear in mind that since this study was conducted there have been large changes in views of adoption and adoption practices. These changes may mean that the trends evident in this cohort may no longer apply to groups of children placed for adoption at the present time.

Acknowledgments

This research was funded by grants from the Health Research Council of New Zealand, the National Child Health Research Foundation, the Canterbury Medical Research Foundation and the New Zealand Lottery Grants Board.

Note

This is an amended version of an article by David Fergusson, Michael Lynskey and L John Horwood entitled 'The adolescent outcomes of adoption: a 16-year longitudinal study', reproduced with kind permission from *The Journal of Child Psychology and Psychiatry* 36:4, Cambridge University Press, May 1995.

References

- Bohman M and Sigvardsson S, 'A prospective longitudinal study of adoption', in Nichol A R (ed), *Longitudinal Studies in Child Psychology and Psychiatry*, Chichester: Wiley, pp 137-55, 1985
- Bohman M, *Adopted Children and their Families: A follow-up study of adopted children, their background, environment and adjustment*, Stockholm: Priorious Förlag, 1970
- Crellin E, Pringle M L, Kellmer D and West P, *Born Illegitimate: Social and educational implications*, Windsor: National Foundation for Educational Research, 1971
- Fergusson D M, Horwood L J and Lloyd M, *The Outcomes of Adoption: A 12-year longitudinal study*, Report prepared for the Adoption Practices Review Committee, Christchurch

- Health and Development Study, June 1990
- Fergusson D M, Horwood L J and Shannon F T, 'Birth placement and childhood disadvantage', *Social Science and Medicine* 15, pp 315–26, 1981
- Fergusson D M, Lynskey M T and Horwood L J, 'The adolescent outcomes of adoption: a 16-year longitudinal study', *Journal of Child Psychology and Psychiatry* 36:4, pp 597–615, 1995
- Haimes E and Timms N, *Adoption, Identity and Social Policy: The search for distant relatives*, Aldershot: Gower, 1985
- Hersov L, 'The seventh annual Jack Tizard memorial lecture: aspects of adoption', *Journal of Child Psychology and Psychiatry* 31, pp 493–510, 1990
- Howe D, Sawbridge P and Hinings D, *Half a Million Women: Mothers who lose their children by adoption*, London: Penguin, 1992
- Humphrey M and Humphrey H, 'A fresh look at genealogical bewilderment', *British Journal of Medical Psychology* 59, pp 133–40, 1986
- Jerome L, 'Overrepresentation of adopted children attending a children's mental health center', *Canadian Journal of Psychiatry* 31, pp 526–31, 1986
- Kim W J, Davenport C, Joseph J, Zrull J and Woolford E, 'Psychiatric disorder and juvenile delinquency in adopted children and adolescents', *Journal of the American Academy of Child and Adolescent Psychiatry* 27, pp 111–15, 1988
- Kotsoupoulos S, Cote A, Joseph L, Pentland N, Stavrakaki C, Sheahan P and Oke L, 'Psychiatric disorders in adopted children: a controlled study', *American Journal of Orthopsychiatry* 58, pp 608–12, 1988
- Lambert L and Streather J, *Children in Changing Families: A study of adoption and illegitimacy*, London: Macmillan, 1980
- Mednick S A, Moffitt T E, Pollock V, Talovic S, Gabrielli W F and Van Dusen K T, 'The inheritance of human deviance', in Magnusson D and Allen V (eds), *Human Development: An interactional perspective*, New York: Academic Press, pp 221–42, 1983
- Plomin R and De Fries J C, *Origins of individual differences in infancy: The Colorado adoption project*, New York: Academic Press, 1985
- Reitz M and Watson K W, *Adoption and the Family System*, New York: Guilford, 1992, USA
- Rogeness G A, Hoppe S K, Macedo C A, Fischer C and Harris W A, 'Psychopathology in hospitalised, adopted children', *Journal of the American Academy of Child and Adolescent Psychiatry* 27, pp 628–31, 1988
- Scarr S, *Race, Social Class and Individual Differences: New studies of old problems*, Hillsdale, NJ: Lawrence Erlbaum, 1981
- Scarr S and Weinberg R A, 'IQ Test performance of black children adopted by white families', *American Psychologist* 31, pp 726–39, 1976
- Shawyer J, *Death by Adoption*, Auckland: Circadia, 1979
- Tizard B, *Adoption: A second chance*, London: Open Books, 1977
- Warren S B, 'Lower threshold for referral for psychiatric treatment for adopted adolescents', *Journal of the American Academy of Child and Adolescent Psychiatry* 31, pp 512–17, 1992